STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:	)	CASE NO. 11,792
APPLICATION OF DOYLE HARTMAN, OIL OPERATOR, FOR AN ORDER CLARIFYING ORDER NO. R-6447 AND REVOKING OR MODIFYING ORDER NO. R-4680-A OR, ALTERNATIVELY, FOR AN ORDER TERMINATING THE MYERS LANGLIE-MATTIX UNIT WATERFLOOD PROGRAM, LEA COUNTY, NEW MEXICO	)	

OFFICIAL EXHIBIT FILE
APPLICANT'S EXHIBIT A (PART II)
PREHEARING CONFERENCE

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

June 30th, 1997

Santa Fe, New Mexico

This matter came on for prehearing conference before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Monday, June 30th, 1997, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

PART III

III

THE PROVISIONS OF THE STATUTORY UNITIZATION ARE MANDATORY; THE LAW AND THE ORDERS OF THE COMMISSION CONTROL UNIT ADMINISTRATION

A. Oxy: "Statutory unitization functions in the same way that compulsory pooling does." Motion to Dismiss Page 4

Pooling pursuant to Section 70-2-17
Tab 19A

- One well
- One spacing unit
- No minimum percentage of working interest owners approval or any royalty owner approval
- Primary recovery
- Cost disputes to Division

Standard joint operating agreement binds approving parties only to one well initial development.
See Stovall to Bruce letter November 19, 1990
Tab 19B

Subsequent Operations and Subsequent Operations by Less Than All Parties clauses provide for non-consent election and right to be carried under standard JOAs
e.g. A.A.P.L. Form 610-1982
Tab 20

Hartman's interest paid its share for approved development over the course of twenty years, including eight years of ownership by Hartman

B. Statutory Unitization Act invokes the police power of the state for private purposes. Power to force relinquishment by interest owner of :

- Leasehold interests
- Wellbores
- Operating rights
- Profitable production

C. When the legislature delegates powers to administrative agencies standards must be set and must be followed.

"The Oil Conservation Commission is a creature of statute, expressly defined, limited and empowered by the laws creating it." Continental Oil Company v. Oil Conservation Commission, 70NM 310, 318, 373 P2d 809, 814 (1962)

"The legislature can delegate legislative powers to administrative agencies but in so doing, boundaries of authority must be defined and followed. In New Mexico, action taken by a governmental agency must conform to some statutory standard, or intelligible principle."
Rivas v Board of Cosmetologists, 101NM 592, 593, 686 P2d 934 (1984)
AA Oilfield Service v N.M. State Corporation Commission, 118 N.M. 273, 279, 881 P2d 18 (1994)

When a statute uses the word "shall it means "must" and signifies a command or mandate

In Re Amijo's Will, 57NM 649, 660, 261P2d 853 (1953)
Eason Oil Company v Corporation Commission
(Okl. 1975) 535 P2d 283 holding that under Oklahoma's Statutory Unitization Act, in terms very similar to New Mexico's statute, the ratification of the unit and the determination of that fact by the Commission is mandatory and "the plan is not effective until this has been accomplished." 535 P2d 288

C. Statutory mandates override any regulatory practice or interpretation and controls over private agreements

Cook v. Wyoming Oil and Gas Conservation Commission, (Wyo. 1994) 880 P2d 583 Commission had interrupted unitization statute as requiring 100% approval for expansion but after hearing ruled that statute required 80% approval. "If, in fact, the statute was not being enforced as the legislature intended, [agency] acted properly when it corrected that over sight.....Indeed, the Commission is legally required to enforce the law as it has been drafted by the legislature." 880P2d 585
Tab21A

Parkin v. State Corporation Commission, 234 Kan. 994 (Ka. 1984)
677P2d 991
Under Kansas Compulsory Unitization Act the approved unit agreement specified that the unit could only be terminated on approval of at least 65% of working interest owner approval and the operator held 100% of such interest. Commission rejected royalty interests' owners' application to terminate. Supreme Court reversed. "The unit in this case is not one created by contract; it is one imposed by the Corporation Commission under authority of law." 677P2d 1002 "Only the Corporation Commission can impose unitization upon unwilling interest holders and then only pursuant to the statues designated above.... The Commission's authority to compel unitization is governed strictly by statute, " 677 P2d 1002 "The Corporation Commission cannot delegate its statutory authority and responsibilities to the owner of the working interest." 677 P2d 1010
Tab 21B

For article, "State Conservation Regulation and the Proposed R-199," see 6 Nat. Resources J. 223 (1966).

For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 38 Am. Jur. 2d Gas and Oil §§ 161, 164.

Rights and obligations, with respect to adjoining landowners, arising out of secondary recovery of gas, oil, and other fluid minerals, 19 A.L.R.4th 1182.

58 C.J.S. Mines and Minerals § 240.

70-2-17. Equitable allocation of allowable production; pooling; spacing.

A. The rules, regulations or orders of the division shall, so far as it is practicable to do so, afford to the owner of each property in a pool the opportunity to produce his just and equitable share of the oil or gas, or both, in the pool, being an amount, so far as can be practically determined, and so far as such can be practicably obtained without waste, substantially in the proportion that the quantity of the recoverable oil or gas, or both, under such property bears to the total recoverable oil or gas, or both, in the pool, and for this purpose to use his just and equitable share of the reservoir energy.

B. The division may establish a proration unit for each pool, such being the area that can be efficiently and economically drained and developed by one well, and in so doing the division shall consider the economic loss caused by the drilling of unnecessary wells, the protection of correlative rights, including those of royalty owners, the prevention of waste, the avoidance of the augmentation of risks arising from the drilling of an excessive number of wells, and the prevention of reduced recovery which might result from the drilling of too few wells.

C. When two or more separately owned tracts of land are embraced within a spacing or proration unit, or where there are owners of royalty interests or undivided interests in oil and gas minerals which are separately owned or any combination thereof, embraced within such spacing or proration unit, the owner or owners thereof may validly pool their interests and develop their lands as a unit. Where, however, such owner or owners have not agreed to pool their interests, and where one such separate owner, or owners, who has the right to drill has drilled or proposes to drill a well on said unit to a common source of supply, the division, to avoid the drilling of unnecessary wells or to protect correlative rights, or to prevent waste, shall pool all or any part of such lands or interests or both in the spacing or proration unit as a unit.

All orders effecting such pooling shall be made after notice and hearing, and shall be upon such terms and conditions as are just and reasonable and will afford to the owner or owners of each tract or interest in the unit the opportunity to recover or receive without unnecessary expense his just and fair share of the oil or gas, or both. Each order shall describe the lands included in the unit designated thereby, identify the pool or pools to which it applies and designate an operator for the unit. All operations for the pooled oil or gas, or both, which are conducted on any portion of the unit shall be deemed for all purposes to have been conducted upon each tract within the unit by the owner or owners of such tract. For the purpose of determining the portions of production owned by the persons owning interests in the pooled oil or gas, or both, such production shall be allocated to the respective tracts within the unit in the proportion that the number of surface acres included within each tract bears to the number of surface acres included in the entire unit. The portion of the production allocated to the owner or owners of each tract or interest included in a well spacing or proration unit formed by a pooling order shall, when produced, be considered as if produced from the separately owned tract or interest by a well drilled thereon. Such pooling order of the division shall make definite provision as to any owner, or owners, who elects not to pay his proportionate share in advance for the prorata reimbursement solely out of production to the parties advancing the costs of the development and operation, which shall be limited to the actual expenditures required for such purpose not in excess of what are reasonable, but which shall include a reasonable charge for supervision and may include a charge for the risk involved in the drilling of such well, which charge for risk shall not exceed two hundred percent of the nonconsenting working interest owner's or owners' prorata share of the cost of drilling and completing the well.

In the event of any dispute relative to such costs, the division shall determine the proper costs after due notice to interested parties and a hearing thereon. The division is specifically authorized to provide that the owner or owners drilling, or paying for the drilling, or for the operation of a well for the benefit of all shall be entitled to all production from such well which would be received by the owner, or owners, for whose benefit the well was drilled or operated, after payment of royalty as provided in the lease, if any, applicable to each tract or interest, and obligations payable out of production, until the owner or owners drilling or operating the well or both have been paid the amount due under the terms of the pooling order or order settling such dispute. No part of the production or proceeds accruing to any owner or owners of a separate interest in such unit shall be applied toward the payment of any cost properly chargeable to any other interest in said unit.

If the interest of any owner or owners of any unleased mineral interest is pooled by virtue of this act, seven-eighths of such interest shall be considered as a working interest and one-eighth shall be considered a royalty interest, and he shall in all events be paid one-eighth of all production from the unit and creditable to his interest.

D. Minimum allowable for some wells may be advisable from time to time, especially with respect to wells already drilled when this act takes effect, to the end that the production will repay reasonable lifting cost and thus prevent premature abandonment and resulting waste.

E. Whenever it appears that the owners in any pool have agreed upon a plan for the spacing of wells, or upon a plan or method of distribution of any allowable fixed by the division for the pool, or upon any other plan for the development or operation of such pool, which plan, in the judgment of the division, has the effect of preventing waste as prohibited by this act and is fair to the royalty owners in such pool, then such plan shall be adopted by the division with respect to such pool; however, the division, upon hearing and after notice, may subsequently modify any such plan to the extent necessary to prevent waste as prohibited by this act.

F. After the effective date of any rule, regulation or order fixing the allowable production, no person shall produce more than the allowable production applicable to him, his wells, leases or properties determined as in this act provided, and the allowable production shall be produced in accordance with the applicable rules, regulations or orders.

History: Laws 1935, ch. 72, § 12; 1941 Comp., § 69-2131/2; Laws 1949, ch. 168, § 13; 1953, ch. 76, § 1; 1953 Comp., § 65-3-14; Laws 1961, ch. 65, § 1; 1973, ch. 250, § 1; 1977, ch. 255, § 51.

Meaning of "this act". — The term "this act," referred to in this section, means Laws 1935, ch. 72, §§ 1 to 24, which appear as 70-2-2 to 70-2-4, 70-2-6 to 70-2-11, 70-2-15, 70-2-16, 70-2-21 to 70-2-25, 70-2-27 to 70-2-30, and 70-2-33 NMSA 1978.

The terms "spacing unit" and "proration unit" are not synonymous and the commission has power to fix spacing units without first creating proration units. Rutter & Wilbanks Corp. v. Oil Conservation Comm'n, 87 N.M. 286, 532 P.2d 582 (1975).

Proration formula required to be based on recoverable gas. — Lacking a finding that new gas proration formula is based on amounts of recoverable gas in pool and under tracts, insofar as these amounts can be practically determined and obtained without waste, a supposedly valid order in current use cannot be replaced. Such findings are necessary requisites to validity of the order, for it is upon them that the very power of the commission to act depends. Continental Oil Co. v. Oil Conservation Comm'n, 70 N.M. 310, 373 P.2d 809 (1962).

Findings required before correlative rights ascertained. — In order to protect correlative rights, it is incumbent upon commission to determine, "so far as it is practical to do so," certain foundation matters, without which the correlative rights of various owners cannot be ascertained. Therefore, the commission, by "basic conclusions of fact" (or what might be termed "findings"), must determine, insofar as practicable: (1) amount of recoverable gas under each producer's tract; (2) the total amount of recoverable gas in pool; (3) proportion that (1) bears to (2); and (4) what portion of arrived at proportion can be recovered without waste. That the extent of the correlative rights must first be determined before commission can act to protect them is manifest. Continental Oil Co. v. Oil Conservation Comm'n, 70 N.M. 310, 373 P.2d 809 (1962).

In addition to making such findings the commission, "insofar as is practicable, shall prevent drainage between producing tracts in a pool which is not equalized by counter-drainage," under the provisions of 70-2-16 NMSA 1978. Continental Oil Co. v. Oil Conservation Comm'n, 70 N.M. 310, 373 P.2d 809 (1962).

Four basic findings required to adopt a production formula under this section can be made in language equivalent to that required in previous decision construing this section. El Paso Natural Gas Co. v. Oil Conservation Comm'n, 76 N.M. 268, 414 P.2d 496 (1966) (explaining Continental Oil Co. v. Oil Conservation Comm'n, 70 N.M. 310, 373 P.2d 809 (1962)).

Although subservient to prevention of waste and perhaps to practicalities of the situation, protection of correlative rights must depend upon commission's (now division's) findings as to extent and limitations of the right. This the commission is required to do

under the legislative mandate. Continental Oil Co. v. Oil Conservation Comm'n, 70 N.M. 310, 373 P.2d 809 (1962).

Division found not to have primary jurisdiction over suit seeking an order to join in an oil well free of risk penalty. Mountain States Natural Gas Corp. v. Petroleum Corp., 693 F.2d 1015 (10th Cir. 1982).

Grant of forced pooling is determined on case-to-case basis. — The granting of or refusal to grant forced pooling of multiple zones with an election to participate in less than all zones, the amount of costs to be reimbursed to the operator, and the percentage risk charge to be assessed, if any, are determinations to be made by the commission (now the division) on a case-to-case basis and upon the particular facts in each case. Viking Petroleum, Inc. v. Oil Conservation Comm'n, 100 N.M. 451, 672 P.2d 280 (1983).

As to forced pooling of multiple zones with an election to participate in less than all zones. See Viking Petroleum, Inc. v. Oil Conservation Comm'n, 100 N.M. 451, 672 P.2d 280 (1983).

Division's findings upheld. — Commission's (now division's) findings that it would be unreasonable and contrary to the spirit of conservation statutes to drill unnecessary and economically wasteful well were held to be sufficient to justify creation of two nonstandard gas proration units, and the force pooling thereof, and were supported by substantial evidence. Likewise, participation formula adopted by commission, which gave each owner a share in production in same ratio as his acreage bore to acreage of the whole, was upheld despite limited proof as to extent and character of pool. Rutter & Wilbanks Corp. v. Oil Conservation Comm'n, 87 N.M. 286, 532 P.2d 582 (1975).

Relation between prevention of waste and protection of correlative rights. — Prevention of waste is of paramount interest to the legislature and protection of correlative rights is interrelated and inseparable from it. The very definition of "correlative rights" emphasizes the term "without waste." However, protection of correlative rights is necessary adjunct to the prevention of waste. Continental Oil Co. v. Oil Conservation Comm'n, 70 N.M. 310, 373 P.2d 809 (1962).

Division's authority to pool separately owned tracts. — Since commission (now division) has power to pool separately owned tracts within a spacing or proration unit, as well as concomitant authority to establish oversize nonstandard spacing units, commission also has authority to pool separately owned tracts within an oversize nonstandard spacing unit. Rutter & Wilbanks Corp. v. Oil Conservation Comm'n, 87 N.M. 286, 532 P.2d 582 (1975).

Elements of property right of natural gas owners. — The legislature has stated definitively the elements contained in property right of natural gas owners. Such right is not absolute or unconditional. It consists of merely (1) an opportunity to produce, (2) only insofar as it is practicable to do so, (3) without waste, (4) a proportion, (5) insofar as it can be practically determined and obtained without waste, (6) of gas in the pool. Continental Oil Co. v. Oil Conservation Comm'n, 70 N.M. 310, 373 P.2d 809 (1962).

Law reviews. — For article, "Compulsory Pooling of Oil and Gas Interests in New Mexico," see 3 Nat. Resources J. 316 (1963).

For comment on El Paso Natural Gas Co. v. Oil Conservation Comm'n, 76 N.M. 268, 414 P.2d 496 (1966), see 7 Nat. Resources J. 425 (1967).

For comment on geothermal energy and water law, see 19 Nat. Resources J. 445 (1979).

Am. Jur. 2d, A.L.R. and C.J.S. references. — 38 Am. Jur. 2d Gas and Oil §§ 159, 161, 164.

38 C.J.S. Mines and Minerals §§ 229, 230.

70-2-18. Spacing or proration unit with divided mineral ownership.

A. Whenever the operator of any oil or gas well shall dedicate lands comprising a standard spacing or proration unit to an oil or gas well, it shall be the obligation of the operator, if two or more separately owned tracts of land are embraced within the spacing or proration unit, or where there are owners of royalty interests or undivided interests in oil or gas minerals which are separately owned or any combination thereof, embraced within such spacing or proration unit, to obtain voluntary agreements pooling said lands or interests or an order of the division pooling said lands, which agreement or order shall be effective from the first production. Any division order that increases the size of a standard spacing or proration unit for a pool, or extends the boundaries of such a pool, shall require dedication of acreage to existing wells in the pool in accordance with the acreage dedication requirements for said pool, and all interests in the spacing or proration units that are dedicated to the affected wells shall share in production from the effective date of the said order.

B. Any operator failing to obtain voluntary pooling agreements, or failing to apply for an order of the division pooling the lands dedicated to the spacing or proration unit as required by this section, shall nevertheless be liable to account to and pay each owner of minerals or leasehold interest, including owners of overriding royalty interests and other payments out of production, either the amount to which each interest would be entitled if pooling had occurred or the amount to which each interest is entitled in the absence of pooling, whichever is greater.

C. Nonstandard spacing or proration units may be established by the division and all mineral and leasehold interests in any such nonstandard unit shall share in production from that unit from the date of the order establishing the said nonstandard unit.

Case file
R-9358
10102

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

JHM
11-19-90

November 19, 1990

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Mr. James Bruce
Hinkle, Cox, Eaton, Coffield & Hensley
500 Marquette N.W., Suite 800
Albuquerque, NM 87102-2121

Re: Sage Energy Statutory Unitization

Dear Jim:

I received your letter of November 15, 1990, which, as I am sure you have by now discovered, is subsequent to the order. Your analysis does merit a response.

The important part of the dissection is the difference between the Statutory Unitization Act and the force-pooling provision of the Oil and Gas Act. In my mind, the major functional difference is that a force-pooling order forces mineral interests into a single proration unit and provides such interests with alternative methods of participating in a single operation, drilling a well. Such interest may pay its prorata share of costs in advance, join the risk and receive its prorata share of production, or it may have its share of costs plus risk charge withheld from production. A force-pooling order has no effect upon interests which have otherwise committed their interests to the well, and it has no import with respect to subsequent operations. The order also expires within a relatively short time if the well is not commenced by a specified date.

Under statutory unitization the unwilling interests are forced into an agreement affecting many wells and proration units for secondary recovery operations. Once in, the parties' rights and relationship are controlled by the agreement (being the unit agreement and unit operating agreement) regardless of whether the party has joined voluntarily or not and whether the interest is cost-bearing or non-cost-bearing. Unlike a force-pooling which may be undertaken by any single interest owner seeking to develop the minerals, a statutory unitization must have the voluntary joinder of a specified and substantial percentage of the interests before it can become effective, but once that happens the operations under the agreement continue indefinitely.

Looking specifically at the "penalty" provision of each, I find the differences again significant. The force-pooling statute requires the Division to "make definite provision" for the "prorata reimbursement solely out of production to the parties advancing the costs", such costs being limited to actual and reasonable costs of drilling the well, a reasonable charge for supervision and "may include a charge for risk" not to exceed 200 %. This charge is a reward to the parties who undertake the risk and is charged only to parties subject to the order who do not pay costs of the specified drilling

...WORD\ROB\BRUCE.LT1

operation in advance. The risks involved must be demonstrated to the Division before a charge can be approved.

Under statutory unitization, the Division approves an agreement for the unit operation which must include many provisions including a provision for carrying working interests, which provision will define the manner in which the carried interests will be paid out of production. The statute further provides that the interest will be relinquished to the unit until costs, plus a nonconsent penalty, have been recovered. The nonconsent penalty is not necessarily based upon risk and is an inducement to encourage participation in any given operation. The carrying provision applies to any interest, whether or not that interest voluntarily joined the unit, which does not consent to an approved (by the unit) operation at any time during the life of the unit. An approved agreement must also have is a voting procedure by which the working interest parties to the agreement, whether voluntary or statutorily brought in, can make decisions regarding operations.

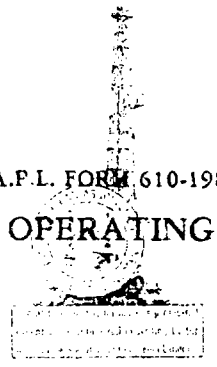
Operationally these appear to me to be very substantial differences. As Jim Morrow pointed out, once a unit plan has been approved, the parties are going to look at the agreement to determine rights and responsibilties. An order with substantive additional provisions is extraneous to that agreement. Furthermore, parties who have accepted the agreement, might not have agreed to a penalty provision. In other words, it is my interpretation that the order approves the agreement and imposes on certain parties, and that agreement then establishes the rights and duties.

Having now made this analysis, I invite you to submit a proposed form of order penalty provision which could be applied in this type case. I'm not sure procedurally how we would implement such a provision at this time, but we can cross that bridge if we get to it.

As always the matter is wide open for discussion.

Sincerely,

Robert G. Stovall,
General Counsel



A.A.P.L. FORM 610-1982

MODEL FORM OPERATING AGREEMENT

OPERATING AGREEMENT

DATED

_____, 19____,

OPERATOR _____

CONTRACT AREA _____

_____

_____

COUNTY OR PARISH OF _____ STATE OF _____

GUIDANCE IN THE PREPARATION OF THIS AGREEMENT:

1. Title Page - Fill in blanks as applicable.

2. Preamble, Page 1 - Enter name of Operator.

3. Article II - Exhibits:
   (a) Indicate Exhibits to be attached.
   (b) If it is desired that no reference be made to non discrimination, the reference to Exhibit "F" should be deleted.

4. Article III.B. - Interests of Parties in Costs and Production - Enter royalty fraction as agreed to by parties.

5. Article IV.A. - Title Examination - Select option as agreed to by the parties.

6. Article IV.B. - Loss of Title - If "Joint Loss" of Title is desired, the following changes should be made:
   (a) Delete Articles IV.B.1 and IV.B.2.
   (b) Article IV.B.3 - Delete phrase "other than those set forth in Articles IV.B.1 and IV.B.2 above."
   (c) Article VII.E. - Change reference at end of the first grammatical paragraph from "Article IV.B.2" to "Article IV.B.3."
   (d) Article X. - Add as the concluding sentence - "All claims or suits involving title to any interest subject to this agreement shall be treated as a claim or a suit against all parties hereto."

7. Article V - Operator - Enter name of Operator.

8. Article VI.A. - Initial Well:
   (a) Date of commencement of drilling.
   (b) Location of well.
   (c) Obligation depth.

9. Article VI.B.2.(b) - Subsequent Operations - Enter penalty percentage as agreed to by parties.

10. Article VI.C. - Taking Production in Kind - If a Gas Balancing Agreement is not in existence nor attached hereto as Exhibit "E", then use Alternate Page 8.

11. Article VII.D.1. - Limitation of Expenditures - Select option as agreed to by parties.

12. Article VII.D.3. - Limitation of Expenditures - Enter limitation of expenditure of Operator for single project and amount above which Operator may furnish information AFE.

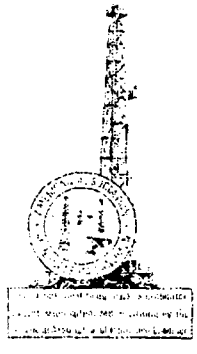
13. Article IX. - Internal Revenue Code Election - Delete this article in the event the agreement is a Tax Partnership and Exhibit "G" is attached.

14. Article X. - Claims and Lawsuits - Enter claim limit as agreed to by parties.

15. Article XIII. - Term of Agreement:
   (a) Select Option as agreed to by parties.
   (b) If Option No. 2 is selected, enter agreed number of days in two (2) blanks.

16. Article XIV.B - Governing Law - Enter state as agreed to by parties.

17. Signature Page - Enter effective date.



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OPERATING AGREEMENT

THIS AGREEMENT, entered into by and between _____, hereinafter designated and referred to as "Operator", and the signatory party or parties other than Operator, sometimes hereinafter referred to individually herein as "Non-Operator", and collectively as "Non-Operators".

WITNESSETH:

WHEREAS, the parties to this agreement are owners of oil and gas leases and/or oil and gas interests in the land identified in Exhibit "A", and the parties hereto have reached an agreement to explore and develop these leases and/or oil and gas interests for the production of oil and gas to the extent and as hereinafter provided,

NOW, THEREFORE, it is agreed as follows:

ARTICLE I.
DEFINITIONS

As used in this agreement, the following words and terms shall have the meanings here ascribed to them:

A. The term "oil and gas" shall mean oil, gas, casinghead gas, gas condensate, and all other liquid or gaseous hydrocarbons and other marketable substances produced therewith, unless an intent to limit the inclusiveness of this term is specifically stated.

B. The terms "oil and gas lease", "lease" and "leasehold" shall mean the oil and gas leases covering tracts of land lying within the Contract Area which are owned by the parties to this agreement.

C. The term "oil and gas interests" shall mean unleased fee and mineral interests in tracts of land lying within the Contract Area which are owned by parties to this agreement.

D. The term "Contract Area" shall mean all of the lands, oil and gas leasehold interests and oil and gas interests intended to be developed and operated for oil and gas purposes under this agreement. Such lands, oil and gas leasehold interests and oil and gas interests are described in Exhibit "A".

E. The term "drilling unit" shall mean the area fixed for the drilling of one well by order or rule of any state or federal body having authority. If a drilling unit is not fixed by any such rule or order, a drilling unit shall be the drilling unit as established by the pattern of drilling in the Contract Area or as fixed by express agreement of the Drilling Parties.

F. The term "drillsite" shall mean the oil and gas lease or interest on which a proposed well is to be located.

G. The terms "Drilling Party" and "Consenting Party" shall mean a party who agrees to join in and pay its share of the cost of any operation conducted under the provisions of this agreement.

H. The terms "Non-Drilling Party" and "Non-Consenting Party" shall mean a party who elects not to participate in a proposed operation.

Unless the context otherwise clearly indicates, words used in the singular include the plural, the plural includes the singular, and the neuter gender includes the masculine and the feminine.

ARTICLE II.
EXHIBITS

The following exhibits, as indicated below and attached hereto, are incorporated in and made a part hereof:

☐ A. Exhibit "A", shall include the following information:
   (1) Identification of lands subject to this agreement,
   (2) Restrictions, if any, as to depths, formations, or substances,
   (3) Percentages or fractional interests of parties to this agreement,
   (4) Oil and gas leases and/or oil and gas interests subject to this agreement,
   (5) Addresses of parties for notice purposes.

☐ B. Exhibit "B", Form of Lease.

☐ C. Exhibit "C", Accounting Procedure.

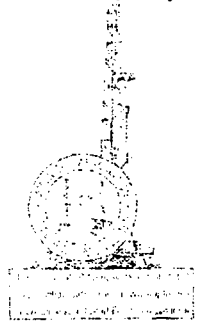
☐ D. Exhibit "D", Insurance.

☐ E. Exhibit "E", Gas Balancing Agreement.

☐ F. Exhibit "F", Non-Discrimination and Certification of Non-Segregated Facilities.

☐ G. Exhibit "G", Tax Partnership

If any provision of any exhibit, except Exhibits "E" and "G", is inconsistent with any provision contained in the body of this agreement, the provisions in the body of this agreement shall prevail.



ARTICLE III.
INTERESTS OF PARTIES

A. Oil and Gas Interests:

If any party owns an oil and gas interest in the Contract Area, that interest shall be treated for all purposes of this agreement and during the term hereof as if it were covered by the form of oil and gas lease attached hereto as Exhibit "B", and the owner thereof shall be deemed to own both the royalty interest reserved in such lease and the interest of the lessee thereunder.

B. Interests of Parties in Costs and Production:

Unless changed by other provisions, all costs and liabilities incurred in operations under this agreement shall be borne and paid, and all equipment and materials acquired in operations on the Contract Area shall be owned, by the parties as their interests are set forth in Exhibit "A". In the same manner, the parties shall also own all production of oil and gas from the Contract Area subject to the payment of royalties to the extent of _____ which shall be borne as hereinafter set forth.

Regardless of which party has contributed the lease(s) and/or oil and gas interest(s) hereto on which royalty is due and payable, each party entitled to receive a share of production of oil and gas from the Contract Area shall bear and shall pay or deliver, or cause to be paid or delivered, to the extent of its interest in such production, the royalty amount stipulated hereinabove and shall hold the other parties free from any liability therefor. No party shall ever be responsible, however, on a price basis higher than the price received by such party, to any other party's lessor or royalty owner, and if any such other party's lessor or royalty owner should demand and receive settlement on a higher price basis, the party contributing the affected lease shall bear the additional royalty burden attributable to such higher price.

Nothing contained in this Article III.B. shall be deemed an assignment or cross-assignment of interests covered hereby.

C. Excess Royalties, Overriding Royalties and Other Payments:

Unless changed by other provisions, if the interest of any party in any lease covered hereby is subject to any royalty, overriding royalty, production payment or other burden on production in excess of the amount stipulated in Article III.B., such party so burdened shall assume and alone bear all such excess obligations and shall indemnify and hold the other parties hereto harmless from any and all claims and demands for payment asserted by owners of such excess burden.

D. Subsequently Created Interests:

If any party should hereafter create an overriding royalty, production payment or other burden payable out of production attributable to its working interest hereunder, or if such a burden existed prior to this agreement and is not set forth in Exhibit "A", or was not disclosed in writing to all other parties prior to the execution of this agreement by all parties, or is not a jointly acknowledged and accepted obligation of all parties (any such interest being hereinafter referred to as "subsequently created interest" irrespective of the timing of its creation and the party out of whose working interest the subsequently created interest is derived being hereinafter referred to as "burdened party"), and:

1. If the burdened party is required under this agreement to assign or relinquish to any other party, or parties, all or a portion of its working interest and/or the production attributable thereto, said other party, or parties, shall receive said assignment and/or production free and clear of said subsequently created interest and the burdened party shall indemnify and save said other party, or parties, harmless from any and all claims and demands for payment asserted by owners of the subsequently created interest; and,

2. If the burdened party fails to pay, when due, its share of expenses chargeable hereunder, all provisions of Article VII.B. shall be enforceable against the subsequently created interest in the same manner as they are enforceable against the working interest of the burdened party.

ARTICLE IV.
TITLES

A. Title Examination:

Title examination shall be made on the drillsite of any proposed well prior to commencement of drilling operations or, if the Drilling Parties so request, title examination shall be made on the leases and/or oil and gas interests included, or planned to be included, in the drilling unit around such well. The opinion will include the ownership of the working interest, minerals, royalty, overriding royalty and production payments under the applicable leases. At the time a well is proposed, each party contributing leases and/or oil and gas interests to the drillsite, or to be included in such drilling unit, shall furnish to Operator all abstracts (including federal lease status reports), title opinions, title papers and curative material in its possession free of charge. All such information not in the possession of or made available to Operator by the parties, but necessary for the examination of the title, shall be obtained by Operator. Operator shall cause title to be examined by attorneys on its staff or by outside attorneys. Copies of all title opinions shall be furnished to each party hereto. The cost incurred by Operator in this title program shall be borne as follows:

☐ Option No. 1: Costs incurred by Operator in procuring abstracts and title examination (including preliminary, supplemental, shut-in gas royalty opinions and division order title opinions) shall be a part of the administrative overhead as provided in Exhibit "C", and shall not be a direct charge, whether performed by Operator's staff attorneys or by outside attorneys.

ARTICLE IV
continued

☐ Option No. 2: Costs incurred by Operator in procuring abstracts and fees paid outside attorneys for title examination (including preliminary, supplemental, shut-in gas royalty opinions and division order title opinions) shall be borne by the Drilling Parties in the proportion that the interest of each Drilling Party bears to the total interest of all Drilling Parties as such interests appear in Exhibit "A". Operator shall make no charge for services rendered by its staff attorneys or other personnel in the performance of the above functions.

Each party shall be responsible for securing curative matter and pooling amendments or agreements required in connection with leases or oil and gas interests contributed by such party. Operator shall be responsible for the preparation and recording of pooling designations or declarations as well as the conduct of hearings before governmental agencies for the securing of spacing or pooling orders. This shall not prevent any party from appearing on its own behalf at any such hearing.

No well shall be drilled on the Contract Area until after (1) the title to the drillsite or drilling unit has been examined as above provided, and (2) the title has been approved by the examining attorney or title has been accepted by all of the parties who are to participate in the drilling of the well.

B. Loss of Title:

1. Failure of Title: Should any oil and gas interest or lease, or interest therein, be lost through failure of title, which loss results in a reduction of interest from that shown on Exhibit "A", the party contributing the affected lease or interest shall have ninety (90) days from final determination of title failure to acquire a new lease or other instrument curing the entirety of the title failure, which acquisition will not be subject to Article VIII.B., and failing to do so, this agreement, nevertheless, shall continue in force as to all remaining oil and gas leases and interests; and,

(a) The party whose oil and gas lease or interest is affected by the title failure shall bear alone the entire loss and it shall not be entitled to recover from Operator or the other parties any development or operating costs which it may have theretofore paid or incurred, but there shall be no additional liability on its part to the other parties hereto by reason of such title failure;

(b) There shall be no retroactive adjustment of expenses incurred or revenues received from the operation of the interest which has been lost, but the interests of the parties shall be revised on an acreage basis, as of the time it is determined finally that title failure has occurred, so that the interest of the party whose lease or interest is affected by the title failure will thereafter be reduced in the Contract Area by the amount of the interest lost;

(c) If the proportionate interest of the other parties hereto in any producing well theretofore drilled on the Contract Area is increased by reason of the title failure, the party whose title has failed shall receive the proceeds attributable to the increase in such interest (less costs and burdens attributable thereto) until it has been reimbursed for unrecovered costs paid by it in connection with such well;

(d) Should any person not a party to this agreement, who is determined to be the owner of any interest in the title which has failed, pay in any manner any part of the cost of operation, development, or equipment, such amount shall be paid to the party or parties who bore the costs which are so refunded;

(e) Any liability to account to a third party for prior production of oil and gas which arises by reason of title failure shall be borne by the party or parties whose title failed in the same proportions in which they shared in such prior production; and,

(f) No charge shall be made to the joint account for legal expenses, fees or salaries, in connection with the defense of the interest claimed by any party hereto, it being the intention of the parties hereto that each shall defend title to its interest and bear all expenses in connection therewith.

2. Loss by Non-Payment or Erroneous Payment of Amount Due: If, through mistake or oversight, any rental, shut-in well payment, minimum royalty or royalty payment, is not paid or is erroneously paid, and as a result a lease or interest therein terminates, there shall be no monetary liability against the party who failed to make such payment. Unless the party who failed to make the required payment secures a new lease covering the same interest within ninety (90) days from the discovery of the failure to make proper payment, which acquisition will not be subject to Article VIII.B., the interests of the parties shall be revised on an acreage basis, effective as of the date of termination of the lease involved, and the party who failed to make proper payment will no longer be credited with an interest in the Contract Area on account of ownership of the lease or interest which has terminated. In the event the party who failed to make the required payment shall not have been fully reimbursed, at the time of the loss, from the proceeds of the sale of oil and gas attributable to the lost interest, calculated on an acreage basis, for the development and operating costs theretofore paid on account of such interest, it shall be reimbursed for unrecovered actual costs theretofore paid by it (but not for its share of the cost of any dry hole previously drilled or wells previously abandoned) from so much of the following as is necessary to effect reimbursement:

(a) Proceeds of oil and gas, less operating expenses, theretofore accrued to the credit of the lost interest, on an acreage basis, up to the amount of unrecovered costs;

(b) Proceeds, less operating expenses, thereafter accrued attributable to the lost interest on an acreage basis, of that portion of oil and gas thereafter produced and marketed (excluding production from any wells thereafter drilled) which, in the absence of such lease termination, would be attributable to the lost interest on an acreage basis, up to the amount of unrecovered costs, the proceeds of said portion of the oil and gas to be contributed by the other parties in proportion to their respective interests; and,

(c) Any monies, up to the amount of unrecovered costs, that may be paid by any party who is, or becomes, the owner of the interest lost, for the privilege of participating in the Contract Area or becoming a party to this agreement.

3. Other Losses: All losses incurred, other than those set forth in Articles IV.B.1. and IV.B.2. above, shall be joint losses and shall be borne by all parties in proportion to their interests. There shall be no readjustment of interests in the remaining portion of the Contract Area.

ARTICLE V.
OPERATOR

A. Designation and Responsibilities of Operator:

_____shall be the Operator of the Contract Area, and shall conduct and direct and have full control of all operations on the Contract Area as permitted and required by, and within the limits of this agreement. It shall conduct all such operations in a good and workmanlike manner, but it shall have no liability as Operator to the other parties for losses sustained or liabilities incurred, except such as may result from gross negligence or willful misconduct.

B. Resignation or Removal of Operator and Selection of Successor:

1. Resignation or Removal of Operator. Operator may resign at any time by giving written notice thereof to Non-Operators. If Operator terminates its legal existence, no longer owns an interest hereunder in the Contract Area, or is no longer capable of serving as Operator, Operator shall be deemed to have resigned without any action by Non-Operators, except the selection of a successor. Operator may be removed if it fails or refuses to carry out its duties hereunder, or becomes insolvent, bankrupt or is placed in receivership, by the affirmative vote of two (2) or more Non-Operators owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of Operator. Such resignation or removal shall not become effective until 7:00 o'clock A.M. on the first day of the calendar month following the expiration of ninety (90) days after the giving of notice of resignation by Operator or action by the Non-Operators to remove Operator, unless a successor Operator has been selected and assumes the duties of Operator at an earlier date. Operator, after effective date of resignation or removal, shall be bound by the terms hereof as a Non-Operator. A change of a corporate name or structure of Operator or transfer of Operator's interest to any single subsidiary, parent or successor corporation shall not be the basis for removal of Operator.

2. Selection of Successor Operator: Upon the resignation or removal of Operator, a successor Operator shall be selected by the parties. The successor Operator shall be selected from the parties owning an interest in the Contract Area at the time such successor Operator is selected. The successor Operator shall be selected by the affirmative vote of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit "A"; provided, however, if an Operator which has been removed fails to vote or votes only to succeed itself, the successor Operator shall be selected by the affirmative vote of two (2) or more parties owning a majority interest based on ownership as shown on Exhibit "A" remaining after excluding the voting interest of the Operator that was removed.

C. Employees:

The number of employees used by Operator in conducting operations hereunder, their selection, and the hours of labor and the compensation for services performed shall be determined by Operator, and all such employees shall be the employees of Operator.

D. Drilling Contracts:

All wells drilled on the Contract Area shall be drilled on a competitive contract basis at the usual rates prevailing in the area. If it so desires, Operator may employ its own tools and equipment in the drilling of wells, but its charges therefor shall not exceed the prevailing rates in the area and the rate of such charges shall be agreed upon by the parties in writing before drilling operations are commenced, and such work shall be performed by Operator under the same terms and conditions as are customary and usual in the area in contracts of independent contractors who are doing work of a similar nature.

ARTICLE VI.
DRILLING AND DEVELOPMENT

A. Initial Well:

On or before the_____day of_____, 19____, Operator shall commence the drilling of a well for oil and gas at the following location:

and shall thereafter continue the drilling of the well with due diligence to

unless granite or other practically impenetrable substance or condition in the hole, which renders further drilling impractical, is encountered at a lesser depth, or unless all parties agree to complete or abandon the well at a lesser depth.

Operator shall make reasonable tests of all formations encountered during drilling which give indication of containing oil and gas in quantities sufficient to test, unless this agreement shall be limited in its application to a specific formation or formations, in which event Operator shall be required to test only the formation or formations to which this agreement may apply.

ARTICLE VI
continued

If, in Operator's judgment, the well will not produce oil or gas in paying quantities, and it wishes to plug and abandon the well as a dry hole, the provisions of Article VI.E.1. shall thereafter apply.

B. Subsequent Operations:

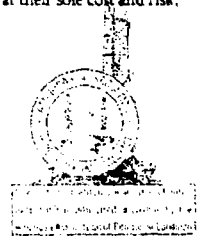
1. Proposed Operations: Should any party hereto desire to drill any well on the Contract Area other than the well provided for in Article VI.A., or to rework, deepen or plug back a dry hole drilled at the joint expense of all parties or a well jointly owned by all the parties and not then producing in paying quantities, the party desiring to drill, rework, deepen or plug back such a well shall give the other parties written notice of the proposed operation, specifying the work to be performed, the location, proposed depth, objective formation and the estimated cost of the operation. The parties receiving such a notice shall have thirty (30) days after receipt of the notice within which to notify the party wishing to do the work whether they elect to participate in the cost of the proposed operation. If a drilling rig is on location, notice of a proposal to rework, plug back or drill deeper may be given by telephone and the response period shall be limited to forty-eight (48) hours, exclusive of Saturday, Sunday and legal holidays. Failure of a party receiving such notice to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the proposed operation. Any notice or response given by telephone shall be promptly confirmed in writing.

If all parties elect to participate in such a proposed operation, Operator shall, within ninety (90) days after expiration of the notice period of thirty (30) days (or as promptly as possible after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be), actually commence the proposed operation and complete it with due diligence at the risk and expense of all parties hereto; provided, however, said commencement date may be extended upon written notice of same by Operator to the other parties, for a period of up to thirty (30) additional days if, in the sole opinion of Operator, such additional time is reasonably necessary to obtain permits from governmental authorities, surface rights (including rights-of-way) or appropriate drilling equipment, or to complete title examination or curative matter required for title approval or acceptance. Notwithstanding the force majeure provisions of Article XI, if the actual operation has not been commenced within the time provided (including any extension thereof as specifically permitted herein) and if any party hereto still desires to conduct said operation, written notice proposing same must be resubmitted to the other parties in accordance with the provisions hereof as if no prior proposal had been made.

2. Operations by Less than All Parties: If any party receiving such notice as provided in Article VI.B.1. or VII.D.1. (Option No. 2) elects not to participate in the proposed operation, then, in order to be entitled to the benefits of this Article, the party or parties giving the notice and such other parties as shall elect to participate in the operation shall, within ninety (90) days after the expiration of the notice period of thirty (30) days (or as promptly as possible after the expiration of the forty-eight (48) hour period when a drilling rig is on location, as the case may be) actually commence the proposed operation and complete it with due diligence. Operator shall perform all work for the account of the Consenting Parties; provided, however, if no drilling rig or other equipment is on location, and if Operator is a Non-Consenting Party, the Consenting Parties shall either: (a) request Operator to perform the work required by such proposed operation for the account of the Consenting Parties, or (b) designate one (1) of the Consenting Parties as Operator to perform such work. Consenting Parties, when conducting operations on the Contract Area pursuant to this Article VI.B.2., shall comply with all terms and conditions of this agreement.

If less than all parties approve any proposed operation, the proposing party, immediately after the expiration of the applicable notice period, shall advise the Consenting Parties of the total interest of the parties approving such operation and its recommendation as to whether the Consenting Parties should proceed with the operation as proposed. Each Consenting Party, within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after receipt of such notice, shall advise the proposing party of its desire to (a) limit participation to such party's interest as shown on Exhibit "A" or (b) carry its proportionate part of Non-Consenting Parties' interests, and failure to advise the proposing party shall be deemed an election under (a). In the event a drilling rig is on location, the time permitted for such a response shall not exceed a total of forty-eight (48) hours (inclusive of Saturday, Sunday and legal holidays). The proposing party, at its election, may withdraw such proposal if there is insufficient participation and shall promptly notify all parties of such decision.

The entire cost and risk of conducting such operations shall be borne by the Consenting Parties in the proportions they have elected to bear same under the terms of the preceding paragraph. Consenting Parties shall keep the leasehold estates involved in such operations free and clear of all liens and encumbrances of every kind created by or arising from the operations of the Consenting Parties. If such an operation results in a dry hole, the Consenting Parties shall plug and abandon the well and restore the surface location at their sole cost, risk and expense. If any well drilled, reworked, deepened or plugged back under the provisions of this Article results in a producer of oil and/or gas in paying quantities, the Consenting Parties shall complete and equip the well to produce at their sole cost and risk,



ARTICLE VI
continued

and the well shall then be turned over to Operator and shall be operated by it at the expense and for the account of the Consenting Parties. Upon commencement of operations for the drilling, reworking, deepening or plugging back of any such well by Consenting Parties in accordance with the provisions of this Article, each Non-Consenting Party shall be deemed to have relinquished to Consenting Parties, and the Consenting Parties shall own and be entitled to receive, in proportion to their respective interests, all of such Non-Consenting Party's interest in the well and share of production therefrom until the proceeds of the sale of such share, calculated at the well, or market value thereof if such share is not sold, (after deducting production taxes, excise taxes, royalty, overriding royalty and other interests not excepted by Article III.D. payable out of or measured by the production from such well accruing with respect to such interest until it reverts) shall equal the total of the following:

(a) 100% of each such Non-Consenting Party's share of the cost of any newly acquired surface equipment beyond the wellhead connections (including, but not limited to, stock tanks, separators, treaters, pumping equipment and piping), plus 100% of each such Non-Consenting Party's share of the cost of operation of the well commencing with first production and continuing until each such Non-Consenting Party's relinquished interest shall revert to it under other provisions of this Article, it being agreed that each Non-Consenting Party's share of such costs and equipment will be that interest which would have been chargeable to such Non-Consenting Party had it participated in the well from the beginning of the operations; and

(b) _____ % of that portion of the costs and expenses of drilling, reworking, deepening, plugging back, testing and completing, after deducting any cash contributions received under Article VIII.C., and _____ % of that portion of the cost of newly acquired equipment in the well (to and including the wellhead connections), which would have been chargeable to such Non-Consenting Party if it had participated therein.

An election not to participate in the drilling or the deepening of a well shall be deemed an election not to participate in any reworking or plugging back operation proposed in such a well, or portion thereof, to which the initial Non-Consent election applied that is conducted at any time prior to full recovery by the Consenting Parties of the Non-Consenting Party's recoupment account. Any such reworking or plugging back operation conducted during the recoupment period shall be deemed part of the cost of operation of said well and there shall be added to the sums to be recouped by the Consenting Parties one hundred percent (100%) of that portion of the costs of the reworking or plugging back operation which would have been chargeable to such Non-Consenting Party had it participated therein. If such a reworking or plugging back operation is proposed during such recoupment period, the provisions of this Article VI.B. shall be applicable as between said Consenting Parties in said well.

During the period of time Consenting Parties are entitled to receive Non-Consenting Party's share of production, or the proceeds therefrom, Consenting Parties shall be responsible for the payment of all production, severance, excise, gathering and other taxes, and all royalty, overriding royalty and other burdens applicable to Non-Consenting Party's share of production not excepted by Article III.D.

In the case of any reworking, plugging back or deeper drilling operation, the Consenting Parties shall be permitted to use, free of cost, all casing, tubing and other equipment in the well, but the ownership of all such equipment shall remain unchanged, and upon abandonment of a well after such reworking, plugging back or deeper drilling, the Consenting Parties shall account for all such equipment to the owners thereof, with each party receiving its proportionate part in kind or in value, less cost of salvage.

Within sixty (60) days after the completion of any operation under this Article, the party conducting the operations for the Consenting Parties shall furnish each Non-Consenting Party with an inventory of the equipment in and connected to the well, and an itemized statement of the cost of drilling, deepening, plugging back, testing, completing, and equipping the well for production; or, at its option, the operating party, in lieu of an itemized statement of such costs of operation, may submit a detailed statement of monthly billings. Each month thereafter, during the time the Consenting Parties are being reimbursed as provided above, the party conducting the operations for the Consenting Parties shall furnish the Non-Consenting Parties with an itemized statement of all costs and liabilities incurred in the operation of the well, together with a statement of the quantity of oil and gas produced from it and the amount of proceeds realized from the sale of the well's working interest production during the preceding month. In determining the quantity of oil and gas produced during any month, Consenting Parties shall use industry accepted methods such as, but not limited to, metering or periodic well tests. Any amount realized from the sale or other disposition of equipment newly acquired in connection with any such operation which would have been owned by a Non-Consenting Party had it participated therein shall be credited against the total unrecovered costs of the work done and of the equipment purchased in determining when the interest of such Non-Consenting Party shall revert to it as above provided; and if there is a credit balance, it shall be paid to such Non-Consenting Party.

ARTICLE VI
continued

If and when the Consenting Parties recover from a Non-Consenting Party's relinquished interest the amounts provided for above, the relinquished interests of such Non-Consenting Party shall automatically revert to it, and, from and after such reversion, such Non-Consenting Party shall own the same interest in such well, the material and equipment in or pertaining thereto, and the production therefrom as such Non-Consenting Party would have been entitled to had it participated in the drilling, reworking, deepening or plugging back of said well. Thereafter, such Non-Consenting Party shall be charged with and shall pay its proportionate part of the further costs of the operation of said well in accordance with the terms of this agreement and the Accounting Procedure attached hereto.

Notwithstanding the provisions of this Article VI.B.2., it is agreed that without the mutual consent of all parties, no wells shall be completed in or produced from a source of supply from which a well located elsewhere on the Contract Area is producing, unless such well conforms to the then-existing well spacing pattern for such source of supply.

The provisions of this Article shall have no application whatsoever to the drilling of the initial well described in Article VI.A. except (a) as to Article VII.D.1. (Option No. 2), if selected, or (b) as to the reworking, deepening and plugging back of such initial well after it has been drilled to the depth specified in Article VI.A. if it shall thereafter prove to be a dry hole or, if initially completed for production, ceases to produce in paying quantities.

3. Stand-By Time: When a well which has been drilled or deepened has reached its authorized depth and all tests have been completed, and the results thereof furnished to the parties, stand-by costs incurred pending response to a party's notice proposing a reworking, deepening, plugging back or completing operation in such a well shall be charged and borne as part of the drilling or deepening operation just completed. Stand by costs subsequent to all parties responding, or expiration of the response time permitted, whichever first occurs, and prior to agreement as to the participating interests of all Consenting Parties pursuant to the terms of the second grammatical paragraph of Article VI.B.2, shall be charged to and borne as part of the proposed operation, but if the proposal is subsequently withdrawn because of insufficient participation, such stand-by costs shall be allocated between the Consenting Parties in the proportion each Consenting Party's interest as shown on Exhibit "A" bears to the total interest as shown on Exhibit "A" of all Consenting Parties.

4. Sidetracking: Except as hereinafter provided, those provisions of this agreement applicable to a "deepening" operation shall also be applicable to any proposal to directionally control and intentionally deviate a well from vertical so as to change the bottom hole location (herein called "sidetracking"), unless done to straighten the hole or to drill around junk in the hole or because of other mechanical difficulties. Any party having the right to participate in a proposed sidetracking operation that does not own an interest in the affected well bore at the time of the notice shall, upon electing to participate, tender to the well bore owners its proportionate share (equal to its interest in the sidetracking operation) of the value of that portion of the existing well bore to be utilized as follows:

(a) If the proposal is for sidetracking an existing dry hole, reimbursement shall be on the basis of the actual costs incurred in the initial drilling of the well down to the depth at which the sidetracking operation is initiated.

(b) If the proposal is for sidetracking a well which has previously produced, reimbursement shall be on the basis of the well's salvable materials and equipment down to the depth at which the sidetracking operation is initiated, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning.

ARTICLE VI
continued

required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the purchaser thereof for its share of all production.

In the event any party shall fail to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the oil produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such oil or sell it to others at any time and from time to time, for the account of the non-taking party at the best price obtainable in the area for such production. Any such purchase or sale by Operator shall be subject always to the right of the owner of the production to exercise at any time its right to take in kind, or separately dispose of, its share of all oil not previously delivered to a purchaser. Any purchase or sale by Operator of any other party's share of oil shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year.

In the event one or more parties' separate disposition of its share of the gas causes split-stream deliveries to separate pipelines and/or deliveries which on a day-to-day basis for any reason are not exactly equal to a party's respective proportionate share of total gas sales to be allocated to it, the balancing or accounting between the respective accounts of the parties shall be in accordance with any gas balancing agreement between the parties hereto, whether such an agreement is attached as Exhibit "E", or is a separate agreement.

D. Access to Contract Area and Information:

Each party shall have access to the Contract Area at all reasonable times, at its sole cost and risk to inspect or observe operations, and shall have access at reasonable times to information pertaining to the development or operation thereof, including Operator's books and records relating thereto. Operator, upon request, shall furnish each of the other parties with copies of all forms or reports filed with governmental agencies, daily drilling reports, well logs, tank tables, daily gauge and run tickets and reports of stock on hand at the first of each month, and shall make available samples of any cores or cuttings taken from any well drilled on the Contract Area. The cost of gathering and furnishing information to Non-Operator, other than that specified above, shall be charged to the Non-Operator that requests the information.

E. Abandonment of Wells:

1. Abandonment of Dry Holes: Except for any well drilled or deepened pursuant to Article VI.B.2., any well which has been drilled or deepened under the terms of this agreement and is proposed to be completed as a dry hole shall not be plugged and abandoned without the consent of all parties. Should Operator, after diligent effort, be unable to contact any party, or should any party fail to reply within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after receipt of notice of the proposal to plug and abandon such well, such party shall be deemed to have consented to the proposed abandonment. All such wells shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of the parties who participated in the cost of drilling or deepening such well. Any party who objects to plugging and abandoning such well shall have the right to take over the well and conduct further operations in search of oil and/or gas subject to the provisions of Article VI.B.

2. Abandonment of Wells that have Produced: Except for any well in which a Non-Consent operation has been conducted hereunder for which the Consenting Parties have not been fully reimbursed as herein provided, any well which has been completed as a producer shall not be plugged and abandoned without the consent of all parties. If all parties consent to such abandonment, the well shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of all the parties hereto. If, within thirty (30) days after receipt of notice of the proposed abandonment of any well, all parties do not agree to the abandonment of such well, those wishing to continue its operation from the interval(s) of the formation(s) then open to production shall tender to each of the other parties its proportionate share of the value of the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. Each abandoning party shall assign the non-abandoning parties, without warranty, express or implied, as to title or as to quantity, or fitness for use of the equipment and material, all of its interest in the well and related equipment, together with its interest in the leasehold estate as to, but only as to, the interval or intervals of the formation or formations then open to production. If the interest of the abandoning party is or includes an oil and gas interest, such party shall execute and deliver to the non-abandoning party or parties an oil and gas lease, limited to the interval or intervals of the formation or formations then open to production, for a term of one (1) year and so long thereafter as oil and/or gas is produced from the interval or intervals of the formation or formations covered thereby, such lease to be on the form attached as Exhibit

ARTICLE VI
continued

required to pay for only its proportionate share of such part of Operator's surface facilities which it uses.

Each party shall execute such division orders and contracts as may be necessary for the sale of its interest in production from the Contract Area, and, except as provided in Article VII.B., shall be entitled to receive payment directly from the purchaser thereof for its share of all production.

In the event any party shall fail to make the arrangements necessary to take in kind or separately dispose of its proportionate share of the oil and gas produced from the Contract Area, Operator shall have the right, subject to the revocation at will by the party owning it, but not the obligation, to purchase such oil and gas or sell it to others at any time and from time to time, for the account of the non-taking party at the best price obtainable in the area for such production. Any such purchase or sale by Operator shall be subject always to the right of the owner of the production to exercise at any time its right to take in kind, or separately dispose of, its share of all oil and gas not previously delivered to a purchaser. Any purchase or sale by Operator of any other party's share of oil and gas shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the particular circumstances, but in no event for a period in excess of one (1) year. Notwithstanding the foregoing, Operator shall not make a sale, including one into interstate commerce, of any other party's share of gas production without first giving such other party thirty (30) days notice of such intended sale.

D. Access to Contract Area and Information:

Each party shall have access to the Contract Area at all reasonable times, at its sole cost and risk to inspect or observe operations, and shall have access at reasonable times to information pertaining to the development or operation thereof, including Operator's books and records relating thereto. Operator, upon request, shall furnish each of the other parties with copies of all forms or reports filed with governmental agencies, daily drilling reports, well logs, tank tables, daily gauge and run tickets and reports of stock on hand at the first of each month, and shall make available samples of any cores or cuttings taken from any well drilled on the Contract Area. The cost of gathering and furnishing information to Non-Operator, other than that specified above, shall be charged to the Non-Operator that requests the information.

E. Abandonment of Wells:

1. Abandonment of Dry Holes. Except for any well drilled or deepened pursuant to Article VI.B.2., any well which has been drilled or deepened under the terms of this agreement and is proposed to be completed as a dry hole shall not be plugged and abandoned without the consent of all parties. Should Operator, after diligent effort, be unable to contact any party, or should any party fail to reply within forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) after receipt of notice of the proposal to plug and abandon such well, such party shall be deemed to have consented to the proposed abandonment. All such wells shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of the parties who participated in the cost of drilling or deepening such well. Any party who objects to plugging and abandoning such well shall have the right to take over the well and conduct further operations in search of oil and/or gas subject to the provisions of Article VI.B.

2. Abandonment of Wells that have Produced. Except for any well in which a Non-Consent operation has been conducted hereunder for which the Consenting Parties have not been fully reimbursed as herein provided, any well which has been completed as a producer shall not be plugged and abandoned without the consent of all parties. If all parties consent to such abandonment, the well shall be plugged and abandoned in accordance with applicable regulations and at the cost, risk and expense of all the parties hereto. If, within thirty (30) days after receipt of notice of the proposed abandonment of any well, all parties do not agree to the abandonment of such well, those wishing to continue its operation from the interval(s) of the formation(s) then open to production shall tender to each of the other parties its proportionate share of the value of the well's salvable material and equipment, determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. Each abandoning party shall assign the non-abandoning parties, without warranty, express or implied, as to title or as to quantity, or fitness for use of the equipment and material, all of its interest in the well and related equipment, together with its interest in the leasehold estate as to, but only as to, the interval or intervals of the formation or formations then open to production. If the interest of the abandoning party is or includes an oil and gas interest, such party shall execute and deliver to the non abandoning party or parties an oil and gas lease, limited to the interval or intervals of the formation or formations then open to production, for a term of one (1) year and so long thereafter as oil and/or gas is produced from the interval or intervals of the formation or formations covered thereby, such lease to be on the form attached as Exhibit

ARTICLE VI
continued

"D". The assignments or leases so limited shall encompass the "drilling unit" upon which the well is located. The payments by, and the assignments or leases to, the assignees shall be in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all assignees. There shall be no readjustment of interests in the remaining portion of the Contract Area.

Thereafter, abandoning parties shall have no further responsibility, liability, or interest in the operation of or production from the well in the interval or intervals then open other than the royalties retained in any lease made under the terms of this Article. Upon request, Operator shall continue to operate the assigned well for the account of the non-abandoning parties at the rates and charges contemplated by this agreement, plus any additional cost and charges which may arise as the result of the separate ownership of the assigned well. Upon proposed abandonment of the producing interval(s) assigned or leased, the assignor or lessor shall then have the option to repurchase its prior interest in the well (using the same valuation formula) and participate in further operations therein subject to the provisions hereof.

3. Abandonment of Non-Consent Operations: The provisions of Article VI.E.1. or VI.E.2. above shall be applicable as between Consenting Parties in the event of the proposed abandonment of any well excepted from said Articles; provided, however, no well shall be permanently plugged and abandoned unless and until all parties having the right to conduct further operations therein have been notified of the proposed abandonment and afforded the opportunity to elect to take over the well in accordance with the provisions of this Article VI.E.

ARTICLE VII.
EXPENDITURES AND LIABILITY OF PARTIES

A. Liability of Parties:

The liability of the parties shall be several, not joint or collective. Each party shall be responsible only for its obligations, and shall be liable only for its proportionate share of the costs of developing and operating the Contract Area. Accordingly, the liens granted among the parties in Article VII.B. are given to secure only the debts of each severally. It is not the intention of the parties to create, nor shall this agreement be construed as creating, a mining or other partnership or association, or to render the parties liable as partners.

B. Liens and Payment Defaults:

Each Non-Operator grants to Operator a lien upon its oil and gas rights in the Contract Area, and a security interest in its share of oil and/or gas when extracted and its interest in all equipment, to secure payment of its share of expense, together with interest thereon at the rate provided in Exhibit "C". To the extent that Operator has a security interest under the Uniform Commercial Code of the state, Operator shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by Operator for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any Non-Operator in the payment of its share of expense, Operator shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such Non-Operator's share of oil and/or gas until the amount owed by such Non-Operator, plus interest, has been paid. Each purchaser shall be entitled to rely upon Operator's written statement concerning the amount of any default. Operator grants a like lien and security interest to the Non-Operators to secure payment of Operator's proportionate share of expense.

If any party fails or is unable to pay its share of expense within sixty (60) days after rendition of a statement therefor by Operator, the non-defaulting parties, including Operator, shall, upon request by Operator, pay the unpaid amount in the proportion that the interest of each such party bears to the interest of all such parties. Each party so paying its share of the unpaid amount shall, to obtain reimbursement thereof, be subrogated to the security rights described in the foregoing paragraph.

C. Payments and Accounting:

Except as herein otherwise specifically provided, Operator shall promptly pay and discharge expenses incurred in the development and operation of the Contract Area pursuant to this agreement and shall charge each of the parties hereto with their respective proportionate shares upon the expense basis provided in Exhibit "C". Operator shall keep an accurate record of the joint account hereunder, showing expenses incurred and charges and credits made and received.

Operator, at its election, shall have the right from time to time to demand and receive from the other parties payment in advance of their respective shares of the estimated amount of the expense to be incurred in operations hereunder during the next succeeding month, which right may be exercised only by submission to each such party of an itemized statement of such estimated expense, together with an invoice for its share thereof. Each such statement and invoice for the payment in advance of estimated expense shall be submitted on or before the 20th day of the next preceding month. Each party shall pay to Operator its proportionate share of such estimate within fifteen (15) days after such estimate and invoice is received. If any party fails to pay its share of said estimate within said time, the amount due shall bear interest as provided in Exhibit "C" until paid. Proper adjustment shall be made monthly between advances and actual expense to the end that each party shall bear and pay its proportionate share of actual expenses incurred, and no more.

D. Limitation of Expenditures:

1. Drill or Deepen: Without the consent of all parties, no well shall be drilled or deepened, except any well drilled or deepened pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the drilling or deepening shall include:

ARTICLE VII
continued

☐ Option No. 1: All necessary expenditures for the drilling or deepening, testing, completing and equipping of the well, including necessary tankage and/or surface facilities.

☐ Option No. 2: All necessary expenditures for the drilling or deepening and testing of the well. When such well has reached its authorized depth, and all tests have been completed, and the results thereof furnished to the parties, Operator shall give immediate notice to the Non-Operators who have the right to participate in the completion costs. The parties receiving such notice shall have forty-eight (48) hours (exclusive of Saturday, Sunday and legal holidays) in which to elect to participate in the setting of casing and the completion attempt. Such election, when made, shall include consent to all necessary expenditures for the completing and equipping of such well, including necessary tankage and/or surface facilities. Failure of any party receiving such notice to reply within the period above fixed shall constitute an election by that party not to participate in the cost of the completion attempt. If one or more, but less than all of the parties, elect to set pipe and to attempt a completion, the provisions of Article VI.B.2. hereof (the phrase "reworking, deepening or plugging back" as contained in Article VI.B.2. shall be deemed to include "completing") shall apply to the operations thereafter conducted by less than all parties.

2. Rework or Plug Back: Without the consent of all parties, no well shall be reworked or plugged back except a well reworked or plugged back pursuant to the provisions of Article VI.B.2. of this agreement. Consent to the reworking or plugging back of a well shall include all necessary expenditures in conducting such operations and completing and equipping of said well, including necessary tankage and/or surface facilities.

3. Other Operations: Without the consent of all parties, Operator shall not undertake any single project reasonably estimated to require an expenditure in excess of _____ Dollars ($_____) except in connection with a well, the drilling, reworking, deepening, completing, recompleting, or plugging back of which has been previously authorized by or pursuant to this agreement; provided, however, that, in case of explosion, fire, flood or other sudden emergency, whether of the same or different nature, Operator may take such steps and incur such expenses as in its opinion are required to deal with the emergency to safeguard life and property but Operator, as promptly as possible, shall report the emergency to the other parties. If Operator prepares an authority for expenditure (AFE) for its own use, Operator shall furnish any Non-Operator so requesting an information copy thereof for any single project costing in excess of _____ Dollars ($_____) but less than the amount first set forth above in this paragraph.

E. Rentals, Shut-in Well Payments and Minimum Royalties:

Rentals, shut-in well payments and minimum royalties which may be required under the terms of any lease shall be paid by the party or parties who subjected such lease to this agreement at its or their expense. In the event two or more parties own and have contributed interests in the same lease to this agreement, such parties may designate one of such parties to make said payments for and on behalf of all such parties. Any party may request, and shall be entitled to receive, proper evidence of all such payments. In the event of failure to make proper payment of any rental, shut-in well payment or minimum royalty through mistake or oversight where such payment is required to continue the lease in force, any loss which results from such non-payment shall be borne in accordance with the provisions of Article IV.B.2.

Operator shall notify Non-Operator of the anticipated completion of a shut-in gas well, or the shutting in or return to production of a producing gas well, at least five (5) days (excluding Saturday, Sunday and legal holidays), or at the earliest opportunity permitted by circumstances, prior to taking such action, but assumes no liability for failure to do so. In the event of failure by Operator to so notify Non-Operator, the loss of any lease contributed hereto by Non-Operator for failure to make timely payments of any shut-in well payment shall be borne jointly by the parties hereto under the provisions of Article IV.B.2.

F. Taxes:

Beginning with the first calendar year after the effective date hereof, Operator shall render for ad valorem taxation all property subject to this agreement which by law should be rendered for such taxes, and it shall pay all such taxes assessed thereon before they become delinquent. Prior to the rendition date, each Non-Operator shall furnish Operator information as to burdens (to include, but not be limited to, royalties, overriding royalties and production payments) on leases and oil and gas interests contributed by such Non-Operator. If the assessed valuation of any leasehold estate is reduced by reason of its being subject to outstanding excess royalties, overriding royalties or production payments, the reduction in ad valorem taxes resulting therefrom shall inure to the benefit of the owner or owners of such leasehold estate, and Operator shall adjust the charge to such owner or owners so as to reflect the benefit of such reduction. If the ad valorem taxes are based in whole or in part upon separate valuations of each party's working interest, then notwithstanding anything to the contrary herein, charges to the joint account shall be made and paid by the parties hereto in accordance with the tax value generated by each party's working interest. Operator shall bill the other parties for their proportionate shares of all tax payments in the manner provided in Exhibit "C".

If Operator considers any tax assessment improper, Operator may, at its discretion, protest within the time and manner prescribed by law, and prosecute the protest to a final determination, unless all parties agree to abandon the protest prior to final determination. During the pendency of administrative or judicial proceedings, Operator may elect to pay, under protest, all such taxes and any interest and penalty. When any such protested assessment shall have been finally determined, Operator shall pay the tax for the joint account, together with any interest and penalty accrued, and the total cost shall then be assessed against the parties, and be paid by them, as provided in Exhibit "C".

Each party shall pay or cause to be paid all production, severance, excise, gathering and other taxes imposed upon or with respect to the production or handling of such party's share of oil and/or gas produced under the terms of this agreement.

ARTICLE VII
continued

G. Insurance:

At all times while operations are conducted hereunder, Operator shall comply with the workmen's compensation law of the state where the operations are being conducted; provided, however, that Operator may be a self insurer for liabilty under said compensation laws in which event the only charge that shall be made to the joint account shall be as provided in Exhibit "C". Operator shall also carry or provide insurance for the benefit of the joint account of the parties as outlined in Exhibit "D", attached to and made a part hereof. Operator shall require all contractors engaged in work on or for the Contract Area to comply with the workmen's compensation law of the state where the operations are being conducted and to maintain such other insurance as Operator may require.

In the event automobile public liability insurance is specified in said Exhibit "D", or subsequently receives the approval of the parties, no direct charge shall be made by Operator for premiums paid for such insurance for Operator's automotive equipment.

ARTICLE VIII.
ACQUISITION, MAINTENANCE OR TRANSFER OF INTEREST

A. Surrender of Leases:

The leases covered by this agreement, insofar as they embrace acreage in the Contract Area, shall not be surrendered in whole or in part unless all parties consent thereto.

However, should any party desire to surrender its interest in any lease or in any portion thereof, and the other parties do not agree or consent thereto, the party desiring to surrender shall assign, without express or implied warranty of title, all of its interest in such lease, or portion thereof, and any well, material and equipment which may be located thereon and any rights in production thereafter secured, to the parties not consenting to such surrender. If the interest of the assigning party is or includes an oil and gas interest, the assigning party shall execute and deliver to the party or parties not consenting to such surrender an oil and gas lease covering such oil and gas interest for a term of one (1) year and so long thereafter as oil and/or gas is produced from the land covered thereby, such lease to be on the form attached hereto as Exhibit "B". Upon such assignment or lease, the assigning party shall be relieved from all obligations thereafter accruing, but not theretofore accrued, with respect to the interest assigned or leased and the operation of any well attributable thereto, and the assigning party shall have no further interest in the assigned or leased premises and its equipment and production other than the royalties retained in any lease made under the terms of this Article. The party assignee or lessee shall pay to the party assignor or lessor the reasonable salvage value of the latter's interest in any wells and equipment attributable to the assigned or leased acreage. The value of all material shall be determined in accordance with the provisions of Exhibit "C", less the estimated cost of salvaging and the estimated cost of plugging and abandoning. If the assignment or lease is in favor of more than one party, the interest shall be shared by such parties in the proportions that the interest of each bears to the total interest of all such parties.

Any assignment, lease or surrender made under this provision shall not reduce or change the assignor's, lessor's or surrendering party's interest as it was immediately before the assignment, lease or surrender in the balance of the Contract Area; and the acreage assigned, leased or surrendered, and subsequent operations thereon, shall not thereafter be subject to the terms and provisions of this agreement.

B Renewal or Extension of Leases:

If any party secures a renewal of any oil and gas lease subject to this agreement, all other parties shall be notified promptly, and shall have the right for a period of thirty (30) days following receipt of such notice in which to elect to participate in the ownership of the renewal lease, insofar as such lease affects lands within the Contract Area, by paying to the party who acquired it their several proper proportionate shares of the acquisition cost allocated to that part of such lease within the Contract Area, which shall be in proportion to the interests held at that time by the parties in the Contract Area.

If some, but less than all, of the parties elect to participate in the purchase of a renewal lease, it shall be owned by the parties who elect to participate therein, in a ratio based upon the relationship of their respective percentage of participation in the Contract Area to the aggregate of the percentages of participation in the Contract Area of all parties participating in the purchase of such renewal lease. Any renewal lease in which less than all parties elect to participate shall not be subject to this agreement.

Each party who participates in the purchase of a renewal lease shall be given an assignment of its proportionate interest therein by the acquiring party.

The provisions of this Article shall apply to renewal leases whether they are for the entire interest covered by the expiring lease or cover only a portion of its area or an interest therein. Any renewal lease taken before the expiration of its predecessor lease, or taken or contracted for within six (6) months after the expiration of the existing lease shall be subject to this provision; but any lease taken or contracted for more than six (6) months after the expiration of an existing lease shall not be deemed a renewal lease and shall not be subject to the provisions of this agreement.

The provisions in this Article shall also be applicable to extensions of oil and gas leases.

C. Acreage or Cash Contributions:

While this agreement is in force, if any party contracts for a contribution of cash towards the drilling of a well or any other operation on the Contract Area, such contribution shall be paid to the party who conducted the drilling or other operation and shall be applied by it against the cost of such drilling or other operation. If the contribution be in the form of acreage, the party to whom the contribution is made shall promptly tender an assignment of the acreage, without warranty of title, to the Drilling Parties in the proportions

ARTICLE VIII
continued

said Drilling Parties shared the cost of drilling the well. Such acreage shall become a separate Contract Area and, to the extent possible, be governed by provisions identical to this agreement. Each party shall promptly notify all other parties of any acreage or cash contributions it may obtain in support of any well or any other operation on the Contract Area. The above provisions shall also be applicable to optional rights to earn acreage outside the Contract Area which are in support of a well drilled inside the Contract Area.

If any party contracts for any consideration relating to disposition of such party's share of substances produced hereunder, such consideration shall not be deemed a contribution as contemplated in this Article VIII.C.

D. Maintenance of Uniform Interest:

For the purpose of maintaining uniformity of ownership in the oil and gas leasehold interests covered by this agreement, no party shall sell, encumber, transfer or make other disposition of its interest in the leases embraced within the Contract Area and in wells, equipment and production unless such disposition covers either:

1. the entire interest of the party in all leases and equipment and production; or

2. an equal undivided interest in all leases and equipment and production in the Contract Area.

Every such sale, encumbrance, transfer or other disposition made by any party shall be made expressly subject to this agreement and shall be made without prejudice to the right of the other parties.

If, at any time the interest of any party is divided among and owned by four or more co-owners, Operator, at its discretion, may require such co-owners to appoint a single trustee or agent with full authority to receive notices, approve expenditures, receive billings for and approve and pay such party's share of the joint expenses, and to deal generally with, and with power to bind, the co-owners of such party's interest within the scope of the operations embraced in this agreement; however, all such co-owners shall have the right to enter into and execute all contracts or agreements for the disposition of their respective shares of the oil and gas produced from the Contract Area and they shall have the right to receive separately, payment of the sale proceeds thereof.

E. Waiver of Rights to Partition:

If permitted by the laws of the state or states in which the property covered hereby is located, each party hereto owning an undivided interest in the Contract Area waives any and all rights it may have to partition and have set aside to it in severalty its undivided interest therein.

F. Preferential Right to Purchase:

Should any party desire to sell all or any part of its interests under this agreement, or its rights and interests in the Contract Area, it shall promptly give written notice to the other parties, with full information concerning its proposed sale, which shall include the name and address of the prospective purchaser (who must be ready, willing and able to purchase), the purchase price, and all other terms of the offer. The other parties shall then have an optional prior right, for a period of ten (10) days after receipt of the notice, to purchase on the same terms and conditions the interest which the other party proposes to sell; and, if this optional right is exercised, the purchasing parties shall share the purchased interest in the proportions that the interest of each bears to the total interest of all purchasing parties. However, there shall be no preferential right to purchase in those cases where any party wishes to mortgage its interests, or to dispose of its interests by merger, reorganization, consolidation, or sale of all or substantially all of its assets to a subsidiary or parent company or to a subsidiary of a parent company, or to any company in which any one party owns a majority of the stock.

ARTICLE IX.
INTERNAL REVENUE CODE ELECTION

This agreement is not intended to create, and shall not be construed to create, a relationship of partnership or an association for profit between or among the parties hereto. Notwithstanding any provision herein that the rights and liabilities hereunder are several and not joint or collective, or that this agreement and operations hereunder shall not constitute a partnership, if, for federal income tax purposes, this agreement and the operations hereunder are regarded as a partnership, each party hereby affected elects to be excluded from the application of all of the provisions of Subchapter "K", Chapter 1, Subtitle "A", of the Internal Revenue Code of 1954, as permitted and authorized by Section 761 of the Code and the regulations promulgated thereunder. Operator is authorized and directed to execute on behalf of each party hereby affected such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by Federal Regulations 1.761. Should there be any requirement that each party hereby affected give further evidence of this election, each such party shall execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. No such party shall give any notices or take any other action inconsistent with the election made hereby. If any present or future income tax laws of the state or states in which the Contract Area is located or any future income tax laws of the United States contain provisions similar to those in Subchapter "K", Chapter 1, Subtitle "A", of the Internal Revenue Code of 1954, under which an election similar to that provided by Section 761 of the Code is permitted, each party hereby affected shall make such election as may be permitted or required by such laws. In making the foregoing election, each such party states that the income derived by such party from operations hereunder can be adequately determined without the computation of partnership taxable income.

ARTICLE X.
CLAIMS AND LAWSUITS

Operator may settle any single uninsured third party damage claim or suit arising from operations hereunder if the expenditure does not exceed_____Dollars ($_____) and if the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above amount, the parties hereto shall assume and take over the further handling of the claim or suit, unless such authority is delegated to Operator. All costs and expenses of handling, settling, or otherwise discharging such claim or suit shall be at the joint expense of the parties participating in the operation from which the claim or suit arises. If a claim is made against any party or if any party is sued on account of any matter arising from operations hereunder over which such individual has no control because of the rights given Operator by this agreement, such party shall immediately notify all other parties, and the claim or suit shall be treated as any other claim or suit involving operations hereunder.

ARTICLE XI.
FORCE MAJEURE

If any party is rendered unable, wholly or in part, by force majeure to carry out its obligations under this agreement, other than the obligation to make money payments, that party shall give to all other parties prompt written notice of the force majeure with reasonably full particulars concerning it; thereupon, the obligations of the party giving the notice, so far as they are affected by the force majeure, shall be suspended during, but no longer than, the continuance of the force majeure. The affected party shall use all reasonable diligence to remove the force majeure situation as quickly as practicable.

The requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes, lockouts, or other labor difficulty by the party involved, contrary to its wishes; how all such difficulties shall be handled shall be entirely within the discretion of the party concerned.

The term "force majeure", as here employed, shall mean an act of God, strike, lockout, or other industrial disturbance, act of the public enemy, war, blockade, public riot, lightning, fire, storm, flood, explosion, governmental action, governmental delay, restraint or inaction, unavailability of equipment, and any other cause, whether of the kind specifically enumerated above or otherwise, which is not reasonably within the control of the party claiming suspension.

ARTICLE XII.
NOTICES

All notices authorized or required between the parties and required by any of the provisions of this agreement, unless otherwise specifically provided, shall be given in writing by mail or telegram, postage or charges prepaid, or by telex or telecopier and addressed to the parties to whom the notice is given at the addresses listed on Exhibit "A". The originating notice given under any provision hereof shall be deemed given only when received by the party to whom such notice is directed, and the time for such party to give any notice in response thereto shall run from the date the originating notice is received. The second or any responsive notice shall be deemed given when deposited in the mail or with the telegraph company, with postage or charges prepaid, or sent by telex or telecopier. Each party shall have the right to change its address at any time, and from time to time, by giving written notice thereof to all other parties.

ARTICLE XIII.
TERM OF AGREEMENT

This agreement shall remain in full force and effect as to the oil and gas leases and/or oil and gas interests subject hereto for the period of time selected below, provided, however, no party hereto shall ever be construed as having any right, title or interest in or to any lease or oil and gas interest contributed by any other party beyond the term of this agreement.

☐ Option No. 1: So long as any of the oil and gas leases subject to this agreement remain or are continued in force as to any part of the Contract Area, whether by production, extension, renewal or otherwise.

☐ Option No. 2: In the event the well described in Article VI.A., or any subsequent well drilled under any provision of this agreement, results in production of oil and/or gas in paying quantities, this agreement shall continue in force so long as any such well or wells produce, or are capable of production, and for an additional period of _____ days from cessation of all production; provided, however, if, prior to the expiration of such additional period, one or more of the parties hereto are engaged in drilling, reworking, deepening, plugging back, testing or attempting to complete a well or wells hereunder, this agreement shall continue in force until such operations have been completed and if production results therefrom, this agreement shall continue in force as provided herein. In the event the well described in Article VI.A., or any subsequent well drilled hereunder, results in a dry hole, and no other well is producing, or capable of producing oil and/or gas from the Contract Area, this agreement shall terminate unless drilling, deepening, plugging back or reworking operations are commenced within _____ days from the date of abandonment of said well.

It is agreed, however, that the termination of this agreement shall not relieve any party hereto from any liability which has accrued or attached prior to the date of such termination.

ARTICLE XIV.
COMPLIANCE WITH LAWS AND REGULATIONS

A. Laws, Regulations and Orders:

This agreement shall be subject to the conservation laws of the state in which the Contract Area is located, to the valid rules, regulations, and orders of any duly constituted regulatory body of said state; and to all other applicable federal, state, and local laws, ordinances, rules, regulations, and orders.

B. Governing Law:

This agreement and all matters pertaining hereto, including, but not limited to, matters of performance, non performance, breach, remedies, procedures, rights, duties and interpretation or construction, shall be governed and determined by the law of the state in which the Contract Area is located. If the Contract Area is in two or more states, the law of the state of _____ shall govern.

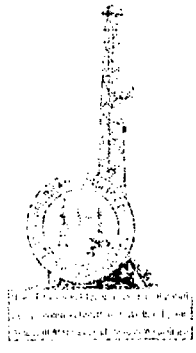
C. Regulatory Agencies:

Nothing herein contained shall grant, or be construed to grant, Operator the right or authority to waive or release any rights, privileges, or obligations which Non-Operators may have under federal or state laws or under rules, regulations or orders promulgated under such laws in reference to oil, gas and mineral operations, including the location, operation, or production of wells, on tracts offsetting or adjacent to the Contract Area.

With respect to operations hereunder, Non-Operators agree to release Operator from any and all losses, damages, injuries, claims and causes of action arising out of, incident to or resulting directly or indirectly from Operator's interpretation or application of rules, rulings, regulations or orders of the Department of Energy or predecessor or successor agencies to the extent such interpretation or application was made in good faith. Each Non-Operator further agrees to reimburse Operator for any amounts applicable to such Non-Operator's share of production that Operator may be required to refund, rebate or pay as a result of such an incorrect interpretation or application, together with interest and penalties thereon owing by Operator as a result of such incorrect interpretation or application.

Non-Operators authorize Operator to prepare and submit such documents as may be required to be submitted to the purchaser of any crude oil sold hereunder or to any other person or entity pursuant to the requirements of the "Crude Oil Windfall Profit Tax Act of 1980", as same may be amended from time to time ("Act") and any valid regulations or rules which may be issued by the Treasury Department from time to time pursuant to said Act. Each party hereto agrees to furnish any and all certifications or other information which is required to be furnished by said Act in a timely manner and in sufficient detail to permit compliance with said Act.

ARTICLE XV.
OTHER PROVISIONS



ARTICLE XVI.
MISCELLANEOUS

This agreement shall be binding upon and shall inure to the benefit of the parties hereto and to their respective heirs, devisees, legal representatives, successors and assigns.

This instrument may be executed in any number of counterparts, each of which shall be considered an original for all purposes.

IN WITNESS WHEREOF, this agreement shall be effective as of _____ day of _____, 19_____.

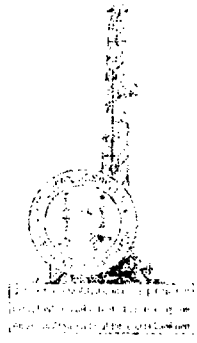
OPERATOR

_____ _____

NON-OPERATORS

_____ _____

_____ _____



generic ... be characterized as speculative.

Blue ... Because we find appellant ... to any defects in the preliminary hearing when he permitted the ... to proceed without ... we need not reach the question whether the ... court erred in quashing ...

CONCLUSION

The ... district court is affirmed.

D.L. COOK, Appellant (Petitioner),

v.

WYOMING OIL AND GAS CONSERVATION COMMISSION, Appellee (Respondent),

and

North Finn, Appellee (Respondent Intervenor).

No. 93-28

Supreme Court of Wyoming

Sept. 28, 1994

Owner ... petitioned ... competing well sought judicial review of Oil and Gas Conservation Commission's report approving well secondary recovery unit operator's application to add land, including competing well, to unit and denying owner's application for special order to protect owner's correlative rights. The District Court, Natrona County, Dan Spangler, J., certified case for review. The Supreme Court, Macy, J., held that: (1) Commission did not impermissibly act in arbitrary and capricious manner when it changed its interpretation of statute governing application to add land to oil and gas interests unit such that consent of only 80%, rather than 100%, of cost-bearing and noncost-bearing interests in both original unit and land to be added to unit had to be obtained for addition of new land to previously established unit, and (2) Commission did not retroactively apply its new interpretation of statute.

Affirmed.

1. Mines and Minerals ⇐92.79

Oil and Gas Conservation Commission did not impermissibly act in arbitrary and capricious manner when it changed its interpretation of statute governing addition of land to oil and gas interests unit such that consent of only 80%, rather than 100%, of cost-bearing and noncost-bearing interests in both original unit and land to be added to unit had to be obtained for addition of new land to previously established unit, despite contention that sudden, abrupt change in policy would have significant impact in oil and gas industry. W.S.1977 § 30-5-110(h, j).

2. Mines and Minerals ⇐92.16

Oil and Gas Conservation Commission is legally required to enforce law as it has been drafted by legislature.

3. Mines and Minerals ⇐92.79

Oil and Gas Conservation Commission did not retroactively apply, to application for addition of new land to oil and gas interests unit, its new interpretation of statute governing application to add land to unit, such that consent of only 80%, rather than 100%, of cost-bearing and noncost-bearing interests in both original unit and land to be added to unit had to be obtained for addition of new land to previously established unit, where Commission announced new interpretation almost two months before full hearing on application to expand unit. W.S.1977, § 30-5-110(h, j).

4. Mines and Minerals ⇐92.16

Oil and Gas Conservation Commission is under affirmative legal duty to implement laws which are adopted by legislature.

Tab 21a

new interpretation of the statute on July 13, 1993. The full hearing on North Finn's application to expand the unit and on Cook's application for protection of his correlative rights was not held until September 8, 1993. A statute has not necessarily been applied retroactively because it has relied upon antecedent facts for its operation. *BHP Petroleum Company, Inc. v. State*, 784 P.2d 621, 626 (Wyo.1989) (quoting *Belco Petroleum Corporation v. State Board of Equalization*, 587 P.2d 204, 210 (Wyo.1978)). *See also Amoco Production Company v. Hakala*, 644 P.2d 785, 788 (Wyo.1982).

By conducting a full hearing on the expansion of the Unit in September 1993, the Commission gave Cook precisely the relief which he requested at the July 13, 1993, hearing:

> [L]et's assume for a second that [the Commission] adopted the 80 percent total, just so [the Commission] know[s] before [it] go[es] to lunch and the record is clear, we will ask [the Commission] to make that a prospective decision and not include this North Carson Unit, because, as [the Commission] say[s] accurately in [its] notice, historically the [C]ommission has taken the [position] that [it] do[es] not have the authority to add lands to an established unit unless 100 percent of all parties agree, ***and/or, either [the Commission] appl[ies] the 100 percent to the North Carson Unit or [it] reopen[s] the hearing on that unit to see if the addition is feasible, if it's economic[al], if Mr. Cook is being treated properly and so on.***

(Emphasis added.)

Affirmed.

C.H. RUWART, Jr.; C.H. Brown Motors, Inc.; and Bob Ruwart Motors, Inc., Appellants (Defendants),

v.

Janet S. WAGNER and Ernest L. Wagner, Appellees (Plaintiffs).

No. 93–185.

Supreme Court of Wyoming.

Aug. 31, 1994.

Buyers involved in failed new car purchase including trade-in of their old vehicle brought action against car dealership defendants for conversion. The District Court, Platte County, John T. Langdon, J., retired, entered default judgment as to liability and subsequently awarded damages. Defendants appealed. The Supreme Court, Golden, J., held that: (1) Supreme Court's dismissal, as untimely, of defendants' previous appeal from order denying motion to set aside default judgment granted as discovery sanction did not prevent consideration of defendants' arguments concerning sanctions in instant appeal following final judgment; (2) default judgment entered against defendants as discovery sanction was void for failure to comply with three-day notice requirement; (3) trial court's determination that car dealership defendants had supplied deficient information and documentation regarding repair bill, radiator damage, and disposal of plaintiffs' vehicle, and that defendants had not deposited with clerk of court funds received by auctioneer for sale of plaintiffs' vehicle, were not supported by record on appeal and, thus, trial court's denial of motion to set aside default judgment imposed as sanction was abuse of discretion; and (4) portion of attorney fees relating to order compelling discovery would be vacated, as trial court did not make requisite award following its issuance of order compelling discovery.

Reversed and remanded.

Cardine, J., filed dissenting opinion in which Taylor, J., joined.

quire at least some attempt to test available production to the north, west or south of the original pilot project? Once the pilot project was abandoned, would a prudent operator have attempted another pilot water injection project in some other location on the unit? Is it prudent for an operator of a unit this large to sit for ten years pumping six wells—five of them clustered together—while leaving large areas untried? Are the six wells now being pumped adequate to produce the oil underlying the entire 5800 acres, much of which is over a mile from the nearest well? Does such an operation prevent waste, conserve oil and gas and protect the correlative rights of *all* of the persons entitled to share in the production from this unit?

The Corporation Commission did not address these or like issues in its final order in this proceeding; rather, it based its denial of dissolution solely upon the original Plan of Unitization, allowing the present operator sole discretion to determine whether or not this unit shall continue. This resolution by the Corporation Commission is not in the public interest, is not authorized by statute, and cannot be viewed in any sense as protective of the interests of those persons who are entitled to share in the production of this unit except one—the holder of the working interest. The Corporation Commission cannot delegate its statutory authority and responsibilities to the owner of the working interest. Voluntary termination by the working interest owner is but an alternative method of termination. That alternative remains open to the working interest owner under the Plan of Unitization and under the Corporation Commission's order of May 24, 1968. However, the Corporation Commission remains the ultimate authority and may terminate compulsory unitization if it determines that unit operations are not being carried on in a prudent manner, or that the purposes of the act, as set forth in K.S.A. 55-1301, cease to be served.

The judgment is reversed and this case is remanded to the district court with directions to remand the matter to the Corporation Commission for further proceedings consistent with this opinion.

HERD, J., not participating.

234 Kan. 1016

Charles W. WEINZIRL, Appellee/Cross-Appellant,

v.

The WELLS GROUP, INC., Appellant/Cross-Appellee.

No. 55731.

Supreme Court of Kansas.

Feb. 18, 1984.

Sales representative, who voluntarily terminated his employment, made a claim to the Department of Human Resources for the balance of his commissions earned but not yet paid upon his termination. The Department determined that the representative was entitled to the payment of the commissions and statutory penalties for employer's failure to pay the disputed commissions. Upon review, the District Court, Saline County, Morris V. Hoobler, J., upheld the award of the commissions but reversed the imposition of the statutory penalties and refused to award prejudgment interest claim by representative for the first time upon review. Representative and employer appealed. The Supreme Court, Lockett, J., held that: (1) employment contract provision allowing employer to withhold commissions earned but not yet paid upon termination as liquidated damages could not be upheld; (2) continued servicing of employer's clients was not a "condition precedent" to representative's receipt of commissions earned but not yet paid upon his termination; (3) representative was not entitled to commissions for contracts being negotiated but not sold at

process of unitizing the area, centralizing management, pumping a few wells, and dividing the royalty proceeds according to schedule; it must also mean the good faith operation and prudent development of the unit.

[8] The Supreme Court of Arkansas, in *Christmas v. Raley*, 260 Ark. 150, 539 S.W.2d 405 (1976), held that the implied covenant to develop applies to unitized oil operations even when unitization is compulsory, and breach of that covenant is a ground for dissolution of the unit and cancellation of the leases. We agree. Kansas, like Arkansas, has long recognized that there is imposed by law upon an oil and gas lessee an implied covenant to reasonably develop the lease. This covenant is measured by the "reasonably prudent operator test." See K.S.A. 55–223; *Rush v. King Oil Co.*, 220 Kan. 616, 627, 556 P.2d 431 (1976); *Shaw v. Henry*, 216 Kan. 96, Syl. ¶¶ 1, 2, 531 P.2d 128 (1975); *Stamper v. Jones*, 188 Kan. 626, 631, 364 P.2d 972 (1961); *Renner v. Monsanto Chemical Co.*, 187 Kan. 158, 166, 167, 168, 354 P.2d 326 (1960); and *Baker v. Huffman*, 176 Kan. 554, 271 P.2d 276 (1954). In *King Oil* we said:

> "Under the implied covenant of reasonable development when oil in paying quantities becomes apparent and the number of wells to be drilled on the lease is not specified, there is an implied obligation on the lessee to continue development of the leased premises by drilling as many wells as reasonably necessary to secure the oil for the common good of both the lessor and the lessee." Syl. ¶ 1.
>
> "Under the prudent operator test the lessee must continue reasonable development of the leased premises to secure the oil for the common advantage of both lessor and lessee and may be expected and required to do that which an operator of ordinary prudence would do to develop and protect the interests of the parties." Syl. ¶ 3.

The owner of an individual tract has the right to expect his lessee to prudently develop that tract under an oil and gas lease. When, however, the tract becomes unitized by order of the Corporation Commission, operations conducted pursuant to the order of the Corporation Commission providing for unit operations "constitute a fulfillment of all the express or implied obligations of each lease ...." K.S.A. 55–1306. We hold that the implied covenant to develop, measured by the reasonably prudent operator test, applicable to lessees of individual leases, is equally applicable to the operators of unitized leases.

[9] The Corporation Commission has statutory authority to amend or modify its unitization orders, and to terminate unit operations. K.S.A. 55–1305. It is the regulatory body which has expertise in the field, which has competent staff advisors, and which may employ consultants when that becomes necessary. K.S.A. 55–1309. The commission is in the best position, when called upon to do so, to determine whether "unit operations" upon statutorily unitized oil and gas leases are being carried on in good faith and whether the unit is being prudently operated and developed. When applications are filed with the commission to terminate a unit, the critical issue is whether "unit operations" were those of a reasonably prudent operator *at the time the application was filed.* Such a determination must be made if the correlative rights of all parties entitled to share in the production are to be protected. It is the duty of the Corporation Commission to protect those rights.

[10] Has the operator in this case exercised good faith and has it operated and developed the entire unit as a prudent operator would? The plat of the 5800 acres in this unit discloses that there is not one well on the west 2880 acres, not one well on the north 1240 acres, not one well on the south 1200 acres. Assuming that the pilot injection project in the northeastern portion of the unit pushed the oil in more than one direction from the location of the initial injection wells, would prudent operation require attempts at production in directions other than southeast of the pilot project? Would prudent development of the unit re-

ing interest owners did not agree to that plan. Unitization was forced upon those people in 1968 under the original proceeding conducted pursuant to K.S.A. 55–1301 *et seq.* The Plan of Unitization, however fair in its provisions as to the workings and operation of the unit, is not a contract which may be enforced against those interest holders who did not agree to its terms and who were included in the unit against their will. The unit in this case is not one created by contract; it is one imposed by the Corporation Commission under authority of law.

[4, 5] Both the Corporation Commission and the district court denied dissolution of the unit solely because of provisions in what they viewed as the "contract." But by no stretch of the imagination can the unwilling interest holders be considered parties to a unitization "contract." Only the Corporation Commission can impose unitization upon unwilling interest holders and then only pursuant to the statutes designated above. As Chief Justice Schroeder observed in his dissent in *Mobil Oil Corp. v. Kansas Corporation Commission*, 227 Kan. 594, 610, 608 P.2d 1325 (1980), "[T]he Commission's authority to *compel* unitization is governed strictly by statute." (Emphasis in original.) After notice and hearing, if the unit application complies with all statutory requirements and if the commission makes the required findings, the commission may order unit operation and compel unitization on the non-signing 25% royalty owners. Though they are bound by the unitization order, the non-signing owners cannot be compelled to sign a "contract."

[6] In this case, the commission's original order provides that the unitization should continue "so long as unitized substances are produced in paying quantities and as long as unit operations are conducted ...." The phrase, "in paying quantities," has a generally accepted meaning in oil and gas cases. It refers to the production of sufficient quantities of oil or gas to yield a profit to the lessee over its operating expenses, even though the drilling costs, or equipping costs, are never recovered and even though the undertaking as a whole may result in a loss to the lessee. See *Pray v. Premier Petroleum, Inc.*, 233 Kan. 351, Syl. ¶ 5, 662 P.2d 255 (1983), and *Texaco, Inc. v. Fox*, 228 Kan. 589, 593, 618 P.2d 844 (1980). The petitioners apparently agree that Misco is producing oil in paying quantities, *i.e.*, that the twenty-four barrels of oil a day, when sold at the current market price, produce sufficient revenue to pay Misco's operating expenses and yield a profit.

[7] The original order also provides that operations shall continue "as long as unit operations are conducted ...." "Unit operations" do not appear to be defined either by statute or by prior case law. Does the mere production of a few barrels of oil from one well on a unitized acreage and the payment and division of the resulting royalties among all of those interest holders who have some right thereto constitute unit operations? If, for example, Misco could pay its operating expenses and perhaps even make a small profit from one well producing two barrels a day, and thus establish that it was recovering oil in paying quantities, and if at the same time it divided the royalties therefrom among the myriad owners of royalty interests in the 5800 acres comprising the Nichols unit, would such activity constitute "unit operations"? We think not.

Unit operation is said to represent development and operation of an oil pool as a unit. It involves the consolidation or merger of all of the interests in the pool and the designation of one or more of the parties as operator. This method of development will permit the location of wells so as to secure the most scientific use of the natural reservoir energy in the production of oil and gas by primary recovery methods. See *Campbell v. Fields*, 229 F.2d 197, 199, 200 (5th Cir.1956). It would also include the location of both induction and production wells so as to secure the most scientific use of artificial energy in the production of oil and gas by secondary or tertiary recovery. "Unit operation" must mean not only the

was originally decreed. Instead, it found that Article 26, section 26.1, of the original Plan of Unitization provided that the unit would continue in effect until at least 65% of the working interest group owners determine that unitized substances can no longer be produced in paying quantities or that unit operations are no longer feasible; that the working interest owners (Misco) had not made that determination; and that, therefore, the order for unitization must remain in effect *until such time as the determinations as set forth in Article 26, section 26.1, of the Unitization Plan are met.*

[2] The cessation of water flooding does not automatically require the dissolution of a unit established under 55–1301 *et seq.* The introduction of artificial energy into a reservoir is intended to move the recoverable hydrocarbons from place to place, and, one hopes, to move them away from the water injection wells and toward the producing wells, thus increasing recovery. The initial injection of large quantities of water into an oil-bearing strata may move the oil to positions where it can thereafter be recovered through ordinary or primary recovery methods. Under the Plan of Unitization approved by the Commission, the operator may change its method of operation from time to time; and the Commission found that the cessation of water injection in 1971 followed good engineering practice. The evidence supports this finding. (The evidence does not indicate whether the *continuance* of this method of production since 1971, and the reduction of the number of producing wells to six, follows good engineering practice and constitutes prudent development of the unit. The Commission made no finding in this regard.)

We hold that the mere cessation of water injection does not, in itself, require the dissolution of the unit.

II. MAY THE AUTHORITY TO TERMINATE A COMPULSORY UNIT BE DELEGATED TO THE OWNER OF THE WORKING INTEREST?

The final issues are whether the Corporation Commission erred in ruling that the unit would continue until the working owner, Misco, terminated it, and whether the Corporation Commission improperly delegated to the working interest owner the authority to determine when unitization would terminate. We will consider these together.

The purposes of the compulsory unitization act, as set forth in K.S.A. 55–1301, are to prevent waste, to further the conservation of oil and gas, and to protect the correlative rights of persons entitled to share in the production thereof. The Corporation Commission did not make specific reference to these purposes in its order of June 1982 denying petitioners' request that the unit be terminated. Instead, the Corporation Commission's order is based upon the provisions of the Plan of Unitization that provide for termination. As shown above, those provisions give the power to terminate to Misco, since it owns all of the working interest. Its witnesses "established that Misco believes that unit operations are feasible and in fact necessary to the ultimate recovery of the hydrocarbons underlying the unit." The commission held that because Misco determined that unitized substances could still be produced in paying quantities and that there was still production from the unit, the order for unitization *must* remain in effect until Misco or some subsequent working interest owner makes contrary determinations, under the provisions of the Plan of Unitization. The district court went further and held that the Plan of Unitization was *contractual and binding* upon the surface (royalty or mineral interest) owners and their successors in interest, and that the unit must continue until the working interest owner determines otherwise pursuant to the plan.

[3] The original Plan of Unitization was not a contract between *all* of the royalty and mineral interest owners and *all* of the working interest owners. Approximately 19% of the royalty and mineral interest owners and a smaller portion of the work-

by the commission if it finds that (1) "primary production from a pool or a part thereof sought to be unitized has reached a low economic level and, without introduction of artificial energy, abandonment of oil or gas wells is imminent"; *or* (2) "the unitized management, operation and further development of the pool ... is economically feasible and reasonably necessary to prevent waste within the reservoir and thereby increase substantially the ultimate recovery of oil or gas ...."

[1] The 1968 order of the corporation commission included both findings, stated in separate sentences in paragraph No. 4, quoted in full above. Thus, the commission made two findings which would support and authorize its unitization order: The need for the introduction of artificial energy; and the need for unitized management, operation and development to prevent waste. The separation of the two distinct findings in the statute by a semicolon and the conjunction "or" clearly shows that the legislature intended that compulsory unitization could be imposed by the corporation commission upon *either* finding—need for introduction of artificial energy *or* the need for unitized management, operation and development. This has been the interpretation followed by at least one commentator on the statute. Professor Ernest E. Smith, commenting in *The Kansas Unitization Statute: Part I,* 16 Kan.L.Rev. 567 (1968), says:

> "Under the terms of the Kansas statute two types of field conditions will warrant the issuance of a unitization order. The first field condition is met when 'the primary production from a pool or a part thereof sought to be unitized has reached a low economic level and, without introduction of artificial energy, abandonment of oil or gas wells is imminent.' The second exists whenever 'the unitized management, operation and further development of the pool or the part thereof sought to be unitized is economically feasible and reasonably necessary to prevent waste within the reservoir and thereby increase substantially the ultimate recovery of oil or gas.' In general, the first field condition seems to contemplate a pool which is ripe for unitized secondary recovery operations, and the second, a pool which will be less wastefully and more economically operated under a unit plan during the primary stage of its development. However, the definitions of the field conditions seem to overlap considerably; and, upon closer examination, it is not clear whether they are in fact referring to two different types of relatively uncommon situations or whether, together, they were intended to permit unitization of virtually every reservoir in the state. The latter interpretation seems the more likely one.
>
> ....
>
> "The problem of defining the precise scope of the first field condition warranting a unitization order may, however, be largely academic; for the second type of field condition which warrants such an order is defined so broadly that it may very well include every oil and gas field in the state, and apply to both primary and secondary recovery operations. According to the statute a unitization order may be issued if the commission finds that 'the unitized management, operation and further development of the pool or the part thereof sought to be unitized is economically feasible and reasonably necessary to prevent waste within the reservoir and thereby increase substantially the ultimate recovery of oil and gas.' In virtually every reservoir, waste can be prevented and the ultimate recovery of oil and gas substantially increased through a program of unitization, whether it is begun immediately after discovery as a part of primary development or as a secondary recovery operation at a time when primary production has almost played out. The only question may concern the economic feasibility of unitized operations in a particular field." 16 Kan.L.Rev. at 569, 573–74.

We point out, however, that the Corporation Commission in its 1982 order did not find that unitization must continue for either of the reasons for which unitization

plan, no review of its propriety need be made.

"B. The Defendants and Respondents moved for a Summary Affirmance of the Commission's Order contending that the District Court is restricted, in its scope or review, to considering whether, as a matter of law, the administrative agency, here the Corporation Commission, acted fraudulently, arbitrarily, or capriciously, whether the Administrative Order was substantially supported by evidence, and whether the tribunal's action was within the scope of its authority. The authorities cited by the Defendants have recognized this to be the scope of judicial review of administrative action in numerous instances, however, these authorities are based on the assumption that there is no contrary legislative provisions. (See *Micheaux v. Amalgamated Meat Cutters and Butcher Workmen*, 231 *Kan.* 791, and, particularly, p. 794 [648 P.2d 722].) Here the scope of review is established by statute set out in K.S.A. 55–606, which provides as follows:

> 'Any rule, regulation, order or decision of the Commission may be superseded by the District Court upon such terms and conditions as it may deem proper... The Court shall not be bound by any finding of fact made by the Commission. 'The authority of the Court shall be limited to a judgment, either affirming or setting aside in whole, or in part, the rule, regulation, order, or decision of the Commission,'

thus establishing a scope of review as being de novo on the record. With this scope of review a summary affirmance would be inappropriate.

"C. *The provisions of the unitization plan which were originally agreed upon concerning the term of the plan and the method of termination are contractual and binding upon the original surface owners and their successors in interest so long as the continued enforcement and execution of the contract does not contravene public policy.* In fact, the evidence of MISCO Industries supports the conclusion that the ongoing unit operation is necessary to prevent the waste of the hydrocarbons underlying the unit and subject only to secondary recovery operations which complies with the public policy declared by the legislature in establishing the unitization procedure.

"D. *In the absence of a showing that the conditions for termination of the plan have been met, unitized operations pursuant to the plan must continue in effect until such time as the determinations required by Article 26, Sec. 21.1 of the plan are made.*

"E. No conclusion or finding in this order should be construed as any indication of this Court's approval or disapproval of planned and prospective operations of MISCO or any assignee in any other formation under the Nichols Unit. These conclusions are restricted to secondary recovery procedures or operations within the Mississippi Chert formation in the Nichols Unit.

"F. Because of the above findings and conclusions the order of the Corporation Commission dated June 3, 1982, is hereby affirmed." (Emphasis supplied.)

I. WHETHER THE UNIT *MUST* BE DISSOLVED SINCE WATER INJECTION HAS CEASED

Petitioners contend that the unit was created for the sole or at least the primary purpose of secondary recovery operations, and that since secondary recovery operations ceased in 1971, the unit *must* be dissolved. The original Plan of Unitization, circulated among and approved by more than 75%—but less than 100%—of the royalty and mineral interest owners, clearly called for secondary recovery operations by means of water injection. The plan, however, also provided that the working interest owners could discontinue or change the method of operation according to the dictates of good engineering or production practices.

The statute under which compulsory unitization was secured, K.S.A. 55–1304, quoted at length earlier in this opinion, provides that unitization may be imposed

ols Unit, comprised of approximately 5800 acres, was fast becoming uneconomical to operate due to decreasing production. The *Unitization Plan* specified that secondary production could be stimulated by the injection of an artificial energy source into the Mississippi Chert Pool, and *was approved by the then current surface owners and working interest owners.* The plan was authorized by the Commission's Order. It was executed by the injection of 6.2 million barrels of water into the Mississippi Chert Reservoir, but notwithstanding Gulf's best scientific and technical estimates, the plan was a failure. Gulf substantially abandoned the water injection and secondary flooding program in 1971 and negotiated a sale of its interest in the Nichols Unit to MISCO, the present working interest owner.

"3. MISCO, apparently, is primarily a salvage company specializing in buying and selling used oil field exploration and production equipment. It purchased the Gulf interest and proceeded to commence a salvage program plugging numerous wells, dismantling and removing most all of the tank batteries, and other production equipment for resale. It terminated the water injection program because of economic infeasibility due to the then current crude oil price of $3.00 per barrel.

"4. All production from the Nichols Unit continued to decline until 1975 when a small "kick" increased production. MISCO made no effort to drill any other wells to explore any other formations or continue any additional exploration in the Mississippi Chert until sometime in 1981. During the intervening 10 years, the price of crude oil had increased to approximately $40.00 per barrel. MISCO continued to operate the 6 wells that are still producing on the unit which, during the first 10 months of 1981, produced less than 25 barrels of oil per day.

"5. The record also reflects that during this time period production payments were apportioned under the plan to the original surface owners and their successors in interest. Other companies are interested in making further exploration into the unit, both for purposes of primary and secondary recovery. Agreements have been reached between MISCO and Murfin Oil whereby Murfin would reimplement a secondary water flooding program. Another agreement has been reached between MISCO and Vincent, whereby Vincent would explore for primary production in other formations beside the Mississippi Chert.

"6. The 25 barrels per day production constitutes a unitized substance being produced as contemplated by the Commission's Order originally.

"7. *The unit operating agreement provides that termination shall occur only upon a determination that unitized substances can no longer be produced in paying quantities or that unit operations are no longer feasible. This determination must be made by vote of at least 65% of the working interest owners.* There is no evidence that either of these conditions for termination have been fulfilled.

"8. Pursuant to the plan of unitization in Sec. 4.2, the operative methods may be changed, or discontinued, when the working interest owner determines that current operations are no longer in accordance with good engineering and production practices. Nothing in the record contends that the termination of the water flood operation in 1971 was not in accordance with good engineering and production practices. The evidence in the record does suggest that due to technological developments in the field of secondary water flooding, production could probably be enhanced if these new techniques are implemented within the Mississippi Chert Reservoir.

"9. The record is silent as to the effects of the current secondary water flood proposal upon possible oil and gas available for primary production in other formations than the Mississippi Chert.

"Conclusions of Law

"A. Since there is no challenge to the original authorization of the unitization

Phase II consisted of secondary production. Under the agreement Phase II participation began April 1, 1969. Under Phase II participation all interested owners are paid royalties according to the percent of their interest in the unit.

"8. Article 4 of the Plan of Unitization addresses the plan of operation. Section 4.2 entitled change of operating methods, allows the working interest owner to discontinue or modify the method of operation of the unit, when in its opinion the current operations are no longer in accordance with good engineering and production practices. Protestant Misco Industries contend that the cessation of waterflood activities were in accordance with good engineering practice. None of the parties challenged this position.

"CONCLUSIONS OF LAW

"1. Article 13 of the Kansas Statutes Annotated authorizes the Commission to issue orders for unitization upon the filing of a proper application and a finding that certain statutorily required conditions exist. (K.S.A. 55–1303 and 1304).

"2. The Commission's order of unitization effective June, 1968, sets out the terms and conditions by which the unit was to be operated and prescribes a plan for unit operation as required by K.S.A. 55–1305. This plan for unit operation is set forth in the Plan for Unitization for the Nichols Unit, Kiowa County, Kansas. This plan was made a part of the Commission's order.

"3. Article 26 of the Unitization Plan (page 15) sets out the term of the unit. 26.1 provides that

'*Term.* The unit and this Plan of Unitization shall continue in effect until the working interest owners group by vote of at least sixty-five percent (65%) of the voting interest determines that unitized substances can no longer be produced in paying quantities or that unit operations are no longer feasible.'

Testimony of witnesses for Misco Industries, the working interest owner, established that Misco believes that unit operations are feasible and in fact necessary to the ultimate recovery of the hydrocarbons underlying the unit.

"[4]. *The Commission finds that because the voting interest in the unit (working interest owners) have not determined that unitized substances can no longer be produced in paying quantities and there is still production from the unit, the order for Unitization for the Nichols Unit, Kiowa County, Kansas, shall remain in effect until such time as the determinations as set forth in Article 26, Section 26.1 are met.*

"IT IS, THEREFORE, BY THE COMMISSION ORDERED that the application of certain landowners for an order dissolving the Nichols Unit be and the same is hereby denied.

"The Commission retains jurisdiction of the subject matter and the parties for the purpose of entering such further order or orders as from time to time it may deem proper." (Emphasis supplied.)

After oral argument, an application for rehearing was denied by the commission on July 29, 1982.

Petitioners appealed to the district court, which affirmed. The district court's findings of fact and conclusions of law are as follows:

"Findings of Fact

"1. The Plaintiffs', being the landowners, filed an application with the State Corporation Commission in September of 1981 seeking to dissolve a Commission Order dated May 24, 1968, which unitized about 5800 acres for the purpose of water flooding to stimulate secondary production of oil from the Mississippi Chert formation under the Nichols Unit in Kiowa County, Kansas. The application was denied and after rehearing oral argument, the denial was repeated. Plaintiffs have appealed under K.S.A. 55–606.

"2. The record reflects that unitization plan was approved upon the application of Gulf Oil in 1969, specifying that the Nich-

ing water and/or gas into the Unitized Formation.

"4.2 *Change of Operating Methods.* Nothing herein shall prevent the Working Interest Owners Group from discontinuing or changing in whole or in part any method of operation which, in its opinion, is no longer in accord with good engineering or production practices. Other methods of operation may be conducted or changes may be made by the Working Interest Owners Group from time to time if determined by it to be feasible, necessary, or desirable to increase the ultimate recovery of Unitized Substances."

"Unitized Substances" were defined in a preceding section of the plan:

"1.4 *Unitized Substances* (unit production) means all Oil and Gas within or produced from the Unitized Formation."

"26.1 *Term.* The Unit and this Plan of Unitization shall continue in effect until the Working Interest Owners Group by vote of at least Sixty-Five percent (65%) of the voting interest determines that Unitized Substances can no longer be produced in paying quantities or that Unit Operations are no longer feasible."

At the time of the 1968 unitization hearing, it was estimated by experts that waterflooding would produce a total of almost three million barrels of oil during the years 1968 through 1979. Actual production amounted to a little over 200,000 barrels, almost half of that produced prior to June, 1971. Plaintiffs point out that at the present rate of production it will take almost 300 years for the wells to produce the remaining 2,800,000 barrels of oil.

After the commission entered the unitization order, Gulf, as operator, commenced a *pilot* waterflood project, located approximately in the center of the north half of the Nichols unit. Between January 1969 and June 1, 1971, Gulf injected over 6.4 million barrels of water into the formation. The pilot project did not work as well as expected, and Gulf and all of the other working interest owners sold their interests to Misco Industries, Inc., and it took over operations on about June 1, 1971. Misco has since been the sole working interest owner and sole operator of the unit. Almost simultaneously with the takeover, Misco ceased water injection, and there has been no injection of water or other repressuring since that time. When Misco took over, there were some seventy-nine wells located on the 5800 acres, including twenty-five producing oil wells, one gas well, some forty temporarily abandoned oil wells, several injection wells, and a water well. There were tank batteries on most of the separately owned tracts. Misco, a large part of whose business consists of salvaging oil field equipment, pulled the pipe and plugged approximately seventy-three of the wells, leaving only six producing oil wells from which production has been continuous since 1971. Misco removed almost all of the tanks, pipe and equipment from the entire unit. During the Misco years, only three new wells have been drilled, and all were unsuccessful. Misco has never worked over any of the producing wells. Production, which was in the neighborhood of sixty-five barrels per day when Misco took over in 1971, averaged about twenty-four barrels per day during the first ten months of 1981, immediately prior to the commencement of this proceeding.

The petitioners, owners of all royalty and mineral interests in the 5800-acre Nichols Unit, except for those attached to one 160-acre tract, filed an application with the State Corporation Commission on September 10, 1981, seeking an order of the commission dissolving the unit. An evidentiary hearing was held before a hearing examiner on March 16, 1982, and by order entered June 3, 1982, the commission denied the application. After stating several findings of fact, most if not all of which are undisputed, the rest of the commission's order reads:

"7. Under the terms of the unit operations agreement, which was incorporated in the order, the participation in the unit was divided into two phases. Phase I consisted of primary production and

> Operations conducted pursuant to an order of the commission providing for unit operations shall constitute a fulfillment of all the express or implied obligations of each lease or contract covering lands in the unit area to the extent that compliance with such obligations cannot be had because of the order of the commission."

The remaining sections of the act provide for enlargement of the area, creation of new units, taxation, recording, and other matters not germane to this litigation.

On April 22, 1968, Gulf Oil Corporation filed an application for unitization of the Nichols pool. The application contains the following:

> "3. The type of operations contemplated for the unit area is secondary oil recovery operations ... by repressuring the formation with the injection of water.
>
> ....
>
> "5. That the primary production from the Nichols pool underlying the lands hereinabove described has reached a low economic level, and without the introduction of artificial energy, abandonment of the oil wells in the Nichols pool is [imminent]. The unitized management and operation of the Nichols pool is economically feasible and reasonably necessary to prevent waste within the reservoir and thereby increase substantially the ultimate recovery of oil and gas."

The Kansas Corporation Commission, after hearing, entered an order on May 24, 1968, providing for unitization of the Nichols pool in Kiowa County. Following the requirement of K.S.A. 55–1305, the commission found that the plan for unit operations was approved in writing by those required to pay at least 75% of the costs of the unit operation, and also by owners of at least 75% of the production or proceeds which are free of costs such as royalties. In language consistent with the application's statement of purpose, and with the requirements of K.S.A. 55–1304, the commission also found:

> "3. The Pool, or formation, involved is the Mississippi Chert formation and *the type of operation contemplated for the unit is a fluid repressuring and waterflooding or secondary recovery operation* for the purpose of enhancing and increasing the ultimate recovery of oil from land within the Unit Area ....
>
> "4. The primary production from the Nichols Pool underlying the above described unit area, and which is sought to be unitized, has reached a low economic level of production and *without the introduction of artificial energy, abandonment of oil wells is imminent. In addition the unitized management, operation and further development of the pool sought to be unitized is economically feasible and reasonably necessary to prevent waste within the reservoir* and thereby increase substantially the ultimate recovery of oil." (Emphasis supplied.)

The order concluded that operations should:

> *"continue for so long as unitized substances are produced in paying quantities, and as long thereafter as unit operations are conducted, unless sooner terminated by the working interest owners in the manner provided in the Unit Agreement and the Unit Operating Agreement."* (Emphasis supplied.)

What the order refers to as the "Unit Agreement" is apparently the "Plan of Unitization," which was approved in writing by the owners of over 75% (but less than 100%) of the working interests and the owners of over 75% (but less than 100%) of the royalty and mineral interests, and which was presented to the commission at the initial hearing upon Gulf's application for unitization. The "Plan of Unitization" contains, *inter alia*, the following provisions:

> "4.1 *Operating Methods.* To the end that the quantity of Unitized Substances ultimately recoverable may be increased and waste prevented, the Unit Operator, under direction of the Working Interest Owners Group, shall, with diligence and in accordance with good engineering and production practices, conduct secondary recovery operations by means of inject-

production thereof, the commission shall for said purposes have ... the further jurisdiction, powers and duties conferred or imposed upon it by this act."

K.S.A. 55–1302 defines certain terms. "Pool" is defined as an underground accumulation of oil and gas in a single and separate natural reservoir characterized by a single pressure system so that production from one part of the pool affects the reservoir pressure throughout its extent. "Waste," in addition to its meaning as used in those portions of chapter 55 dealing with the production and sale of crude oil or petroleum and with the production and conservation of natural gas, is defined to mean both economic and physical waste resulting from the development and operation separately of tracts that can best be operated as a unit.

K.S.A. 55–1303 provides for the filing of applications with the commission requesting an order for the unit operation of all or part of a pool, prescribes the contents of the petition, and requires the commission to set the matter for hearing and cause notice to be given.

K.S.A. 55–1304 empowers the commission to make an order providing for the unitization and unit operation of the pool if, upon the hearing of the application, the commission finds that three conditions exist:

"(a) The primary production from a pool or a part thereof sought to be unitized has reached a low economic level and, without introduction of artificial energy, abandonment of oil or gas wells is imminent; or the unitized management, operation and further development of the pool or the part thereof sought to be unitized is economically feasible and reasonably necessary to prevent waste within the reservoir and thereby increase substantially the ultimate recovery of oil or gas;

"(b) that the value of the estimated additional recovery of oil or gas substantially exceeds the estimated additional cost incident to conducting such operations;

"(c) that the proposed operation is fair and equitable to all interest owners ...."

K.S.A. 55–1305 requires that the commission's order for unitization prescribe a plan for unitization, which plan must include many enumerated items. Those of interest here are:

"(b) a statement of the nature of the operations contemplated;

....

"(j) the time when the unit operations shall commence and the manner in which, and the circumstances under which, the unit operations shall terminate and for the settlement of accounts upon such termination;

....

"(l) such additional provisions that are found to be appropriate for carrying on the unit operations and for the protection of correlative rights.

....

"An order providing for unit operations may be amended by the commission in the same manner and subject to the same conditions as are necessary or required for an original order providing for unit operations ....

....

"An order may provide for the unit operation of less than the whole of a pool where the unit area is of such size and shape as may be reasonably required for that purpose, and the conduct thereof will have no material adverse effect upon other parts of the pool."

The following section, K.S.A. 55–1306, provides in part:

"All operations, including, but not limited to, the commencement, drilling, or operation of a well upon any part of the unit area shall be deemed for all purposes the conduct of such operations upon each separately owned tract in the unit area by the several owners thereof. The portion of the unit production allocated to a separately owned tract in a unit area shall, when produced, be deemed, for all purposes, to have been actually produced from such tract by a well drilled thereon.

even though the undertaking as a whole may result in a loss to the lessee.

4. Unit operation of oil and gas leases involves the consolidation or merger of one or more oil and gas leases and the designation of one or more of the parties as operator. It permits the location of induction and production wells so as to secure the most scientific use of natural or artificial energy in the reservoir in the production of oil and gas.

5. The implied covenant imposed upon an oil and gas lessee to reasonably develop and operate the lease, measured by the "reasonably prudent operator test," is applicable to the operator of a unit created by order of the Corporation Commission pursuant to K.S.A. 55–1301 *et seq.*

6. "Unit operation" means not only the process of placing a number of oil and gas leases together, centralizing management, pumping the wells and dividing the royalty proceeds according to schedule; it also means the good faith operation and prudent development of the unit.

7. On the hearing of an application to terminate its order unitizing oil and gas leases pursuant to K.S.A. 55–1301 *et seq.*, the Corporation Commission must determine whether a unit was being operated in good faith, whether it was being prudently developed at the time the application was filed, and whether the purposes of the compulsory unitization act, K.S.A. 55–1301 *et seq.*, continue to be served.

8. When the Corporation Commission has ordered the unitization of oil and gas leases under K.S.A. 55–1301 *et seq.*, it may not delegate to the operator of the unit sole authority to decide when unitization shall terminate.

Gordon Penny, of Chapin, Penny & Goering, Medicine Lodge, argued the cause and was on the brief, for appellant.

Patricia A. Gorham, Asst. Gen. Counsel, Topeka, argued the cause, and Brian J. Moline, Gen. Counsel, Topeka, was with her on the brief, for appellee Kansas Corp. Com'n.

Joseph W. Kennedy, of Morris, Laing, Evans, Brock & Kennedy, Wichita, argued the cause, and Robert W. Coykendall, Wichita, of the same firm, was with him on the brief, for appellees Misco Industries, Inc., and Vincent Oil Corp.

MILLER, Justice:

This is an appeal by the petitioners, the royalty and mineral interest owners, from the district court's affirmance of a Kansas Corporation Commission order denying petitioners' application for the dissolution of the Nichols Unit, a 5800-acre unit created by the Commission in 1968 under the Kansas compulsory unitization law, K.S.A. 55–1301 *et seq.* The issues as framed by the petitioners are: (1) Where the unit was set up by the Corporation Commission for secondary recovery operations, and secondary recovery operations ceased in 1971, was it error for the Corporation Commission to refuse to terminate the unit? (2) Where the Corporation Commission, in its 1968 order setting up the unit, reserved jurisdiction to make further orders, was it error for the Corporation Commission to conclude that the unit would continue until terminated by Misco Industries, Inc.? (3) If the Corporation Commission is correct in its 1982 ruling that the unit continues until the working interest owner decides to terminate the unit, is such delegation of authority to the working interest owner void as beyond the jurisdiction and power of the Corporation Commission?

This is the first time that proceedings under the compulsory unitization law, K.S.A. 55–1301 to –1315, inclusive, have come before this court, and we will therefore discuss the provisions of that act, together with the factual background and the proceedings below, rather fully. The law was enacted in 1967 (L.1967, ch. 299) and has not been amended. The first section of the act, now K.S.A. 55–1301, expresses the legislative purpose. It states:

"[W]ith respect to the prevention of waste and the conservation of oil and gas and the protection of the correlative rights of persons entitled to share in the

6. Mines and Minerals ⇐78.1(8)

Phrase, "in paying quantities," as used in oil and gas cases, refers to production of sufficient quantities of oil or gas to yield a profit to the lessee over its operating expenses, even though the drilling costs, or equipping costs, are never recovered and even though the undertaking as a whole may result in a loss to the lessee.

See publication Words and Phrases for other judicial constructions and definitions.

7. Mines and Minerals ⇐92.78

"Unit operation" of oil and gas leases represents development and operation of an oil pool as a unit, and involves consolidation or merger of all of the interests in the pool, and designation of one or more of the parties as operator, and permits location of wells so as to secure the most scientific use of the natural reservoir energy in the production of oil and gas by primary recovery methods; it means not only the process of unitizing an area, centralizing management, pumping a few wells, and dividing royalty proceeds according to schedule, but also good-faith operation and prudent development of the unit.

See publication Words and Phrases for other judicial constructions and definitions.

8. Mines and Minerals ⇐78.1(7)

Implied covenant imposed upon an oil and gas lessee to reasonably develop and operate the lease, measured by the "reasonably prudent operator" test, is applicable to operator of a unit created by order of the Corporation Commission pursuant to the compulsory unitization law. K.S.A. 55–1301 et seq.

9. Mines and Minerals ⇐92.79

When applications are filed with the Corporation Commission to terminate a unit created under the compulsory unitization law, critical issue is whether "unit operations" were those of a reasonably prudent operator at the time the application was filed, a determination which must be made if correlative rights of all parties entitled to share in production are to be protected; furthermore, it is the duty of the Corporation Commission to protect those rights. K.S.A. 55–1301, 55–1305, 55–1309.

10. Mines and Minerals ⇐92.79

Order of the Corporation Commission denying application of royalty and mineral interest owners for dissolution of 5,800-acre unit created by the Commission under the compulsory unitization law, based solely upon original "plan of unitization," allowing the present operator sole discretion to determine whether the unit should continue, without addressing questions whether the unit was being operated in good faith, whether it was being prudently developed at the time the application was filed, and whether the purposes of the compulsory unitization act continued to be served, constituted an impermissible delegation of the Commission's statutory authority to decide when unitization should terminate. K.S.A. 55–1301 et seq.

Syllabus by the Court

1. Under K.S.A. 55–1304, the Kansas Corporation Commission may impose compulsory unitization if it finds either (1) primary production has reached a low economic level and, without the introduction of artificial energy, abandonment of oil or gas wells is imminent; or (2) that the unitized management, operation and further development of the pool is economically feasible and reasonably necessary to prevent waste within the reservoir and thereby increase substantially the ultimate recovery of oil and gas.

2. The mere cessation of water injection or water flooding does not, in itself, automatically require the dissolution of an oil and gas unit established by order of the Kansas Corporation Commission pursuant to K.S.A. 55–1301 *et seq.*

3. The phrase, "in paying quantities," when used with reference to production of oil or gas, means the production of sufficient quantities of oil or gas to yield a profit to the lessee over its operating expenses, even though the drilling costs, or equipping costs, are never recovered and

entire KCC order was void. As the court found the 3% maximum rate increase provisions reasonable and lawful, it should have modified and set aside the objectionable part of the order which allowed individual carriers to charge less than the maximum rate without filing such lower rates with the KCC. Other arguments made by the parties have been considered and found to be without merit.

The judgment is affirmed in part and reversed in part in conformance with the views expressed in this opinion.

234 Kan. 994

Cleon PARKIN, et al., Appellants,

v.

The STATE CORPORATION COMMISSION OF KANSAS, et al., Appellees.

No. 55693.

Supreme Court of Kansas.

Feb. 18, 1984.

Royalty and mineral interest owners appealed from order of the Corporation Commission denying their application for dissolution of 5,800-acre unit created by the Commission in 1968 under the compulsory unitization law. The District Court, Kiowa County, Jay Don Reynolds, J., affirmed, and royalty and mineral interest owners appealed. The Supreme Court, Miller, J., held that the Corporation Commission's denial of the application, based solely upon original "plan of unitization," allowing present operator sole discretion to determine whether the unit should continue, without addressing questions whether the unit was being operated in good faith, whether it was being prudently developed at the time the application was filed, and whether the purposes of the compulsory unitization act continued to be served, constituted an impermissible delegation of its statutory authority and responsibility to decide when unitization should terminate.

Reversed and remanded with directions.

1. Mines and Minerals ⇐92.78

The Corporation Commission may impose compulsory unitization if it finds either that primary production has reached a low economic level and, without introduction of artificial energy, abandonment of oil or gas wells is imminent, or that unitized management, operation and further development of a pool is economically feasible and reasonably necessary to prevent waste within reservoir. K.S.A. 55-1304.

2. Mines and Minerals ⇐92.78

Cessation of water flooding does not automatically require dissolution of a unit established under compulsory unitization law. K.S.A. 55-1301 et seq.

3. Mines and Minerals ⇐92.78

Plan of unitization imposed by the Corporation Commission under the compulsory unitization law, however fair in its provisions as to workings and operation of the unit, was not a contract which could be enforced against those interest holders who did not agree to its terms and who were included in the unit against their will. K.S.A. 55-1301 et seq.

4. Mines and Minerals ⇐92.78

Only the Corporation Commission can impose unitization upon unwilling interest holders and then only pursuant to governing statutes. K.S.A. 55-1301 et seq.

5. Mines and Minerals ⇐92.79

After notice and hearing, if a unit application complies with all statutory requirements and if the Corporation Commission makes required findings, the Commission may order unit operation of an oil and gas pool and compel unitization on nonsigning 25 percent royalty owners. K.S.A. 55-1301 et seq.

PART IV

IV

UPON HEARING ON THE MERITS HARTMAN WILL SHOW OXY'S VIOLATION OF STATUTE AND COMMISSION ORDERS IN OPERATION OF MLMU

A. Testimony of Professor Bruce M. Kramer, co-author of " The Law of Pooling and Unitization
Tab 22

B. Testimony of Craig VanKirk PH D., chair of the petroleum engineering department Colorado School of Mines
Tab 23

C. Testimony of former Division employees Richard Stamets and Robert Stovall

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6987
CASE NO. 11792

AMENDED APPLICATION OF DOYLE HARTMAN
TO GIVE FULL FORCE AND EFFECT TO
COMMISSION ORDER R-6447, TO REVOKE
OR MODIFY ORDER R-4680-A, TO
ALTERNATIVELY TERMINATE THE
MYERS LANGLIE-MATTIX UNIT,
LEA COUNTY, NEW MEXICO

AFFIDAVIT OF BRUCE M. KRAMER IN SUPPORT OF HARTMAN'S OPPOSITION TO OXY'S MOTION TO DISMISS

STATE OF TEXAS)
) ss.
COUNTY OF LUBBOCK)

Bruce M. Kramer, being first duly sworn on oath, states as follows:

1. My name is Bruce M. Kramer. I reside in Lubbock, Texas. I am the Maddox Professor at Texas Tech University School of Law. I am the author or co-author of numerous articles or treatises on oil and gas, including "The Law of Pooling and Unitization" which I co-authored with Patrick H. Martin. Attached to this Affidavit as Exhibit A is a copy of my Curriculum Vitae.

2. I make this affidavit based upon my experience with the oil and gas industry, my knowledge of the law of pooling and unitization, my study of the pleadings filed of record in this case, my review of copies of various New Mexico Oil Conservation Division files concerning applications for statutory unitization under the New Mexico Statutory Unitization Act, which cases are reflected in the table attached to this Affidavit as Exhibit B, including the file in Case No. 6987, and my review of various Statutory Unitization Acts for the states of New Mexico, Michigan, Kansas, Colorado and Arizona.

3. The testimony stated in this Affidavit is the same as I would give in Court or before the Division under oath if called to testify as a witness in this matter.

4. The New Mexico Statutory Unitization Act authorizes the OCC to compel mineral, royalty or working interest owners to unitize their interests in order to prevent waste, conserve natural resources and protect correlative rights. The New Mexico Legislature has circumscribed the delegation of its police power to the OCC by mandating that the unit agreement or unit operating agreement contain certain specified provisions. One such mandatory provision is listed in § 70-7-7(F) which, when adopted in 1975, required the unit plan to include:

> F. a provision for carrying any working interest owner on a limited, carried or net-profits basis, payable out of production, upon such terms and conditions determined by the division to be just and reasonable and allowing an appropriate charge for interest for such service payable out of the owner's share of production; provided that any nonconsenting working interest owner being so carried shall be deemed to have relinquished to the unit operator all of its operating rights and working interest in and to the unit until his share of the costs, service charge and interest are repaid to the unit operator;

The New Mexico provision appears to have been modeled after the Kansas Unitization Act (Kan.Stat.Ann § 55-1305(g), which was first enacted in 1967.

5. The OCC derives its power from the Legislature. Where the statute uses the term "shall" to describe an action, the OCC powers can only be exercised if such a provision or action is included. The requirements of the statute will supersede the terms of a voluntary unit agreement or unit operating agreement to the extent necessary to protect correlative rights, conserve natural resources and prevent waste. Since the OCC has found that those objectives will be served by the issuance of a statutory unitization order, it must include a "non-consent" provision in its orders, otherwise those objectives will not be achieved. Such a provision may be imposed on the unit agreement or the unit operating agreement if they are otherwise not expressed within the text of those documents.

6. In oil and gas law a "non-consent" provision gives an unleased owner or a working interest owner an option not to participate in drilling, reworking or other operations. By not participating the owner is not liable for the expenses incurred, except out of his or her share of production.

7. Section 70-7-7F. describes a situation which is common in oil and gas unit and/or joint operating agreements whereby a working interest owner is allowed to go "non-consent" and become a carried interest with respect to unit expenses. The term "carried interest" has a well-defined and generally accepted meaning within the oil and gas industry. 8 P. Martin & B. Kramer, Williams and Meyers Oil and Gas Law 135 (1996). Where a working interest owner has the right to go "non-consent" and become carried, that working interest owner is not personally liable for those costs. Id. at 696

(defining the term "nonconsent principle.") Rather, the operator or the working interest owners who have consented to the operation pay the carried interest owner's portion of operating costs and reimburse themselves out of the carried interest owner's share of revenue from oil and gas production. The person or persons advancing costs are described as the carrying parties while the other is described as the carried party. Id. at 138.

8. A basic principle that follows from an owner's status as a carried interest is that he or she is not personally liable for any costs, except out of his or her share of production. It would be inconsistent with this principle to allow the carrying party to sue the carried party for any unpaid pro rata share of the costs to which the carried party has elected to go "non-consent." I am unaware of any authority supporting the proposition that a unit operator or the carrying parties have the right to sue a carried party who has elected to go "non-consent" to recover the carried party's share of expenses.

9. The Myers Langlie-Mattix Unit ("MLMU") was authorized as a statutory unit under New Mexico law by Order R-6447 issued by the New Mexico Oil Conservation Commission ("Commission") on August 27, 1980. (Case No. 6987) That Order specifically found that, as required by statute, the MLMU unit agreements included a provision for carrying any working interest owner on a limited, carried or net-profits basis, payable out of production. The written text of the MLMU unit operating agreement which was presented to the Oil Conservation Commission in Case No. 6987 and filed of record in the Lea County Clerk's Office in 1991 does not contain such a non-consent provision. A copy of Order R-6447 is attached as Exhibit C.

10. The creation of the MLMU as a statutory unit occurred when the unit operator (Getty Oil Company) obtained the requisite 75 percent ratification by both working interest owners and royalty interest owners as required by Section 70-7-8 NMSA 1978. On January 5, 1981, the Secretary of the Oil Conservation Division acknowledged receipt of proof of the statutorily required quantum of ratification and declared "that Commission Order No. R-6447 unitizing all interests in the Myers Langlie-Mattix Unit Area, Lea County, New Mexico, is in full force and effect." Attached to this Affidavit as Exhibit D is a copy of one of the 1980 ratifications of a working interest owner which I understand is typical of all working interest owner ratifications. The owners providing the ratifications acknowledged receipt of copies of Order No. R-6447.

11. Under § 70-7-7F. as implemented through Order R-6447, the right of MLMU working interest owners to go non-consent and become a carried interest is now part of the MLMU Unit Agreement and Unit Operating Agreement. Without such a provision, Order R-6447 would be ultra vires.

12. Once a working interest owner elects to become a carried interest by virtue of Order R-6447, the carrying parties would not have the right to sue the non-consenting working interest owners to recover the share of joint interest billing expenses. They are limited in recovering the non-consenting owner's share of expenses from the owner's share of production.

13. The MLMU unit operating agreement was an earlier version of the 1970 Model Form of Unit Operating Agreement (3rd Edition) issued by the American Petroleum Institute. A copy of that model form, which is included in The Law of Pooling

and Unitization, is attached as Exhibit E. Article 11 is the section which deals with unit expenses. Section 11.6 recognizes and provides for a situation where a working interest owner fails to pay its share of unit expense, authorizing those working interest owners who so desire to advance costs and obtain reimbursement of any costs advanced on behalf of a non-paying working interest owner. The remedies available to paying working interest owners are set forth in Section 11.5 of the Model Form Unit Operating Agreement, which provides the right of paying parties to bring suit and obtain a judgment against the non-paying working interest owner. In that regard, Article 11 of the 1970 Model Form Unit Operating Agreement is not a true carried interest provision. This basic structure of the 1970 form was continued in the 1993 Model Form of Unit Operating Agreements with additional remedies being afforded the parties paying the other owners' share of unit expenses.

14. In March, 1974, the American Petroleum Institute issued its First Edition Model Form of Unit Operating Agreement for Statutory Unitization. This Model Form was developed in response to the adoption by numerous states of Statutory Unitization Acts. A copy of the 1974 Model Form for Statutory Unitization is attached as Exhibit F.

15. Sections 11.5 and 11.6 are the provisions which deal with unpaid unit expense. The 1974 Model Form expressly recognizes the need to insert language in the form to deal with a situation where a working interest owner elects to be "carried or otherwise financed." Kansas, Colorado, Michigan, Nebraska, Oregon, South Dakota and Utah, the states which had such a statutory provision in 1974, are specified in the 1974 Model Form. One year later, in 1975, New Mexico adopted its Act with its non-

consent provision. New Mexico Statutory Units would thus need to have a non-consent provision in order to comply with the statutory requirement of Section 70-7-7(F) NMSA.

16. Section 11.6 of the 1974 Model Form deletes the language from the 1970 Model Form of Unit Operating Agreement which provides the right to bring a suit to collect indebtedness from a non-paying working interest owner. This change is consistent with the provision in various Statutory Unitization Acts mandating the right of a unit and working interest owner to go non-consent and become a carried interest.

17. In the operation of the MLMU, Oxy proposed a substantial redevelopment program in 1994. Based upon the correspondence I have reviewed, it is clear that Hartman objected to the redevelopment program and voiced a desire to go non-consent with respect to Oxy's proposal. Oxy wrote Hartman by letter dated August 19, 1994 denying that Hartman and other MLMU working interest owners have the right to go non-consent with respect to unit operations. In my opinion, Oxy's position is contrary to the prescription of NMSA 1978 § 70-7-7F. and Order R-6447 which was ratified in writing by the working interest owners. It requires the agreement to provide for a right of a working interest owner to elect to go non-consent and be carried on a limited, carried or net-profits basis, payable solely out of production.

18. Where the governing instruments provide for the right of a working interest owner to be a non-consenting party and become a carried interest, it is standard practice in the industry for an operator, when proposing unit operations, to circulate an Authority for Expenditure as the means by which a working interest owner can consent or withhold consent to the expenditure. None of the Oxy's AFEs related to the 1994 redevelopment program and subsequent proposals that I have seen, contain

any method by which a working interest owner could disclose an election to go non-consent.

19. I have reviewed the Motion to Dismiss filed by Oxy in this case, whereby Oxy contends that Hartman cannot seek enforcement of Order R-6447, because the interests of Hartman's predecessors-in-interest in the MLMU allegedly were not statutorily unitized or otherwise subject to the terms of the application for statutory unitization for the MLMU filed by Getty Oil Company in 1980 or Order R-6447.

20. As I understand Oxy's position it is that any owner who committed to the unit voluntarily before statutory unitization has no right to go non-consent and must always pay his or her share of any unit expense undertaken by the operator; that conversely, the holdout owners whose interests were compulsorily unitized do have the benefit of electing to be a non-consent party and to do so without penalty. Oxy's position is inconsistent with the express terms of Getty's Application in Case No. 6987, the testimony offered in support of the application, the express terms of Order R-6447 and the letter and spirit of the New Mexico Statutory Unitization Act. The MLMU statutory unitization order is very similar to many such orders issued by the Commission and the Division in statutory unitization proceedings. They uniformly provide that all MLMU mineral interests were approved for statutory unitization and that the interest of "all persons" within the unit area were thereby unitized "whether or not such persons have approved the Unit Agreement or the Unit Operating Agreement in writing." The finding in paragraph 21(b) of Order R-6447, which found or prescribed a provision for carrying <u>any</u> working interest owner in the MLMU, does not limit its application to those working interest owners who had not previously agreed to voluntarily unitize.

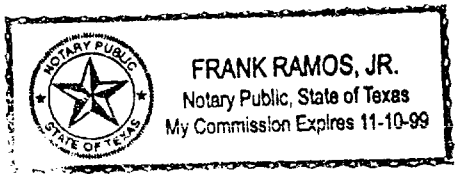
FURTHER AFFIANT SAYETH NOT.

Bruce M. Kramer

SUBSCRIBED AND SWORN before me on this 23rd day of June, 1997 by Bruce M. Kramer.

Notary Public

My Commission Expires:
11-10-99



CERTIFICATE OF SERVICE

I hereby certify that I have caused a true and correct copy of Bruce M. Kramer's Affidavit in Support of Hartman's Opposition to Oxy's Motion to Dismiss to be hand-delivered on this _____ day of June, 1997 to the following counsel of record:

William F. Carr
Campbell, Carr, Berge & Sheridan
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Santa Fe, New Mexico 87501

Thomas W. Kellahin
Kellahin & Kellahin
117 N. Guadalupe
Santa Fe, New Mexico 87501

_____
Michael J. Condon

TABBIES.

EXHIBIT

B

SUMMARY OF NEW MEXICO STATUTORY UNITIZATION APPLICATIONS AND ORDERS

Cum. Ct.	Case No.	Order No.	Order Date	Order Format	Mineral Interests Unitized (WIO/RIO/ ALL)	Statute Conformity Finding	Statutory UOA Non-Consent Provision		Applicant	Unit	County	Pool	Formation	Acreage Approved
1	5598	R-5164	2/17/76	DLQU	ALL	Yes	Yes		Burk Royalty Company	Double L-Queen Unit	Chaves	Double L-Qn Assoc.	Qn	2,670.1
2	5970	R-5496	8/9/77	DLQU	ALL	Yes	Yes		Texaco	Central Vacuum Unit	Lea	Vacuum Gb-SA	Gb-SA	3,046.2
3	6069	R-5593	12/27/77	DLQU	ALL	Yes	Yes		ARCO	East Blinebry Unit	Lea	Blinebry Oil & Gas	Blinebry	3,080
4	6070	R-5594	12/27/77	DLQU	ALL	Yes	Yes		ARCO	East Drinkard Unit	Lea	Drinkard	Drinkard	3,080
5	6328	R-5817	9/26/78	DLQU	ALL	Yes	Yes		Maralo, Inc	Maralo Jalmat Yates Unit	Lea	Jalmat	Y-Qn	560
6	6366	R-5871	11/27/78	DLQU	ALL	Yes	Yes		Phillips Petroleum Company	East Vacuum Grayburg San Andres Unit	Lea	Vacuum Gb-SA	Gb-SA	7,025.3
7	6652	R-6198	11/30/79	NHGBSAU	ALL	Yes	Yes		Shell Oil Company	North Hobbs Grayburg-San Andres Unit	Lea	Hobbs Gb-SA	Gb-SA	10,649.53
8	6987	R-6447	8/27/80	NHGBSAU	ALL	Yes	Yes		Getty Oil	Myers Langlie Mattix Unit	Lea	Langlie Mattix	7R-Qn	9,360
9	7391	R-6947	4/23/82	NHGBSAU	ALL	No			Harvey E. Yates Company	Travis-Penn Unit	Eddy	Travis-Upper Pennsylvanian	Cisco Canyon	480
10	7596	R-7011	6/30/82	NHGBSAU	ALL	Yes	Yes		Yates Drilling Company	South Loco Hills (Grayburg) Unit	Eddy	Loco Hills Qn-Gb-SA	Gb-Loco Hills Sand	1,060
11	7594	R-7251 Dismissed	4/5/83						Harvey E. Yates Company	Carbonate Unit	Lea	North Young	Bone Spring	
12	7945	R-7375-A	5/9/84	NHGBSAU [1]	ALL	Yes	Yes		J. Cleo Thompson & James Cleo Thompson Jr.	West Square Lake Unit	Eddy	West Square Lake Field	Gb-SA	3,320
13	8397	R 7765	12/27/84	DLQU-NHGBSAU	ALL	Yes	Yes		Gulf Oil Corporation	Eunice Monument South Unit	Lea	Eunice Monument Oil	Gb-SA	14,189.84

SUMMARY OF NEW MEXICO STATUTORY UNITIZATION APPLICATIONS AND ORDERS

Cum. Ct.	Case No.	Order No.	Order Date	Order Format	Mineral Interests Unitized (WIO/ROI/ ALL)	Statute Conformity Finding	Statutory UOA Non-Consent Provision		Applicant	Unit	County	Pool	Formation	Acreage Approved
14	8779	R-8117	1/6/88	NHGBSAU	ALL	Yes	Yes		Murphy Operating Corporation	Bluitt San Andres Unit	Roosevelt	Bluitt-SA Assoc.	SA	1,800
15	8952	R-8344	11/7/88	DLQU	ALL	Yes	Yes		Benson-Montin-Greer Drlg Corp.	Canada Ortos Unit	Rio Arriba	West Puerto Chiquito-Mancos Oil	Mancos	68,567.235
16	9231	R-8540	11/9/87	NHGBSAU	ALL	Yes	Yes		Shell Western E & P Inc.	Northeast Drinkard Unit	Lea	North Eunice Blinebry-Tubb-Drinkard O & G	Blinebry-Tubb-Drinkard	4,938
17	9210	R-8557	12/2/87	NHGBSAU	ALL	Yes	Yes		Pelto Oil Company	Twin Lakes San Andres Unit	Chaves	Twin Lakes-SA Assoc.	SA	4,863.82
18	9008	R-8905	4/12/89	NHGBSAU	ALL	Yes	Yes		Read & Stevens, Inc.	Bunker Hill Unit	Eddy	Bunker Hill-Penrose Assoc.	Penrose	1,360
19	9638	R-8920 Dismissed	5/5/89						Grand Resources Inc	Mesa-Gallup Unit	San Juan	Mesa-Gallup Oil	Gallup	
20	9738	R 0028	10/30/89	NHGBSAU	ALL	Yes	Yes		Kelt Oil and Gas, Inc.	Cato San Andres Unit	Chaves	Cato-SA	SA	15,321.83
21	9809	R-9075	12/14/89	NHGBSAU	ALL	Yes	Yes		Yates Drilling Company	Cactus Queen Unit	Chaves	SE Chaves Qn Gas Area Assoc.	Qn	560
22	10062	R-9336	10/29/90	NHGBSAU [2]	ALL	Yes	Yes		OXY USA, Inc	Central Corbin Queen Unit	Lea	Central Corbin-Qn	Qn	1,561.19
23	10102	R-9358	11/13/90	NHGBSAU	ALL	Yes	Yes		Sage Energy Company	North Vacuum (Abo) North Unit	Lea	North Vacuum-Abo	Abo	1,762.79
24	10193	R-9454	3/12/91	NHGBSAU [3]	ALL	Yes	Yes		Beach Exploration Inc.	Red Lake Unit	Eddy	East Red Lake-Qn-Gb	Qn	1,131.24
25	10259	R-9482	4/8/91	NHGBSAU	ALL	Yes	Yes		Chevron, USA, Inc.	Arrowhead Grayburg Unit	Lea	Arrowhead-Gb	Gb	5,922.26
26	10253	R-9494	5/1/91	DLQU-NHGBSAU	ALL	Yes	Yes		Amerada Hess Corporation	North Monument Grayburg-San Andres	Lea	Eunice Monument-Gb-SA	Gb-SA	13,385
27	10341	R-9548	7/22/91	NHGBSAU	ALL	Yes	Yes		Marathon Oil Company	Tamano (BSSC) Unit	Eddy	Tamano-Bone Spring	Bone Spring Second Carbonate	880

SUMMARY OF NEW MEXICO STATUTORY UNITIZATION
APPLICATIONS AND ORDERS

Cum. Ct.	Case No.	Order No.	Order Date	Order Format	Mineral Interests Unitized (WIO/RIO/ ALL)	Statute Conformity Finding	Statutory UOA Non-Consent Provision		Applicant	Unit	County	Pool	Formation	Acreage Approved
28	10515	R-9710	8/25/92	NHGBSAU	ALL	Yes	Yes		Texaco Expl & Prod., Inc.	Vacuum Glorieta West Unit	Lea	Vacuum-Glorieta	Glorieta-Paddock	2,778.86
29	10553	R 9746	10/23/92	DLQU-NHGBSAU	ALL	Yes	Yes		ARCO Oil & Gas Company	South Justis Unit	Lea	South Justis Blinebry-Tubb-Drinkard	Blinebry-Tubb-Drinkard	5,360
30	10618	R-9821	1/6/93	NHGBSAU	ALL	Yes	Yes		Siete Oil & Gas Company	Parkway Delaware Unit	Eddy	Parkway-Delaware	Delaware	920
31	9836	R-9861 Dismissed	3/23/93						Grand Resources, Inc.	Mesa Gallup Unit	San Juan	Mesa-Gallup Oil	Gallup	
32	10685	R-9894 R-9894 A	5/19/93	NHGBSAU	ALL	Yes	Yes		Hanson Operating Company, Inc.	Benson Shugart Waterflood Unit	Eddy	Shugart Y-7R-Qn-Gb	Y-7R-Qn-Gb	911
33	10761	R-9985	10/13/93	NHGBSAU	ALL	Yes	Yes		Mewbourne Oil Company	Querecho Plains Bone Spring Sand Unit	Lea	Querecho Plains-Upper Bone Spring	Upper Bone Spring	2,400
34	10810	R-7900-A	10/28/93	NHGBSAU	ALL	Yes	Yes		Marbob Energy Corporation	Burch-Keely Unit	Eddy	Gb-Jackson	7R-Qn-Gb-SA	5,149.44
35	10930	R-10093	4/5/94	CMU	ALL	Yes	No		The Wiser Oil Company	Caprock Maljamar Unit	Lea	Maljamar Gb-SA	Gb-SA	4,160
36	10959	R-10123	5/31/94	NHGBSAU	ALL	Yes	Yes		Mewbourne Oil Company	Querecho Plains-Queen Assoc. Sand Unit	Lea	Querecho Plains-Qn Assoc.	Qn-Penrose Sand	1,520
37	11114	R-10248	11/15/94	NHGBSAU	ALL	Yes	Yes		Great Western Drilling Co.	South Carter (San Andres) Unit	Lea	South Carter-SA	SA	624
38	11195	R-10449	8/29/95	NHGBSAU	ALL	Yes	Yes		Gillespie-Crow, Inc.	West Lovington Strawn Unit	Lea	West Lovington-Strawn	Strawn	1,458.95
39	11298	R-10460-B	3/12/96	NHGBSAU	ALL	Yes	Yes		Exxon Corp	Avalon (Delaware) Unit	Eddy	Avalon-Delaware	Goat Seep Reef-Bone Springs-Cherry Canyon-Bushy Canyon	2,118.78
40	11562	R-10749 Dismissed	1/27/97						Shahara Oil Corp.	Shahara State 16 Unit	Lea			
41	11703	[4]							Parker & Parsley Dev., L.P.	Lusk West (Delaware) Unit	Lea	West Lusk-Delaware		

SUMMARY OF NEW MEXICO STATUTORY UNITIZATION APPLICATIONS AND ORDERS

Cum. Ct.	Case No.	Order No.	Order Date	Order Format	Mineral Interests Unitized (WIO/RIO/ ALL)	Statute Conformity Finding	Statutory UOA Non-Consent Provision		Applicant	Unit	County	Pool	Formation	Acreage Approved
42	11724	[4]							Gillespie-Crow, Inc	West Lovington Strawn	Lea	West Lovington-Strawn	Strawn	

Footnotes:

[1] Statutory Unitization approved by 100% of the Working Interest Owners but less than 100% of the Royalty Interest Owners.

[2] At the statutory unitization hearing, Oxy's attorney agreed to the exclusion of a non-consent penalty against non-consenting parties.

[3] Non-consent penalty reduced by NMOCD from 400% to 200%.

[4] Per Florene Davidson, OCD orders not issued as of 6-6-97.

RATIFICATION AND APPROVAL OF THE PLAN FOR UNIT OPERATIONS AS STATED IN THE UNIT AGREEMENT AND UNIT OPERATING AGREEMENT OF THE MYERS LANGLIE-MATTIX UNIT LEA COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS, THAT:

For consideration and the purposes stated in those certain agreements, entitled as above, both being dated January 1, 1973, and to obtain the benefits of unitized management, operation and further development of the oil and gas properties in the Myers Langlie-Mattix Unit pursuant to New Mexico Oil Conservation Commission Order No. R-6447 entered on August 27, 1980, approving statutory unitization of the Myers Langlie-Mattix Unit, the undersigned (whether one or more) represents that it is a Working Interest Owner within the meaning of that term as used in the captioned Unit Agreement and, as such, does hereby consent to ratify and approve the plan for unit operations contained in the captioned Unit Agreement and Unit Operating Agreement, said Agreements being incorporated herein by reference and said plan for unit operations having been approved by the New Mexico Oil Conservation Commission in Order No. R-6447.

If the undersigned is also a Royalty Owner, within the meaning of that term as used in said Unit Agreement, then for the considerations and purposes hereinabove stated, this ratification and approval shall extend to the undersigned's Royalty Interest as well as to its Working Interest.

The undersigned hereby acknowledges receipt of copies of said New Mexico Oil Conservation Commission Order No. R-6447, Unit Agreement and Unit Operating Agreement and further acknowledges that the plan for unit operations prescribed in said documents has been ratified and approved and unconditionally delivered on the date set out hereinbelow.

This ratification shall extend to and be binding upon the undersigned, his heirs, legal representatives, successors and assigns.

The undersigned, whether one or more, is referred to in the neuter gender.

EXHIBIT C

IN WITNESS WHEREOF, this instrument is executed this 26th day of November, 1980.

Cities Service Company

L. H. Stayton Vice President

ATTEST:

H. E. Bockelken
ASSISTANT SECRETARY

STATE OF Oklahoma)
) ss.
COUNTY OF Tulsa)

SUBSCRIBED AND SWORN TO before me this 26th day of November, 1980.

Cindy Thompson
Notary Public Cindy Thompson

My Commission Expires:

FEBRUARY 8, 1984

STATE OF NEW MEXICO
COUNTY OF LEA
FILED

JAN 6 1981

at 11:05 o'clock A. M
and recorded in Book 382
Page 584
Donna Benge, County Clerk
By [illegible] Deputy

165

CURRICULUM VITA

BRUCE MORRIS KRAMER
3728 64th Drive
Lubbock, Texas 79413
Telephone: (806) 799-1562

Birthdate: May 26, 1947
Birthplace: Brooklyn, N.Y.
Marital Status: Married
Children: Four

EDUCATION:

B.A. 1968, J.D. 1972
University of California at Los Angeles

LL.M. 1975
University of Illinois, College of Law

BAR ADMISSIONS:

California and Texas

EMPLOYMENT:

Private Practice
Los Angeles, California
June 1972 - August 1973

Assistant Professor (1974-1977)
Associate Professor (1977-1979)
Professor (1979-1992)
Maddox Professor (1992-Present)
School of Law, Texas Tech University

Visiting Professor
Indiana University School of Law (Bloomington) (Fall 1979); Lewis & Clark Law School (Summer 1980); University of Florida, Holland Law Center (1982-1983); University of Texas, School of Law (Summer 1987).

BOOK PUBLICATIONS:

Martin & Kramer, *Williams & Meyers Oil & Gas Law* (1996).

Maxwell, Williams, Martin & Kramer, *Cases and Materials on Oil & Gas Law*. (Foundation Press) (6th ed. 1992) with Teacher's Manual.

Maxwell, Williams, Martin & Kramer, *Cases and Materials on Oil & Gas Law*. (Foundation Press) - 1996 Supplement.

Kramer & Martin, *The Law of Pooling & Unitization - Volumes I-IV*. (Matthew Bender & Co.) (1989).

EXHIBIT
A

Kramer & Martin, *The Law of Pooling & Unitisation*. (Matthew Bender & Co.) – 1990, 1991, 1992, 1993, 1994, 1995 and 1996 Supplements.

Antieau, *Municipal Corporation Law*. (Matthew Bender & Co.)
Chapter 11A – Statutes Governing Local Governmental Tort Liability

Powell, *Real Property*. (Matthew Bender & Co.)
Chapter 77 – Accretion (1989, 1994)
Chapter 79A – Flood Plain Zoning

Rohan, *Home Owner Associations and Planned Unit Developments*. (Matthew Bender & Co.)
Chapter 3 – Planned Unit Development

Rohan, *Zoning and Land Use Controls*. (Matthew Bender & Co.)
Chapter 5 – Contract and Conditional Zoning
Chapter 42 – Measurement Controls

Rose, J. (editor). *Tax and Expenditure Limitations* (2 chapters) (1982).

Givens, R. (editor). *Legal Strategies for Industrial Innovation* (1 chapter – State and Local Regulation of Innovation) - (1982 with 1983, 1984, 1985 and 1986 Supplement).

Kramer, *Legal Aspects of Use and Development of Wildlife Resources on Private Lands: Colorado, Kansas, New Mexico, Oklahoma, and Texas – Great Plains Agricultural Council* (U.S. Dep't of Agriculture - 1982).

LAW REVIEW PUBLICATIONS:

Kramer, *Modern Applications of the Rule Against Perpetuities to Oil and Gas Transactions: What the Duke of Norfolk Didn't Tell You*, ____ Nat. Res. J. ____ (1996).

Kramer, *Local Land Use Regulation of Extractive Industries: Evolving Judicial and Regulatory Approaches*, 14 UCLA Journal of Envtl. Law & Policy 42 (1996).

Kramer, *Lease Maintenance for the Twenty-First Century: Old Oil & Gas Law Doesn't Die, it Just Fades Away*, 41 Rocky Mtn Min.L. Inst. 15-1 (1995).

Kramer, *Current Decisions on State & Federal Law in Planning and Zoning*, 1995 Inst. on Zon., Plan. & Em. Dom. 1-1.

Kramer, *The Interaction Between the Common Law Implied Covenants to Prevent Drainage and Market and the Federal Oil and Gas Lease*, 15 J. of Energy, Nat. Res. & Env'tl L. 1-1 (1995).

Kramer, *Liability to Royalty Owners for Proceeds from Take or Pay and Settlement Monies*, 15 East. Min'l. L. Inst. 14-1 (1994).

Kramer, *Property & Oil & Gas Don't Mix: The Mangling of Common Law Property Concepts*, 33 Wash. L.J. 540 (1994).

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Kramer, *Royalty Interests in the United States: Not Cut From the Same Cloth*, 29 Tulsa L.J. 449 (1994).

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Kramer, *The Sisyphean Task of Interpreting Mineral Deeds & Leases: An Encyclopedia of Canons of Construction*, 24 Tex. Tech L. Rev. 1 (1993).

Kramer, *The Mother Hubbard Clause in Mineral Deeds & Leases*, 13 East Min'l L. F. Inst. 12-1 (1992).

Kramer, *Recent Developments in Land Use Law*, 1992 Inst. on Zon., Plan. & Em. Dom. 1-1.

Kramer, *The Temporary Cessation Doctrine: A Practical Response to an Ideological Dilemma*, 43 Baylor L. Rev. 519 (1991).

Kramer, *Conveying Mineral Interests - Mastering The Problem Areas Estates*, 27 Tulsa L.J. 175 (1991).

Kramer, *Recent Developments in Land Use Law*, 1991 Inst. on Zon. Plan. & Em. Dom. 1-1.

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Kramer, *Pooling and Unitization Orders - Application of Administrative Law Principles*, 34 Inst. on Oil and Gas Law and Taxation 259 (1983).

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Book Review, Kaiser & Mertes, *Acquiring Parks and Recreation Facilities Through Mandatory Dedication: A Comprehensive Guide*, 19 Urban Lawyer 671 (1987).

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Book Review, Williams, *American Land Planning Law: Cases and Materials* (2 vol.), 7 Ecol. L.Q. 1045 (1979).

OTHER PUBLICATIONS: (Partial Listing)

The Pros and Cons of Mandatory Dedication (with J.D. Mertes), Urban Land (April 1979) reprinted in V Management & Control of Growth, 59-63 (Urban Law Inst. 1980).

An Analysis of State Laws and Regulations Impacting Animal Waste Management (with G. Whetstone and D. Wells) (U.S. Environmental Protection Agency) (1977).

A Review and Summary of State Laws Regarding the Disposal of Reservoir Clearing and Cleaning Debris (with L. Urban and G. Whetstone) (Corps of Engineers) (1978).

An Analysis of Federal Statutes Impacting Forest Service Planning and Management Responsibilities (with F. Skillern and C. Bubany) (Vol. I - Planning Sheets, Vol. II - Comprehensive Review).

Air Quality Modeling (Invited Paper), American Meteorological Society/Air Pollution Control Agency, Second Joint Conference on Applications of Air Pollution Meteorology (March 24-27, 1980).

Contract Zoning: Old Myths and New Realities – American Planning Association – Planning Advisory Service Publication Series (Summer 1982).

Forest Resource Laws in Wenger, (ed.) *Forestry Handbook* (2d ed. 1984) (with Siegler and Mertes).

(Since 1980 I have prepared papers and given speeches at approximately 60-70 continuing education programs sponsored by such groups as the State Bar of Texas, State Bar of Wyoming, Eastern Mineral Law Foundation, Southwestern Legal Foundation, Rocky Mountain Mineral Law Foundation, Texas Tech University School of Law and the University of Texas School of Law.)

UNIVERSITY SERVICE:

Member and Chair of various Law School and University Committees including Personnel, Curriculum, Faculty Development, Affirmative Action, Intellectual Property Policy, Faculty Grievance Panel, and Athletic Council.

PROFESSIONAL AWARDS:

Texas Tech University President's Academic Achievement Award - 1995-1996
State Bar of Texas, Oil, Gas & Mineral Law Section Research Grant - Summer 1991
Texas Tech University Dub Rushing Research Award - 1986-1987, 1992-1993

Texas Tech University Dad's Association Research Award - 1980-1981

PROFESSIONAL SERVICE: (Partial Listing)

Indexing Author
Southwestern Legal Foundation, *Oil and Gas Reporter* - Volumes 59-124 (Matthew Bender & Co.)

Council Member
State Bar of Texas, Oil Gas & Mineral Law Section - 1991-1994

Participant
Seventh Annual Law and Economics Symposium, San Diego, California July 29 - August 20, 1976

Consultant
U.S. Environmental Protection Agency, Workshop on Air Quality Modeling, Airlie House, Virginia May 3-7, 1981

Member and Treasurer
Advisory Board, Municipal Legal Studies Center, Southwestern Legal Foundation

Member
Editorial Board, *Oil & Gas Reporter*, Southwestern Legal Foundation

Interim Director and Research Associate
Applied Planning Research Institute of Municipalities, Environments and Regions, Texas Tech University (January 1985 - 1989)

Contributing Author
State Bar of Texas, *General Practice Digest — Governmental Entities*, 1988-Present

Member and Chair
State Bar of Texas, Oil, Gas & Mineral Law Specialization Exam Committee, 1990-Present

Trustee
Rocky Mountain Mineral Law Foundation, 1989-present.
Eastern Mineral Law Foundation, 1990-present.

Consultant or Expert Witness
Campbell & Carr, Santa Fe, N.M.
Gene Gallegos, Esq., Santa Fe, N.M.
Fullbright & Jaworski, Houston, TX
City of Garland, TX.
Southwestern Bell Telephone, Dallas, TX
Feez Ruthning, Brisbane, Australia
Matthews & Branscomb, Corpus Christi, TX
Faulkner, Banfield, Doogan & Holmes, Juneau, AK
Amoco Production Co., Houston, TX
Exxon Corp., Houston, TX

OTHER RESEARCH PROJECTS:

Legal Advisor and Associate Investigator
U.S. Environmental Protection Agency project, "Analysis of State Laws and Regulations Impacting the Management of Animal Wastes" October 1976 - November 1977.

Legal Advisor
U.S. Corps of Engineers project, "Review of Environmental Laws Impacting Disposal of Reservoir Clearing and Cleaning Debris" May 1977 - November 1977.

Associate Investigator
U.S. Forest Service project, "Review of Federal Laws and Regulations that Affect the Land Management and Planning Process" April 1977 to December 1980.

Co-Principal Investigator
Texas Tech University, Center for Energy Research Project, "Model Ordinances - Covenants for the Solar Energy Residence" October 1, 1977 - September 30, 1979.

Principal Investigator
U.S. Forest Service project, "Legal Constraints on Rural Recreation Wildland Development" June 1978 - December 1979.

Principal Investigator
U.S. Forest Service project, "Legal Constraints Imposed by the Clean Air Act on Recreational Land Use Planning" March 1979 - December 1980.

Principal Investigator
U.S. Forest Service project, "Legal Aspects of Use and Development of Wildlife Resources on Private Lands" May 1979 - December 1980.

Principal Investigator
Texas Energy & Natural Resources Advisory Council project, The Developing Problem of Reconciling Surface Mining to Oil and Gas Development March - July 1982

COURSES TAUGHT:

Property
Land Use Planning
International Petroleum
  Transactions
Oil & Gas
Water Law
Copyright
Oil & Gas Seminar
State and Local Government Law

REFERENCES:

Will be furnished on request.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6987
CASE NO. 11792

AMENDED APPLICATION OF DOYLE HARTMAN
TO GIVE FULL FORCE AND EFFECT TO
COMMISSION ORDER R-6447, TO REVOKE
OR MODIFY ORDER R-4680-A, TO
ALTERNATIVELY TERMINATE THE
MYERS LANGLIE-MATTIX UNIT,
LEA COUNTY, NEW MEXICO

AFFIDAVIT OF CRAIG W. VAN KIRK, PH.D.
IN SUPPORT OF HARTMAN'S OPPOSITION
TO OXY'S MOTION TO DISMISS

STATE OF COLORADO)
) ss.
COUNTY OF DOUGLAS)

I, Craig W. Van Kirk, being first duly sworn and under oath, state as follows:

1. My name is Craig W. Van Kirk. I am presently the head of the petroleum engineering department at the Colorado School of Mines and a practicing petroleum engineering consultant. A copy of my curriculum vitae is attached hereto as Exhibit A.

2. I have been retained as an expert witness on behalf of Doyle Hartman in this matter. In that capacity, I have reviewed numerous documents, including certain records pertaining to the Myers Langlie-Mattix Unit ("MLMU"), including MLMU waterflood and secondary recovery studies and reports; records pertaining to select MLMU injection wells, including but not limited to those in close proximity to the Myers "B" Federal No. 30 well; MLMU records which demonstrate waterflows within the physical boundaries of the MLMU; correspondence between Hartman and Oxy from 1994 to the present; Oxy's AFEs related to the 1994 Redevelopment Program; correspondence between Hartman and Oxy related to the 1994 Redevelopment Program, Hartman's objections to the program, and Oxy's responses to Hartman's objections; well records related to the Myers "B" Federal No. 30 well which Hartman attempted to drill in November, 1996; the Oil Conservation Division file for Case No. 11168 filed by Oxy in 1994, including Order R-4680-A which contained an authorization for a maximum surfacing injection pressure for MLMU injection wells of 1,800 psi, and the transcript of the hearing in that case; OCD file documents related to the application of Getty Oil Company in 1980 in Case 6987 for statutory unitization for the MLMU; and documents pertaining to the financial performance of the MLMU. I have also prepared and reviewed graphs and analyses related to surface injection pressures, injection volumes, and fluid (oil and water) recovery related to MLMU injection well patterns, including those in close proximity to the Myers "B" Federal No. 30 well.

3. I am familiar with the rules and regulations of the New Mexico Oil Conservation Division which apply to operators of waterflood units in New Mexico, including those regulations which would apply to the MLMU.

4. On the basis of my work in the industry and professional experience, I am also familiar with the custom and practice in the oil and gas industry as it relates to non-consent provisions in unit agreements and unit operating agreements, and the manner and method by which unit operators collect the share of expenses for working interest owners who have elected to go non-consent and become a carried interest.

5. In the oil and gas industry the right to be a "non-consent party" and a carried interest refers to the circumstance where a party to a joint operating agreement for a pooling or unitization agreement does not agree to participate in the drilling, reworking or plugging back of a well or other expenditure. The term "carried interest" has a well-defined and generally accepted meaning within the oil and gas industry. When a working interest owner has the right to go non-consent and become carried, that working interest owner relinquishes his interest temporarily to the operator or other interest owners while his or her share of expense is being recovered and has no personal obligation for operating costs.

6. One of the necessary elements of a working interest owner's status as a carried interest is that he or she is not subject to actions for collection of the unpaid expense by lawsuit or other legal remedies. If the working interest owner who elected to go non-consent and become a carried interest could be sued by the operator or other

working interest owners who were paying for unit operations, the right to go non-consent would become meaningless. In all my experience, the unit operator or other working interest owners are limited in recovery of the carried owner's unit expense solely from the non-consenting party's share of production from that unit.

7. For many years, the New Mexico OCD has regulated surface injection pressures for waterflood units in Lea County. The general rule prohibits surface injection pressure in excess of 0.2 psi per foot of depth absent a showing by step-rate testing or some other evidence by the operator that a higher injection pressure would not fracture the injection zone and cause injected water to escape to other formations or onto the surface. In the MLMU, given the depth of the Lower Seven Rivers and Queen Formations, the 0.2 psi per foot of depth translates to a surface injection pressure of approximately 700 psi. Administrative Order WFX No. 460, issued May 11, 1978, authorizes a surface injection pressure of 900 psi for the MLMU.

8. Having reviewed the transcript and exhibits in Oxy's case in support of its Application in Case No. 11168, I saw no evidence whatsoever submitted by Oxy during that proceeding which would support a maximum surface injection pressure of 1,800 psi or any other elevated pressure for the injection wells in the MLMU which were proposed to be part of the 1994 Redevelopment Program.

9. Based on my professional experience, it is my opinion that a surface injection pressure of 1,800 psi in the MLMU is in excess of the pressure that will fracture the authorized injection formation and cause injected water to escape from the target zone to other formations.

10. Based on my preliminary review of documents and files, it is my opinion that there is evidence of water out of zone as a result of MLMU injection practices. This opinion is based on my preliminary analysis of MLMU surface injection pressures, injection volumes and fluid recoveries, and Hartman's experience in drilling the Myers "B" Federal No. 30 well, in which he encountered large quantities of water in the Yates Formation. Water is not naturally occurring in the Yates Formation in this area.

11. Before I can finalize all my opinions on this issue, I would need to review numerous documents maintained and generated by Oxy as the MLMU operator (or by Oxy's predecessors-in-interest), including but not limited to documents relating to unit operations; well files for various production and injection wells; pressure analyses, spreadsheets, graphs, maps of the waterflood area; fall-off tests including historical and test data; graphs depicting wells, injection data, cumulative injection volumes, average water pressure measurements, injection-withdrawal ratios, pressure data reports, step-rate tests; reports, analyses, worksheets, preliminary reports, final reports, and supporting data prepared or generated by outside consultants or the MLMU operator or its personnel regarding the past or projected performance of the MLMU; and other documents regarding MLMU injection practices.

FURTHER AFFIANT SAYETH NOT.

Craig W. Van Kirk

CRAIG W. VAN KIRK

SUBSCRIBED AND SWORN TO BEFORE ME this ___ day of June, 1997.

Notary Public

My Commission Expires:

RESUME

CRAIG W. VAN KIRK is a practicing petroleum engineer and a professor of Petroleum Engineering at the Colorado School of Mines. He holds advanced degrees in Petroleum Engineering, including the Doctorate. Prior to his present position at CSM, he spent over eleven years in the industry in the areas of reservoir engineering and simulation, supplemental oil recovery, and reservoir characterization. He is involved in several areas of research, has published articles and monographs on reservoir engineering and related topics, and is active in several professional organizations.

EDUCATION:

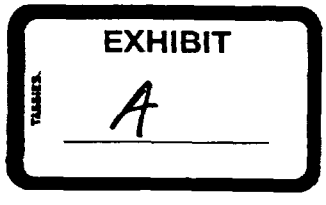
Ph.D. Petroleum Engineering, Colorado School of Mines, Golden Colorado, June, 1972. Specialized in reservoir engineering and simulation. Minor in mathematics. Thesis: "Effect of Pressure-Dependent Variables in Gas-Well Numerical Simulation and Gas-Well Test Analysis". Constructed numerical finite-difference simulator.

M.S. Petroleum Engineering, University of Southern California, Los Angeles, California, June, 1969; Emphasis in reservoir engineering. Thesis: "Effects of the Water-Oil Viscosity Ratio on the Relative Permeability to Oil".

B.S. Petroleum Engineering, University of Southern California, Los Angeles, California, February, 1968.

WORK EXPERIENCE:

1980-Present	Department Head of Petroleum Engineering. Teaches and conducts research on reservoir engineering, simulation, management, improved oil recovery, and how to conduct reservoir studies.
1978-Present	Professor, Colorado School of Mines, Golden, Colorado.
1977-1978	Manager, Calgary Branch Office, and Member of Board of Directors, Scientific Software Corporation of Canada, Ltd. Manager of Reservoir Studies.



Work Experience (continued)

1974-1978 Manager of Reservoir Engineering, Scientific Software Corporation, Denver, Colorado. Managed a staff of engineers and geologists conducting reservoir engineering and simulation studies worldwide. Responsibilities included major project coordination and scheduling, ensuring technical quality of all work, preparation and presentation of final reports, and presentations to private companies, government agencies and national corporations. Taught regularly scheduled courses in reservoir engineering and simulation in Denver and throughout the rest of the United States and internationally. In 1977, became the Manager of the Calgary Branch Office and served on the Board of Directors of Scientific Software of Canada, Ltd. Responsible for the profit and loss of professional consulting services in the oil and gas industry. Heavily involved in training new employees and clients and in teaching short courses in reservoir engineering and simulation.

1969-1974 Reservoir Engineer, Shell Oil Company, Denver, Colorado. Involved with reservoir engineering and simulation, economic analysis, well log and total formation evaluation, drilling operations, workover and stimulation operations, and exploration geology. Studied oil and gas reservoirs throughout the Rocky Mountain states, as well as designing, supervising and analyzing well tests. Evaluated potential for waterfloods, infill drilling, and field development.

1967-1969 Production Engineer, Humble Oil and Refining Company, Long Beach, California.
Gained experience in offshore platform operations including directional drilling, artificial lift, compressor design, and production handling facilities. Conducted economic studies for well workovers, surface facilities, and expansion for waterfloods.

Summers 1965&1966 Test Engineer Assistant and Gas Plant Trainee, Continental Oil Company, Casper, Wyoming (1966).
Roustabout/Roughneck/Engineer's Assistant, Continental Oil Company, Ventura, California (1965).

Dr. Van Kirk has written numerous reports of a confidential nature for the United States Government, private industry, and national oil companies throughout the world. These studies have included every oil and gas producing continent on earth, numerous geologic basins onshore and offshore, and all types of reservoir rocks and fluids.

A small sample of the many countries Dr. Van Kirk has worked with on field studies include Russia, China, Bolivia, Saudi Arabia, and the Solomon Islands. The types of field studies conducted include black oil and volatile oil recovery optimization giving consideration to multiple scenarios of supplemental recovery, well spacing, and completion practices.

Numerous studies have focused on producing gas fields and gas storage facilities, including the largest gas storage field in the world. These gas-oriented studies addressed individual well deliverability, capacity, and the effects of curtailment. Frequently the studies have incorporated the simulation of surface facilities (e.g., compressors), wellbores, and the reservoir into one comprehensive computer model.

SHORT COURSES AND TRAINING:

Throughout the past twenty years Dr. Van Kirk has conducted numerous short courses for private industry and government agencies throughout the world. This training has covered subjects such as reservoir development and management, optimization of recovery and economics, simulation, well testing, waterflooding and gas injection, multi-disciplinary teamwork, and many others.

INVITED SPEAKER:

Dr. Van Kirk has enjoyed being an invited speaker for SPE events, private companies, and government agencies throughout the world. The subjects have included education, research, practical application of technology, and organizational structures. Some of the locations are western Europe, Russia, Middle East countries, Latin America, Canada, and Asia.

AWARDS/HONORS:

National Society of Petroleum Engineers Board of Directors, June 1989. Term of four years to October 1993.

Who's Who in Engineering in America.

Professional Societies:

Society of Petroleum Engineers of AIME

1988: Nominated for Director at Large for 1989-93

1987-1989: Technical Editor of JPT
National ad hoc committee member on Petroleum Engineering Education

1985-1986: Chair, SPE National Education and Professionalism Committee. Responsible for organizing and running SPE Annual Technical Conference in October 1986, session on Education and Professionalism in Petroleum Engineering.

Registered Professional Engineer in the State of Colorado
National Society of Professional Engineers
Colorado Society of Professional Engineers

RESEARCH:

Areas of research activities include: **Reservoir Simulation** (Development of simulators for research, teaching, training, general application and special topics; methods for simulating geologic depositional structures; improvement of history matching methodology; techniques for handling dispersion and diffusion); **Reservoir Behavior** (Migration of fluids in porous media; depositional environments and geological influences on flow behavior; reservoir characterization, tied closely to geological conditions; reservoir and field development for optimizing recovery); **Supplemental Recovery** (Enhanced oil recovery and waterflooding and gas injection).

PART V

SECONDARY RECOVERY STUDY

MYERS LANGLIE-MATTIX UNIT

LANGLIE-MATTIX POOL
LEA COUNTY, NEW MEXICO

Secondary Recovery Study
Proposed Myers Langlie Mattix Unit

SKELLY OIL COMPANY
FEBRUARY, 1968

Tab 24

MYERS LANGLIE MATTIX UNIT

SECONDARY RECOVERY STUDY

FEBRUARY 1968

MYERS LANGLIE MATTIX UNIT TECHNICAL SUBCOMMITTEE
Charles J. Love, Skelly Oil Company, Chairman

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INTRODUCTION:

The proposed Myers Langlie Mattix Unit is but another in the continuously growing list of secondary recovery units formed within the confines of the 145 square mile Langlie Mattix Pool. Several units are presently under secondary recovery and other units are in various stages of unitization. The proposed Myers Langlie Mattix Unit is the largest Langlie Mattix Pool unit attempted to date and includes approximately 10,000 acres and 217 oil wells. Production is from the Lower Seven Rivers and Queen Sand Formations at a depth of approximately 3500 feet.

The initial Operators' Committee meeting for the proposed Unit was held August 20, 1965 in Lubbock, Texas, at which time an Engineering Subcommittee was formed with Pan American Petroleum Corporation acting as the Chairman Company. The Engineering Subcommittee was charged to develop a preliminary set of statistical parameters in order to determine the relative interests within the area of study.

The fulfillment of the charges to the Engineering Subcommittee was submitted to the Operators November 15, 1965. It was apparent from the data that Pan American was not the major interest holder. Two companies with interests greater than Pan American expressed a willingness to serve as Unit expeditor. Skelly Oil Company called an Operators' meeting May 12, 1966 and was unanimously elected temporary Unit expeditor. A Technical Subcommittee was formed and charged with the following responsibilities:

1. Prepare a usable base map.
2. Define the unitized interval.
3. Recommend a Unit area or areas.

4. Develop, evaluate and tabulate the following parameters by tracts and by Working Interest Owners for the recommended Unit area:

   a. Total acres

   b. Developed acres

   c. Current number of Langlie Mattix completions

   d. Usable wells

   e. Net and/or gross acre-feet, if possible

   f. Latest six months' oil and gas production

   g. Latest six months' oil, gas and total income

   h. Cumulative oil production

   i. Remaining primary oil

   j. Ultimate primary recovery

By necessity, the Technical Subcommittee revised sections 4a and 4b to "Surface Acres" and "Total Productive Acres", respectively. The Technical Subcommittee set July 1, 1966 as the date of parameter tabulation.

On May 18, 1967, the Technical Subcommittee submitted to the Operators computerized parameter data sheets, later revised, to fulfill the responsibility given in Charge No. 4. The Operators' Committee unanimously approved the parameters with the appropriate corrections. This report completes the remaining charges made to the Technical Subcommittee.

SUMMARY

The Langlie Mattix Pool, located in Lea County, New Mexico, is already the largest and one of the earliest developed oil pools in southeastern New Mexico. The proposed area for unitization includes some 10,000 acres and 217 wells. Development of the Langlie Mattix Zone in the proposed Unit began in 1936 and continued into the early 1960's. Approximately 60 per cent of the wells were completed prior to 1953.

Production is from the Basal Seven Rivers and Queen Formations. Cumulative oil production from the proposed Unit to January 1, 1968, has been 8,690,611 barrels of stock tank oil. The current monthly oil producing rate was 10,455 barrels for January 1968, an average of 2.3 BOPD per well.

Average rock properties exhibited by the available core analysis within the proposed Unit are: porosity 14.3 per cent, permeability 7.2 millicarcys, residual oil saturation 10.8 per cent, and total water saturation 52.3 per cent.

Extrapolation of the individual lease performance data showed a remaining primary of 596,083 barrels of oil after July 1, 1968. Ultimate primary is expected to be approximately 9.1 MMBO, an average of 42,000 barrels of oil per well. Remaining primary oil at the anticipated date of unitization is estimated at 300,000 barrels. Secondary oil reserves by waterflood are expected to be 80 per cent of ultimate primary, and total waterflood recovery is estimated at 7.6 MM BO during the estimated life of 9.5 years. A five-spot injection pattern is recommended for this project. Ultimately, the proposed Unit will be composed of 94 injection wells and 123 production wells.

The injection system will include a plant capable of delivering 31,000 BWPD at 1850 psig. The distribution lines will be internally and externally protected from corrosion. One central tank battery is planned utilizing eight satellite test stations. Total investment for the proposed project is estimated at $2,043,000 with a salvage value of $199,500 at the end of the waterflood operation.

Recoverable primary reserves would generate an undiscounted net revenue before income taxes of $87,000. Total waterflood reserves of 7.6 MM barrels will result in an undiscounted net revenue before income taxes of $9,109,500. Additional income due to secondary recovery is expected to pay out the initial investment in 2.3 years.

CONCLUSIONS

1. The ultimate primary recovery from the proposed Myers Langlie Mattix Unit has been determined by extrapolation of the proposed Unit's decline curve to be approximately 9.1 million stock tank barrels.

2. Cumulative oil production to July 1, 1966 has been 8,514,865 barrels (93.5 per cent depleted) leaving a remaining primary of 596,063 barrels.

3. Pilot and full-scale waterflood operations within the Langlie Mattix Pool indicate a successful secondary recovery operation can be carried out on the proposed Unit.

4. Secondary recoverable oil by waterflooding is estimated at 80 per cent of ultimate primary, or 7.3 million barrels.

5. Remaining primary at anticipated unitization date, January 1, 1969, is expected to be 300,000 barrels.

6. Total waterflood reserves as of January 1, 1969 is estimated to be 7.6 million barrels.

7. Net income from the proposed waterflood will be $9,109,500 or $6,996,400 discounted at 6 per cent.

8. Initial investment of the project will be $1,448,500 which will payout in 2.3 years. Total investment is expected to be $2,043,000 with a net investment of $1,843,500 considering the anticipated salvage value of $199,500.

9. Estimated life of the project is 9.5 years.

RECOMMENDATIONS

1. The Myers Langlie Mattix Unit be formed covering the area as defined in this report with the unitized vertical limits being those of the Langlie Mattix Pool as defined by the New Mexico Oil Conservation Commission.

2. The Unit negotiate with Skelly Oil Company to secure water for the project from Skelly's Jal Water System.

3. The Unit initiate a full-scale waterflood operation in that part of the Unit which has been fully developed on forty-acre spacing using an eighty-acre five-spot pattern modified to obtain maximum sweep in the sparsely developed portion.

DISCUSSION

GENERAL

The Langlie Mattix Pool, located in Lea County, New Mexico, is arealy the largest and one of the earliest developed oil pools in southeastern New Mexico. The reservoir covers approximately 145 square miles and has produced in excess of 68,000,000 barrels of oil from the Basal Seven Rivers and Queen Formations. Considerable interest in secondary recovery is evidenced by operators in the Langlie Mattix Pool. Many projects are in operation or in some stage of unitization as may be noted in Figure 1. All projects which utilized pilot floods have expanded, or are in the process of expanding, to full-scale operations.

This report covers that part of the Langlie Mattix Pool outlined in Figure 2 and described as follows:

Township 23 South, Range 36 East

E/2, E/2 W/2, SW/4 SW/4	Section 25
NE/4	Section 35
N/2, SE/4, E/2 SW/4, NW/4 SW/4	Section 36

Township 23 South, Range 37 East

SW/4, SW/4 NW/4	Section 28
All	Sections 29, 30, 31, 32, 33
W/2	Section 34

Township 24 South, Range 36 East

NE/4 NE/4	Section 1
S/2 N/2, N/2 S/2, SE/4 SE/4	Section 12

Township 24 South, Range 37 East

W/2. W/2 NE/4	Section 2
NE/4, E/2 SE/4, W/2 SW/4	Section 3
All	Sections 4, 5, 6, 7
N/2, N/2 S/2, SW/4 SW/4	Section 8
N/2, N/2 SW/4	Section 9
N/2, E/2 SW/4, W/2 SE/4	Section 10
W/2 NW/4	Section 11

Within the proposed Unit, as outlined in Figure 2, development has been generally on forty-acre spacing with a total of 217 producing wells completed in the Langlie Mattix Zone. Thirty-seven locations within the proposed Unit area have not been drilled. Cumulative production from the proposed Unit to January 1, 1968 has been 8,690,611 barrels of stock tank oil.

Nomenclature of the New Mexico Oil Conservation Commission defines the vertical limits of the Langlie Mattix Pool as those formations encountered between a point 100 feet above the base of the Seven Rivers Formation to the base of the Queen Formation. The recommended vertical limits of the proposed Myers Langlie Mattix Unit correspond to the limits thereby designated, and are illustrated in Figure No. 3.

DEVELOPMENT AND PRODUCTION HISTORY

Development of the Langlie Mattix Zone in the proposed Unit occurred in three general time intervals. Initial development began in 1936 and continued intermittently until 1953. Sixty per cent of the development occurred during this time and took place in areas showing high cumulatives illustrated on Figure 4. Wells drilled during this development produced 80 per cent of the cumulative oil production and averaged 53,000 barrels recovery per well as compared to a 39,000 barrel average for the Unit. In general, these wells were completed open hole with the production string set above the pay and the sands were shot with explosives. Development history from 1953 may be noted on Figure 5. During the 1954 through 1956 period, development activity increased with set-through completions utilizing hydraulic fracturing. During the 1953 through 1959 period, 23 per cent of the total completions in the proposed Unit were made and these wells produced 14.5 per cent of the

cumulative oil production; an average of 25,000 barrels of oil per well. This development occurred along the edges of the areas of early development. Another increase in drilling activity occurred during 1960, 1961, and 1962. Completions after the beginning of 1960 account for 17 per cent of the total wells and 5.5 per cent of the cumulative oil produced; an average recovery of 13,000 barrels of oil per well. During this period set-through completions were used and the wells were hydraulically fractured. This development was mostly infield drilling which in effect joined the areas of initial development. Thirty-seven infield locations have not been drilled.

Primary oil reserve estimates for the proposed Unit have been 93.5 per cent depleted as of July 1, 1966. Production for the first half of 1966 was 64,951 barrels, averaging 2.5 BOPD per well. Cumulative oil production to July 1, 1966, the effective parameter date, was 8,514,865 barrels. Cumulative oil production and current producing rate as of January, 1968 was 8,690,611 and 10,455 BOPM (2.3 BOPD per well) respectively. Predicted and actual performances since parameter date are shown on Figure 5. Comparison of these performances shows the predicted performance to be slightly lower than actual.

During the development of the area, several wells were dually completed in the Jalmat Gas Zone immediately above the Langlie Mattix. The Jalmat Zone extends from the top of the Yates Formation at approximately 2800 feet to the top of the Langlie Mattix at approximately 3300 feet. The Jalmat was developed on 160-acre spacing with approximately 10 per cent of these Jalmat completions being twin wells to the Langlie Mattix wells. The remaining are Jalmat-Langlie Mattix duals or depleted Langlie Mattix wells plugged back and recompleted in the Jalmat. In dually

completing these wells, the practice was generally to produce the Langlie Mattix from below a production packer through 2-inch tubing. The Jalmat Gas is produced from above the packer via the casing-tubing annulus. There are a few wells in the Unit which appear to have downhole commingling of the Langlie Mattix and Jalmat Zones. Data on these wells have been previously submitted to the Operators' Committee, and it was decided that separation of the zones would be handled by the present operator.

One well within the Unit area is designated as a Jalmat Oil completion. This well is treated the same as the Jalmat Gas wells and no oil from the Jalmat is included in the parameter tabulations.

RESERVOIR CHARACTERISTICS

The productive formations for the proposed Unit include the lower 100 feet of the Seven Rivers and the Queen Formations. The two prominent sand members of the Queen are the Upper Queen and Penrose. The principal producing zone for the Langlie Mattix Pool is the Penrose Member; however, in the proposed Unit this does not hold true. The Penrose production is primarily along the eastern one-third of the Unit. The subsurface structure, as shown on Figure 6, reflects a structural high trending NW-SE across this eastern part of the Unit. This places the Lower Seven Rivers, Upper Queen, and part of the Penrose sections above the gas-oil contact, generally considered to be at a datum of -150 feet. The apparent decrease in porosity and permeability development along this structural crest further restricts the producing capabilities of wells in this area. Most of the wells in this area exhibit cumulative oil recoveries less than the Unit average.

Along the west dip of this structural feature there is an area of further decreased sand development. Here the Penrose Sand shows

a marked decrease in porosity as it dips below the oil-water contact. The Upper Queen and Basal Seven Rivers Sands dip below the gas-oil contact but are not well developed. Cumulative production is extremely low. This is somewhat of an in-between area with the Penrose exhibiting better sand development to the East while the Upper Queen and Basal Seven Rivers Sands are better developed to the West.

Westward from this structural feature, the increase in sand development of the Upper Queen and Basal Seven Rivers occurs in an area where the beds are relatively flat. Porosities and permeabilities vary greatly, but there are two areas, one along the east-central and the other along the southeast corner of the Unit, where cumulatives have been good with several wells having a cumulative in excess of 100,000 barrels of oil.

The gas-oil contact is generally considered to be at a datum of -150 feet and the oil-water contact at a datum of -350 feet. Depending upon structural position, the gross oil pay ranges up to 200 feet.

A total of eighteen core analyses are available in the study area for all or part of the Langlie Mattix Zone. In general, these analyses are on wells drilled after 1953 and are considered to exhibit characteristics lower than the field average, on the basis of their cumulative productions. The characteristics exhibited by core analyses are:

FORMATION	SEVEN RIVERS	QUEEN	PENROSE	TOTAL
No. Wells Cored	12	15	8	18
Gross Interval Cored (Ft.)	818	1176	1149	3143
Net Pay (Ft.)	120	327	192	639
Net to Gross (%)	14.7	27.8	16.7	20.3
Average Porosity (%)	14.6	14.2	14.2	14.3
Average Permeability (md)	6.4	8.5	5.7	7.2
Average Residual Oil Sat. (%)	9.1	11.4	10.1	10.6
Average Total Water Sat. (%)	49.5	53.1	52.6	52.3
Estimated Conate Water Sat. (%)	-	-	-	37

The areal distribution of the core data gives a good coverage of the area drilled subsequent to 1953. However, since 60 per cent of the development occurred prior to that time, there is insufficient coverage for determining net pay or a net to gross ratio for the entire study area. Therefore, the original oil in place was not calculated.

Figure 6 is a structural contour map drawn on the top of the Queen Formation showing the structural configuration of the Unit. The vertical cross-section, Figure 7, is an east-west cross section which shows structural relief and change in sand development. The cross-section is presented to show a quantitative interpretation of gross sand encountered in these wells. This should not be used as a net pay interpretation, as the sand determination was taken principally from gamma ray log interpretation, with some data taken from core analyses and sample description. No attempt was made to determine porosities within these sand stringers.

The structure map and cross-section reflect the structural position and sand development as they exist under that acreage which was not developed for primary production. The sands for the most part are tight and thin and occupy that part of the Unit where neither the Penrose or Upper Queen and Basal Seven Rivers are adequately developed. Recovery from these areas should be low to nil due not only to the tightness of the sand, but also due to the sands not being continuous within the gross pay interval.

The gas present in the sand stringers in the higher structural area are localized and are apparently confined horizontally by sand development. These gas zones are not believed to have contributed significantly to primary recovery. The primary recovery mechanism for the reservoir is solution gas drive.

PRIMARY RECOVERY

Figure 5 is a primary performance graph for the proposed Unit. This graph was prepared using annual production from the New Mexico Oil and Gas Engineering reports and was corrected where apparent errors were found. Extrapolation of this graph to the terminal limit of 52,560 BOPY, equal to 1 BOPD per well, shows a remaining primary of 572,012 barrels of oil. This compares to a remaining primary of 596,063 barrels of oil for the sum of the individual leases' remaining primary reserves when extrapolated to the terminal limit. This comparison is in very close tolerance when it is realized that the Unit performance graph includes several leases which are currently producing below the defined terminal limit. For the purpose of parameter data, the remaining reserves reflected by the individual lease performance were used for the Unit remaining primary reserves after July 1, 1966. Ultimate primary is expected to be approximately 9.1 MMBO with a remaining life of 6.5 years after July 1, 1966, or 4 years after the expected unitization date of January 1, 1969. Ultimate primary recovery should average 42,000 barrels of oil per well.

SECONDARY RECOVERY

General

Considerable interest in secondary recovery, by waterflood, is evidenced by the numerous units that are being formed in the Langlie Mattix Pool. An estimated 60 per cent of the wells in the Pool are presently in some unit, or are in the process of unitization. It is expected that 90 per cent of the Langlie Mattix wells will be subjected to waterflood operations within the immediate future. Figure 1 shows units in proximity

to the proposed Myers Langlie Mattix Unit which are in operation or in some stage of unitization. Some of the major units in operation are: Amerada Woolworth Unit, Anadarko Langlie-Mattix Penrose Sand Unit, Carter Foundation Bline Cade Unit, Humble State "M" Waterflood Project, Shell Langlie Mattix Unit #1, and Skelly Penrose "A" and "B" Units. All known projects that utilized a pilot program have expanded to full-scale. Pilot operations previously carried out plus full-scale operations indicate the Langlie Mattix Zone will respond to secondary recovery by waterflooding, and predicated recovery will equal from 70 per cent to 100 per cent of primary. The Myers Langlie Mattix Unit is expected to recover 7.3 MM BO which is equal to 80 per cent of the ultimate primary.

There are thirty-seven undrilled locations within the Unit. No recommendations are submitted herein for further development. Any infield location drilled to the Langlie Mattix Pay during secondary recovery operations will necessarily have to be on its own merits, and will be indicated by the waterflood performance in the immediate area. Sufficient merits for further drilling at this time do not exist.

Plan of Operation

The selected injection pattern, shown on Figure 8, provides for a normal 80-acre five-spot modified along the Unit boundary and through the areas of decreased development. Initially 86 existing wells will be utilized for water injection. An additional eight wells will be converted as line agreements along the Unit boundary are established. The remaining 123 wells will be utilized as producing wells. The average injection rate is expected to be 265 BWPD per injection well over the

life of the project. Injection rates are expected to be higher initially with the 94 injection wells utilizing approximately 31,000 BWPD for an average of 325 BWPD per well. As fillup occurs, rates will probably be restricted due to increase in pressure, which also will reduce plant capacity. For the purpose of this report, it is considered that injection water will be purchased with produced water being recycled. Water bearing sands within the Unit area are considered to be of insufficient capacity to meet the water requirements for this project; therefore, injection water must be imported.

Predicted waterflood performance is shown on Figure 9 and is contingent on the start of injection in the first quarter of 1969. The first response to the waterflood should be approximately 0.5 years from the start of injection. If the proposed injection rate is maintained, peak production should be reached in two years from the start of injection and should last for two years, at which time 60 per cent of the water flood reserves should be recovered. Peak rate is expected to be 1.6 MM BOPY. Abandonment will occur with a 98 per cent water cut and 100 per cent of the waterflood reserves being recovered 9.5 years from the start of water injection.

The proposed injection system is shown on Figure 10. The system will consist of a plant equipped with five quintuplex pumps powered by Ajax DP-230 gas engines. The plant will be capable of delivering 31,000 BWPD at 1850 psig. Sufficient tankage will be installed at the plant to provide proper suction conditions for the pumps and to facilitate recycling the produced water. Water injection lines will be cement-lined steel pipe externally wrapped and sized as required. Injection wells will be completed with internally coated tubing set in a tension-type packer approximately 50 feet above the casing seat or uppermost perforation.

Each injection well will be provided with a header to permit metering and control of water volumes.

Shown on Figure 11 are the proposed producing facilities which consist of a central battery equipped with a LACT unit and eight satellite test stations. Steel flow lines will be used from the wells to the satellite test stations, utilizing existing material to the maximum. Each satellite test station will be equipped with a metering treater and a test manifold for individual well testing. During any time period, a single well will be produced through the metering treater for individual well test with the remaining wells in the satellite producing directly to the central battery facilities via the trunk line system. The trunk line system from each satellite will be buried reinforced fiberglass epoxy pipe sized as required.

The central battery will be constructed from existing tankage and treating equipment in the Unit and it will be equipped with a LACT unit, sized as required, to minimize operating expense and conserve crude oil gravity.

The estimated cost for the proposed plan of operation is shown on Table I. Items included in these costs are: injection plant, distribution system for water injection, well conversion, water supply line, producing system facilities, relocation and installation of larger pumping equipment, and workovers for producing wells. The initial investment of $1,448,500 will be required with the total investment being $2,043,000. Net investment at the end of operations is expected to be $1,843,500 after deducting salvage. Total investment will equal approximately $235 per developed acre.

ECONOMICS

Recoverable primary reserves from January 1, 1969 to the terminal limit of 54,270 BOPY will be approximately 300,000 barrels. Recovery of this primary oil would be achieved by January 1, 1973. The undiscounted net revenue before taxes from the recoverable primary reserves is $87,000. Data from the economic projection for primary operations are:

Gross Oil Production, STB	300,000
New W. I. Income @ $2.37/Bbl. (After Royalty & Production Tax)	$711,000
Direct Operating Expense ($100 per well per month)	$624,000
Net Revenue (Undiscounted before Income Tax)	$ 87,000

Economics of the proposed waterflood project are shown on Table II. Total oil recovery during the waterflood operation will be 7.6 MM Bbls. resulting in an undiscounted net revenue before taxes of $9,109,500. Value of the discounted net revenue at six per cent is $6,996,400. Additional income due to secondary recovery is expected to pay out the initial investment in 2.3 years. Life of the waterflood will be approximately 9.5 years. Data from the economic projection are:

Gross Oil Production, STB	7,600,000
Net W.I. Income @ $2.37/Bbl. (After Royalty & Production Taxes)	$18,012,000
Net Capital Expenditures	$1,843,500
Direct Operating Expenses (Including Water Purchase)	$7,059,000
NET REVENUE BEFORE INCOME TAX	$9,109,500

This projection clearly indicates that the proposed waterflood

will be economically feasible under this plan of operation. The area should be unitized and the waterflood operation started as soon as possible. The properties are nearing the depleted stage and remaining primary can be produced during waterflood operation at greater economy.

LIST OF ATTACHMENTS

TABLES

FIGURES

PRELIMINARY WATERFLOOD COST
PROPOSED MYERS LANGLIE MATTIX UNIT, LEA COUNTY, NEW MEXICO

			COST	TIME OF INVESTMENT
I.	INJECTION PLANT: Equipped with five (5) quintuplex pumps driven by Ajax DP-230 gas engines. Plant capacity to be approximately 31,000 BWPD at 1845 psig.		$245,000	Initial
II.	INJECTION SYSTEM: System to consist of approximately 117,600' of 2 3/8" O.D., 17,400' of 2 7/8" O.D., 12,750' of 3 1/2" O.D., and 46,500' of 4 1/2" O.D. externally wrapped cement-lined steel line pipe, complete with miscellaneous fittings and survey expense.		$328,000	Initial
III.	INJECTION WELL CONVERSIONS: Convert 94 wells to injection service, utilizing coated tubing, tension packers, individual well headers, and necessary well work to confine injection to unitized interval. Includes additional length of liners for seven (7) wells with assessments.		$404,000	Initial
IV.	WATER SUPPLY LINE: Approximately 13,500' of 8 5/8" O.D. externally wrapped, cement-lined steel pipe installed from main lateral of Jal Water System to water injection station.		$ 55,500	Initial
V.	PRODUCING SYSTEM: Install central battery with LACT unit and eight (8) satellite test stations, utilizing existing material and equipment to maximum.		$371,000	Initial
VI.	RELOCATE PUMPING EQUIPMENT: Move pumping equipment to wells not presently equipped utilizing surplus equipment from wells converted to injection. Estimated 30 wells @ $1,500 each.		$ 45,000	Initial
		INITIAL INVESTMENT	$1,448,500	
VII.	WORKOVERS ON PRODUCING WELLS: Necessary well work on estimated 34 wells to prepare for response in unitized interval. To be performed in second year of injection.		$225,500	2nd Year
VIII.	LARGER LIFT EQUIPMENT: Install larger lift equipment on 41 wells @ $9,000 each (assumes 1/3 of producing wells). To be installed in 3rd and 4th year of operations.		$369,000	3rd & 4th years
		TOTAL INVESTMENT	$2,043,000	
IX.	SALVAGE: Pumps and Engines in plant at 40%.	$56,000		
	Pumping Units and Engines at 50%.	$143,500		
	TOTAL SALVAGE	$199,500	(199,500)	
		NET INVESTMENT	$1,843,500	

February, 1968

TABLE I

ECONOMIC ANALYSIS OF WATERFLOOD OPERATION

PROPOSED MYERS LANGLIE MATTIX UNIT

YEAR	GROSS PRODUCTION (M Bbls.)	NET W.I. INCOME (M $)	INVESTMENT (M $)	DIRECT OPERATING EXPENSES (M $)	NET REVENUE BEFORE INCOME TAX (M $)	CUMULATIVE NET REVENUE BEFORE INCOME TAX (M $)	PRESENT WORTH NET REVENUE BEFORE INCOME TAXES @ 6% (MID-YEAR) (M $)
1969	60	142	1,448.5	861	(2,167.5)	(2,167.5)	(2,105.3)
1970	1,200	2,844	225.5	861	1,757.5	(410.0)	1,610.4
1971	1,600	3,792	184.5	811	2,796.5	2,386.5	2,417.4
1972	1,600	3,792	184.5	800	2,807.5	5,194.0	2,289.5
1973	970	2,299		787	1,512.0	6,706.0	1,163.3
1974	730	1,730		770	960.0	7,666.0	696.8
1975	540	1,280		745	535.0	8,201.0	366.3
1976	420	995		626	369.0	8,570.0	238.4
1977	340	806		532	274.0	8,844.0	167.0
1978 *	140	332	(199.5)	266	265.5	9,109.5	152.6
TOTAL	7,600	18,012	1,843.5	7,059	9,109.5		6,996.4

Payout of the Initial Investment before Income Tax = 2.3 Years
Net Profit before Income Tax Per Dollar Invested = $3.80/$1
* Six Months' Operation

NOTE:

A. Water Injection Started First Quarter 1969
B. Gross W I. = 100%, Net W.I. = 87.5%
C. Net W.I. Income= $2.37/Gross Barrel
D. Direct Operating Expenses are estimated at $225/Well/Month plus water purchases.

Feb., 1968
NDN/bh

TABLE II

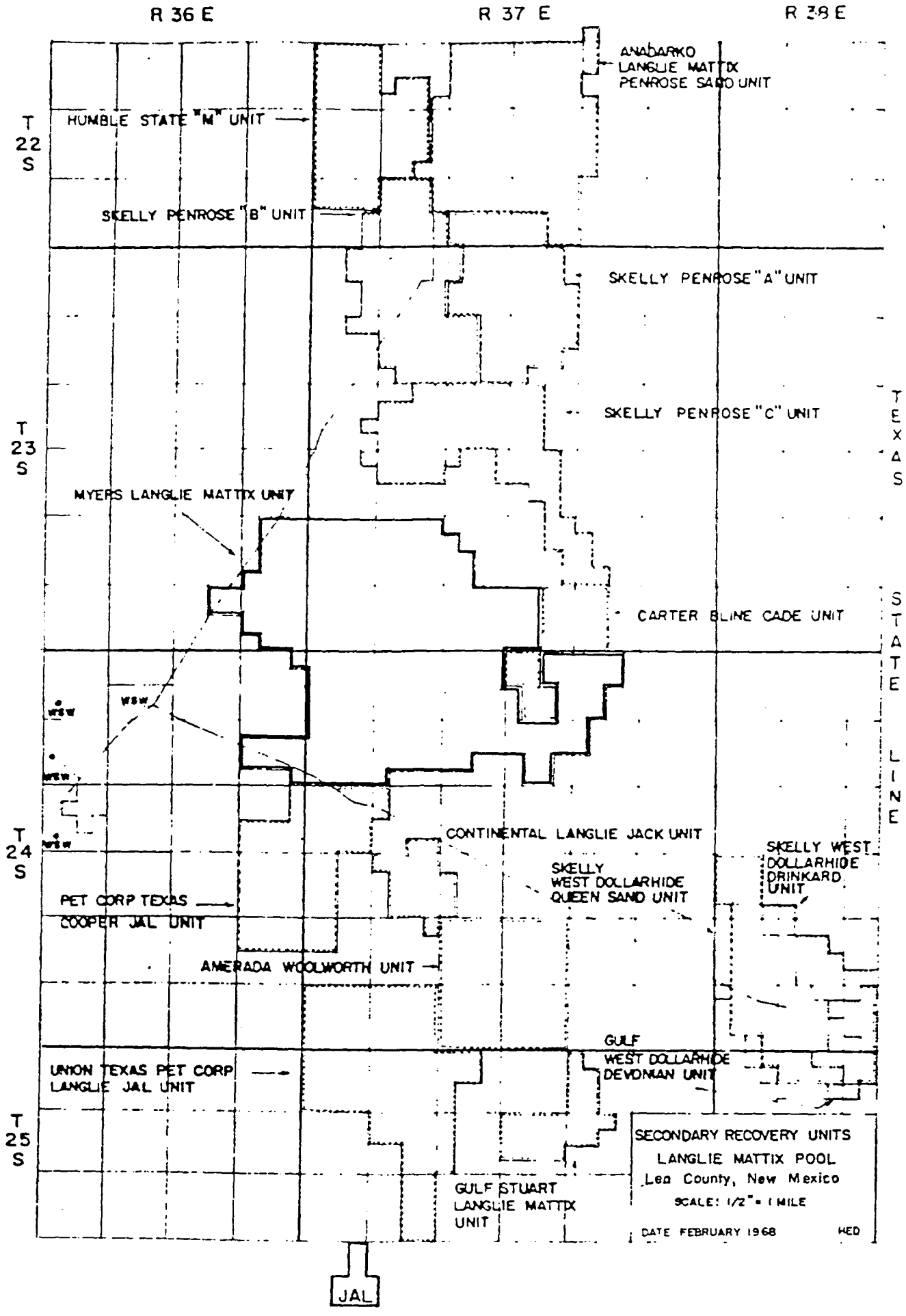

R 36 E
R 37 E
R 38 E
T 22 S
T 23 S
T 24 S
T 25 S
ANADARKO LANGLIE MATTIX PENROSE SAND UNIT
HUMBLE STATE "M" UNIT
SKELLY PENROSE "B" UNIT
SKELLY PENROSE "A" UNIT
SKELLY PENROSE "C" UNIT
MYERS LANGLIE MATTIX UNIT
CARTER BLINE CADE UNIT
WSW
WSW
WSW
WSW
CONTINENTAL LANGLIE JACK UNIT
SKELLY WEST DOLLARHIDE QUEEN SAND UNIT
SKELLY WEST DOLLARHIDE DRINKARD UNIT
PET CORP TEXAS COOPER JAL UNIT
AMERADA WOOLWORTH UNIT
GULF WEST DOLLARHIDE DEVONIAN UNIT
UNION TEXAS PET CORP LANGLIE JAL UNIT
GULF STUART LANGLIE MATTIX UNIT
JAL
TEXAS STATE LINE
SECONDARY RECOVERY UNITS
LANGLIE MATTIX POOL
Lea County, New Mexico
SCALE: 1/2" = 1 MILE
DATE FEBRUARY 1968
HED

FIGURE - 1

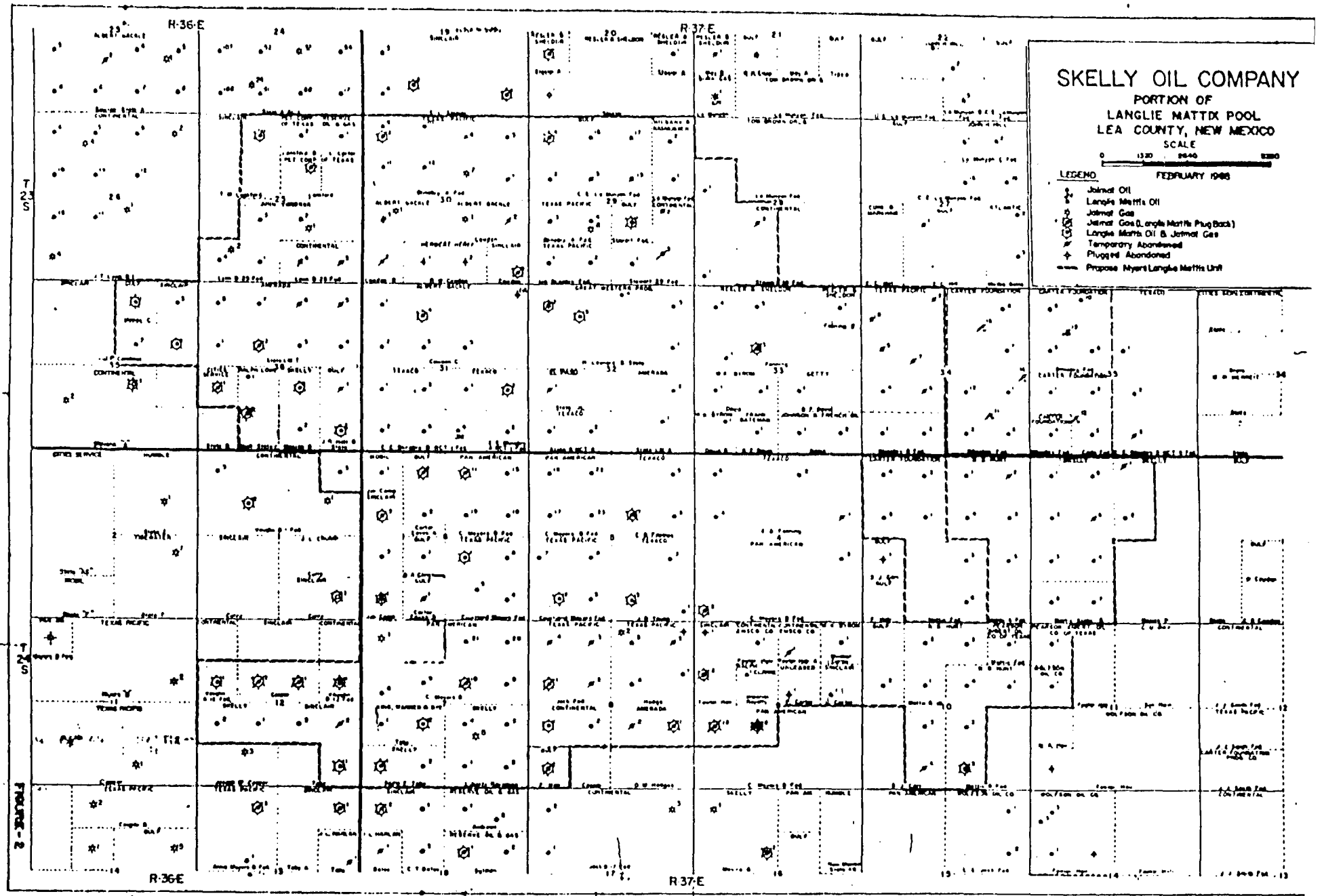

SKELLY OIL COMPANY
PORTION OF
LANGLIE MATTIX POOL
LEA COUNTY, NEW MEXICO
SCALE
0 1320 2640 5280
FEBRUARY 1966
LEGEND
Jalmat Oil
Langlie Mattix Oil
Jalmat Gas
Jalmat Gas (Langlie Mattix Plug Back)
Langlie Mattix Oil & Jalmat Gas
Temporarily Abandoned
Plugged Abandoned
Proposed Myers Langlie Mattix Unit
R-36-E
R-37-E
T 23 S
T 24 S
R-36-E
R-37-E

FIGURE - #2

SCHEMATIC DIAGRAM

PROPOSED UNITIZED VERTICAL LIMITS

MYERS LANGLIE MATTIX UNIT

LEA COUNTY, NEW MEXICO

FEBRUARY 1968

TEXAS PACIFIC OIL COMPANY

Blinebry "B" No 3

Section 34-T23S-R37E

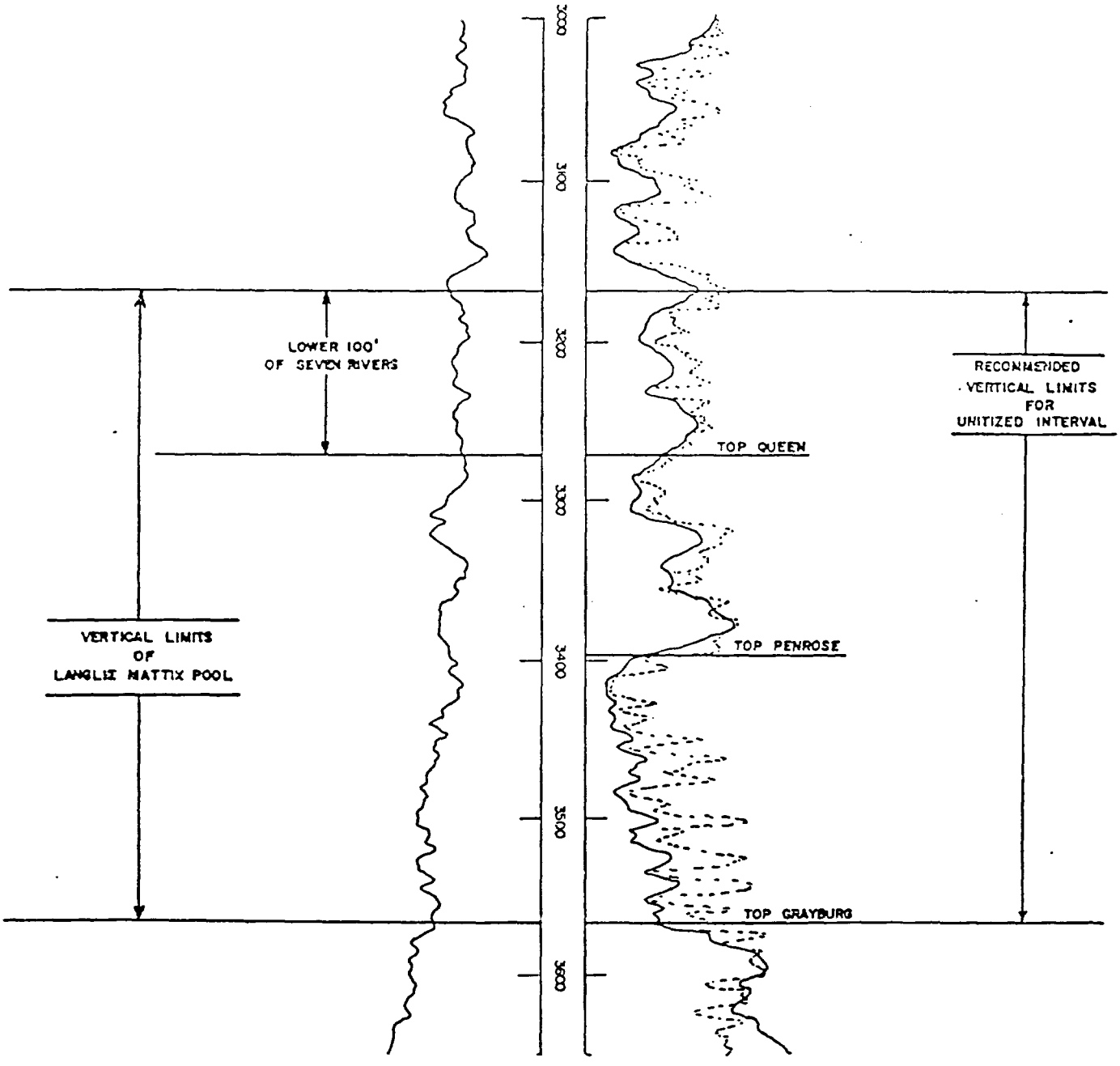


FIGURE-3

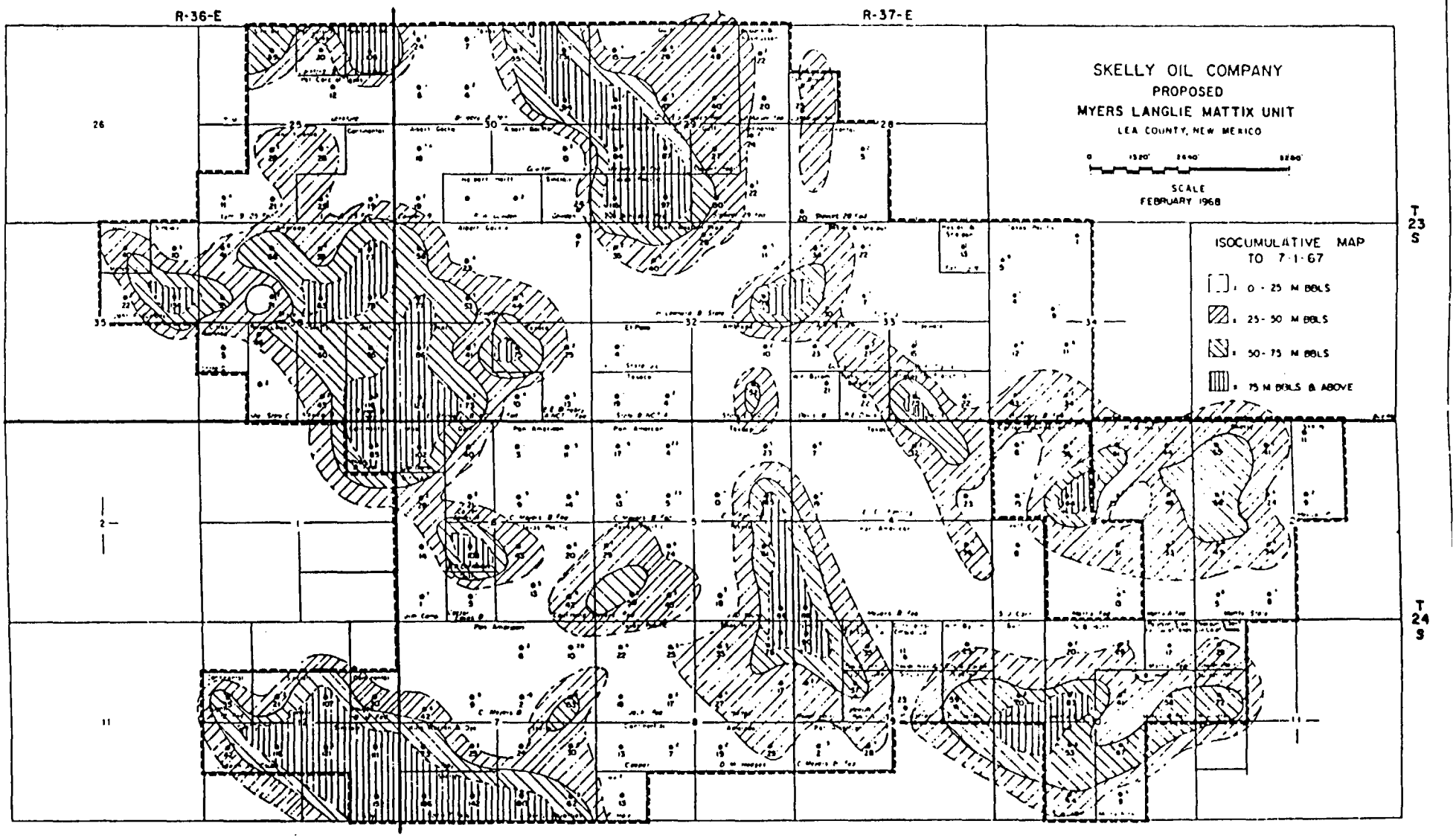

R-36-E
R-37-E
SKELLY OIL COMPANY
PROPOSED
MYERS LANGLIE MATTIX UNIT
LEA COUNTY, NEW MEXICO
SCALE
FEBRUARY 1968
ISOCUMULATIVE MAP
TO 7-1-67
0 - 25 M BBLS
25 - 50 M BBLS
50 - 75 M BBLS
75 M BBLS & ABOVE
T 23 S
T 24 S

FIGURE - 4

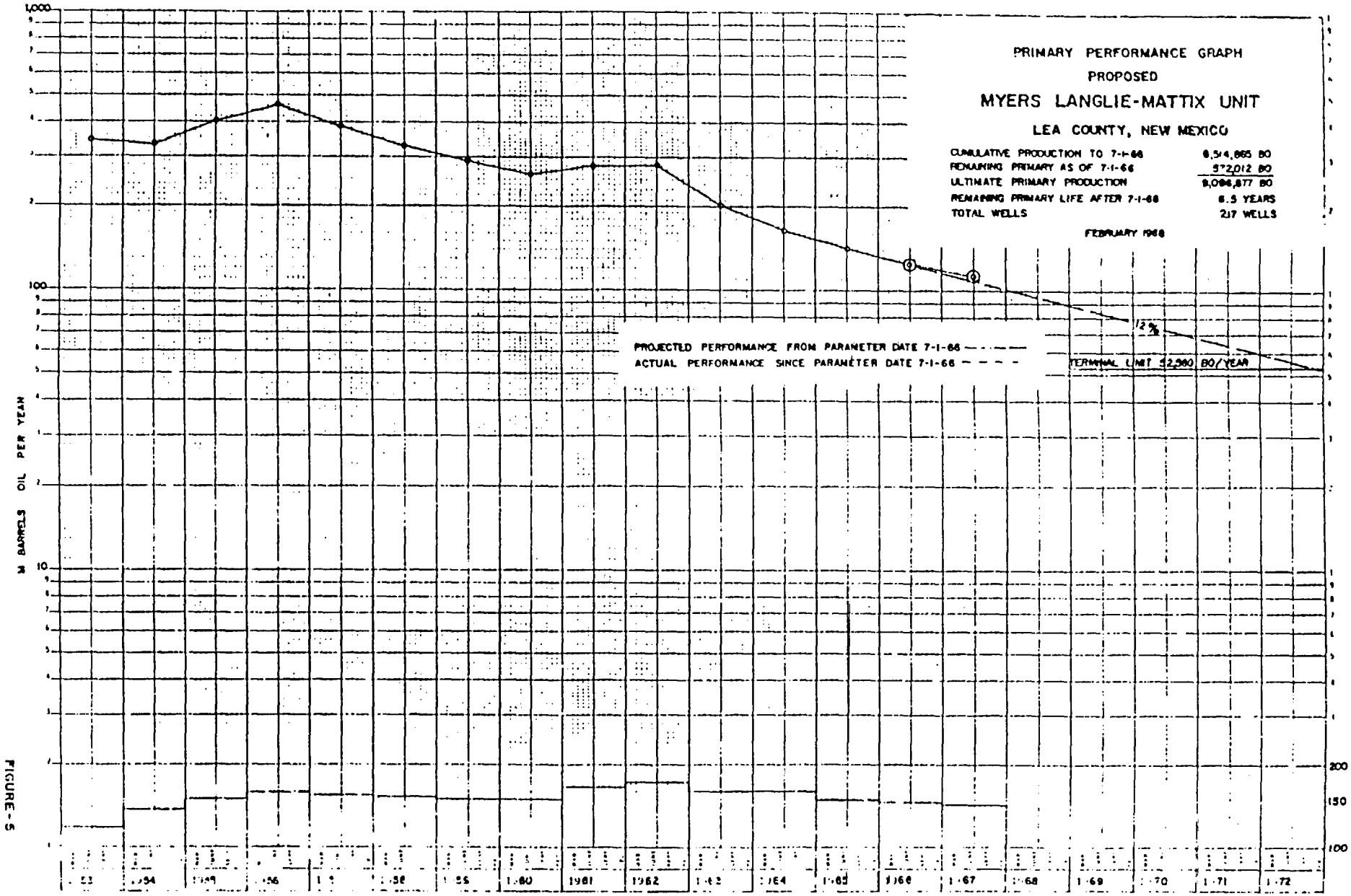

PRIMARY PERFORMANCE GRAPH
PROPOSED
MYERS LANGLIE-MATTIX UNIT
LEA COUNTY, NEW MEXICO
CUMULATIVE PRODUCTION TO 7-1-66 8,514,865 BO
REMAINING PRIMARY AS OF 7-1-66 572,012 BO
ULTIMATE PRIMARY PRODUCTION 9,086,877 BO
REMAINING PRIMARY LIFE AFTER 7-1-66 6.5 YEARS
TOTAL WELLS 217 WELLS
FEBRUARY 1968
PROJECTED PERFORMANCE FROM PARAMETER DATE 7-1-66
ACTUAL PERFORMANCE SINCE PARAMETER DATE 7-1-66
12%
TERMINAL UNIT 52,980 BO/YEAR
M BARRELS OIL PER YEAR
1,000
100
10
1
200
150
100
1960
1961
1962
1967
1968
1969
1970
1971
1972

FIGURE 5

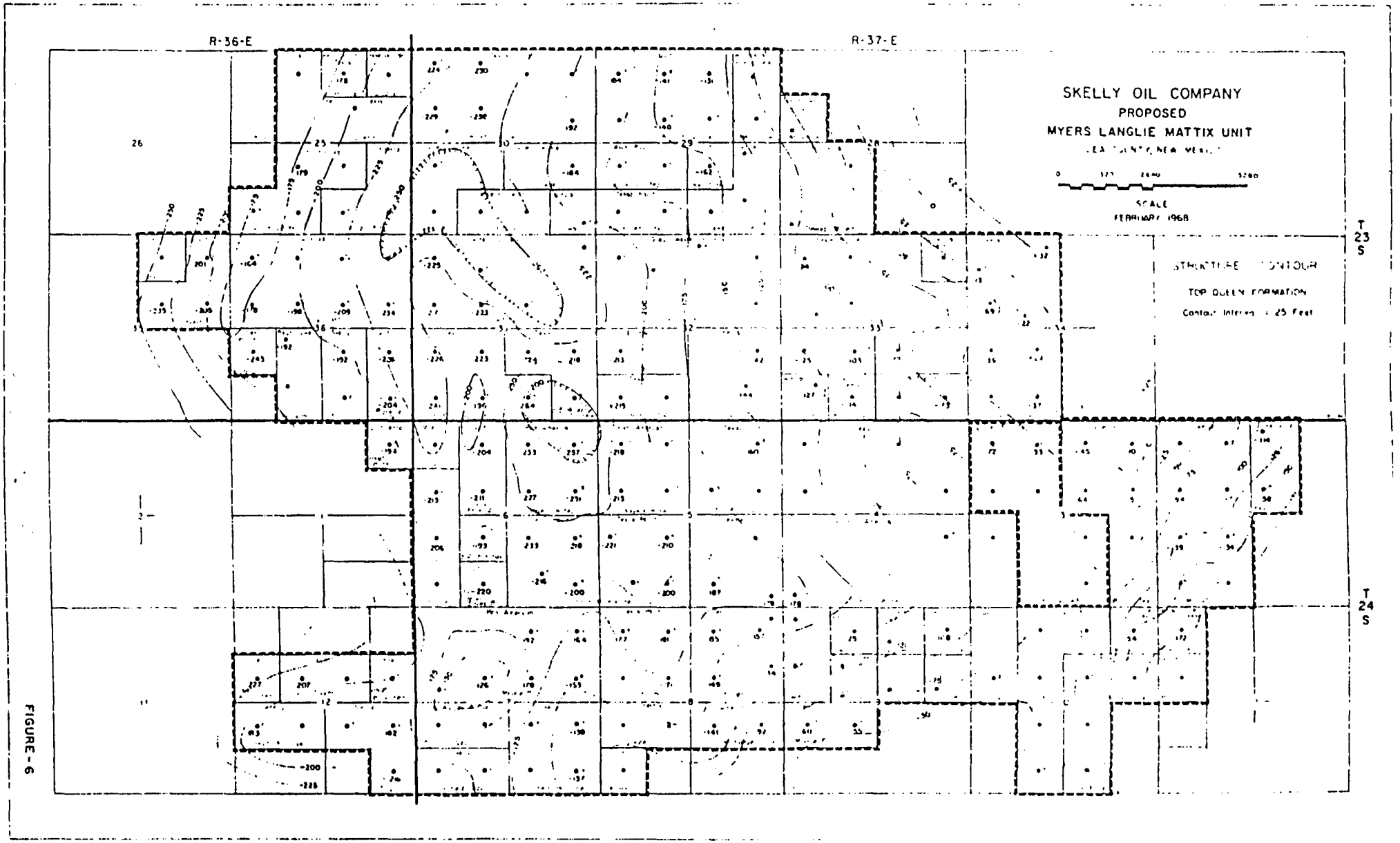
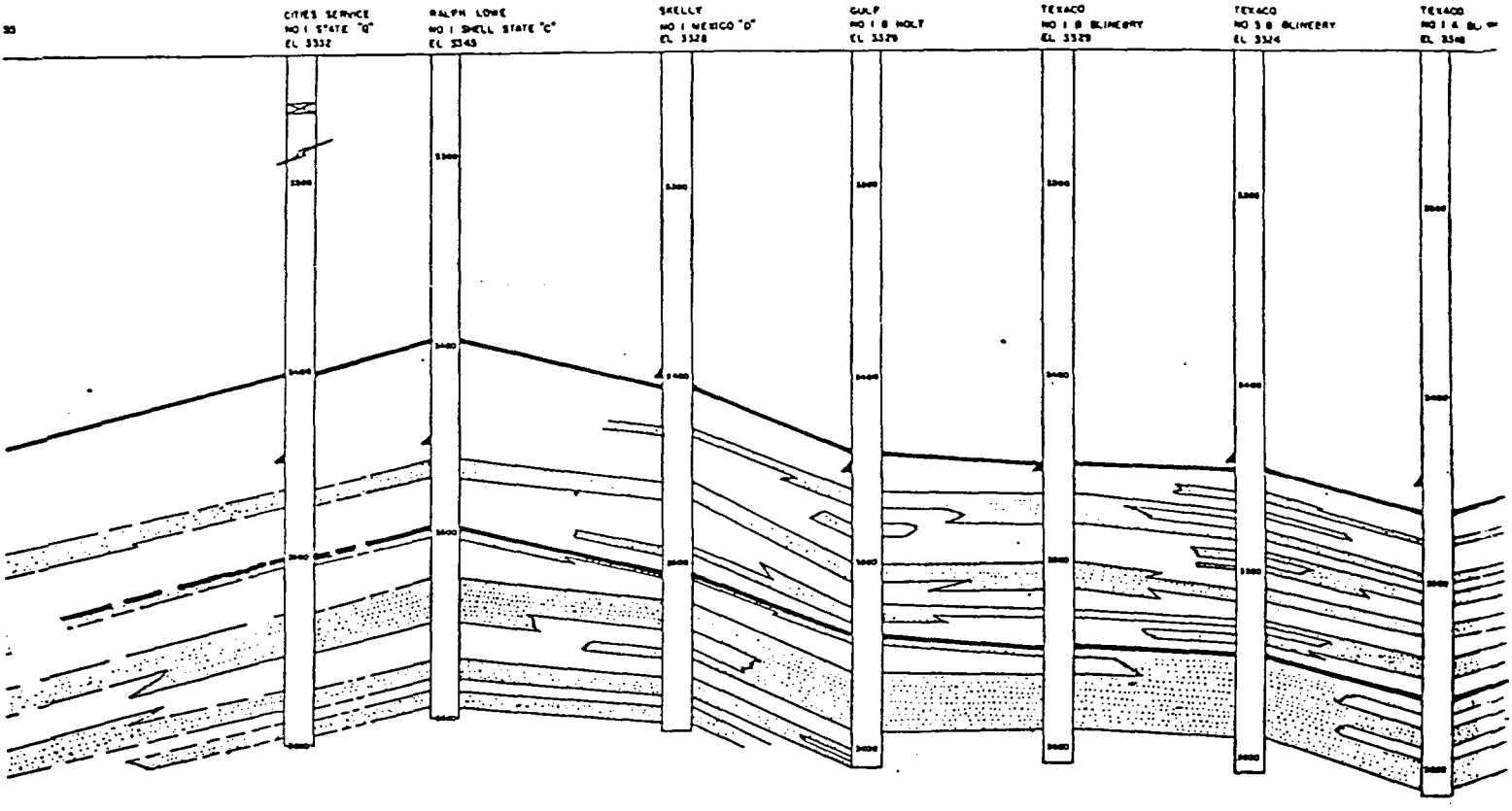
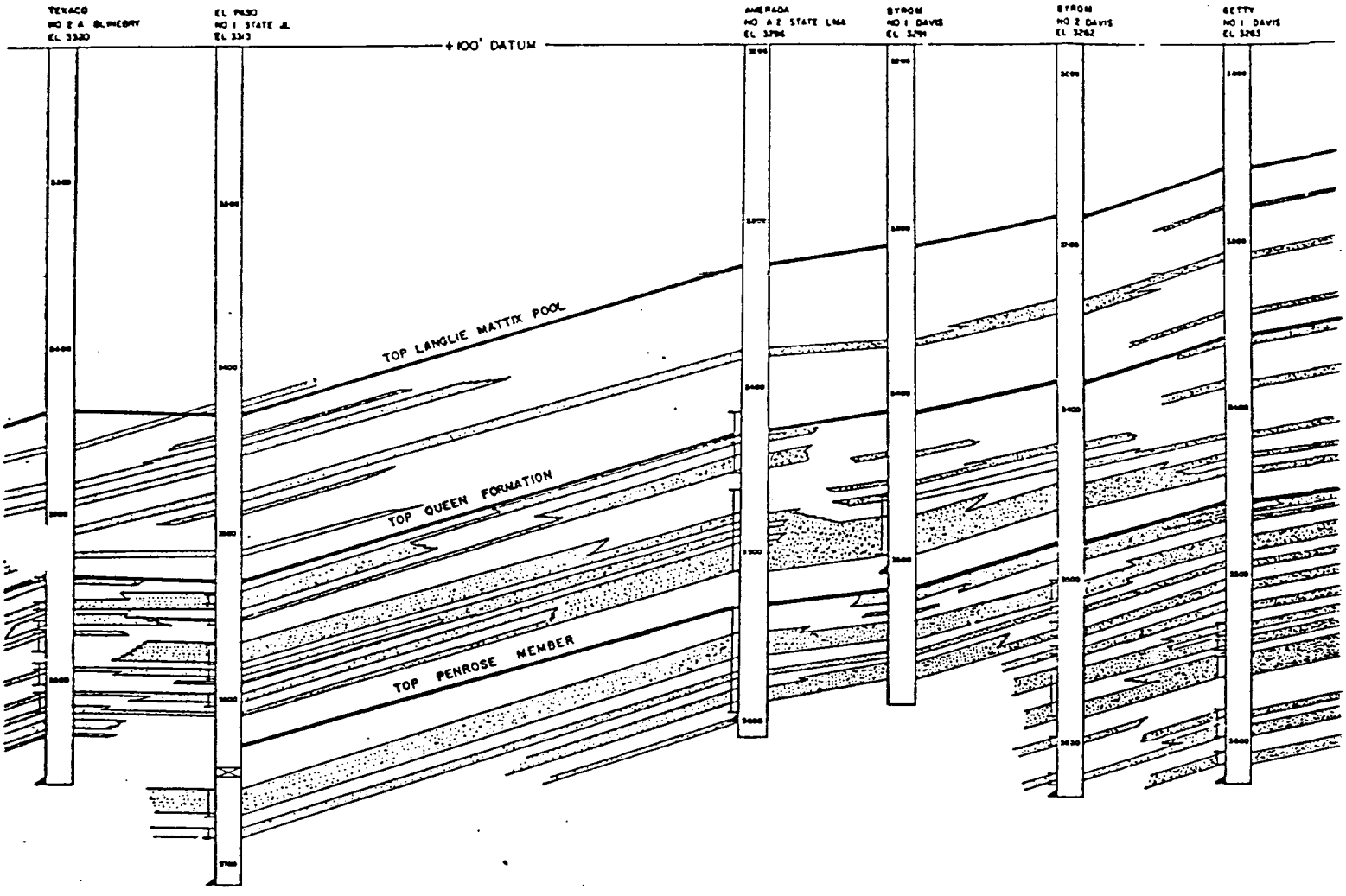

R-36-E
R-37-E
SKELLY OIL COMPANY
PROPOSED
MYERS LANGLIE MATTIX UNIT
SCALE
FEBRUARY 1968
STRUCTURE CONTOUR
TOP QUEEN FORMATION
T 23 S
T 24 S

FIGURE - 6



WEST UNIT BOUNDARY


TEXACO
NO 2 A BLINEBRY
EL 3320
EL PASO
NO 1 STATE JL
EL 3313
+100' DATUM
AMERADA
NO A 2 STATE LMA
EL 3296
BYROM
NO 1 DAVIS
EL 3291
BYROM
NO 2 DAVIS
EL 3282
GETTY
NO 1 DAVIS
EL 3283
TOP LANGLIE MATTIX POOL
TOP QUEEN FORMATION
TOP PENROSE MEMBER

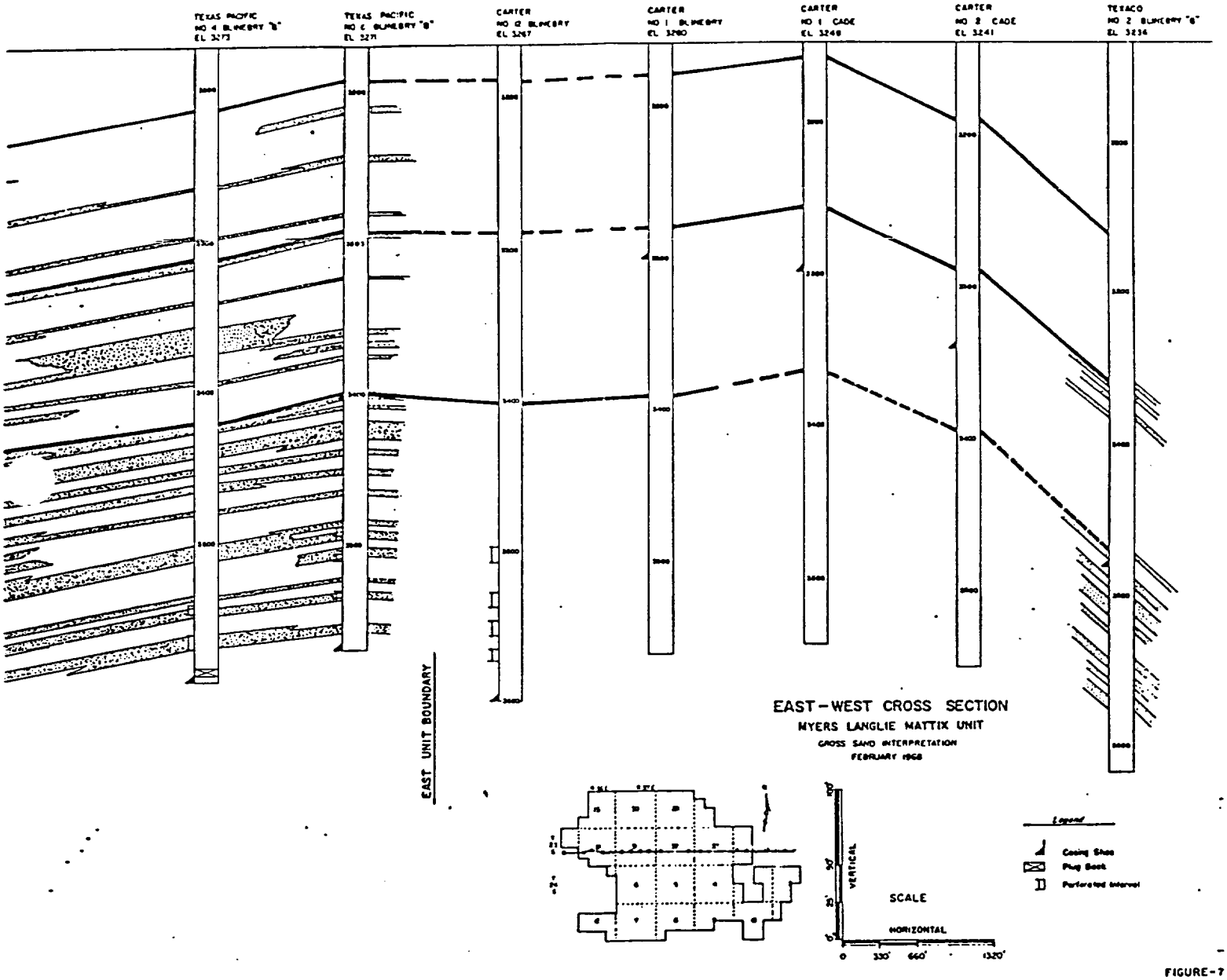

TEXAS PACIFIC
NO 4 BLINEBRY "B"
EL 3273
TEXAS PACIFIC
NO 6 BLINEBRY "B"
EL 3271
CARTER
NO 12 BLINEBRY
EL 3267
CARTER
NO 1 BLINEBRY
EL 3280
CARTER
NO 1 CADE
EL 3248
CARTER
NO 2 CADE
EL 3241
TEXACO
NO 2 BLINEBRY "B"
EL 3234
EAST UNIT BOUNDARY
EAST-WEST CROSS SECTION
MYERS LANGLIE MATTIX UNIT
GROSS SAND INTERPRETATION
FEBRUARY 1968
VERTICAL
SCALE
HORIZONTAL
0
330'
660'
1320'
Legend
Casing Shoe
Plug Back
Perforated Interval

FIGURE-7

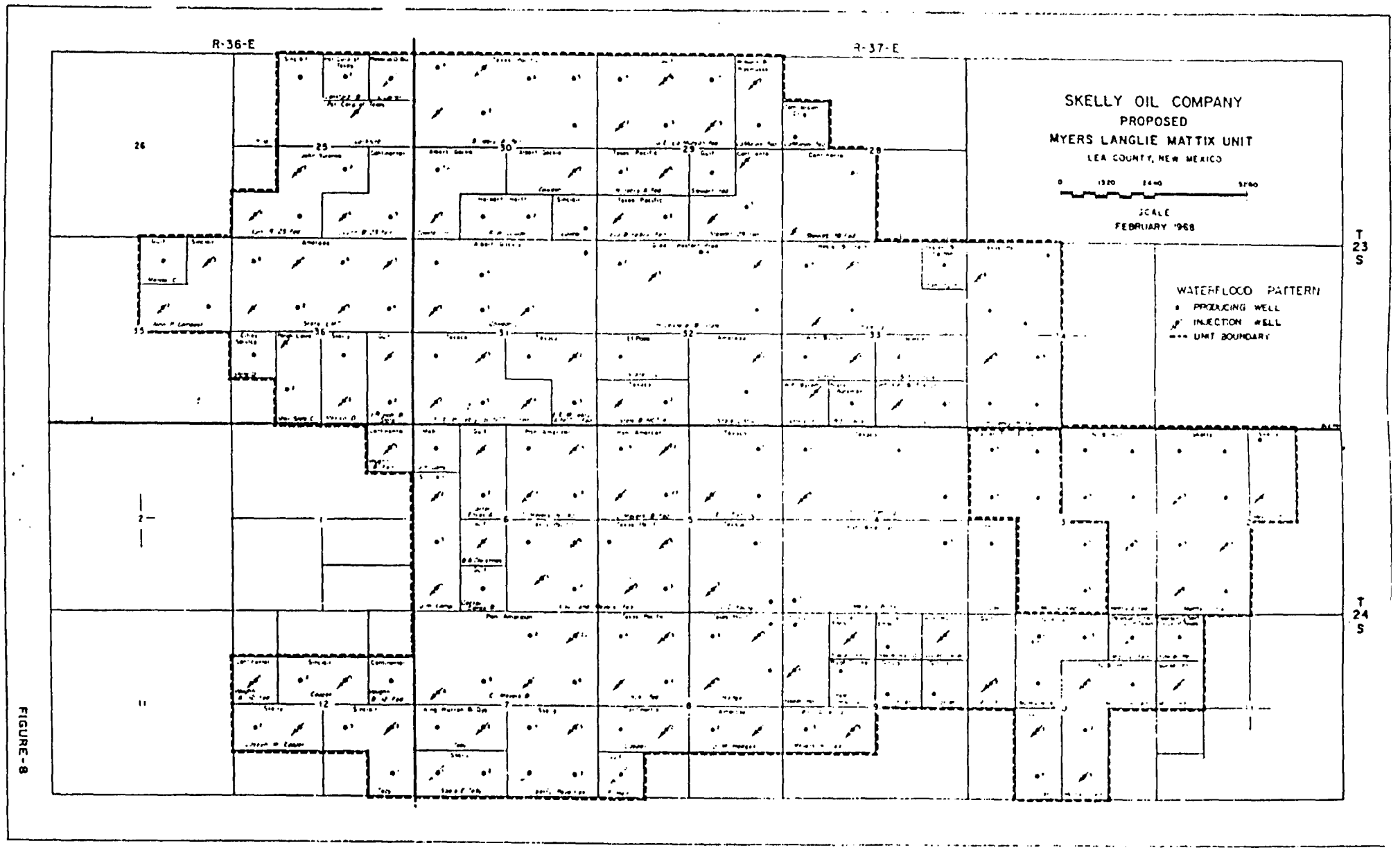

R-36-E
R-37-E
SKELLY OIL COMPANY
PROPOSED
MYERS LANGLIE MATTIX UNIT
LEA COUNTY, NEW MEXICO
0 1320 2640 5280
SCALE
FEBRUARY 1968
WATERFLOOD PATTERN
PRODUCING WELL
INJECTION WELL
UNIT BOUNDARY
T 23 S
T 24 S

FIGURE-8

PREDICTED WATERFLOOD PERFORMANCE

80 ACRE 5-SPOT

MYERS LANGLIE MATTIX UNIT

LEA COUNTY, NEW MEXICO

FEBRUARY 1968

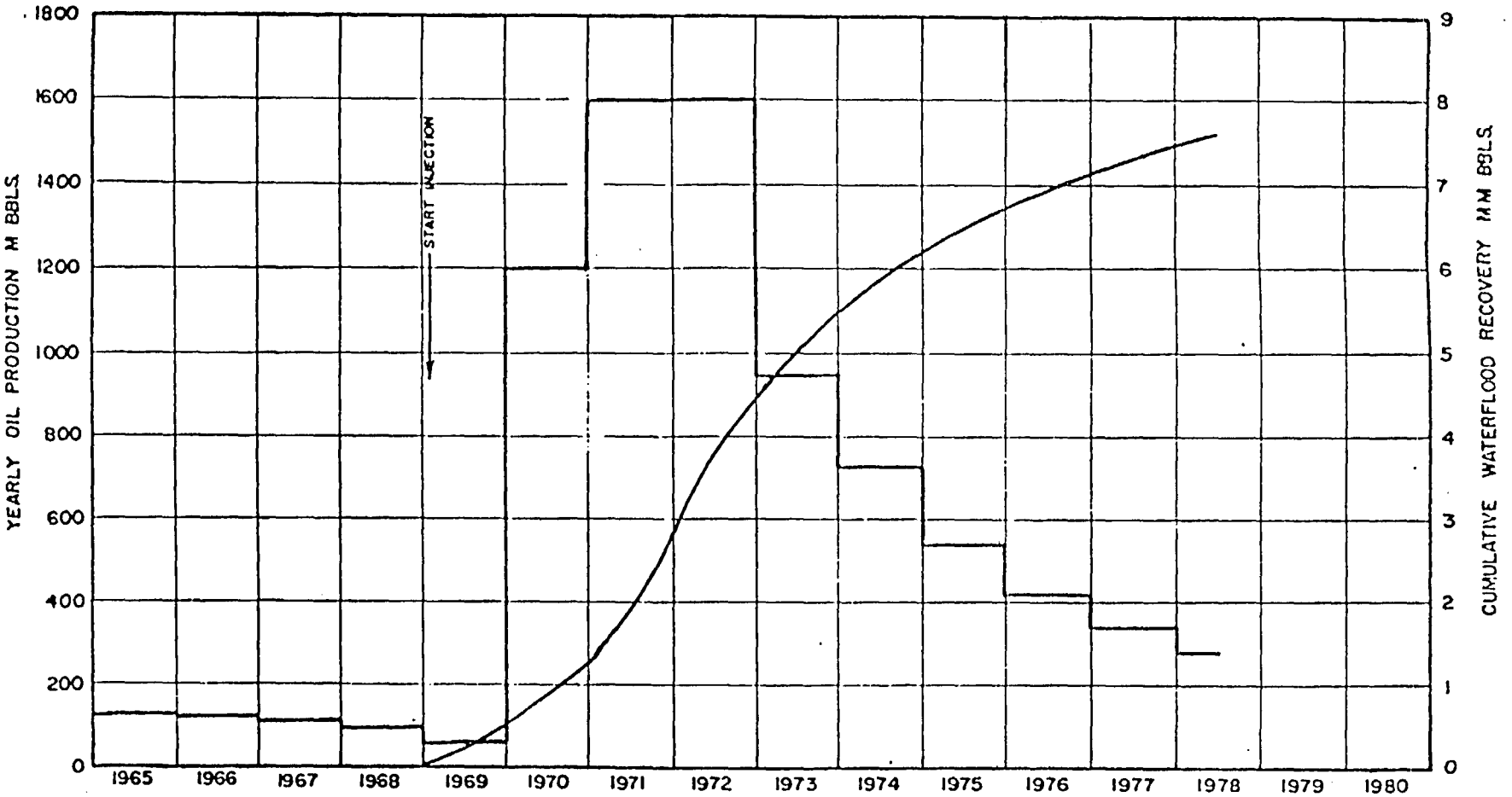


FIGURE 8

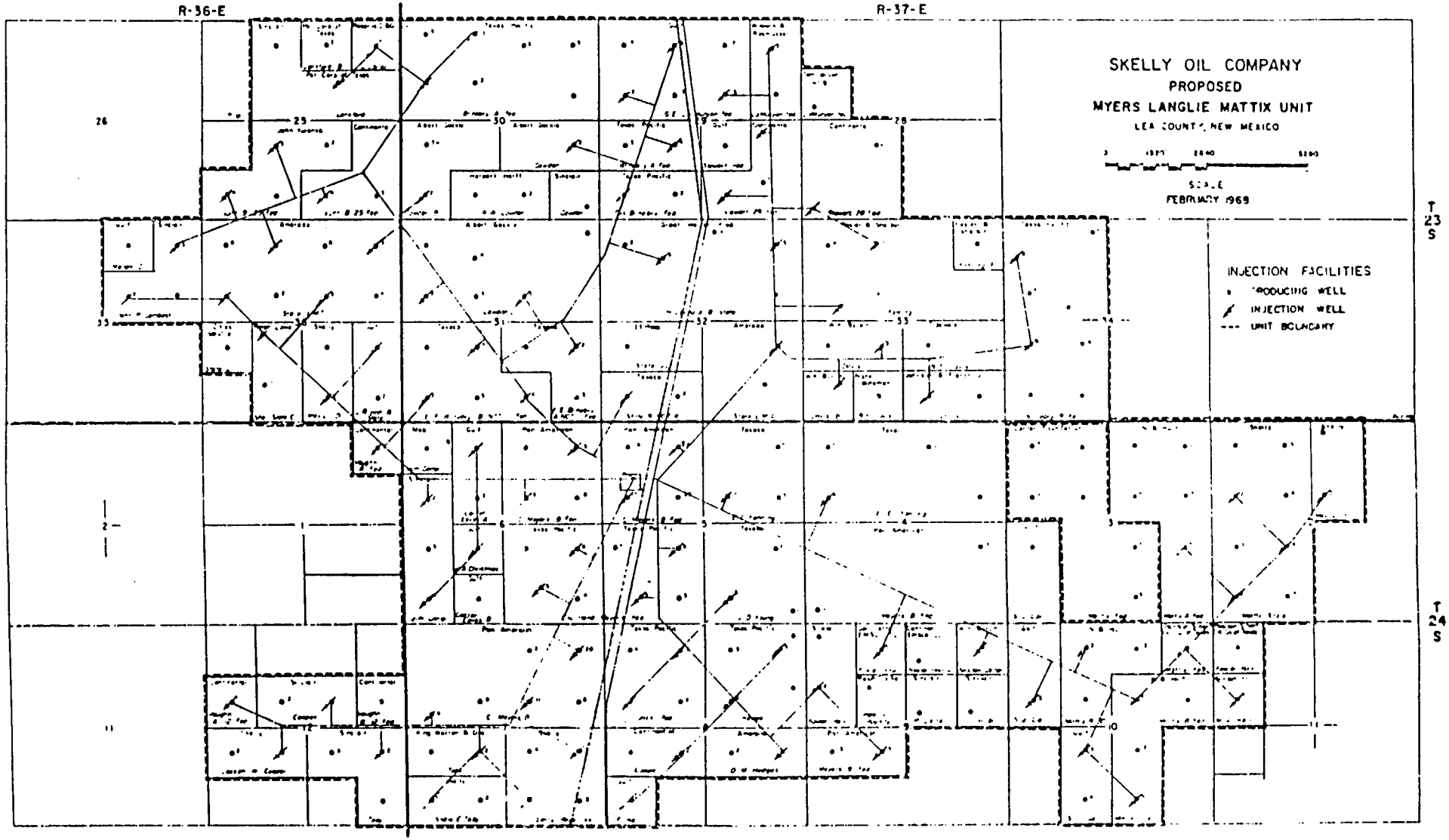

R-36-E
R-37-E
SKELLY OIL COMPANY
PROPOSED
MYERS LANGLIE MATTIX UNIT
LEA COUNTY, NEW MEXICO
SCALE
FEBRUARY 1969
INJECTION FACILITIES
PRODUCING WELL
INJECTION WELL
UNIT BOUNDARY
T 23 S
T 24 S

FIGURE - 10

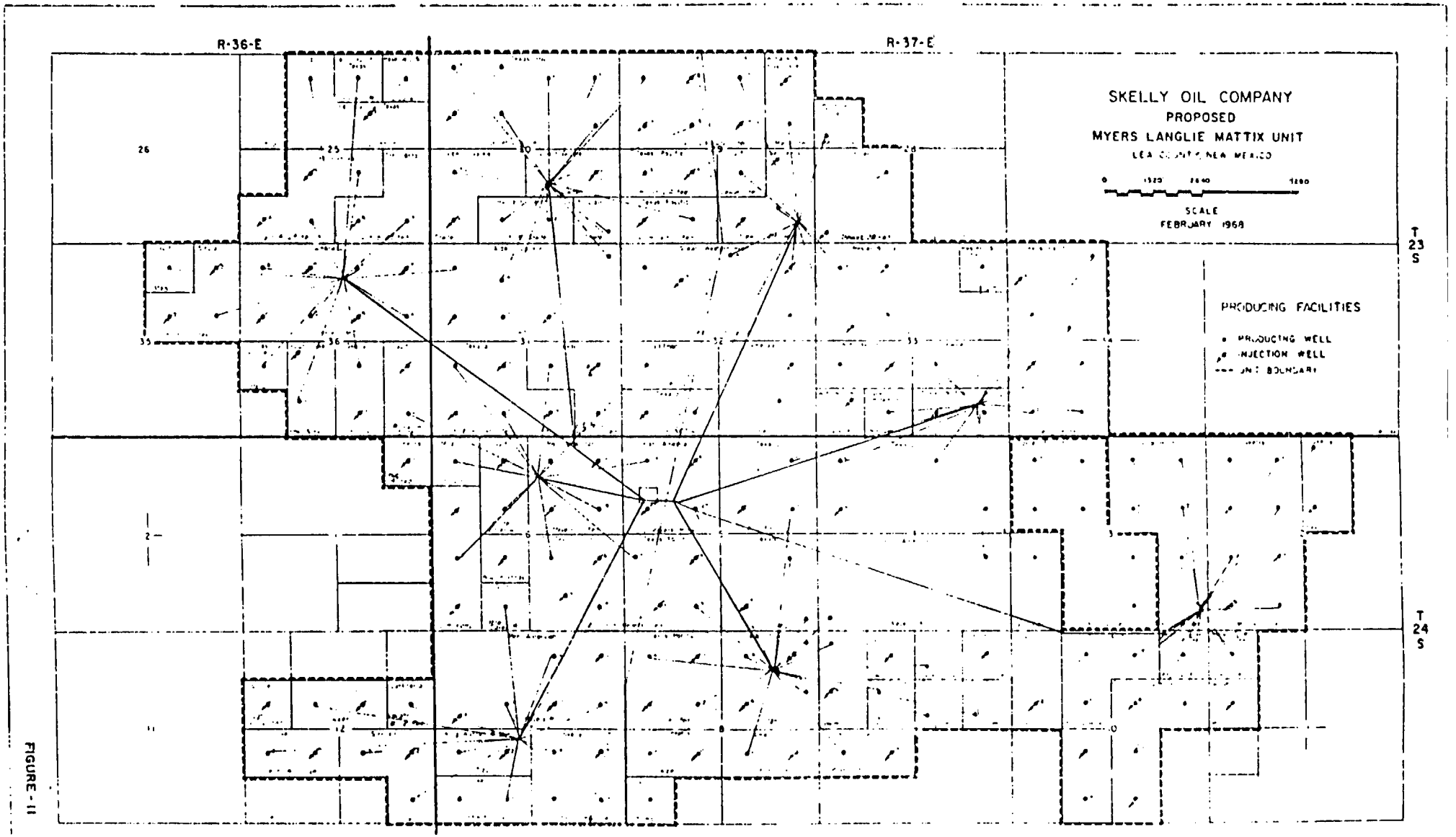

R-36-E
R-37-E
SKELLY OIL COMPANY
PROPOSED
MYERS LANGLIE MATTIX UNIT
LEA COUNTY, NEW MEXICO
SCALE
FEBRUARY 1968
PRODUCING FACILITIES
PRODUCING WELL
INJECTION WELL
UNIT BOUNDARY
T 23 S
T 24 S

FIGURE - II

ECONOMIC ANALYSIS OF WATERFLOOD OPERATION
PROPOSED MYERS LANGLIE-MATTIX UNIT - REDUCED AREA

Year	Gross Production (M Bbls.)	Net W.I. Income (M $)	Investment (M $)	Direct Operating Expenses (M $)	Net Revenue Before Income Tax (M $)	Cumulative Net Revenue Before Income Tax (M $)	Present Worth Net Revenue Before Income Taxes @ 6% (Mid Year) (M $)
1971	57	135.1	1,393.0	833.5	(2,091.4)	(2,091.4)	(2,030.7)
1972	1,150	2,725.5	212.0	833.5	1,680.0	(411.4)	1,538.9
1973	1,530	3,626.1	175.5	785.0	2,665.6	2,254.2	2,303.1
1974	1,530	3,626.1	175.5	774.4	2,676.2	4,930.4	2,183.8
1975	926	2,194.6		761.9	1,432.7	6,363.1	1,101.7
1976	698	1,654.3		745.4	908.9	7,272.0	659.9
1977	516	1,222.9		721.2	501.7	7,773.7	343.7
1978	401	950.4		606.0	344.4	8,118.1	222.5
1979	325	770.2		515.0	255.2	8,373.3	155.4
1980*	134	317.6	(194.3)	257.5	254.4	8,627.7	146.3
	7,267	17,222.8	1,761.7	6,833.4	8,627.7		6,624.6

* Six months' operation.

Payout of initial investment before income tax - 2.3 years.
Net profit before income tax per dollar invested - $3.76/$1.

Note: A. Water injection started first quarter, 1971.
B. Gross W.I. = 100%; Net W.I. = 87.5%.
C. Net W.I. income = $2.37/gross barrel.
D. Direct operating expenses are estimated at $225/well/month plus water purchases.

PRELIMINARY WATERFLOOD COST - REDUCED AREA
PROPOSED MYERS LANGLIE-MATTIX UNIT, LEA COUNTY, NEW MEXICO

		Revised Cost	Time of Investment
I.	INJECTION PLANT: Equipped with five (5) quintuplex pumps driven by Ajax DP-230 gas engines. Plant capacity to be approximately 31,000 BWPD at 1845 psig.	$ 245,000	Initial
II.	INJECTION SYSTEM: System to consist of approximately 117,600' of 2-3/8" OD, 17,400' of 2-7/8" OD, 12,750' of 3-1/2" OD, and 46,500' of 4-1/2" OD externally wrapped cement-lined steel line pipe, complete with miscellaneous fittings and survey expense.	314,000	Initial
III.	INJECTION WELL CONVERSIONS: Convert 89 wells to injection service, utilizing coated tubing, tension packers, individual well headers, and necessary well work to confine injection to unitized interval. Includes additional length of liners for seven (7) wells with assessments.	382,500	Initial
IV.	WATER SUPPLY LINE: Approximately 13,500' of 8-5/8" OD externally wrapped, cement-lined steel pipe installed from main lateral of Jal Water System to water injection station.	55,500	Initial
V.	PRODUCING SYSTEM: Install central battery with LACT unit and eight (8) satellite test stations, utilizing existing material and equipment to maximum.	354,000	Initial
VI.	RELOCATE PUMPING EQUIPMENT: Move pumping equipment to wells not presently equipped utilizing surplus equipment from wells converted to injection. Estimated 28 wells at $1,500 each.	42,000 1,393,000	Initial
VII.	WORKOVERS ON PRODUCING WELLS: Necessary well work on estimated 32 wells to prepare for response in unitized interval. To be performed in second year of injection.	212,000	2nd Year
VIII.	LARGER LIFT EQUIPMENT: Install larger lift equipment on 39 wells at $9,000 each (assumes one third of producing wells). To be installed in third and fourth years of operation.	351,000	3rd & 4th Years
	TOTAL INVESTMENT	$1,956,000	
IX.	SALVAGE: Pumps and engines in plant at 40% $ 56,000 Pumping units and engines at 50% 138,[illegible] TOTAL SALVAGE $194[illegible]	$ (194,300)	
	NET INVESTMENT	$1,761,700	

COMPARATIVE DATA

Re: Preliminary Review
by State Land Office

PROPOSED MYERS LANGLIE-MATTIX UNIT

Lea County, New Mexico

PROPOSED MYERS LANGLIE-MATTIX UNIT

Tract No.	Remaining Primary as of 1-1-69
1	14,806
2	0
3	32,970
4	1,101
5	28,111
6	3,189
7	3,166
8	331
9	9,388
10	0
11	4,318
12	0
13	16,245
14	10,340
15	7,346
16	0
17	7,916
18	4,989
19	0
20	9,980
21	2,689
22	13,549
23	3,879
24	7,970
25	0
26	15,058
27	1,404
28	5,430
29	33,899
30	17,177
31	0
32	3,447
33	4,233
34	36,445
35	0
36	1,895
37	839
38	5,922
39	0
40	2,086
41	0
42	0
43	26,195
44	11,202
45	812

Tract No.	Remaining Primary as of 1-1-69
46	4,531
47	2,816
48	0
49	1,126
50	1,936
51	16,742
52	8,336
53	17,503
54	2,877
55	2,724
56	7,758
57	0
58	0
59	7,160
~~60~~	~~3,528~~
61	1,638
62	12,633
63	3,879
64	0
65	2,419
66	6,614
67	0
68	0
69	9,230
70	5,467
71	0
72	0
73	10,074
74	2,447
75	5,695

Sirgo Operating, Inc.

P. O. Box 3531, Midland, Texas 79702 (915) 685-0878

June 15, 1992

RE: Myers Langlie-Mattix Unit
Lea County, New Mexico

TO ALL WORKING INTEREST OWNERS:

On June 8, 1992 Texaco sent all owners a letter stating Sirgo, et al were in arrears on its joint account. This letter was not a true representation of the outstanding balance and did not correctly reflect the entire situation between Sirgo and Texaco.

Sirgo has disputed several of the charges Texaco has levied against the property, and has repeatedly asked for adjustments to the joint account.

Sirgo and Texaco have met to discuss the JOA balance on numerous occasions and Texaco requested the week of June 8th to finish an internal audit of the adjustments we had requested. Sirgo currently holds $1.2M in an escrow account to cover what we believe to be the outstanding balance. We were quite shocked to receive the letter written on Monday, June 8th by Texaco, misrepresenting Sirgo's position to the other working interest owners, and also at the fact that Texaco sent out the letter before the one week period they had requested to finish the audit was over.

As allowed under Article 4, paragraph 4.2 MEETINGS, of the Unit Operating Agreement, Sirgo Brothers, Inc. and Myers Partners, Inc. as owners of more than 10% of the working interest, hereby notices all working interest owners of a meeting to be held on Tuesday, July 14, 1992 at 10:00 a.m. C.S.T., in the offices of Sirgo Operating, Inc. The physical location of the office is 3100 North A Street, Building B, Suite 201, Midland, Texas.

An Agenda of the meeting is attached for your review. If you cannot attend the meeting, you may submit your vote on any matter shown on the Agenda as per paragraph 4.3.3, Article 4, of Unit Operating Agreement. If you wish Sirgo to represent your interest, you may mail a proxy to the address on the letterhead or fax a copy to (915) 682-6224.

Respectfully,

MYERS PARTNERS, INC.
SIRGO BROTHERS, INC.

Brian M. Sirgo

BMS/pr
Enclosure

Tab 25

AGENDA

WORKING INTEREST OWNERS MEETING
MYERS LANGLIE-MATTIX UNIT
LEA COUNTY, NEW MEXICO

JULY 14, 1992 10:00 a.m. C.S.T. OFFICES OF SIRGO OPERATING, INC.

ITEM NO. 1 - DISPOSITION OF GAS PROCEEDS

ITEM NO. 2 - CHARGES TO THE JOINT INTEREST BILL

ITEM NO. 3 - PAST AND PRESENT INJECTION PRACTICES

ITEM NO. 4 - ENVIRONMENTAL CONDITION

ITEM NO. 5 - OVERALL PROFITABILITY OF THE UNIT

ITEM NO. 6 - PROPOSED FUTURE OPERATIONS ON THE PROPERTY

ITEM NO. 7 - PROPOSAL TO MAKE SIRGO OPERATING, INC., NEW OPERATOR

Sirgo Production Company is a Midland, Texas based oil and gas operator that formulated and implemented the first 20-acre down spaced redevelopment of the Queen-Penrose formation in the Permian Basin (see SPE Paper No. 239561 dated 3-19-92).

Since 1987, Sirgo has identified and purchased several previously flooded 40-acre Queen units in the Permian Basin. Four of these units are properties in which Texaco previously owned an interest. They are the West Dollarhide Queen Sand Unit, Penrose B, and E. Eumont Units in Lea County, New Mexico and the Magutex Queen Unit in Andrews County, Texas.

Sirgo commenced purchasing interest in the Myers Unit in November of 1989, and currently owns 54+% of the unit working interests.

On July 18, 1990 in a letter addressed to Mr. Bob Solberg, Sirgo offered to purchase Texaco's interest in the Myers Unit (see Exhibit A). In this letter, Sirgo expressed its desire to pursue operatorship of the Unit with the cooperation of Texaco, as its intentions were not hostile.

On August 8, 1990 in a letter from Mr. Bob Denzinger, Texaco rejects Sirgo's offer to purchase Texaco's interest in the Myers (see Exhibit B).

On August 13, 1990 after phone discussions with Mr. Bob Denzinger, Sirgo suggested a meeting on August 21, 1990 to compare Texaco's and Sirgo's technical views with regard to future development potential of the Myers. Sirgo once again stated its desires with regard to operations and its desire to cooperate with Texaco as our intentions were not hostile (see Exhibit C).

In early September, 1990 Texaco's technical staff met with Sirgo and a representative of T. Scott Hickman and Associates to review Sirgo's proposed redevelopment, and voice Texaco's view as to additional development of the Unit. As part of the information exchange between Sirgo and Texaco and Sirgo's efforts to reconcile its gas revenues in the Unit, on September 10, 1990 Sirgo requested Texaco provide it with certain Unit information, including a copy of the gas contract Texaco was currently marketing casinghead gas production on behalf of the Unit (see Exhibit D). By cover letter dated September 21, 1990 Texaco provided Sirgo with an unsigned copy of the contract being used and indicated it should be signed within the next few days (see Exhibit D-1).

Following review by Texaco, Texaco by letter dated September 26, 1990 agreed to participate in a project that with requisite unit approval, Sirgo would operate (see Exhibit E).

Following phone conversations regarding Texaco's potential desire to sell its interest, Sirgo in a letter dated September 26, 1990 proposes a like kind exchange with Texaco (see Exhibit F). As per Texaco's request, Sirgo authorizes T. Scott Hickman & Associates to release any and all pertinent information to Texaco concerning Sirgo's evaluation of the Myers (see Exhibits F-1, F-2).

October 4, 1990 Texaco, with its JIO group from Denver, meets with Sirgo to discuss project since JIO group will be handling project once Sirgo assumes operations of the Unit. The results of that meeting were expressed in a letter dated October 9, 1990 from Sirgo to Texaco (see Exhibit G). As a follow-up to Sirgo's September 10, 1990 request, Texaco by letter dated October 31, 1990 provides Sirgo with additional information reflecting revenues for the Unit from the sale of oil and casinghead gas (see Exhibit G-1).

As per Texaco's request, Sirgo has its local counsel provide Texaco with a summary of Sirgo's ownership and acquisition status in the Unit, as evidenced by letter dated December 6, 1990 (see Exhibit H).

Sirgo and Texaco met on December 6, 1990 to discuss result of Texaco's technical analysis as well as logistics of Sirgo's becoming operator. In letter dated December 7, 1990 Texaco expresses its willingness to resign as operator and recommends Sirgo as the new operator. Texaco also confirmed Sirgo's and Texaco's understanding with regard to finalizing the technical aspects of Phase I of the project (see Exhibit I).

On December 7, 1990 Texaco's reservoir engineer, a representative of T. Scott Hickman & Associates and Sirgo met to review the combined analysis of Texaco's and Sirgo's evaluation of the Phase I area. The combined analysis resulted in a new phase I area agreed upon by Texaco and Sirgo.

T. Scott Hickman & Associates then prepared a report reflecting the revised Phase I area reflecting the consensus of Texaco and Sirgo. This report was forwarded to Texaco by Sirgo via letter dated December 13, 1990 (see Exhibit J).

By letter dated December 27, 1990 Texaco forwarded a copy of the format Texaco would like to see as a "Statement of Cash Flow" prepared by Sirgo as operator of the Unit. Texaco also supplied Sirgo with the names of the individuals who would assist in the change of operator transition from the accounting side (see Exhibit K).

By letter dated December 31, 1990 Sirgo notified Texaco of its acceptance of Texaco's proposed statements of cash flow" (see Exhibit L).

As per Texaco's request, Sirgo forwards by letter dated January 15, 1991 execution copies of forms for "Resignation and Designation of Successor Unit Operator" (see Exhibit M).

In preparing for the reconciliation related to the change of operator, Sirgo by letter dated January 25, 1991 requested a review of previous owners' accounts owned by Sirgo, and settlement on our casinghead gas revenues held by Texaco (see Exhibit N).

Following phone conversation between Sirgo and Texaco, Sirgo by letter dated February 22, 1991 expressed once again the difficulty in receiving a reconciliation of its gas proceeds. Additionally, Sirgo confirmed that as discussed, it would prepare copies of the proposed project report to be reviewed by all the Unit owners (see Exhibit O).

By letters dated February 25, 1991 Sirgo submitted the proposed project and ballot for change of operatorship to the Unit owners (see Exhibit P).

Sirgo makes a presentation to Amerada Hess, the third largest owner in the Unit. Amerada approves of the project in principle.

On April 1, 1991 Sirgo forwards Texaco copies of ballots received to date totaling 63.45% of the Unit, exclusive of Texaco's interest. Sirgo also requests that Sirgo and Texaco meet and finalize all reconciliations by May 1, 1991 (see Exhibit Q).

By letter of April 3, 1991 Sirgo once again forwards Texaco forms for "Resignation for Designation of Successor Unit Operator" (see Exhibit R). Texaco's Hobbs area manager notifies Sirgo to be on the lease April 10 to commence taking over operations. Sirgo hires and outfits with vehicles new personnel to assist in operating the Unit.

On April 10, 1991 Texaco notifies Southwestern Public Service that effective April 9, 1991 Sirgo commenced operating the Myers Unit (see Exhibit S).

Texaco by letter dated April 15, 1991 to Unit owners indicates its intention to resign as Unit operator pending resolution of certain accounting issues (see Exhibit T).

Sirgo files change of operator forms (C-104) with NMOCD. Texaco, by letter dated May 13, 1991 notifies State of New Mexico it intends to resign as operator, pending resolution of accounting issues (see Exhibit U).

By letter dated May 16, 1991 Jerry Sexton, District I Supervisor for NMOCD, notifies the NMOCD, Tex-New Mex pipeline, as oil transporter, and Texaco, as gas transporter, of Texaco's intent to turn over operations to Sirgo pending resolution of certain accounting issues (see Exhibit V).

Texaco has yet to provide a reconciliation of the gas revenues owed Sirgo. Sirgo, by letter dated May 30, 1991, requested that any unresolved accounting issues be handled after the change of operator, as Texaco has not provided the necessary reconciliation (see Exhibit W).

Texaco receives letter from Doyle Hartman dated June 11, 1991 notifying Texaco of NMOCD Petition (see Exhibit X). Texaco meets with Hartman on June 13, 1991.

Texaco, by letter of June 14, 1991 notifies Unit owners, it has had no hand in the preparation of the proposed redevelopment project, and that should Texaco desire to resign, it will notify the owners (see Exhibit Y).

Sirgo requested an accounting of Sirgo's balance, exclusive of the still unresolved account issues. Texaco presents reconciliation without resolution of outstanding issues by letter dated June 28, 1991 (see Exhibit Z).

Texaco then requests that Sirgo allow Texaco to conduct extensive due diligence of Sirgo and its ability to operate the Unit. By letters dated July 2, 1991 Texaco requests that Sirgo provide Texaco with certain information relative to Texaco's due diligence of Sirgo (see Exhibits AA, AA-1).

After its due diligence, Texaco's personnel indicated to Sirgo that Texaco was satisfied with Sirgo's technical and financial ability to operate the Unit. Texaco also indicated that Sirgo's operating the Unit would be good for Texaco, because Texaco estimated Sirgo could operate the Unit for one-half the cost Texaco is currently charging the Unit.

By letters dated July 10, 1991 Sirgo requested Texaco respond to certain issues related to the operation of the Myers Unit (see Exhibit BB).

By letter dated July 11, 1991 Sirgo expresses its concern to Texaco, That Sirgo's bankers have expressed concern that Texaco has no intention of resigning (see Exhibit CC).

On August 6, 1991 Texaco communicated to Sirgo its concerns about resigning as operator, especially in light of the now pending litigation (see Exhibit DD).

August 13, 1991 Sirgo escrows 1.2 million dollars at a local financial institution on behalf of Texaco, pending resolution of still unresolved issues and Texaco's previously agreed resignation of operator (see Exhibit DD-1).

In late August, Texaco indicated to Sirgo that its JIO group did not have the budget now, to participate in the project, so therefore Texaco now believed it should sell its interest in the Unit.

August 28, 1991 Hartman sends letter to Texaco (see Exhibit DD-2).

On September 3, 1991 Sirgo extended, once again, its offer of July 18, 1990. Texaco has yet to reconcile and credit Sirgo for any of the issues Sirgo has brought to Texaco (see Exhibit EE).

Texaco receives letter from Hartman dated September 17, 1991 (see Exhibit EE-1).

During September, 1991 apparently as part of some effort to reduce costs at the Unit, Texaco shuts in over the next three months some 32 producing wells (1/3 of total active in field) reducing production from 20,000 BOPM to 14,500 BOPM. However, during this time frame, Texaco continues to implement practices in the field, identified to Texaco in July, 1990 by Sirgo, as much more detrimental to the profitability of the Unit (see Exhibit FF).

Sirgo and Texaco negotiate various issues with regard to reaching an agreement on the purchase of Texaco's interest. Texaco has requested Sirgo pay Texaco for uncollected JIB accounts from other owners in the Unit totaling some $500,000. Some of these accounts were six years old and Texaco had never taken any action with regard to collecting them. Texaco insists Sirgo pay 100 cents on the dollar for these uncollected balances or Texaco will bill the uncollected sums to the Unit working interest owners. As an alternative, Sirgo offers to assist Texaco in collecting these amounts. Sirgo's efforts caused a large portion of this balance to be collected for Texaco's account.

Texaco is requesting that, as part of the terms and conditions of the purchase and sale that, Sirgo indemnify Texaco with regard to any damage that may have occurred with regard to Texaco's injection practices in the field, identified to Texaco by Sirgo, by previous correspondence dated July 10, 1990, in as much as such damage would relate to Sirgo's ownership in the Unit.

During this same time frame, Texaco refuses to make cash settlement on the outstanding gas proceeds. Instead, Texaco offers to "gas balance" with Sirgo and the other owners. Sirgo contends that the remaining gas reserves will not cover the so called overbalance Texaco has taken. This offer is in direct violation of Texaco's fiduciary responsibility as operator of the Unit (see Exhibit FF-1 language from Unit Agreement).

Sirgo and Texaco come to terms with regard to the purchase of Texaco's interest and in January, 1992 Texaco completes and delivers to Sirgo and its counsel the first draft of the Purchase and Sale Agreement and accompanying exhibits (see Exhibit GG).

In February, 1992 Texaco notified the Unit owners of pending litigation brought on by a surface owner against Texaco with regard to surface damages on the Unit. Texaco met with Sirgo and requested Sirgo's input, since Sirgo would soon be the operator of the Unit, and would have to deal with the matter (see Exhibit HH).

On February 28, 1992 Sirgo notified Texaco of several substantive issues that had arisen with regard to the operations of the Unit, the least of which was Texaco's cutting of production and rendering of the Unit's current operation as unprofitable. Texaco has yet to credit Sirgo with any of the outstanding issues put before Texaco by Sirgo (see Exhibit II).

In February, March and early April, Sirgo and Texaco continue to trade information with regard to attempting to reconcile outstanding issues (see Exhibits II-1 thru II-4).

On March 5, 1992 Texaco acknowledges Sirgo's right to call a meeting of the working interest owners (see Exhibit JJ).

On April 9, 1992 with Texaco yet to resolve any of the outstanding issues presented to it by Sirgo, Sirgo presents Texaco with a report and summary of Sirgo's most recent findings with regard to Texaco's operation of the Unit (see Exhibit KK).

In conjunction with the above correspondence, Sirgo tendered sight drafts to Texaco reflecting the adjusted outstanding JIB's and purchase price reflecting Sirgo's analysis and Texaco's desire for indemnity.

During this period, Texaco, at Sirgo's request, conducted step-rate test in the field on injection wells to determine if Texaco's overinjection practices have fraced any injection wells constituting the adjustments requested by Sirgo. These suspicions were confirmed in two of the first four tests. A modified list of wells were submitted to Texaco for testing, but Texaco never completed the work (see Exhibits KK-1, KK-2).

Additionally, during this time frame, Sirgo conducts an environmental audit as part of its closing due diligence. Texaco believed Sirgo's first choice to perform its environmental audit would be a conflict for Sirgo. Consequently, Texaco took it upon themselves to notify another environmental company in Hobbs, New Mexico and told them that TEXACO was not going to approve of Sirgo's audit firm and they should contact Sirgo to perform the work. The report indicated that all 30 of the random sites chosen for testing were hydrocarbon contaminated to a depth of at least four feet. Additionally, high levels of radioactivity were found in one of the head tanks (see Exhibit LL, LL-1).

For reasons unknown to Sirgo, Texaco's in-house counsel, contacted Sirgo's counsel and informed Sirgo's counsel, that it was Texaco's belief that Sirgo was headed for litigation, and Texaco felt Sirgo's counsel should be conflicted out of representing Sirgo.

On April 21, 1991 Sirgo relayed its amazement to Texaco with regard to such an act in the middle of the final steps of consummating the sale (see Exhibit MM).

Texaco and Sirgo met to discuss and review Sirgo's analysis and adjustment on April 24, 1992 (see Exhibit MM-1).

As per a request in that meeting, Sirgo, on April 27, 1992, provided Texaco with a clarification of its adjustment allocation (see Exhibit NN). Texaco continues to represent that it is trying to complete its evaluation of adjustments owed Sirgo via its own internal audit. As has been the case since Sirgo first requested reconciliation of these matters, Texaco has yet to credit Sirgo with any adjustments from the unresolved accounting issues.

During the first quarter of 1992, Texaco is attempting to reestablish the production it shut in during the fall of 1991. In addition to the Unit owners now having to incur the costs to turn the wells back on, the effort failed to recover the production previously shut in. Sirgo also asked that Texaco review its own profitability with regard to the value of its interest on April 29, 1992 (see Exhibit NN-1).

In May 1992 Sirgo and Texaco meet, and for the first time, Texaco presents evidence for their actions with regard to certain aspects of operating the Unit. There are still several issues left unsatisfied by Texaco.

Sirgo and Texaco meet to determine, once and for all, the adjusted JIB and purchase price. Texaco and Sirgo agree on values substantially in excess of the amounts deemed fair and previously tendered by Sirgo as a result of Sirgo's analysis of Texaco's actions as Unit operator. Texaco indicates the adjusted values have been approved in Midland and they are waiting for approval from Denver. Sirgo indicates it is prepared to close on both the JIB balance and purchase of Texaco's interest as soon as possible.

In early June, Texaco notifies Sirgo and the working interest owners that Sirgo is in arrears by an amount in excess of the adjusted amount, and that Texaco now is not selling its interest in the Unit or resigning as operator.

40-601963 0-0379120-01-4 /01 1

OXY USA INC. - WESTERN REGION

TULSA, OKLAHOMA

INVOICE

ADDRESS ALL INQUIRIES TO:

OXY USA INC.
ATTN WESTERN CONTROLLER
(915) 685-5656
P.O. BOX 50250
MIDLAND TX 79710-0250

TO:

DOYLE HARTMAN
P O BOX 10426
MIDLAND TX 79702

ACCO :NG PERIOD: JUNE 1996

OWNER NUMBER 0-0379120-01-4

SHOW THIS INVOICE NO. ON CHECK

INVOICE DATE 07/09/96
INVOICE NUMBER 601963

MAKE PAYMENT TO:

OXY USA INC.
P.O. BOX 841382
DALLAS TX 75284-1382

RECEIVED JUL 12 1996

Tab 26

REFERENCE	DESCRIPTION	GROSS AMOUNT	W.I. DECIMAL	AMOUNT
0-3000000	07/08/94 INV # 606110BAL 1-3076996/7-305070			21,408.27
0-3000000	08/05/94 INV # 609787BAL 7-3050700			19,084.74
0-3000000	09/08/94 INV # 613377BAL 7-3050700			81,249.02
0-3000000	09/26/94 REVENUE 327-022373-09/25/94			1,895.57CR
0-3000000	09/26/94 REVENUE 327-379120-09/25/94			3,262.79CR
0-3000000	10/07/94 INV # 616879BAL 7-3050700			94,318.11
0-3000000	10/28/94 REVENUE 327-022373-10/25/94			2,211.04CR
0-3000000	10/28/94 REVENUE 327-379120-10/25/94			3,747.47CR
0-3000000	11/07/94 INV # 620359BAL 7-3050700			77,976.76
0-3000000	11/25/94 REVENUE 327-022373-11/25/94			2,438.38CR
0-3000000	11/25/94 REVENUE 327-373120-11/25/94			4,105.09CR
0-3000000	12/07/94 INV # 623860BAL 7-3050700			31,079.25
0-3000000	12/27/94 REVENUE 327-022373-12/25/94			2,219.11CR
0-3000000	12/27/94 REVENUE 327-379120-12/25/94			3,695.75CR
0-3000000	01/09/95 INV # 627400BAL 7-3050700, 7-30999			33,162.08
0-3000000	01/27/95 REVENUE 327-022373 01-25-95			2,090.85CR
0-3000000	01/27/95 REVENUE 327-379120			3,511.04CR
0-3000000	02/07/95 INV # 630979BAL 7-3050700			34,638.51
0-3000000	02/25/95 REVENUE 327-379120 030895			2,303.07CR
0-3000000	02/25/95 REVENUE 327-379120 030895			3,866.10CR
0-3000000	03/07/95 INV # 634517BAL 7-3050700 7-309999			29,782.04
0-3000000	03/27/95 REVENUE 327-379120 3-25-95			2,262.51CR
0-3000000	03/27/95 REVENUE 327-379120 03-25-95			3,868.76CR
0-3000000	04/07/95 INV # 638088BAL 7-3050700 7-309999			27,531.71
0-3000000	04/25/95 REVENUE 327-022373 050995			2,413.00CR
0-3000000	04/25/95 REVENUE 327-379120 050995			3,948.01CR

40-601963 0-0379120-01-

REFERENCE	DESCRIPTION	GROSS AMOUNT	W.I. DECIMAL	AMOU
0-3000000	05/05/95 INV # 641679BAL 7-3050700			14,913
0-3000000	05/25/95 REVENUE 327-379120 06-08-95			4,058
0-3000000	06/07/95 INV # 645281BAL 7-3050700			12,345
0-3000000	06/27/95 REVENUE 327-022373 06-23-95			2,517
0-3000000	06/27/95 REVENUE 327-379120 06-23-95			4,136
0-3000000	07/10/95 INV # 648894BAL 7-3050700			18,455
0-3000000	07/25/95 REVENUE 327-022373 07-25-95			2,155
0-3000000	07/25/95 REVENUE 327-379120 07-25-95			3,673
0-3000000	08/07/95 INV # 652524BAL 7-3050700			13,573
0-3000000	08/25/95 REVENUE 327-022373 08-25-95			2,036
0-3000000	08/25/95 REVENUE 327-379120 08-25-95			3,424
0-3000000	09/08/95 INV # 656186BAL 7-3050700			16,064
0-3000000	09/25/95 REVENUE 327-022373 09-29-95			2,279
0-3000000	09/25/95 REVENUE 327-379120 09-29-95			3,223
0-3000000	10/06/95 INV # 659850BAL 7-3050700			9,728
0-3000000	10/25/95 REVENUE 327-379120 10-25-95			446
0-3000000	11/07/95 INV # 663385BAL 7-3050700			16,512
0-3000000	11/21/95 REVENUE 327-379120 11-25-95			683
0-3000000	11/30/95 INV # 666880BAL 7-3050700			30,628
0-3000000	12/25/95 REVENUE 327-379120 12-28-95			342
0-3000000	01/08/96 INV # 670338BAL 7-3050700			15,120
0-3000000	02/07/96 INV # 673755BAL 7-3050700			13,825
0-3000000	03/07/96 INV # 677308BAL 7-3050700			19,719
0-3000000	04/05/96 INV # 680891BAL 73050700			12,957
0-3000000	04/25/96 REVENUE 140-77 379120 042996			381
0-3000000	05/07/96 INV # 685032BAL 7-3050700			18,177
0-3000000	06/07/96 INV # 688473BAL 7-3050700			20,083
	TOTAL PRIOR BALANCE			605,136
7-3050700	INVESTMNT	691.75	@0.0486908	33
7-3050700	EXPENSE	263,283.98	@0.0486908	12,819
	COST CENTER SUBTOTAL			12,853
7-3088200	EXPENSE	1,237.33	@0.1562500	193
	COST CENTER SUBTOTAL 2542			193
7-3088475	EXPENSE	5,986.30	@0.0312500	187
	COST CENTER SUBTOTAL 428L 4278			187
	CURRENT INVOICE AMOUNT			13,233
	TOTAL BALANCE DUE			618,370

DOYLE HARTMAN, OIL OPERATOR

Unit/Well No.
Vendor No. 26743
Account No.

JUL 15 1996

40-601963 0-0379120-01-4 3

OXY USA INC. - WESTERN REGION

TULSA, OKLAHOMA

INVOICE

ADDRESS ALL INQUIRIES TO:

OXY USA INC.
ATTN WESTERN CONTROLLER
(915) 685-5656
P.O. BOX 50250
MIDLAND TX 79710-0250

TO:

DOYLE HARTMAN
P O BOX 10426
MIDLAND TX 79702

ACCOUNTING PERIOD: JUNE 1996

OWNER NUMBER 0-0379120-01-4

SHOW THIS INVOICE NO. ON CHECK

INVOICE DATE 07/09/96
INVOICE NUMBER 601963

MAKE PAYMENT TO:

OXY USA INC.
P.O. BOX 841382
DALLAS TX 75284-1382

REFERENCE	DESCRIPTION	GROSS AMOUNT	W.I. DECIMAL	AMOUNT
	**********			
	**********			
	**********			
	**********			
	*** ***			
	*** AMOUNT IS DUE 15 DAYS AFTER RECEIPT ***			
	*** ***			
	*** INTEREST WILL BE CHARGED ***			
	*** ***			
	*** FOR LATE PAYMENTS ***			
	*** ***			
	**********			
	**********			
	**********			
	**********			

40-601963 0-0379120-01-4

REFERENCE	DESCRIPTION	GROSS AMOUNT	W.I. DECIMAL	AMOUNT

140-601963 00379120/4-01 01

OXY USA INC. - WESTERN REGION

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OPERATORS STATEMENT OF EXPENDITURES

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ACCOUNTING PERIOD JUNE 1996 PAGE 1

NAME OR DESCRIPTION	COST CENTER	AUXILIARY COST CENTER
M ; LANGLIE	LEASE 7-3050700-6	

REFERENCE	ACCT FEATURE	DESCRIPTION	AMOUNT
	2360	INTANGIBLE WELL INVESTMENT	
	731	CONTRACT LABOR & SERVICE COMPANY CH	691.75 *
		TOTAL 2360 INTANGIBLE WELL INVEST	691.75 **
		** TOTAL COST CENTER **	691.75 ***

140-601963 00379120/4-01

OXY USA INC. - WESTERN REGIO

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OPERATORS STATEMENT OF EXPENDITURES

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ACCOUNTING PERIOD JUNE 1996 PAGE

NAME OR DESCRIPTION	COST CENTER	AUXILIAR COST CENT
MYERS LANGLIE	LEASE 7-3050700-6	

REFERENCE	ACCT FEATURE	DESCRIPTION	AMOUNT
	3976	PROVED WELL COST-TANGIBLE EQUIPMENT	
	647	NON-CONTROLLABLE MISCELLANEOUS	
		TOTAL 3976 PROVED WELL COST-TANGI	
		** TOTAL COST CENTER **	

140-601963 00379120/4-01 01

OXY USA INC. - WESTERN REGION

OPERATORS STATEMENT OF EXPENDITURES

ACCOUNTING PERIOD JUNE 1996 PAGE 3

NAME OR DESCRIPTION: M S LANGLIE | COST CENTER: LEASE 7-3050700-6 | AUXILIARY COST CENTER:

REFERENCE	ACCT FEATURE	DESCRIPTION	AMOUNT
	6005	SALARIES & WAGES	7624.01 **
	6022	PAYROLL LABOR BURDEN EXPENSE	2626.04 **
	6040	CONTRACT LABOR	17586.73 **
	6203	SERVICE COMPANY CHARGES	14502.28 **
	6221	ELECTRICAL CONTRACTOR CHARGES	3484.11 **
	6222	BOTTOM HOLE PUMP REPAIR	8960.35 **
	6270	CONTRACT TRANSPORTATION	311.04 **
	6274	TRANSPORTATION-WATER/FLUID HAULING	3552.75 **
	6280	CONTRACT PULLING UNITS	25988.33 **
	6282	HOT OIL SERVICES	259.10 **
	6300	MATERIALS & SUPPLIES	9581.71 **
	6310	CORROSION TREATING CHEMICALS	3392.90 **
	6311	WATER TREATING CHEMICALS	3928.70 **
	6320	PUMPING UNIT MATERIALS & SUPPLIES	312.29 **
	6414	TELEPHONE	79.50 **
	6417	ELECTRICITY	24328.73 **
	6419	WATER	26736.78 **
	6424	RENTALS - COMPANY OWNED EQUIP	1736.00 **

140-601963 00379120/4-0

OXY USA INC. - WESTERN REGIO

OPERATORS STATEMENT OF EXPENDITURES

ACCOUNTING PERIOD JUNE 1996 PAGE

NAME OR DESCRIPTION: MYERS LANGLIE | COST CENTER: LEASE 7-3050700-6 | AUXILIAR COST CENT

REFERENCE	ACCT FEATURE	DESCRIPTION	AMOUNT
	6630	JT INT OVRHEAD - CO OPERATED	
	806	PRODUCING OVERHEAD	
14279940		JUN OVHD 176 WELLS AT 412.80	72652.80
		TOTAL 6630 JT INT OVRHEAD - CO OP	72652.80
	6950	SERVICES RECEIVED OUTSIDE	721.75
14271446	****	MOUNTAIN STATES OTL* 0176/ 615X 122,014.82	34918.08
		** TOTAL COST CENTER **	263283.98

14

OXY USA INC.

ATTN WESTERN CONTROLLER P O BOX 50250
MIDLAND, TX 79710- 0250

SUMMARY INVOICE
FOR FEB-97

04-MAR-97

STATEMENT NO : 000000003651
379120 2
DOYLE HARTMAN
P O BOX 10426
MIDLAND, TX 79702

REMIT TO:
OXY USA INC.
P.O. BOX 841382
DALLAS, TX 75284- 1382

RC User Key	Property Description	GWI (%)	Invoice #	Amount
73050700	MYERS LANGLIE*OXY USA	.04869080	000000003651-0001	$11,266.65
73088200	THOMAS A* #2542	.15625000	000000003651-0002	$203.09
73088475	THOMAS A 3&4* # 4275 4276	.03125000	000000003651-0003	$134.18
		Total Current Invoices Amount Due		$11,603.92

Current Period Invoice(s) Attached

Total Amount Due (Your Share) ==> $11,603.92

Payment Due 15 days from Receipt of Invoice

DOYLE HARTMAN, OIL OPERATOR

Well No.			
Lease No.	22608	OR 4560	
Account No.			
Amount			
Approved By			

Midland 22608 = NO RECORDS
DALLAS 4560 = NO RECORDS

DOYLE HARTMAN OIL OPERATOR RECEIVED

Joint Interest Billing – Operator Statement

FEB-97

To: Party: 379120
DOYLE HARTMAN
P O BOX 10426
MIDLAND, TX 79702

Site : 2

Invoice #: 3651-0001
Invoice Date: 28-FEB-97
JV #: 03730-0

Remit To:
OXY USA INC.
P.O. BOX 841382
DALLAS, TX 75284- 1382

Invoice Inquiries:
OXY USA INC.
ATTN WESTERN CONTROLLER
(915) 685-5656
P.O. BOX 50250
MIDLAND, TX 79710- 0250

RC User Key: 73050700

Property: MYERS LANGLIE*OXY USA

Account	Qty	UM	Description	Gross
LEASE OPERATING EXPENSE/AFE #			Desc:	
11111--			EXPENSE.REPAIR/MAINT.ELECTRICAL	5,413.50
11131--			EXPENSE.REPAIR/MAINT.WELDING	2,771.37
11133--			EXPENSE.REPAIR/MAINT.LABOR.CONTRACT.OTHER	4,404.30
11194--			EXPENSE.REPAIR/MAINT.SERVICE COMPANY	25,946.50
11211--			EXPENSE.REPAIR/MAINT.PUMP.BHP	6,096.40
11241--			EXPENSE.REPAIR/MAINT.PULLING UNIT.OTHER REPAIR	28,159.34
11251--			EXPENSE.REPAIR/MAINT.SERVICES.WIRELINE	2,968.00
11292--			EXPENSE.REPAIR/MAINT.SWABBING	1,391.76
11513--			EXPENSE.CHEMICALS.TREAT.EMULSION	1,522.40
11518--			EXPENSE.CHEMICALS.TREAT.WATER	13,099.42
12321--			EXPENSE.RENTALS.EQUIPMENT	6,283.73
12322--			EXPENSE.RENTALS.OWNED EQUIPMENT	105.99
12511--			EXPENSE.HAUL.SALTWATER DISPOSAL	2,077.81
12512--			EXPENSE.HAUL.FRESH WATER	1,945.88
12521--			EXPENSE.FREIGHT.TRUCKING	826.29
13211--			EXPENSE.MATERIALS/SUPPLIES.NONCONTROLLABLE	12,791.50
14111--			EXPENSE.UTILITIES.ENERGY.ELECTIRICTY	21,417.24
14132--			EXPENSE.UTILITIES.ENERGY.WATER	13,695.36
14911--			EXPENSE.UTILITIES.TELEPHONE/CABLE	822.00
15991--			EXPENSE.CHARGES.PERMITS AND DAMAGES	32.00
15999--			EXPENSE.CHARGES.OTHER	1,082.18
12523--			EXPENSE.FREIGHT.POSTAGE	53.71
12542--			EXPENSE.VEHICLE.COMPANY.LIGHT.PMTA	4,202.74
15793--			EXPENSE.TAXES.NON-VECICLE LICENSES AND PERMITS	21.62
16211--			EXPENSE.EMPLOYEE.LABOR BURDEN	3,453.13
16313--			EXPENSE.EMPLOYEE.AWARDS	448.56
16511--			EXPENSE.EMPLOYEE.BUSINESS.TRAVEL	740.47
16513--			EXPENSE.EMPLOYEE.BUSINESS.MEALS/ENTERTAIN	209.64
16517--			EXPENSE.EMPLOYEE.BUSINESS.RELOCATION	0.00
16111--			EXPENSE.EMPLOYEE.LABOR.WAGES	15,445.43
17612--			EXPENSE.JT INT.PRODUCING OVERHEAD	54,163.13
11199--			EXPENSE.REPAIR/MAINT.SERVICE.OUTSIDE.OTHER	(200.00)
			Total AFE Cost – Gross	231,391.40
			Your Net Share – W I 00.04869080	11,266.65

Joint Interest Billing – Operator Statement

FEB–97

To: Party: 379120
DOYLE HARTMAN
P O BOX 10426
MIDLAND, TX 79702

Site : 2

Invoice #: 3651–0001
Invoice Date: 28–FEB–97
JV #: 03730–0

Remit To:
OXY USA INC.
P.O. BOX 841382
DALLAS, TX 75284– 1382

Invoice Inquiries:
OXY USA INC.
ATTN WESTERN CONTROLLER
(915) 685–5656
P.O. BOX 50250
MIDLAND, TX 79710– 0250

RC User Key: 73050700

Property: MYERS LANGLIE*OXY USA

Total Costs and Expenses – Your Share $11,266.65

L4

EOTT ENERGY Operating Limited Partnership

P.O. BOX 1660
5805 E. BUSINESS 20
MIDLAND, TEXAS 79702
(915) 682-8251

August 8, 1995

Certified Mail Return Receipt Requested

Mr. Doyle Hartman
Oil Operator
P. O. Box 10426
Midland, TX 79702

cc: Hartman - FAX
Hartman Staff
Mig - Land (cms)
M. Condon

Re: Myers Langlie Mattix Unit in Lea County, New Mexico

Dear Mr. Hartman:

I am in receipt of your letter dated August 3, 1995, addressed to Enron Oil Trading & Transportation Company. Effective January 1, 1993, Enron Oil Trading & Transportation Company changed its name to EOTT Energy Corp. ("EOTT"). Please be advised that EOTT has not been the purchaser of crude oil from the tracts listed on the schedule attached to your letter since March 31, 1993. Effective April 1, 1993, CITGO became the purchaser of production from said tracts.

Since EOTT has not purchased production from your tracts since March, 1993, EOTT does not possess the accounting information requested in your letter, and EOTT has no duty to provide such accounting. You should contact Oxy USA, Inc., and/or CITGO to obtain the information requested in your letter.

Enclosed is copy of a letter from Texaco Trading and Transportation Inc., to Texas-New Mexico Pipeline Company. This letter was EOTT's first notice that it was no longer the purchaser of production from your tracts.

You said in your letter that you were "amazed that Enron has allowed another serious disruption to occur corresponding to our MLMU oil revenues." Obviously, EOTT does not control the disbursement of proceeds of production that EOTT does not purchase. Likewise, EOTT's division order does not require EOTT to provide you with notice that it is no longer buying production from your tracts when the marketer of that production (Oxy USA, Inc.) unilaterally commences selling such production to another purchaser.

Very truly yours,

John Glidewell
Area Manager

cc: Bill Harvey
Walter Zimmerman

DOYLE HARTMAN OIL OPERATOR
RECEIVED
AUG 10 1995

EOTT ENERGY CORP.
General Partner

FORM NO. 105-817 (3/94)

Tab 28

Paul E Fowler
Division Manager
Texas-New Mexico Division

Texaco Trading and Transportation Inc

Two Greenspoint Plaza Suite 600
16325 Northchase Boulevard
Houston TX 77060-2081
713 875 9311

June 2, 1993

Mr. E. H. Gripp
Texas-New Mexico Pipeline Company
P. O. Box 60028
San Angelo, Texas 76906

Re: Myers Langlie Mattix Unit
Lea County, New Mexico
Operated by Texaco Exploration and Production Inc.

Effective April 1, 1993, Oxy USA Inc. designates CITGO as purchaser of interests recently acquired and previosly purchased by Enron in the subject unit.

This change affects approximately 1967 BPD which should be run for CITGO's account on Texas-New Mexico Pipeline. The attached exhibit details the changes in purchaser percentages. Please update your records to reflect this change.

Should you have any questions, please contact Jason Staker at (713) 874-2350.

Very truly yours,

Paul E. Fowler

PEF/JS

Attachments

cc: Frank Burek
John Glidewell - Enron
Harry Rathermel
Tom Savage
Bennett Shelton - CITGO
Bob Wyatt

TEXACO EXPLORATION AND PRODUCTION INC. - UNIT OPERATOR
MYERS LANGLIE MATTIX UNIT TRACT ALLOCATION PERCENTAGE
LEA COUNTY, NEW MEXICO
PLDP #0055-2174-0000 -- TTTI LEASE #81635
EFFECTIVE APRIL 1, 1993

GATHERER: TEXAS/NEW MEXICO PIPELINE

			PURCHASERS			
SUB	*TRACT*	*TRACT ALLOCATION*	*AMERADA HESS*	*CITGO*	*ENRON*	*TTTI*
	1	1.22311		1.22311		
	2	0.59021		0.59021		
	3	4.16521		4.16521		
	6	0.64225		0.64225		
	7	1.07386		1.07386		
	8	0.36086		0.36086		
	10	2.14022		2.14022		
	11	0.33405		0.33405		
	12	2.07257		2.07257		
	13	1.66580		1.6658		
2178	14	1.54385				1.54385
2179	15	4.11596				4.11596
	16	0.40945		0.40945		
	17	1.19564		1.19564		
	18	0.33599		0.33599		
2192	19	2.49538		2.49538		
8020	20	0.15631				0.15631
8021	21	3.08133				3.08133
8022	22	2.00252				2.00252
2189	23	0.30952		0.30952		
2190	24	0.30468		0.30468		
2191	25	0.91715		0.91715		
	26	3.39996		3.39996		
	27	2.63684		2.63684		
	28	2.19345		2.19345		
	29	1.02337		1.02337		
	30	5.63333	5.63333			
	31	0.59616			0.59616	
8032	32	1.22538				1.22538
	33	2.41311		2.41311		
8034	34	2.57678				2.57678
8035	35	0.08931				0.08931
2180	36	0.33124				0.33124
8037	37	0.76162				0.76162
8038	38	0.15657				0.15657
8039	39	0.94333				0.94333
8040	40	2.69658				2.69658
8041	41	0.39002				0.39002
8042	42	0.27833				0.27833
	43	0.26781		0.26781		
	44	1.29114				1.29114
	45	0.02187		0.02187		
	46	0.45346		0.45346		
	47	0.06561		0.06561		
8048	48	0.04581				0.04581
	49	3.29505		3.29505		
	50	1.33259		1.33259		
	51	0.18398		0.18398		
	52	0.67176				0.67176

TEXACO EXPLORATION AND PRODUCTION INC. - UNIT OPERATOR
MYERS LANGLIE MATTIX UNIT TRACT ALLOCATION PERCENTAGE
LEA COUNTY, NEW MEXICO
PLDP #0055-2174-0000 -- TTTI LEASE #81635
EFFECTIVE APRIL 1, 1993

GATHERER: TEXAS/NEW MEXICO PIPELINE

			PURCHASERS			
SUB	*TRACT*	*TRACT ALLOCATION*	*AMERADA HESS*	*CITGO*	*ENRON*	*TTTI*
	53	0.31075				0.31075
	54	0.26871		0.26871		
	55	0.23648				0.23648
	56	1.15151		0.44081		0.71070
	57	1.37678				1.37678
	58	0.85761		0.85761		
	59	1.43644		1.43644		
2181	60	1.38687				1.38687
2182	61	1.10778				1.10778
2183	62	2.09278		0.03269		2.06009
	63	2.10707		2.10707		
	64	1.50062		1.50062		
8065	65	1.91167		0.12695		1.78472
	66	4.41344		4.41344		
	68	3.85760				3.85760
8069	69	2.34135				2.34135
	70	0.27581		0.27581		
	71	0.29746		0.29746		
	72	1.85423		1.85423		
	73	0.59021	0.29510	0.29511		
	74	1.06063		1.06063		
8075	75	0.50868				0.50868
	76	0.75123		0.75123		
8077	77	0.18322				0.18322
	79	0.38667		0.38667		
	80	0.71139		0.71139		
8081	81	0.91263		0.04225		0.87038
TOTALS		**100.00000**	**5.92843**	**54.38217**	**0.59616**	**39.09324**

prepared by JTS on June 2, 1993

DOYLE HARTMAN
Oil Operator
3811 TURTLE CREEK BLVD., SUITE 730
DALLAS, TEXAS 75219

(214) 520-1800
(214) 520-0811 FAX

Via Fax (713) 646-4305 and U.S. Mail

August 11, 1995

Scurlock Permian Corporation
333 Clay Street, Suite 2900 (77002)
P.O. Box 4648
Houston, TX 77210-4648

Attn: John Keffer
Manager Crude Oil Trading

Re: Designation of Scurlock Permian as DHOO's Crude Oil Purchaser
Myers Langlie Mattix Unit
Lea County, New Mexico

Gentlemen:

Reference is made to our phone conversation yesterday that ended at 4:25 p.m., wherein I requested that Scurlock Permian Corporation immediately become the designated purchaser of Doyle Hartman, Oil Operator's 4.145% net revenue share of crude oil production from the OXY USA, Inc.-operated Myers Langlie Mattix Unit waterflood project located in Lea County, New Mexico. From a review of our letter to Enron Oil Trading and Transportiaon Company (Enron) of August 3, 1995 (copy enclosed), and Enron's reply letter of August 8, 1995 (copy enclosed), as well as my telephone conversation with you yesterday, it should be apparent that starting with the production month of April, 1993, a portion of Doyle Hartman, Oil Operator's Myers Langlie Mattix Unit crude oil has been improperly controlled by OXY USA, Inc. (OXY), without OXY having authority from Doyle Hartman, Oil Operator to take our share of such Myers Langlie Mattix Unit oil production.

In April, 1993, at the time that OXY took improper control of a portion of our Myers Langlie Mattix Unit crude oil production, OXY was not operator of the Myers Langlie Mattix Unit and most certainly was not owner of Hartman's Myers Langlie Mattix Unit oil production. In addition, in mid-1993, Doyle Hartman was involved in negotiations with OXY concerning the trade to OXY of our 4.86% Myers Langlie Mattix Unit leasehold interest in exchange for OXY assigning to us its 160-acre State "N" Eumont lease consisting of the SW/4 Section 2, T-21-S, R-36-E, Lea County,

New Mexico, which negotiations verify that OXY, in 1993, was very aware of our 4.86% Myers Langlie Mattix Unit leasehold ownership. During the subject 1993 trade negotiations, OXY's representatives indicated to our landman, Mr. Alan Smith, that OXY was highly desirous of acquiring our 4.86% Myers Langlie Mattix Unit working interest. However, in late 1993, just prior to OXY acquiring Texaco's Myers Langlie Mattix Unit interest, OXY changed its position as to the acquisition of our Myers Langlie Mattix Unit interest and it is now obvious that OXY decided not to acquire our Myers Langlie Mattix Unit interest because it was obtaining operations of the Myers Langlie Mattix Unit by acquiring Texaco's interest Myers Langlie Mattix Unit interest and also possibly because OXY saw no further economic advantage to holding record title to our 4.86% Myers Langlie Mattix Unit leasehold interest since it had been able, without our permission, to control our Myers Langlie Mattix Unit crude oil production without owning record title.

Moreover, from a review of the summary of Hartman MLMU revenues by purchaser, enclosed herewith, it is also apparent, that since 1993, OXY has failed to pay Doyle Hartman, Oil Operator, and our various royalty owners, a competitive oil price that includes a crude oil price bonus although such price bonuses have been paid in the Permian Basin for approximately the past two years. For this reason, we want to ensure that Scurlock Permian will be paying a competitive oil price as to our Myers Langlie Mattix Unit crude oil production including the payment of a price bonus.

In the event that OXY improperly refuses to allow Scurlock Permian to be designated as Doyle Hartman's official Myers Langlie Mattix Unit crude oil purchaser, you are to inform OXY that, for the following reasons, Scurlock Permian will be purchasing Doyle Hartman, Oil Operator's Myers Langlie Mattix Unit crude oil:

1) In April 1993, OXY improperly took control of our Myers Langlie Mattix Unit crude oil without possessing proper authority or record ownership and OXY has no legal authority to attempt to specify which entity is designated as Doyle Hartman, Oil Operator's oil purchaser for the MLMU.

2) OXY has failed to pay Doyle Hartman, Oil Operator and our royalty owners a competitive oil price including a crude oil price bonus although such bonuses, for some time, have been common in the Permian Basin, which failure by OXY to pay such bonus renders the ongoing operations of the Myers Langlie Mattix Unit even more non-commercial and further cements

the October 1, 1993 contractual termination of the Myers Langlie Mattix Unit agreement due to the failure of the Myers Langlie Mattix Unit to produce oil in quantities sufficient to yield revenues in excess of operating expenses.

Yours very truly,

DOYLE HARTMAN, Oil Operator

Doyle Hartman

enclosures (3)

rcp
wpdocs\corresp.dh\scurlock.mlm

cc: Minerals Management Service
Royalty Management Program
Reports and Payments Division
P.O. Box 17110
Denver, CO 80217-0110

John Glidewell, Area Manager
COA, West Texas and New Mexico
EOTT ENERGY Operating Limited Partnership
5805 E. Business 20
P.O. Box 1660
Midland, TX 79702
Via Certified Mail, Return Receipt Requested

Paul E. Fowler, Division Manager
Texaco Trading and Transportation Inc.
16825 Northchase Blvd., Suite 600
Houston, TX 77060-6986

OXY USA Inc.
P.O. Box 300, Tulsa, OK 74102-0300

August 16, 1995

CC: Hartman Keff ✓

Mr. Randy Adamson
Texas New Mexico Pipeline Company
Post Office Box 60028
San Angelo, TX 76906

RE: MYERS LANGLIE-MATTIX UNIT
LEA COUNTY, NEW MEXICO

VIA FAX: 915/944-2721

Dear Randy:

Effective September 1, 1995, Doyle Hartman Oil operator will take-in-kind his interest in the reference unit. Mr. Hartman has designated Scurlock Permian Corporation as their purchaser.

We request that effective September 1 please amend your records to reflect the purchaser's percentage as follows:

Amerada Hess	5.92843%
CITGO	38.45216%
Enron	0.59616%
Texaco TTI	37.11869%
Chevron	12.56396%
Chinook	1.19564%
Scurlock Permian	4.14496%
	100.00000%

Thank you for your cooperation in this matter. If more information is needed please let me know.

Very truly yours,

Frank B. Bowen

c: Mr. Doyle Hartman
Mr. John Keffer -SPC
Mr. Gary Moore - TTTI
Mr. Bennett Shelton - CITGO

DOYLE HARTMAN
Oil Operator
3811 TURTLE CREEK BLVD., SUITE 200
DALLAS, TEXAS 75219

(214) 520-1800
(214) 520-0811 FAX

Lands & T. for
19, 20, 21, 22, 23,
24, 25, 26, 29, 63,
72

CERTIFIED MAIL, RETURN RECEIPT REQUESTED

April 26, 1996

Texaco Exploration and Production Inc.
500 N. Loraine
P.O. Box 3109
Midland, TX 79702

Attn: Ronald W. Lanning
Land Department

OXY USA Inc
6 Desta Drive, Suite 6000
P.O. Box 50250
Midland, TX 79710-0250

Attn: T. Kent Wooley
Senior Landman

Re: Deficient Oil Price
Myers Langlie Mattix Unit
Lea County, New Mexico

Gentlemen:

Reference is made to the 4.869% working interest and the 4.145% net revenue interest owned by Doyle Hartman in the Myers Langlie Mattix Unit (MLMU) located in T-23-S and T-24-S, R-36-E and R-37-E, Lea County, New Mexico. Reference is also made to the working interest owned by James A. Davidson in the MLMU.

Paragraph 16 (Allocation of Unitized Substances) of the MLMU Unit Agreement in part reads as follows:

> "... Unit Operator, in order to avoid curtailing Unit operations, may sell or otherwise dispose of such production to itself or to 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 Working Interest Owner shall be charged therewith as having received such production....(emphasis added)"

Although oil purchasers had previously been designated (and executed division orders were in place) corresponding to MLMU oil production owned by Doyle Hartman and James A. Davidson, starting

no later than 1991, Texaco and/or OXY, for reasons known only to them, caused (or allowed to be caused) the following unsolicited changes in oil purchasers for Hartman's and Davidson's net MLMU oil production:

Date	Unsolicited Purchaser Changes
March 1991	Permian to Enron Sun (Oryx) to Enron
April 1993	Enron to OXY
February 1994	Texaco to OXY

While realizing that Texaco and OXY, for operational reasons, may have had the right from time to time to make purchaser changes corresponding to MLMU oil production, both operators, by unilaterally exercising such rights as provided to the operator under Paragraph 16 of the Unit Agreement, also had a clear obligation to ensure that affected unit working interest owners received an oil price "...not less than the prevailing market price... (emphasis added)".

Notwithstanding the foregoing duty on the part of the MLMU operator, we have now confirmed that prior to September 1, 1995, Doyle Hartman was paid an oil price substantially less that the prevailing market price and that James A. Davidson is still receiving such lower price. Therefore, we hereby place Texaco and OXY on notice that we request that a prompt and full accounting be performed as to our MLMU oil runs and pricing dating at least back to January, 1991. It is our position that Texaco and Oxy (as unit operators) have a final responsibility for ensuring that we are compensated for all price differences between the price paid and the true value of our oil as determined in the usual and ordinary course of trade and competition between sellers and buyers that are equally free to bargain. Obviously, it shall also be expected that corresponding adjustments be made for all royalty owners (including the United States of America) under our various MLMU tracts and as to all production taxes for the applicable leases and production period.

Yours very truly,

DOYLE HARTMAN, Oil Operator

Doyle Hartman

enclosures (3)

rcp
wpdocs\corresp.dh\tex&oxy.mlm

cc: Minerals Management Service
Royalty Management Program
P.O. Box 17110
Denver, CO 80217-0110

State of New Mexico
Taxation and Revenue Department
1200 St. Francis Drive (87505)
P.O. Box 2308
Santa Fe, NM 87504-2308

Charles Osina, Manager of Revenue
Texaco Exploration and Production Inc.
1111 Bagby
Houston, TX 77002-2543

Paul E. Fowler, Division Manager
Texaco Trading and Transportation Inc.
16825 Northchase Blvd., Suite 600
Houston, TX 77060-6986

Texaco Trading and Transportation, Inc.
4800 Fournace Avenue (77401-2325)
P.O. Box 5080
Bellaire, TX 77024-5080

Patty Burchett, Marketing Representative
OXY USA Inc
P.O. Box 300
Tulsa, OK 74102

Herb Whitney, Manager of Crude Oil Operations
CITGO Petroleum Corporation
P.O. Box 3758
Tulsa, OK 74102

Bennett Shelton, Senior Field Representative
CITGO Petroleum Corporation
1031 Andrews Hwy.
Midland, TX 79701

Sirgo Operating, Inc.
3300 N. A Street, Bldg. 1, Suite 110 (79705)
P.O. Box 3531
Midland, TX 79702

Brian M. Sirgo
P.O. Box 7454
Midland, TX 79708
463-27-4918

M.A. Sirgo, III
P.O. Box 3805
Midland, TX 79702

John Glidewell, Area Manager, COA, West Texas and New Mexico
Enron Oil Trading and Transportation Company
5805 East Highway 80 (79701)
P.O. Box 1660
Midland, TX 79702

James V. Derrick, Jr.
Senior Vice President and General Counsel
Enron Corporation
1400 Smith Street (77002)
P.O. Box 1188
Houston, TX 77251-1188

Bill Harvey, Division Order Analyst
EOTT
1330 Post Oak Blvd., Suite 2700 (77056)
P.O. Box 4666
Houston, TX 77210-4666

EOTT Energy Operating Limited Partnership
1330 Post Oak Boulevard, Suite 2700 (77056)
P.O. Box 4666
Houston, TX 77210-4666
Attn: Steve Myers, Vice President, COA and Trading
Douglas P. Huth, Vice President, Operations
John Ogden, Director, Crude Oil Administration
Joyce Ng, Manager, Contract Administration

John Keffer, Manager Crude Oil Trading
Scurlock Permian Corporation
333 Clay Street, Suite 2900 (77002)
P.O. Box 4648
Houston, TX 77210-4648

Jack Bartels, Director of Marketing
Scurlock Permian Corporation
3705 E. Hwy. 158 (79701)
P.O. Box 3119
Midland, TX 79702

Sun Refining and Marketing Company
907 South Detroit (74120)
P.O. Box 2039
Tulsa, OK 74102-2039
Attn: John McWhorter, V.P. and Director of Domestic Crude
Linda Buckman, Contracts and Division Orders

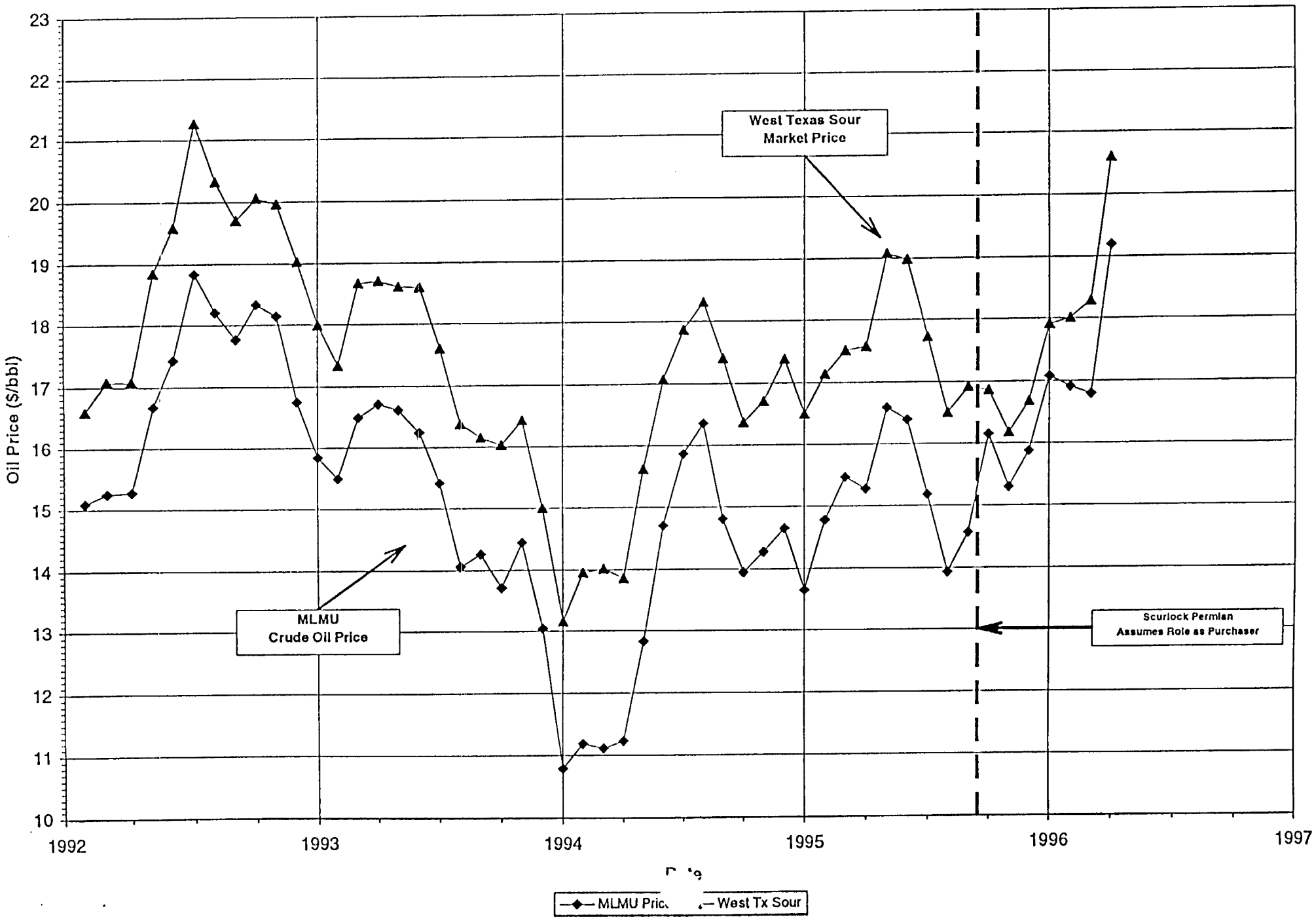
David R. Smith, Regional Manager
Sun Company, Inc. (R & M)
Atrium Center, Suite 400
1100 W. Louisiana
Midland, TX 79701

James A. Davidson
214 W. Texas, Suite 710
Midland, TX 79701

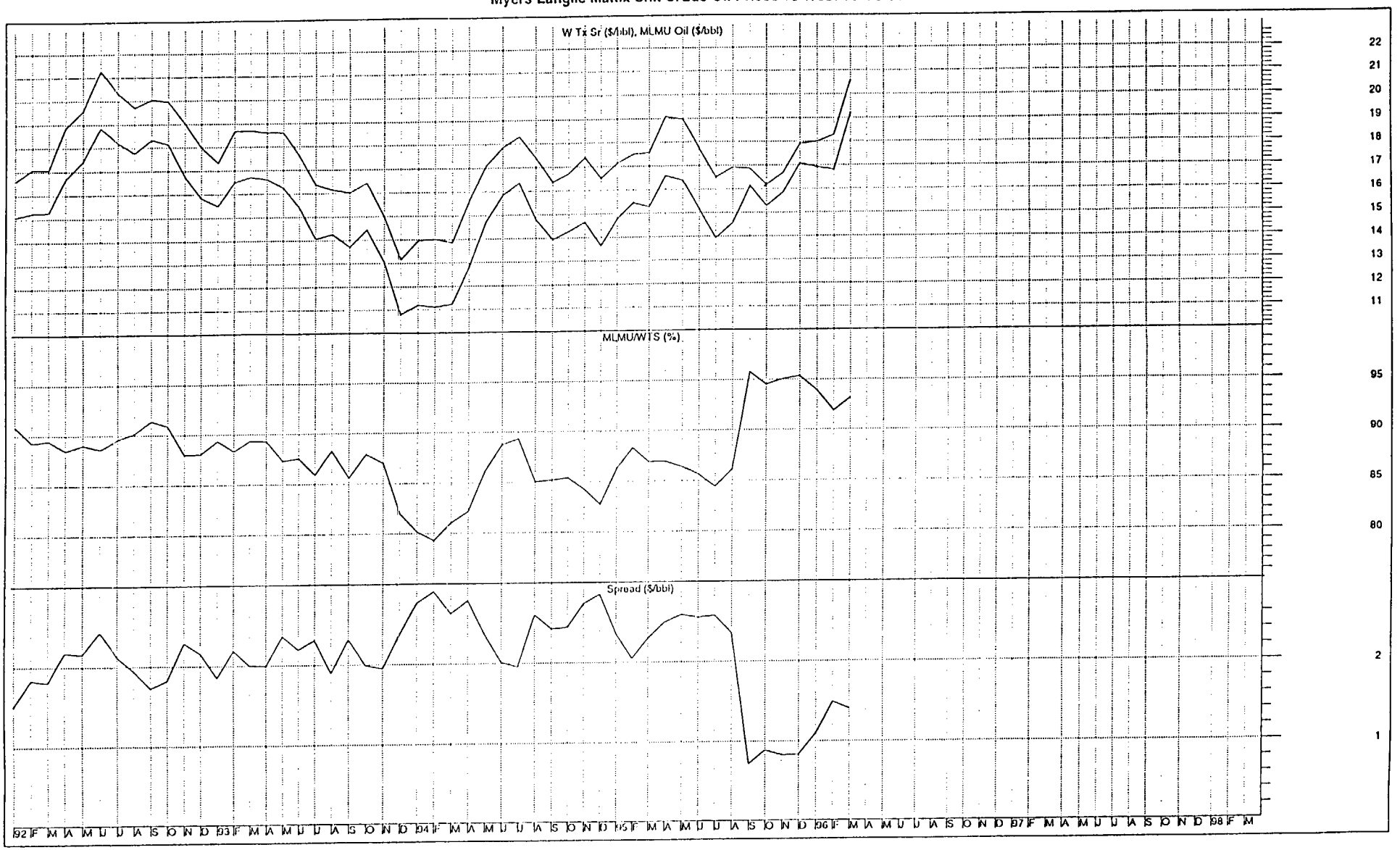
Michael Condon
Gallegos Law Firm
460 St. Michaels Drive, Building 300
Santa Fe, NM 87505

Doyle Hartman, Oil Operator
Carolyn M. Sebastian, Landman
Jefferson D. Massey, Controller
Don L. Mashburn, Engineer
Steve Hartman, Engineer
Cindy Brooks, Engineering Tech
Sheila Potts, Geologist

Myers Langlie Mattix Unit Crude Oil Price vs. West Texas Sour
January 1992 thru March 1996



Myers Langlie Mattix Unit Crude Oil Prices vs West Texas Sour



Example of Unsolicited Purchaser Changes
DHOO Working Interest
Myers Langlie Mattix Unit
January 1992 thru March 1996

PROD DATE	ENRON VOLUME	ENRON GROSS	ENRON PRICE	ENRON TAXES	ENRON NET	TEXACO VOLUME	TEXACO GROSS	TEXACO PRICE	TEXACO TAXES	TEXACO NET	CITGO VOLUME	CITGO GROSS	CITGO PRICE	CITGO TAXES	CITGO NET	OXY VOLUME	OXY GROSS	OXY PRICE	OXY TAXES	OXY NET	SCURLOCK PERMIAN [1] VOLUME	SCURLOCK PERMIAN [1] GROSS	SCURLOCK PERMIAN [1] PRICE	SCURLOCK PERMIAN [1] TAXES	SCURLOCK PERMIAN [1] NET	TOTAL VOLUME	TOTAL GROSS	TOTAL PRICE	TOTAL TAXES	TOTAL NET
																										630 88	8,007 87	15 08	639 39	7,378 58
																										553 01	6,430 38	15 24	662 47	7,767 92
01/92	180 48	2,723 18	15 08	214 00	2,509 18	184 24	2,928 42	15 08	230 13	2,698 29	156 16	2,356 26	15 09	185 16	2,171 10											611 21	9,335 68	15 27	733 62	8,602 06
02/92	188 00	2,865 32	15 24	225 16	2,640 16	202 34	3,084 36	15 24	242 37	2,841 99	162 67	2,480 71	15 25	194 94	2,285 77											571 87	8,536 82	16 67	748 44	8,787 48
03/92	207 78	3,168 81	15 25	249 01	2,919 80	223 63	3,430 83	15 34	269 61	3,161 22	178 78	2,736 94	15 22	215 00	2,521 04											571 23	8,958 00	17 43	782 45	9,175 55
04/92	195 99	3,266 53	16 67	256 69	3,009 84	206 41	3,452 53	16 73	271 32	3,181 21	169 57	2,817 86	16 62	221 43	2,596 43											517 47	8,744 27	18 83	765 72	8,978 55
05/92	195 74	3,414 35	17 44	268 24	3,146 11	206 14	3,596 21	17 45	282 59	3,313 62	169 35	2,847 44	17 40	231 62	2,715 82											533 92	8,716 07	18 70	763 29	8,952 78
06/92	177 31	3,337 87	18 83	262 30	3,075 57	186 74	3,515 72	18 83	276 26	3,239 46	158 29	2,981 72	18 21	226 22	2,655 50											542 72	8,630 13	17 76	757 25	8,881 88
07/92	182 95	3,328 56	18 18	261 57	3,066 99	192 68	3,505 79	18 19	275 50	3,230 29	160 90	2,858 70	17 77	224 65	2,634 05											524 30	9,683 06	18 33	761 99	8,921 07
08/92	185 96	3,302 11	17 76	259 25	3,042 86	195 86	3,478 32	17 76	273 35	3,204 97	156 65	2,870 74	18 33	225 91	2,644 83											506 48	10,810 43	18 14	851 44	9,958 98
09/92	181 05	3,317 77	18 32	261 08	3,056 69	190 60	3,494 55	18 33	275 00	3,219 55	172 00	3,121 97	18 16	245 84	2,876 13											556 63	9,323 33	16 75	733 69	8,589 64
10/92	188 74	3,421 62	18 13	269 26	3,152 36	235 74	4,274 04	18 13	336 34	3,937 70	167 85	2,946 74	16 77	208 28	2,738 46											536 13	8,469 51	15 83	668 06	7,801 45
11/92	182 44	3,054 40	16 74	240 36	2,814 04	216 34	3,822 18	16 74	285 05	3,537 14	152 04	2,406 93	15 83	189 41	2,217 52											545 73	8,451 45	15 48	665 06	7,786 39
12/92	175 72	2,780 38	15 82	218 78	2,561 59	208 37	3,302 20	15 85	259 86	3,042 34	154 76	2,392 63	15 46	188 28	2,204 35											498 00	8,210 82	16 48	646 15	7,564 67
01/93	178 87	2,770 89	15 48	218 05	2,552 84	217 10	3,287 83	15 50	258 73	3,029 10	141 23	2,030 27	16 50	183 38	2,846 89											540 57	9,030 81	16 71	710 68	8,320 13
02/93	163 22	2,690 21	16 48	211 70	2,478 51	193 55	3,180 34	16 48	251 07	2,929 27	153 30	2,569 42	16 70	201 49	2,358 93											487 43	8,098 53	16 61	637 30	7,461 23
03/93	177 18	2,957 79	16 69	232 76	2,725 03	210 00	3,512 60	16 72	276 43	3,236 17	148 44	2,466 28	16 61	194 08	2,272 20	135 53	2,251 45	16 61	177 18	2,074 27						459 68	7,463 56	16 24	587 34	6,876 22
04/93						203 46	3,380 80	16 62	266 04	3,114 76	140 00	2,273 03	16 24	178 94	2,094 99	127 82	2,076 13	16 74	163 40	1,912 73						471 81	7,771 96	15 41	572 27	6,599 49
05/93						181 86	3,113 50	16 23	245 03	2,868 50	143 22	2,330 12	15 52	175 50	2,054 62	131 22	2,036 07	15 52	160 23	1,875 84						467 20	6,560 54	14 06	516 97	6,052 57
06/93						196 87	3,005 77	15 26	236 54	2,769 23	141 32	2,312 72	14 15	158 39	1,854 33	129 90	1,837 57	14 15	144 60	1,692 97						460 30	6,561 27	14 25	516 32	6,044 95
07/93						185 01	2,710 25	13 84	213 99	2,496 27	140 19	2,009 07	14 33	158 10	1,850 97	127 88	1,834 23	14 33	144 35	1,689 88						458 47	6,285 85	13 71	483 11	5,802 74
08/93						192 93	2,717 07	14 15	213 87	2,504 10	139 64	1,926 07	13 78	150 03	1,776 04	127 46	1,758 52	13 80	138 39	1,620 13						472 31	6,620 09	14 44	531 24	6,088 85
09/93						181 37	2,601 76	13 58	204 69	2,396 57	143 04	2,001 61	14 54	162 83	1,838 68	131 32	1,909 49	14 54	148 73	1,760 76						437 08	5,702 07	13 05	444 16	5,257 91
10/93						197 15	2,818 99	14 30	219 58	2,599 41	133 12	1,749 07	13 14	136 25	1,612 82	121 53	1,596 82	13 14	124 37	1,472 45						455 97	4,917 70	10 79	381 06	4,536 64
11/93						182 44	2,356 18	12 81	183 54	2,172 64	138 87	1,531 41	10 88	151 74	1,379 67	126 78	1,390 03	10 89	107 49	1,282 54						442 16	4,945 88	11 18	385 28	4,560 60
12/93						190 32	2,026 26	10 65	157 85	1,868 41	134 66	1,482 49	11 01	115 49	1,367 00	122 84	1,353 63	11 01	105 44	1,248 19						412 10	4,580 61	11 11	357 63	4,222 98
01/94						184 55	2,100 76	11 43	164 35	1,945 41	125 81	1,397 81	11 11	108 89	1,288 92	287 28	3,191 80	11 11	248 64	2,943 16						438 01	4,897 81	11 23	383 12	4,534 68
02/94											133 40	1,498 54	11 23	116 74	1,381 80	304 61	3,419 27	11 23	266 38	3,152 89						414 83	5,321 47	12 82	414 51	4,906 96
03/94											126 37	1,623 05	12 84	126 43	1,496 62	288 56	3,698 42	12 82	288 08	3,410 34						444 46	6,533 83	14 70	514 23	6,009 60
04/94											135 36	1,984 90	14 66	154 62	1,830 28	369 10	4,548 93	14 72	369 61	4,179 32						405 23	6,424 35	15 85	500 43	5,923 92
05/94											123 42	1,956 64	15 85	152 42	1,804 22	281 81	4,467 71	15 85	348 01	4,119 70						423 29	6,923 30	16 36	539 30	6,384 00
06/94											128 93	2,108 60	16 35	164 25	1,944 35	394 36	6,814 70	16 36	375 05	4,439 65						409 59	7,393 90	14 80	575 90	6,818 00
07/94											152 14	2,251 89	14 80	175 42	2,076 47	347 45	5,142 10	14 80	400 57	4,741 53						619 10	8,632 86	13 94	670 84	7,962 12
08/94											184 63	2,630 46	13 95	204 40	2,426 06	430 47	6,092 50	13 84	466 44	5,536 06						667 34	8,520 61	14 27	730 82	7,789 78
09/94											203 39	2,909 91	14 27	225 42	2,675 49	464 01	6,619 70	14 27	514 40	6,105 30						591 20	8,659 49	14 65	672 90	7,986 58
10/94											180 13	2,616 65	14 64	204 88	2,431 67	411 07	6,022 94	14 65	460 02	5,554 92						587 96	8,161 67	13 65	634 20	7,527 47
11/94											182 70	2,496 80	13 65	193 74	2,303 06	415 36	5,674 82	13 65	440 96	5,233 86						607 40	8,975 20	14 78	697 44	8,277 85
12/94											185 07	2,734 23	14 78	212 51	2,521 72	422 33	6,240 56	14 78	484 81	5,755 63						571 15	8,831 54	15 46	686 28	8,145 26
01/95											174 03	2,690 96	15 46	209 11	2,481 85	399 12	6,140 58	15 46	477 17	5,663 41						616 44	9,415 50	15 27	731 64	8,683 85
02/95											187 66	2,864 26	15 27	222 73	2,641 53	428 78	6,549 33	15 27	508 81	6,040 52						570 04	8,457 22	16 58	734 88	8,722 34
03/95											173 68	2,881 58	16 59	223 97	2,657 66	396 36	6,575 64	16 59	510 96	6,064 68						599 45	9,827 78	16 39	763 68	9,064 11
04/95											162 64	2,694 49	16 40	232 78	2,461 70	416 81	6,833 30	16 39	530 98	6,302 32						554 52	8,413 35	15 17	653 78	7,759 58
05/95											164 96	2,543 53	15 17	199 70	2,344 33	385 56	5,848 82	15 17	454 56	5,394 26						570 77	7,949 76	13 93	617 75	7,332 01
06/95											173 91	2,422 19	13 93	188 22	2,233 97	396 86	5,527 57	13 93	429 53	5,098 04						702 71	10,235 30	14 57	785 34	8,429 98
07/95											278 07	4,050 65	14 57	314 76	3,735 89	424 64	6,184 65	14 56	480 58	5,704 07	687 86	11,108 89	16 15	863 58	10,245 31	687 86	11,108 89	16 15	863 58	10,245 31
08/95																					662 28	10,128 89	15 29	787 40	9,341 49	662 28	10,128 89	15 29	787 40	9,341 49
09/95																					618 49	8,813 55	15 87	762 89	9,050 66	618 49	8,813 55	15 87	762 89	9,050 66
10/95																					697 78	11,908 39	17 06	925 73	10,982 66	697 78	11,908 39	17 06	925 73	10,982 66
11/95																					678 89	11,483 33	16 91	892 69	10,590 64	678 89	11,483 33	16 91	892 69	10,590 64
12/95																					583 11	8,795 00	16 90	761 44	8,033 56	583 11	8,795 00	16 80	761 44	8,033 56
01/96																					642 72	12,333 16	19 19	959 99	11,373 17	642 72	12,333 16	19 19	959 99	11,373 17
02/96																														
03/96																														
TotalAverage	2,761.44	48,399 89	16 80	3,648 21	42,751 68	8,000.18	78,525 67	15.70	6,168.35	72,356 82	7,006 48	106,734 42	15 23	8,346 08	98,388 34	8,385 43	121,538 28	14 49	8,477 96	112,060 32	4,570 61	78,571 21	16 78	5,953 72	70,617 49	27,724.15	430,769 46	15.50	33,505 02	396,174.45

(1) The only purchaser change made by DHOO was a change to Scurlock Permian as oil purchaser effective September 1, 1995.

OXY USA INC.
Box 50250, Midland, TX 79710

Robert D. Hunt
Asset Team Leader

Phone (915) 685-5744
FAX: (915) 685-5888

May 7, 1996

Doyle Hartman
200 Turtle Creek Center
3811 Turtle Creek Boulevard
Dallas, Texas 75219-4421

James A. Davidson
P. O. Box 494
Midland, Texas 79702

Gentlemen:

In response to your letter of April 26, 1996, addressed to both OXY USA and Texaco, as both you and Mr. Davidson are fully aware, OXY USA is contractually bound to CITGO Petroleum Corporation for the oil which it sells from the Myers Langlie Unit.

All working interest owners have been, and still are, free to sell their share of production from the unit. OXY has been doing so (since it assumed operatorship on January 1, 1994) only as an accommodation to certain working interest owners, but certainly not in fulfillment of some 'obligation' or 'duty' under the Unit Agreement. In fact, the clear obligation of OXY under Paragraph 16 of the Unit Agreement is to deliver the oil 'in kind' to the working interest owners for them to sell or dispose of as they choose. It is only when such owners 'fail the take' (or to put it another way, fail to fulfill their obligation to take) that OXY sells such production.

OXY USA does not benefit in any way from such sale, nor do we make the choice to sell the share production of the other working interest owners. Such owners make the choice on their own as to how they will sell their share of production.

I am aware that you are currently selling your share of the production from the unit and Mr. Davidson is certainly free to do so.

In any event, OXY USA respectfully declines to accept the position you take as set forth in your April 26, 1996 letter.

Yours truly,

OXY USA Inc.

Robert D. Hunt
Asset Team Leader

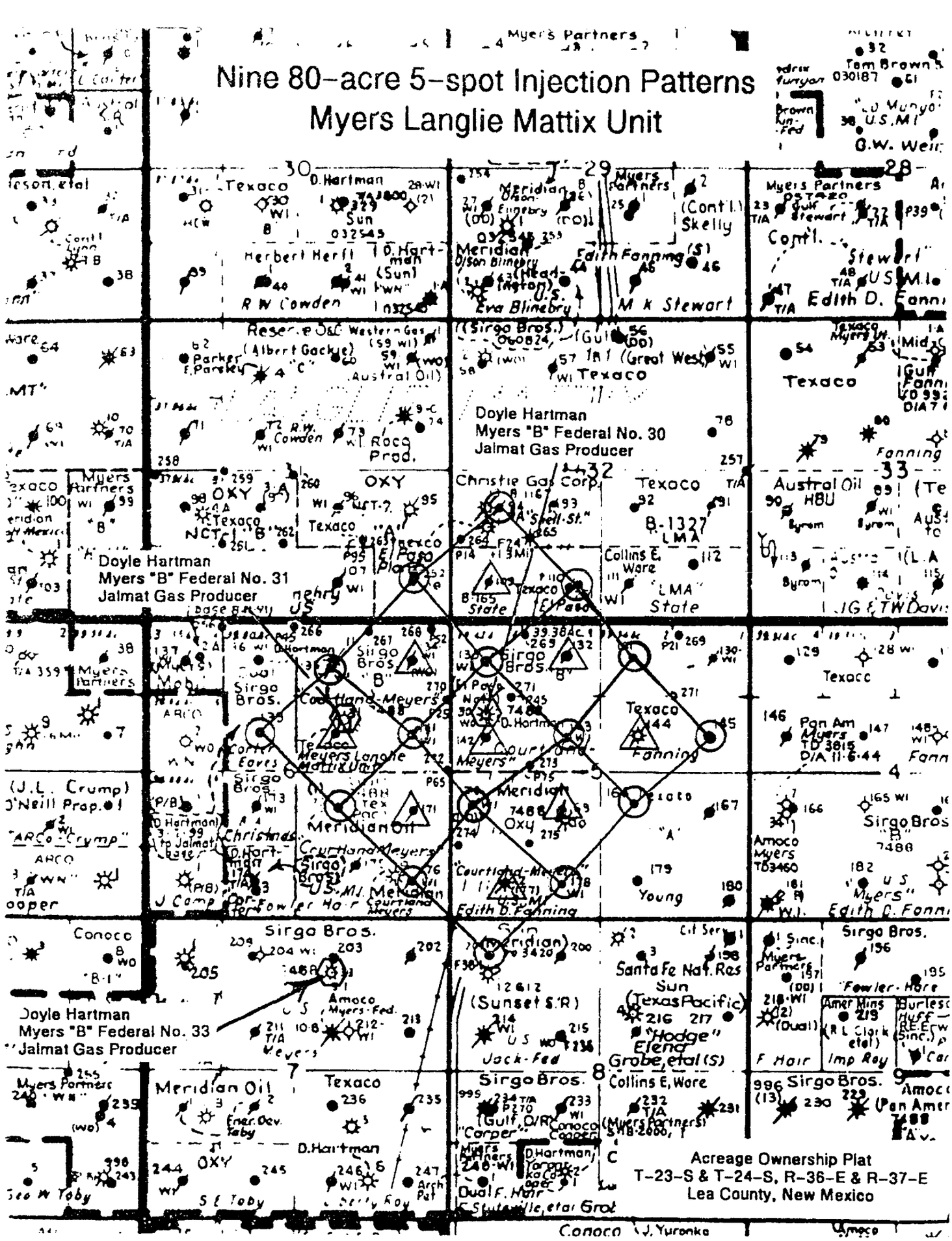
cc: JDM
SK
LL

JCL/bic

MLMU Water Injection and Oil Recovery History
Surrounding Hartman's Myers "B" Federal No. 30 Jalmat Well
Nine 80-Acre 5-Spot Injection Patterns
Myers Langlie Mattix Unit
T-23-S & T-24-S, R-36-E & R-37-E
Lea County, New Mexico

80-acre Injection Pattern	Injection Well Location (U-S-T-R)	Primary Oil Recovery as of 1/1/76 (STB)	Estimated Gas Saturation as of 1/1/76 (%)	Estimated Fillup Volume as of 1/1/76 (RVB)	Cumulative Water Injection as of 6/30/94 (RVB)	Cumulative Pattern Withdrawal as of 6/30/94 (RVB)	Cumulative Injection to Withdrawal Ratio as of 6/30/94 (%)	Excess Water Injection as of 6/30/94 (BBLS)	Excess Water Injection as of 6/30/94 (%)	Secondary Oil Recovery as of 6/30/94 (STB)	Secondary to Primary Ratio as of 6/30/94
MLMU No. 109	M-32-23-37	35,712	10.33	200,991	1,800,604	631,531	285.1	1,169,073	185.1	53,899	1.51
MLMU No. 132	C-05-24-37	20,341	7.05	128,640	2,153,941	916,647	235.0	1,237,294	135.0	140,730	6.92
MLMU No. 134	A-06-24-37	14,104	5.05	135,586	1,329,040	599,242	221.8	729,798	121.8	53,226	3.77
MLMU No. 140	G-06-24-37	23,578	8.43	184,428	1,538,885	768,601	200.2	770,284	100.2	64,522	2.74
MLMU No. 142	E-05-24-37	37,540	7.65	199,649	1,440,999	888,858	162.1	552,141	62.1	80,961	2.16
MLMU No. 144	G-05-24-37	27,190	6.56	200,849	1,892,921	1,026,903	184.3	866,018	84.3	196,700	7.23
MLMU No. 169	K-05-24-37	54,041	5.25	158,320	1,894,159	974,049	194.5	920,110	94.5	99,975	1.85
MLMU No. 171	I-06-24-37	66,066	6.51	174,042	2,082,159	873,633	238.3	1,208,526	138.3	94,428	1.43
MLMU No. 177	M-05-24-37	91,049	6.29	187,022	941,351	1,257,025	74.9	-315,674	-25.1	112,285	1.23
Total/Average		**369,621**	**7.54**	**1,569,527**	**15,074,059**	**7,936,489**	**189.9**	**7,137,570**	**89.9**	**896,726**	**2.43**

No. of 80-Acre 5-Spot Patterns = 9
Total Acreage = 9 x 80 = 720 acres
Primary Oil Recovery = 369,621 STB
Secondary Oil Recovery = 896,726 STB
Total Oil Recovery = 1,266,347 STB
Average Recovery = 1,759 STB/acre


Nine 80-acre 5-spot Injection Patterns
Myers Langlie Mattix Unit
Doyle Hartman
Myers "B" Federal No. 30
Jalmat Gas Producer
Doyle Hartman
Myers "B" Federal No. 31
Jalmat Gas Producer
Doyle Hartman
Myers "B" Federal No. 33
Jalmat Gas Producer
Acreage Ownership Plat
T-23-S & T-24-S, R-36-E & R-37-E
Lea County, New Mexico

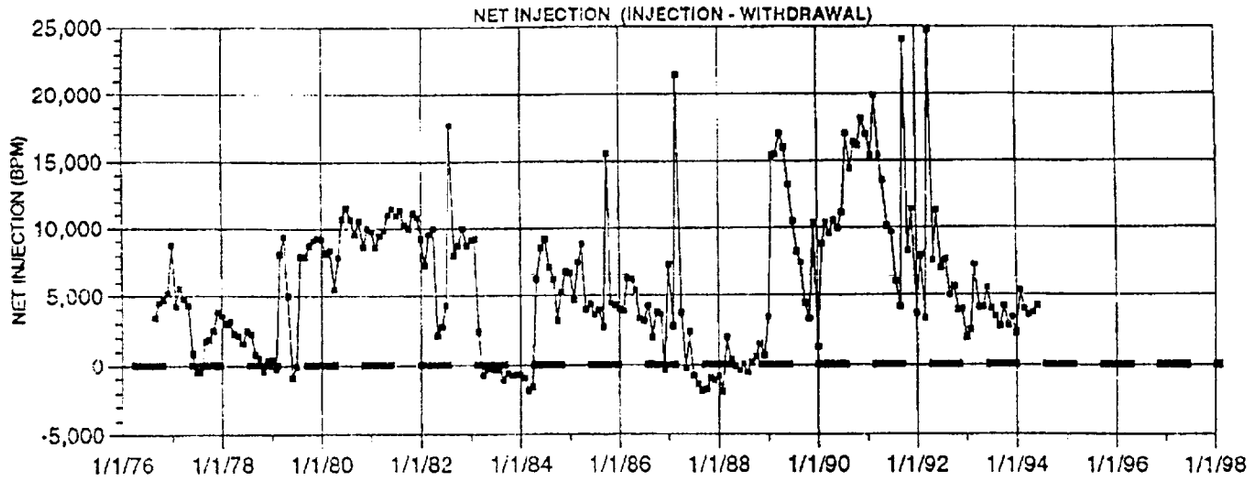
MLMU # 109

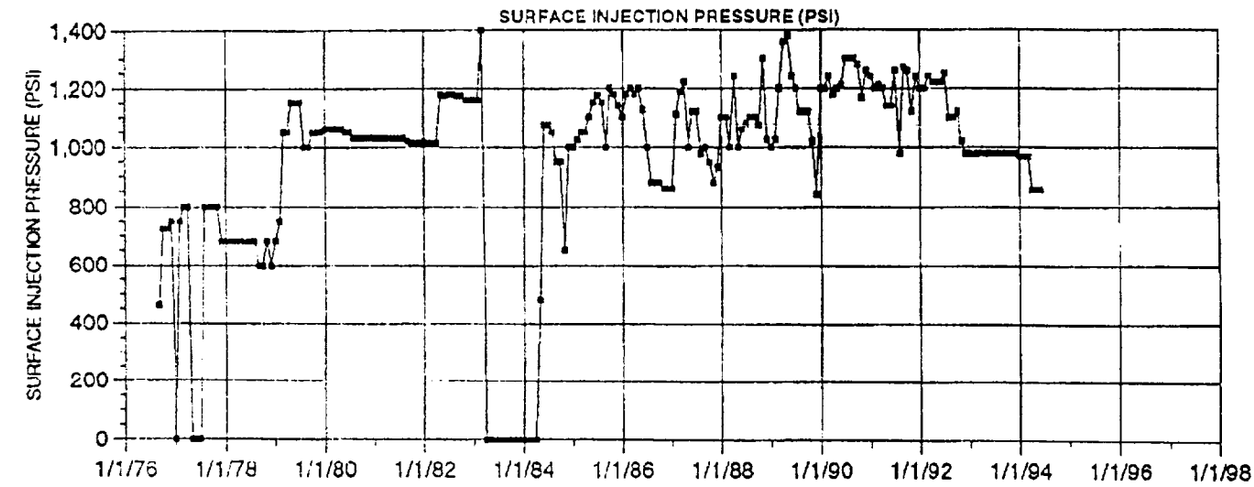
80-ACRE INJECTION PATTERN

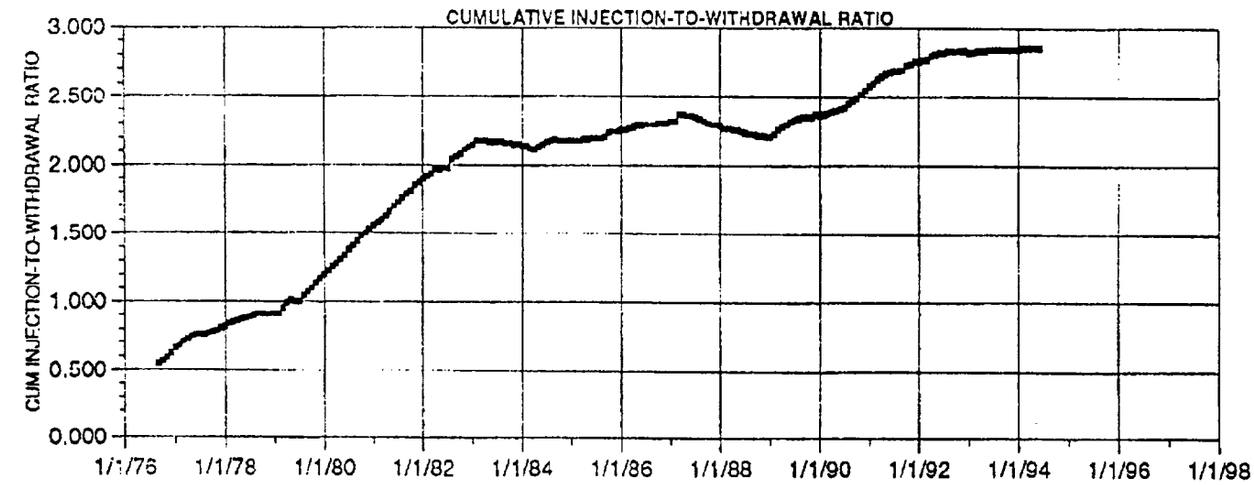
MYERS LANGLIE MATTIX UNIT

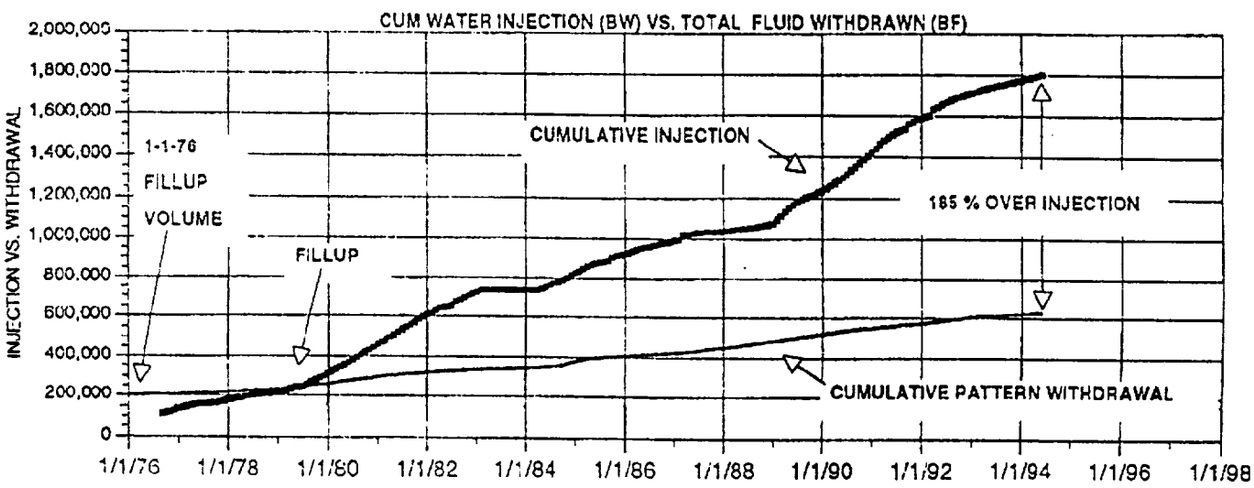
M-32-23S-37E

OPERATOR: OXY USA, INC.









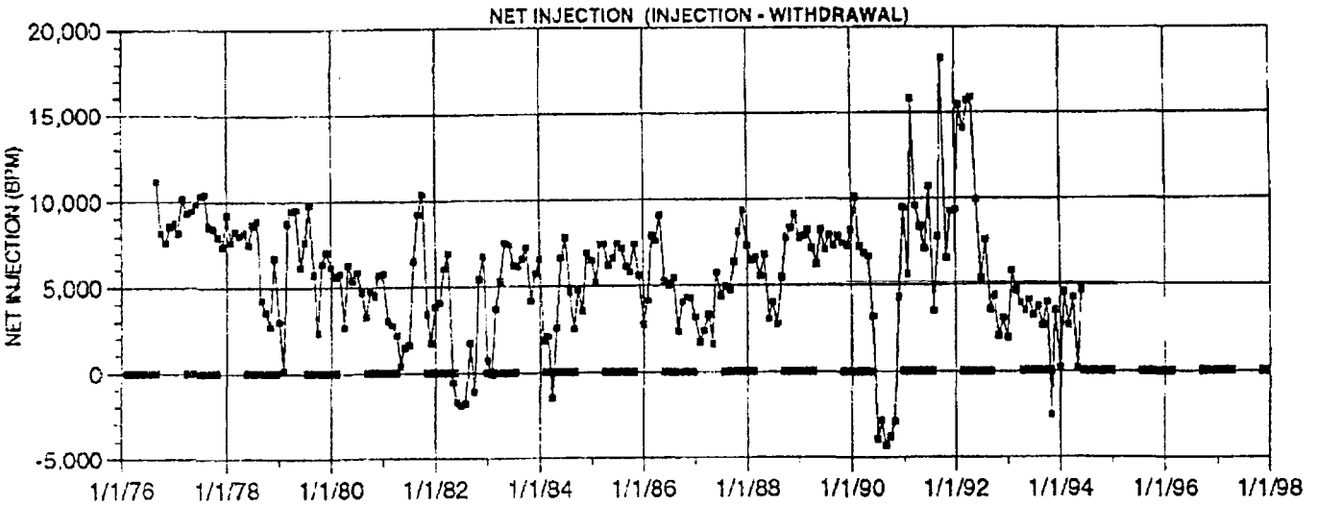
MLMU # 132

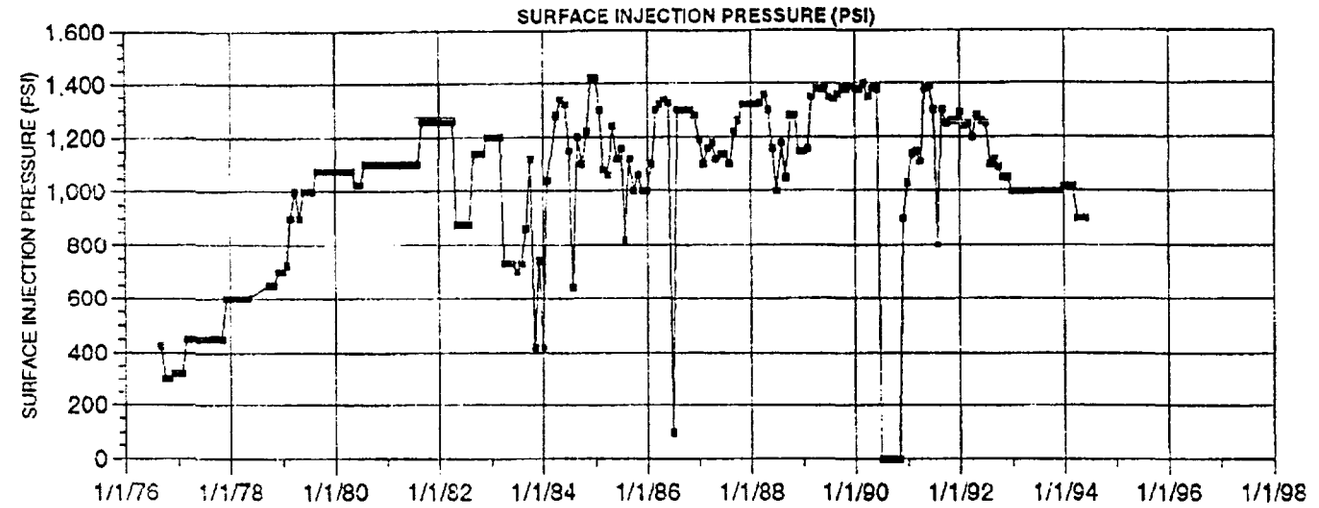
80-ACRE INJECTION PATTERN

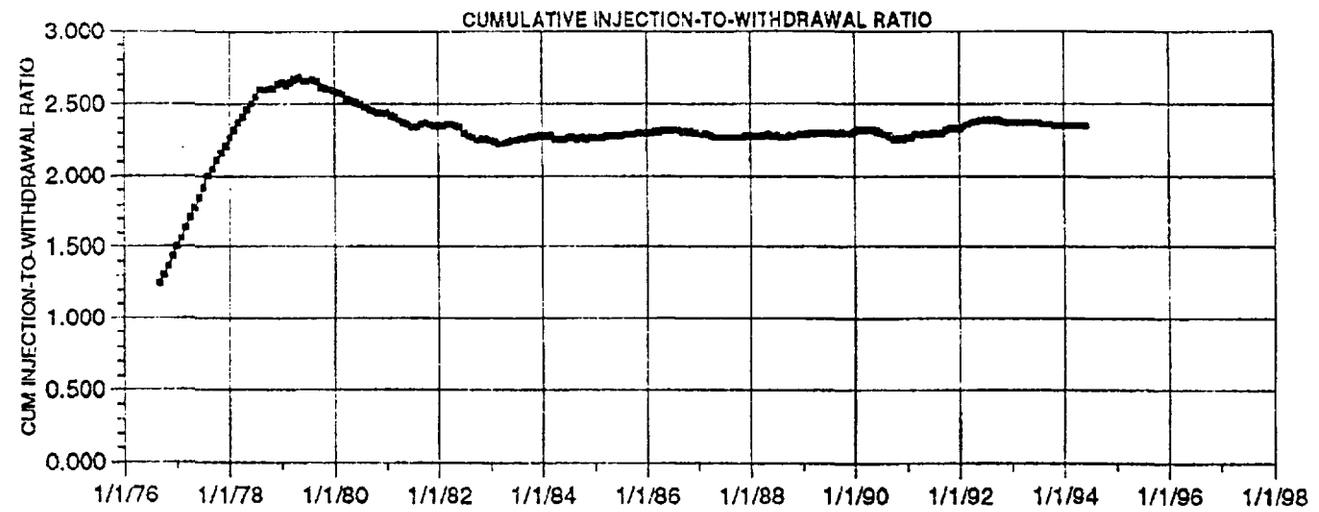
MYERS LANGLIE MATTIX UNIT

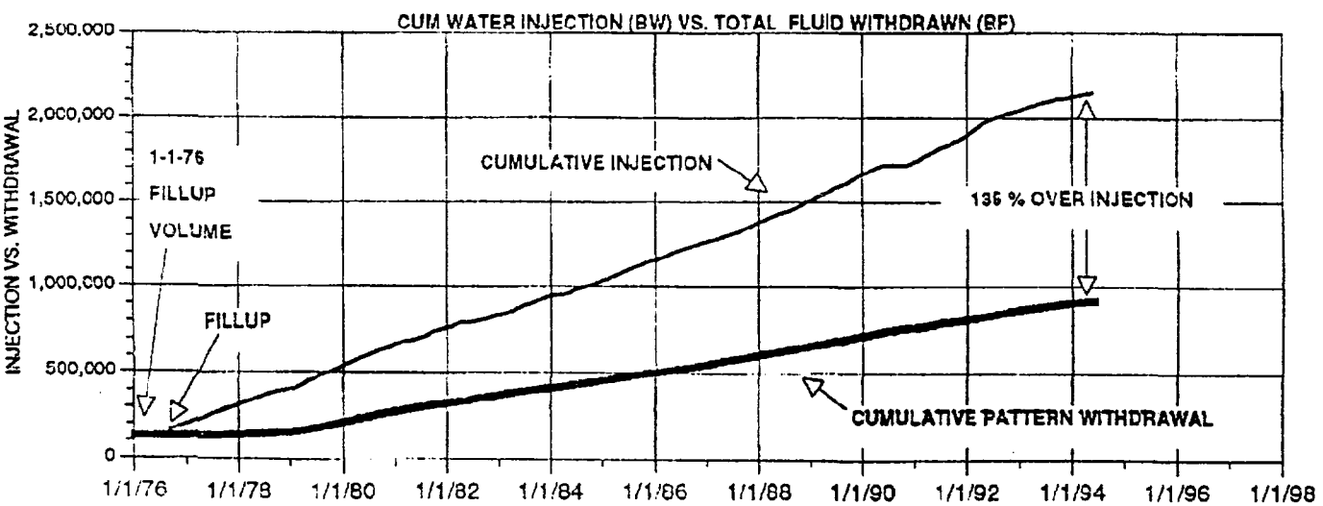
C-5-24S-37E

OPERATOR: OXY USA, INC.

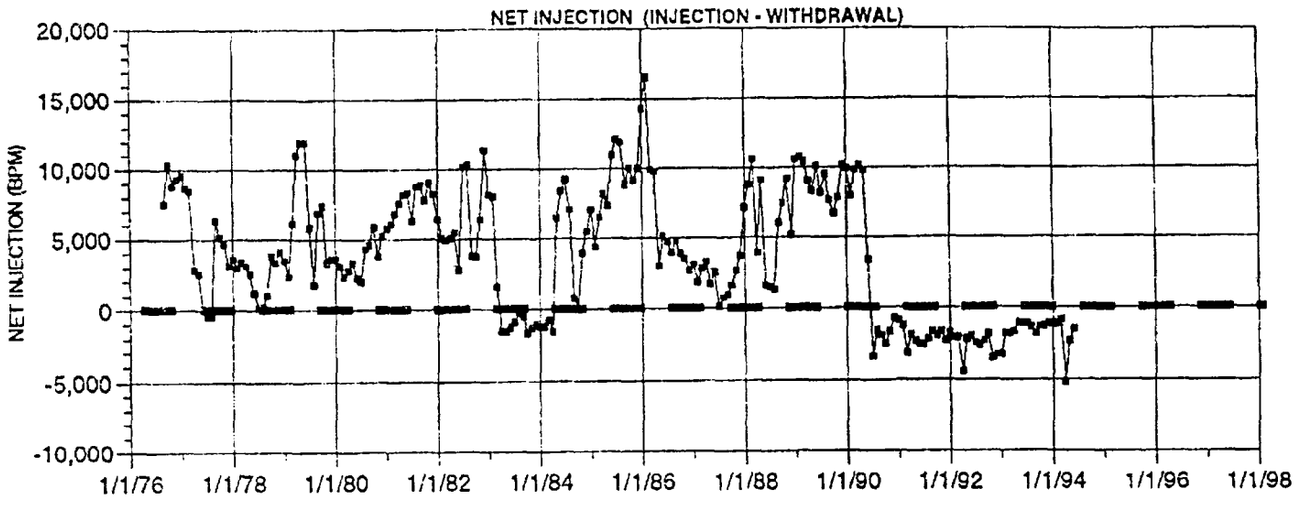


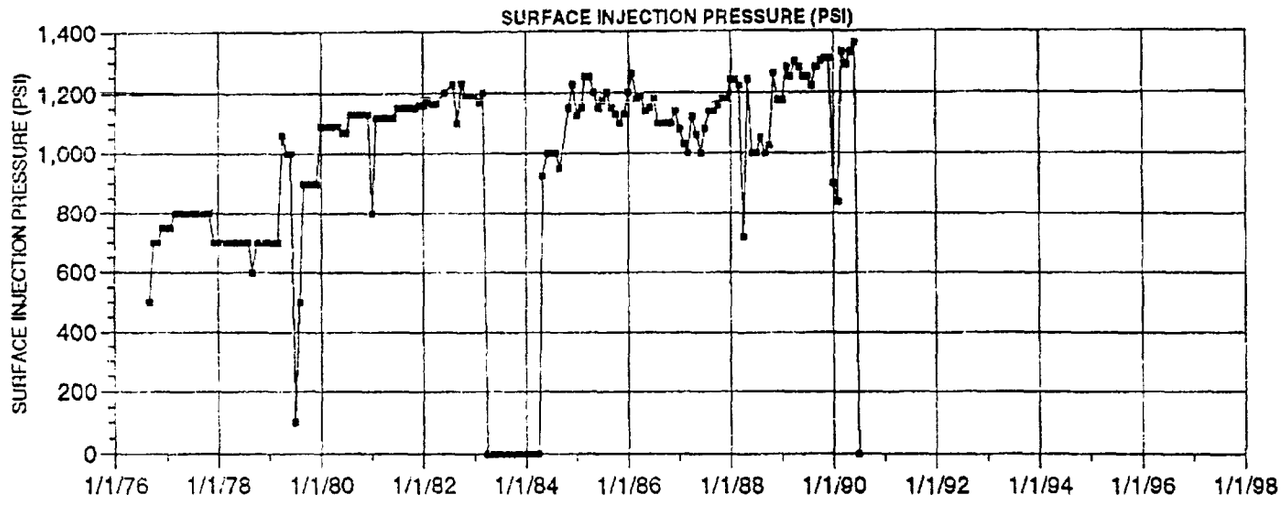


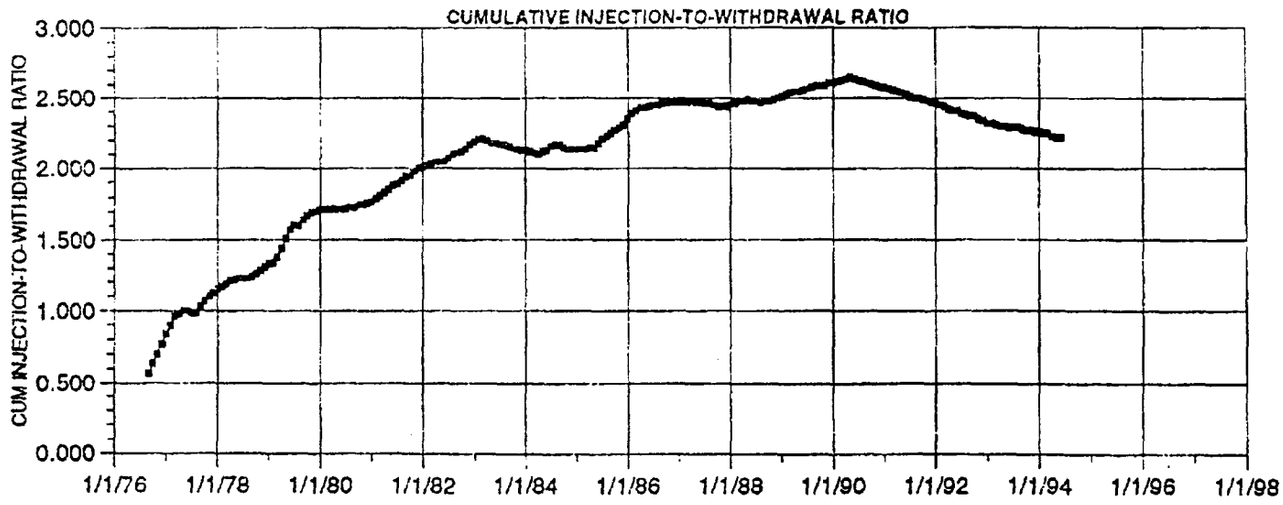


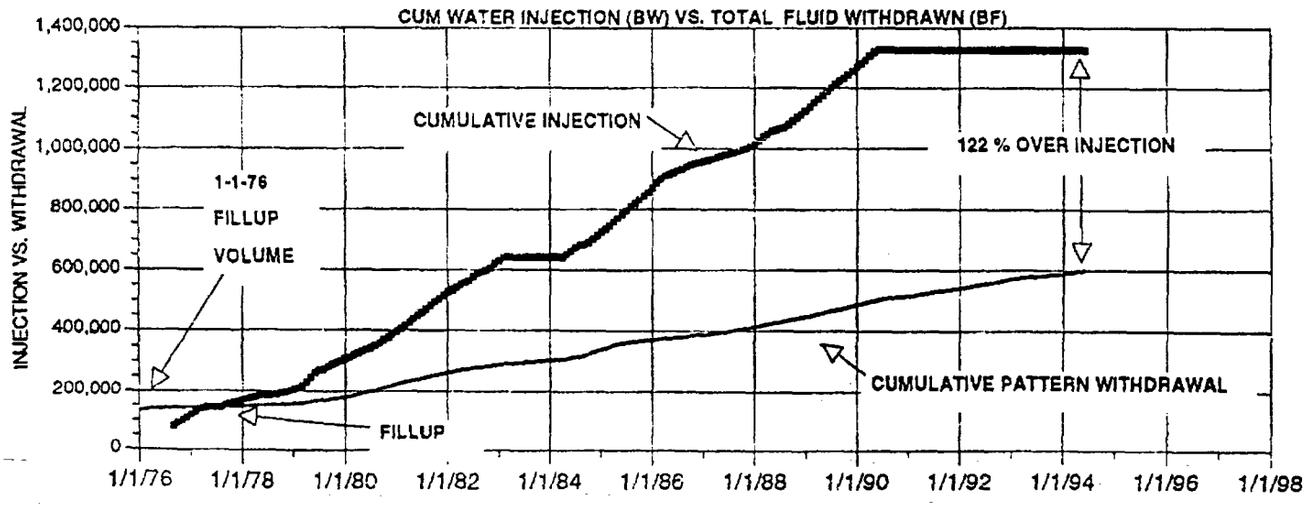


MLMU # 134
80-ACRE INJECTION PATTERN
MYERS LANGLIE MATTIX UNIT
A-6-24S-37E
OPERATOR: OXY USA, INC.









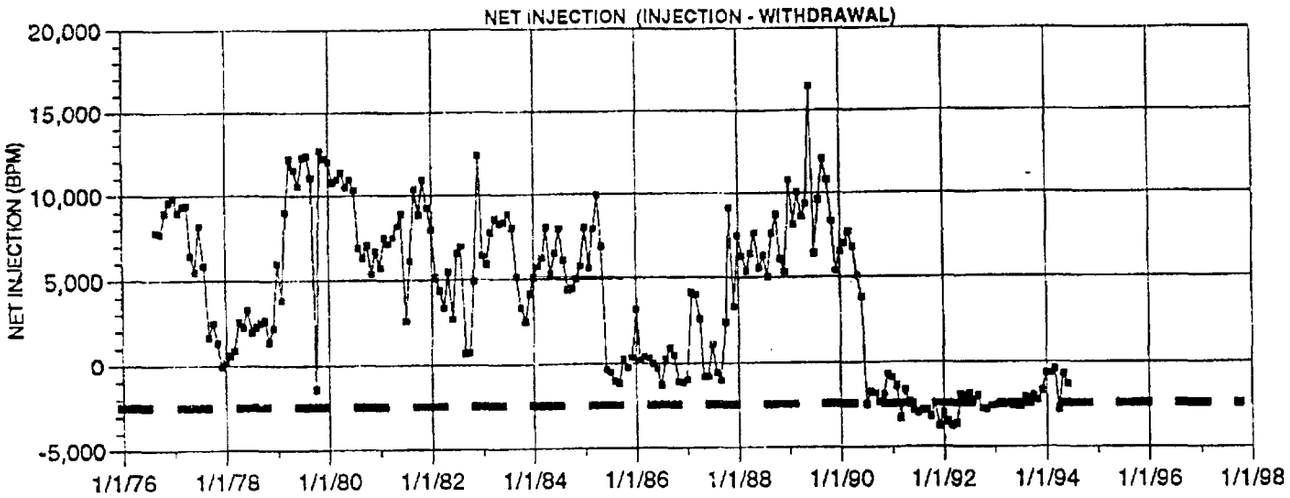
MEMO # 140

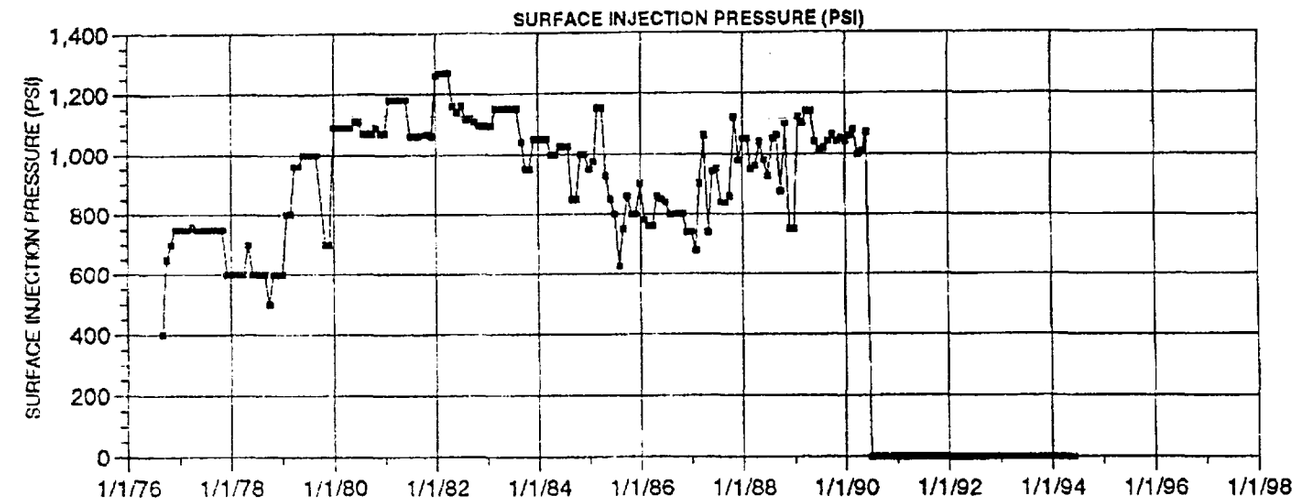
80-ACRE INJECTION PATTERN

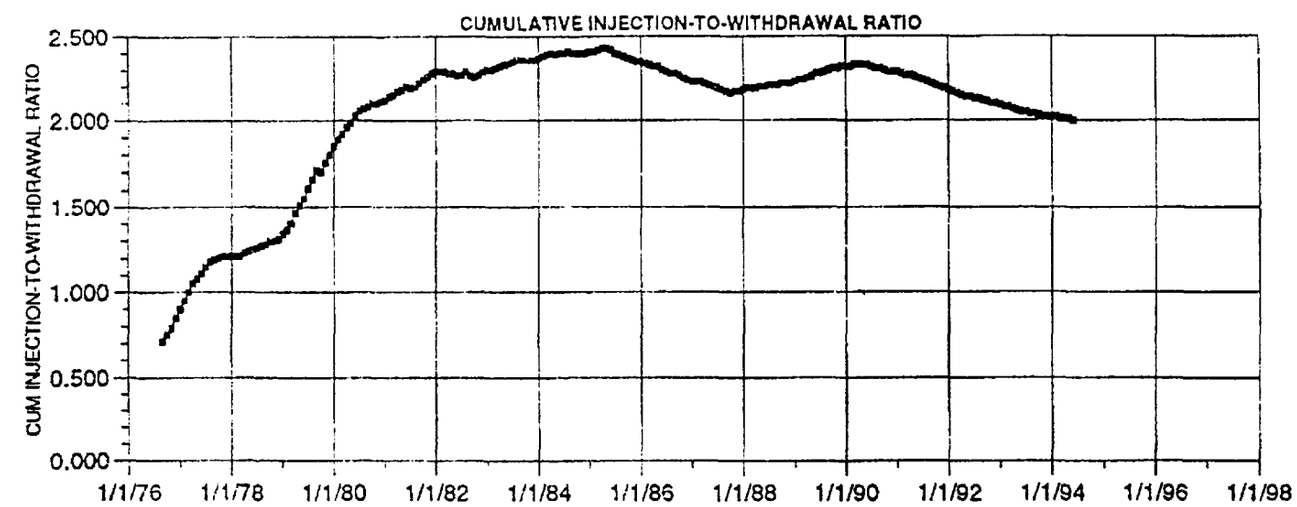
MYERS LANGLIE MATTIX UNIT

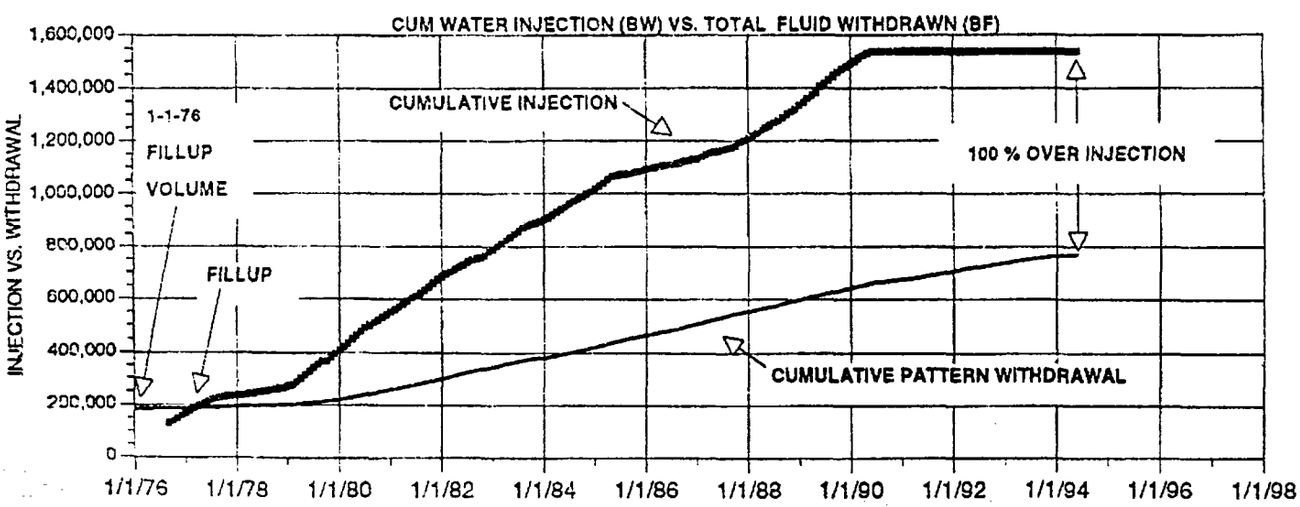
G-6-24S-37E

OPERATOR: OXY USA, INC.









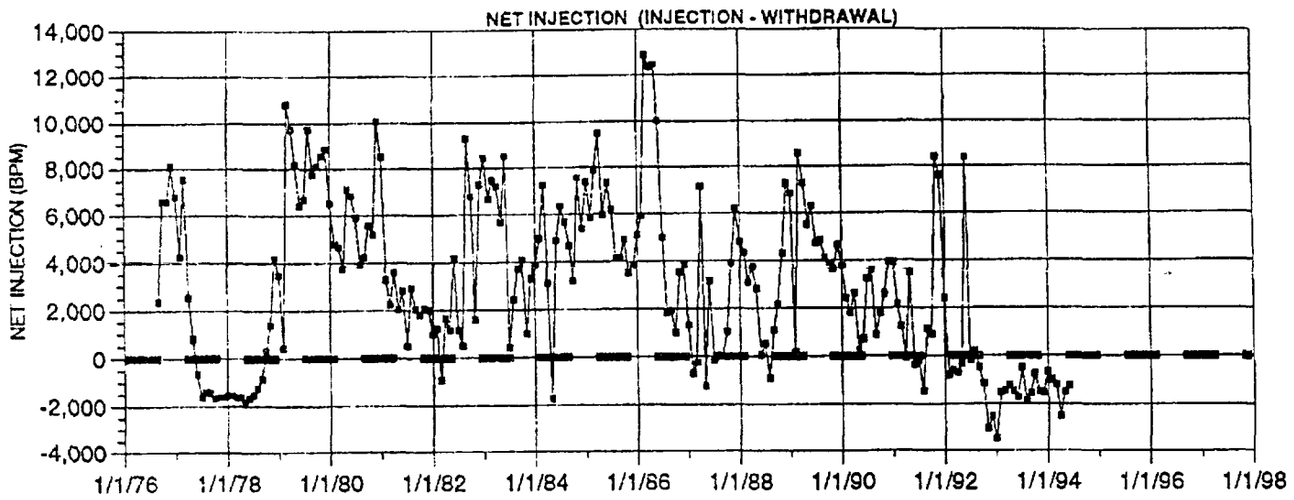
MLMU # 142

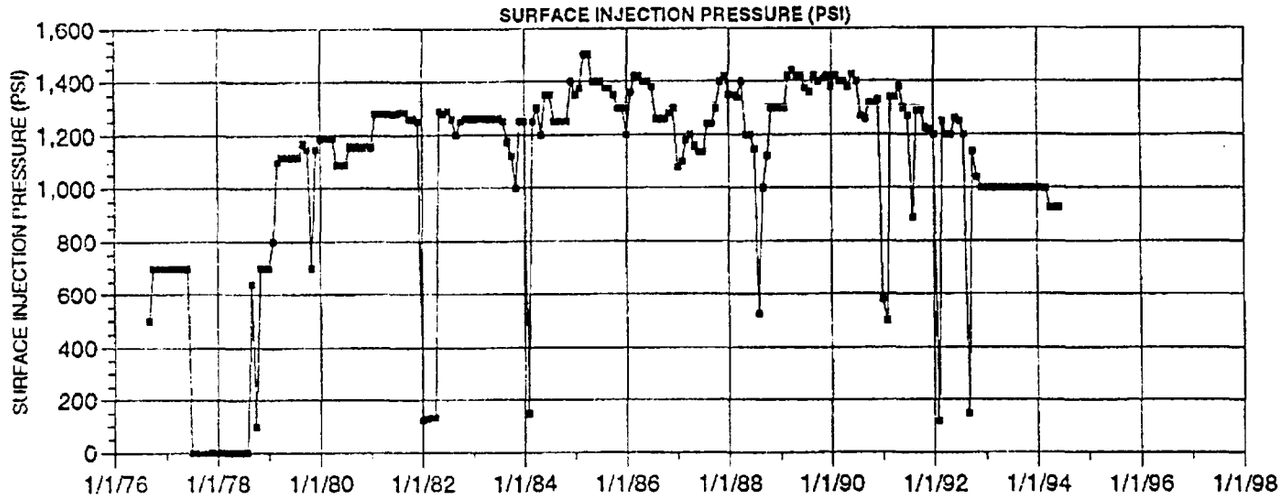
80-ACRE INJECTION PATTERN

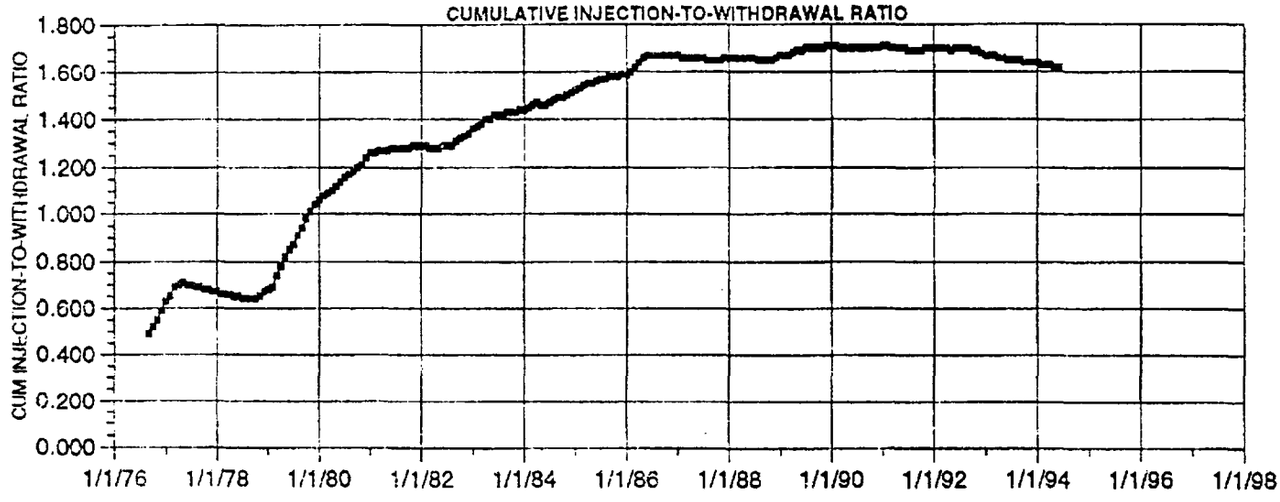
MYERS LANGLIE MATTIX UNIT

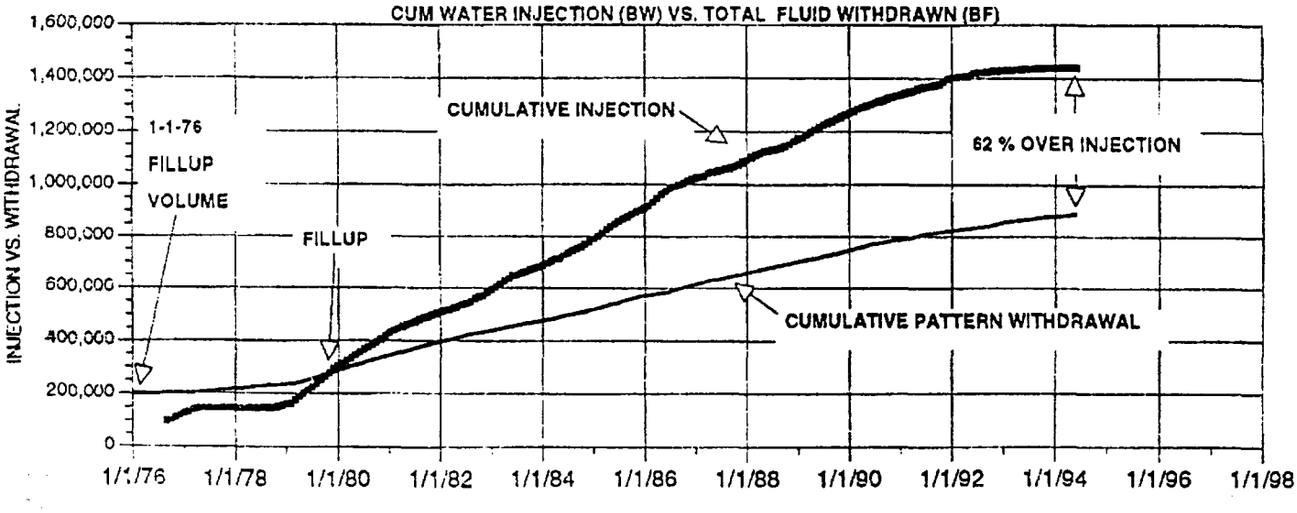
E-5-24S-37E

OPERATOR: OXY USA, INC.

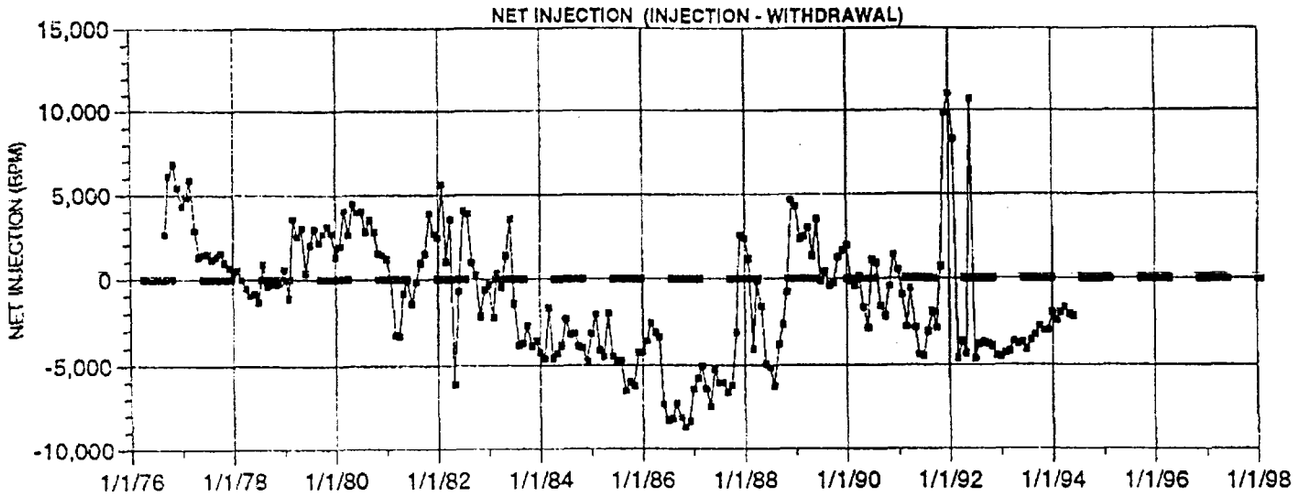


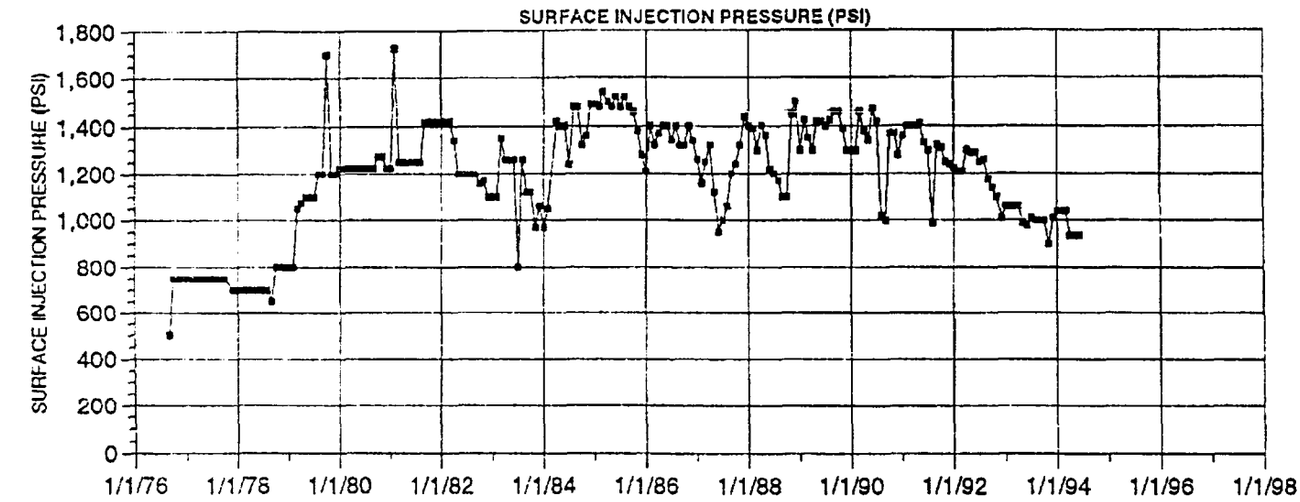


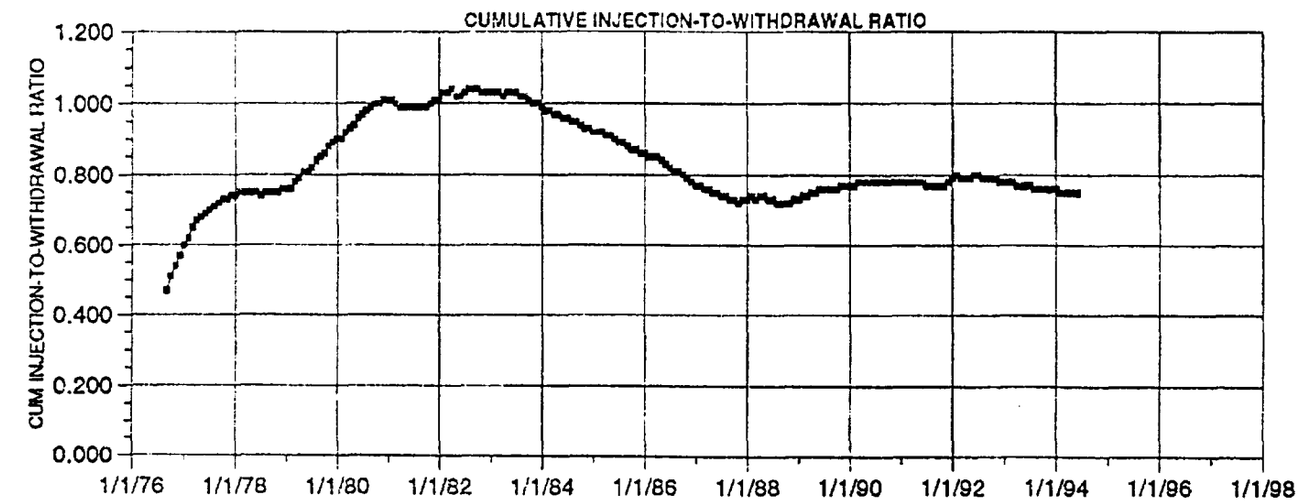


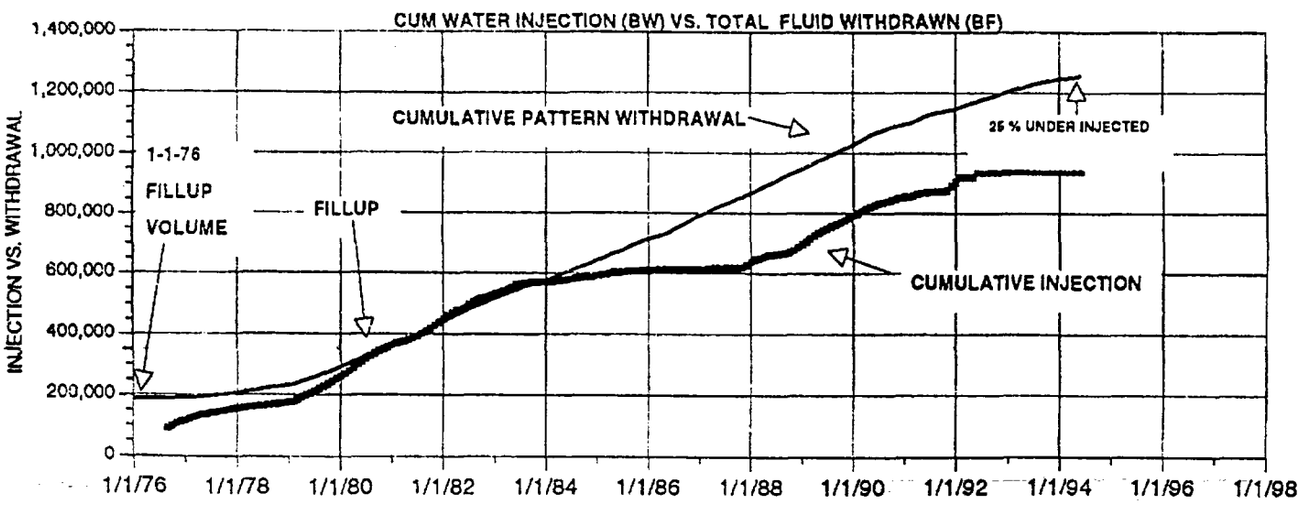


MLMU # 177
80-ACRE INJECTION PATTERN
MYERS LANGLIE MATTIX UNIT
M-5-24S-37E
OPERATOR: OXY USA, INC.

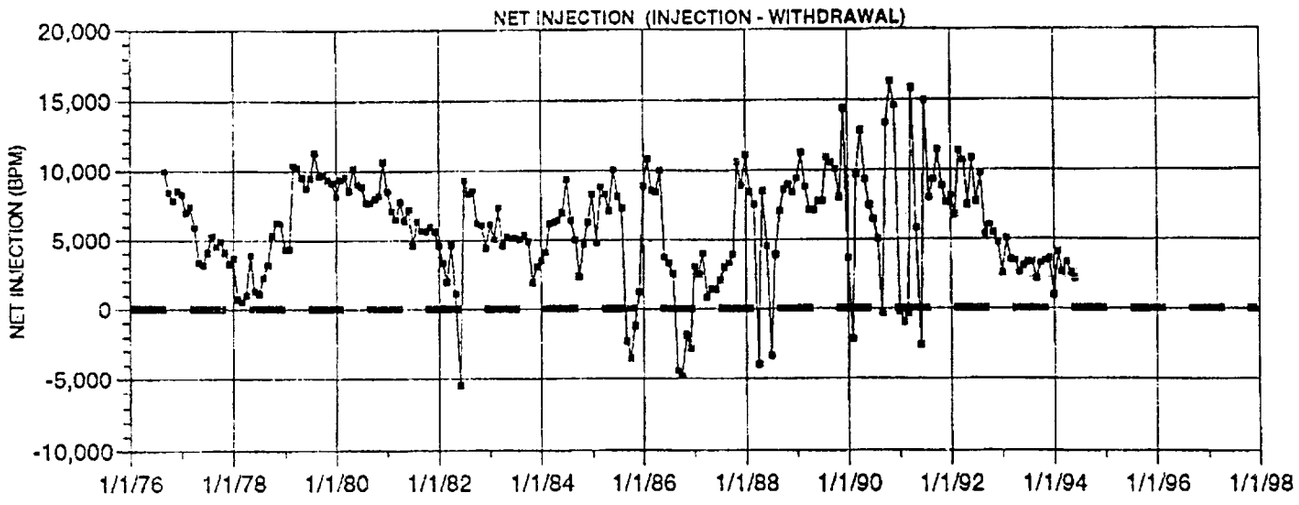


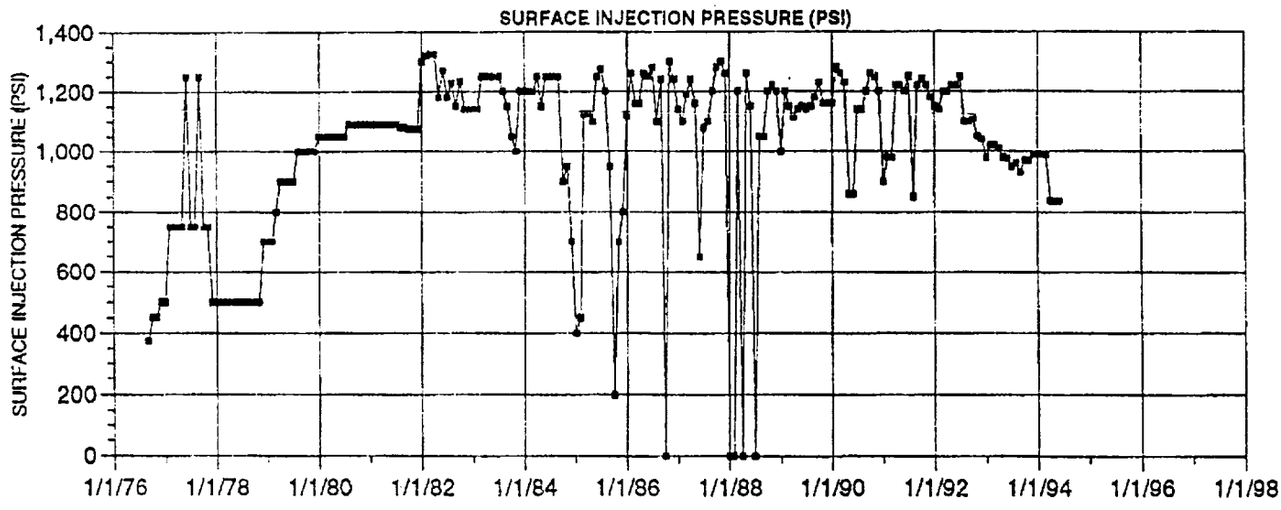


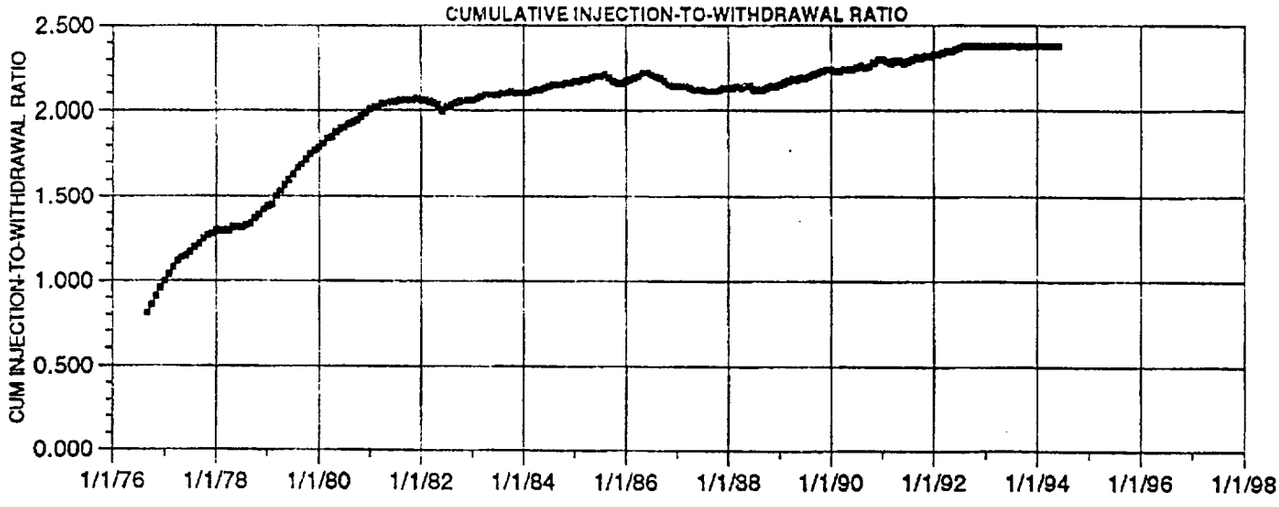


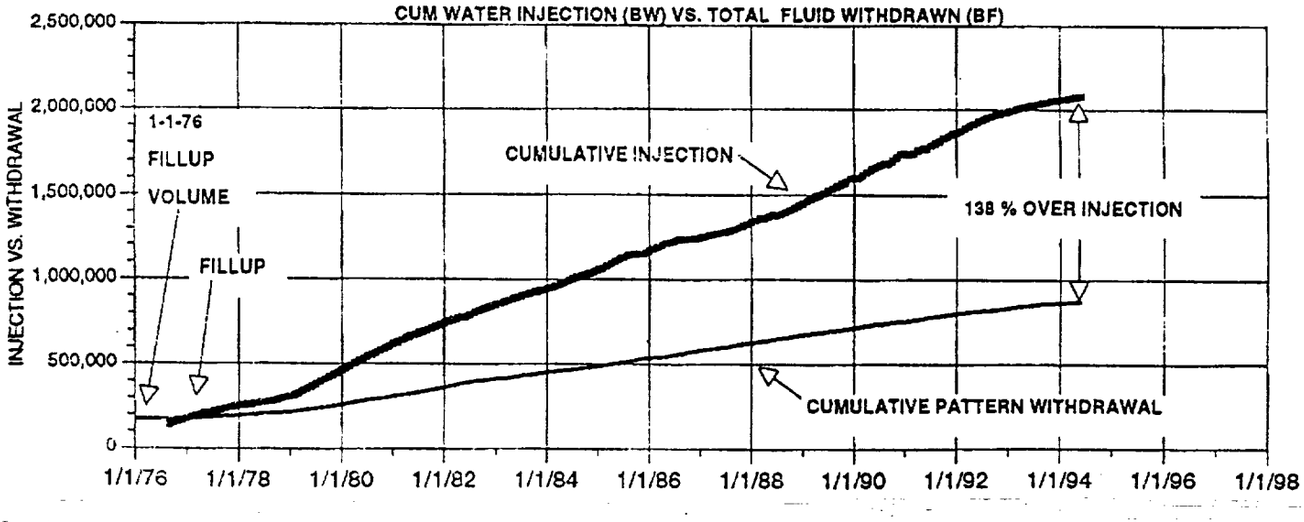


MLMU # 171
80-ACRE INJECTION PATTERN
MYERS LANGLIE MATTIX UNIT
I-6-24S-37E
OPERATOR: OXY USA, INC.









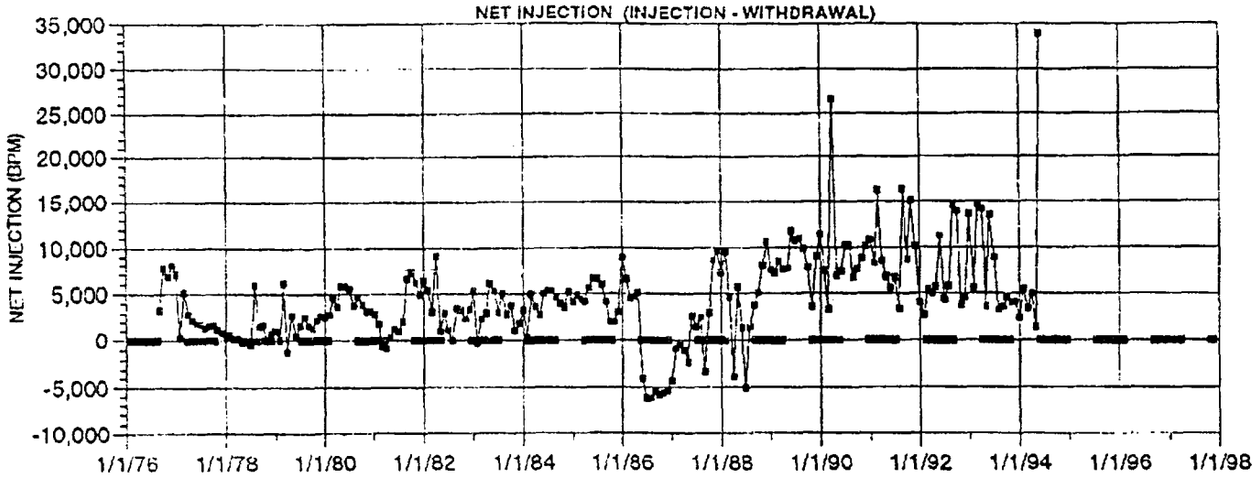
MLMU # 169

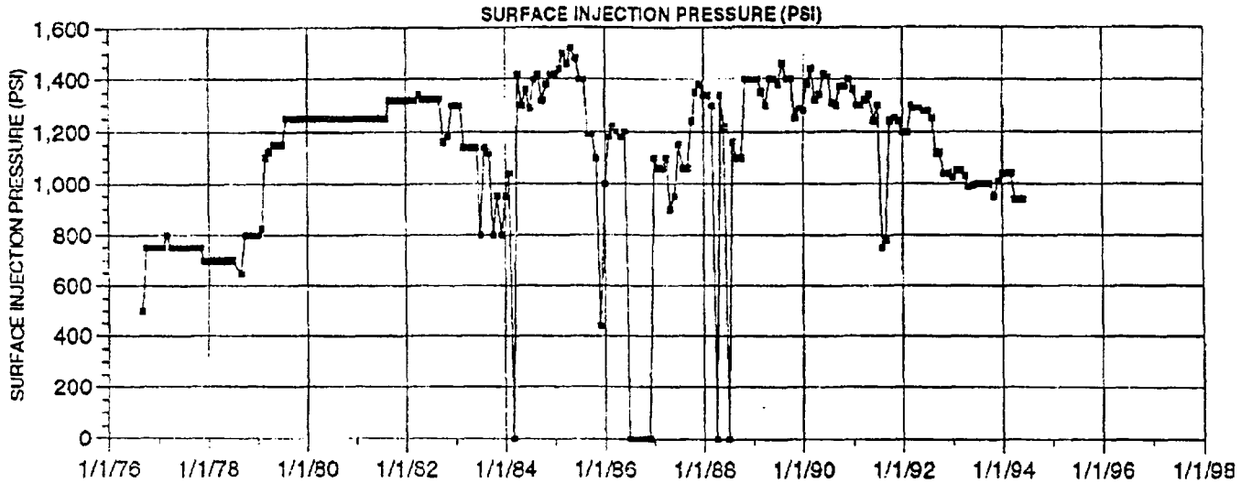
80-ACRE INJECTION PATTERN

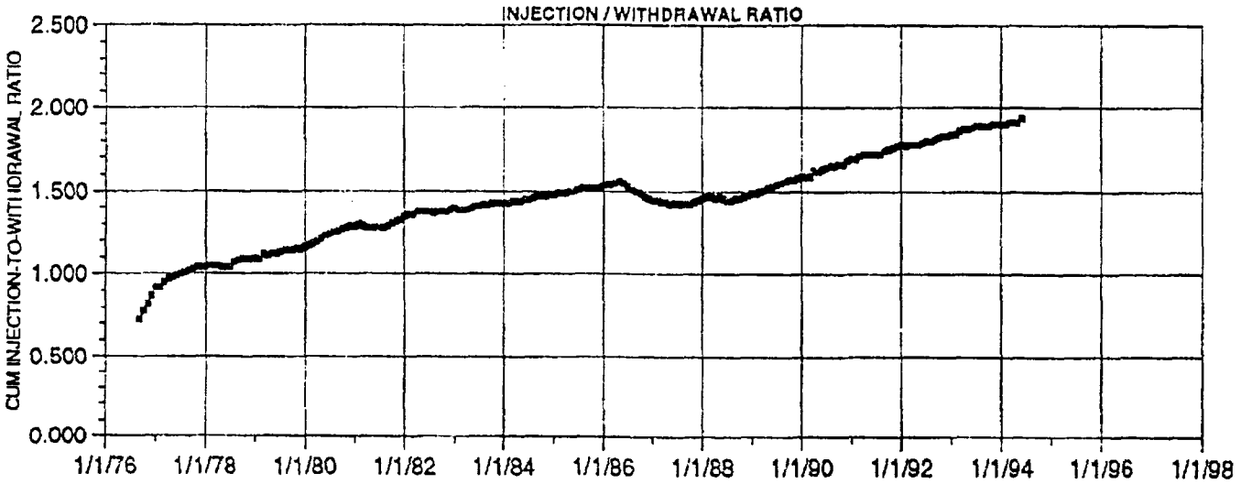
MYERS LANGLIE MATTIX UNIT

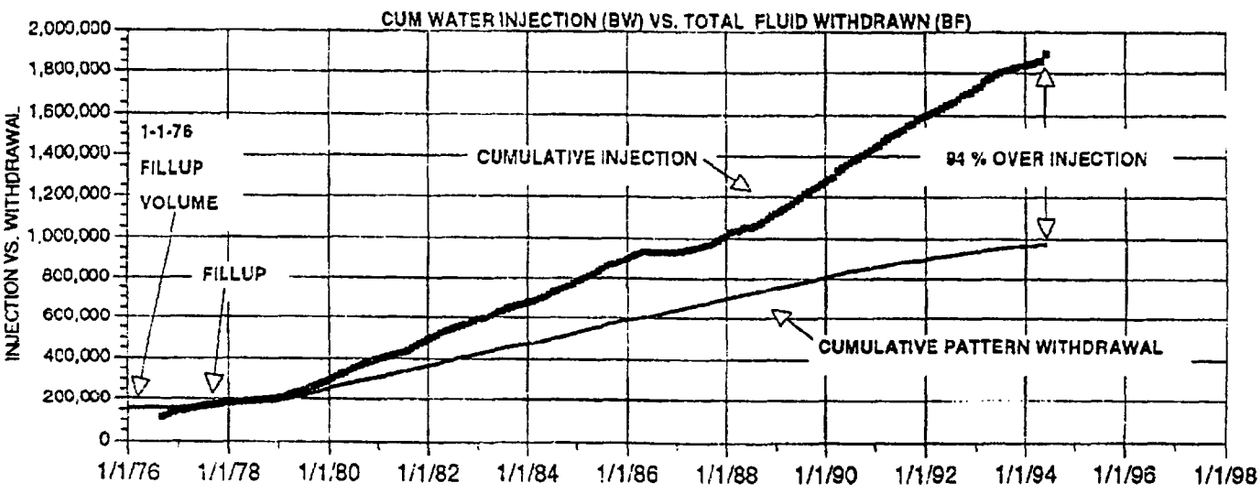
K-5-24S-37E

OPERATOR: OXY USA, INC.









Analysis of Hartman's Myers Langlie Mattix Unit JIB'S, Payments and Set Asides
(From July, 1994 to Present)

						MLMU Invoice Data							Hartman Oil Revenues							
Calendar Month	Date Invoice Received		Prod Period	Invoice Accting Period	Unit Operator	Gross Amount Billed to DHOO	Oil Revenues Netted by Oxy[3]		Interest Charges	Net Amount Billed to DHOO	Amount Paid by DHOO	Date Paid by DHOO	End of Month Cumulative DHOO JIB Balance	Oxy's Stated Prior Month Balance	Prod Period	Hartman Thomas A Oil Rev's Netted by Oxy Against MLMU JIB's	Hartman MLMU Oil Rev's Netted by Oxy Against MLMU JIB's	MLMU Oil Rev's Set Aside by Hartman	Total Hartman MLMU Oil Rev's (Netted & Set Aside)	Cumulative Hartman MLMU Oil Rev's (Netted & Set Aside)	Net Amount Billed Less Payment or Rev Set Aside	Cumulative Net Amount Billed Less Payments and Rev Set Asides
Jul-94	07/14/94		Jun-94	Jun-94	Oxy	21,408.27				21,408.27			21,408.27	14,823.82	Jun-94			6,995.39	6,995.39	6,995.39	14,412.88	14,412.88
Aug-94	08/11/94	(1)	Jul-94	Jul-94	Oxy	19,084.74				19,084.74	(1)		40,493.01	21,408.27	Jul-94			7,538.69	7,538.69	14,534.08	11,547.05	25,959.93
Sep-94	09/14/94	(2)	Aug-94	Aug-94	Oxy	81,249.02	5,158.36	(4)		76,090.66	(2)		116,583.67	40,493.01	Aug-94	416.83	4,741.53	3,309.61	8,051.14	22,585.22	72,783.05	98,742.98
Oct-94	10/12/94		Sep-94	Sep-94	Oxy	94,318.11	5,958.51	(4)		88,359.60			204,943.27	116,797.61	Sep-94	422.45	5,536.06	3,866.82	9,402.88	31,988.10	84,492.78	183,235.76
Nov-94	11/14/94		Oct-94	Oct-94	Oxy	77,976.76	6,543.47	(4)		71,433.29			276,376.56	205,978.13	Oct-94	438.17	6,105.30	4,264.39	10,369.69	42,357.79	67,168.90	250,404.66
Dec-94	12/12/94		Nov-94	Nov-94	Oxy	31,079.25	5,914.86	(4)		25,164.39			301,540.95	277,678.32	Nov-94	359.40	5,555.46	3,875.77	9,431.23	51,789.02	21,288.62	271,693.28
Jan-95	01/13/95		Dec-94	Dec-94	Oxy	24,921.68	5,601.89	(4)	8,240.40	27,560.19			329,101.14	303,171.45	Dec-94	367.53	5,234.36	3,655.64	8,890.00	60,679.02	23,904.55	295,597.83
Feb-95	02/13/95		Jan-95	Jan-95	Oxy	32,007.61	6,169.17	(4)	2,630.90	28,469.34			357,570.48	331,130.42	Jan-95	409.20	5,759.97	4,020.09	9,780.06	70,459.08	24,449.25	320,047.08
Mar-95	03/20/95		Feb-95	Feb-95	Oxy	27,039.03	6,131.27	(4)	2,743.01	23,650.77			381,221.25	363,739.65	Feb-95	467.25	5,664.02	3,955.75	9,619.77	80,078.85	19,695.02	339,742.10
Apr-95	04/09/95		Mar-95	Mar-95	Oxy	24,291.71	6,361.01	(4)	3,240.00	21,170.70			402,391.95	381,483.33	Mar-95	435.65	5,925.36	4,213.44	10,138.80	90,217.65	16,957.26	356,699.36
May-95	05/11/95		Apr-95	Apr-95	Oxy	14,913.33	4,058.64	(4)		10,854.69			413,246.64	409,292.24	Apr-95	416.14	3,642.50	6,658.72	10,301.22	100,518.87	4,195.97	360,895.33
Jun-95	06/15/95		May-95	May-95	Oxy	12,345.75	6,653.96	(4)		5,691.79			418,938.43	417,305.28	May-95	350.87	6,303.09	4,401.94	10,705.03	111,223.90	1,289.85	362,185.18
Jul-95	07/17/95		Jun-95	Jun-95	Oxy	18,455.98	5,829.23	(4)		12,626.75			431,565.18	419,349.17	Jun-95	433.27	5,395.96	3,768.43	9,164.39	120,388.29	8,858.32	371,043.50
Aug-95	08/11/95	(3) (6)	Jul-95	Jul-95	Oxy	13,573.28	5,461.17	(4)		8,112.11			439,677.29	431,565.18	Jul-95	(5) (6) 362.49	5,098.68	3,560.67	8,659.35	129,047.64	4,551.44	375,594.94
Sep-95	09/14/95		Aug-95	Aug-95	Oxy	16,064.09	5,502.72	(4)		10,561.37			450,238.66	439,677.29	Aug-95	254.23	5,248.49	3,984.50	9,232.99	138,280.63	6,576.87	382,171.81
Oct-95	10/11/95		Sep-95	Sep-95	Oxy	9,728.34	446.77	(4)		9,281.57			459,520.23	451,025.09	Sep-95	446.77		10,245.31	10,245.31	148,525.94	-963.74	381,208.07
Nov-95	11/13/95		Oct-95	Oct-95	Oxy	16,512.24	683.29	(4)		15,828.95			475,349.18	459,801.61	Oct-95	683.29		9,341.49	9,341.49	157,867.43	6,487.46	387,695.53
Dec-95	12/11/95		Nov-95	Nov-95	Oxy	30,628.38	342.96	(4)		30,285.42			505,634.60	475,349.18	Nov-95	342.96		9,050.66	9,050.66	166,918.09	21,234.76	408,930.29
Jan-96	01/11/96		Dec-95	Dec-95	Oxy	15,120.89				15,120.89			520,755.49	505,634.60	Dec-95			10,982.66	10,982.66	177,900.75	4,138.23	413,068.52
Feb-96	02/12/96		Jan-96	Jan-96	Oxy	13,825.02				13,825.02			534,580.51	520,755.49	Jan-96			10,590.64	10,590.64	188,491.39	3,234.38	416,302.90
Mar-96	03/14/96		Feb-96	Feb-96	Oxy	19,719.68				19,719.68			554,300.19	534,580.51	Feb-96			9,033.56	9,033.56	197,524.95	10,686.12	426,989.02
Apr-96	04/12/96	(7)	Mar-96	Mar-96	Oxy	12,957.50	381.46	(4)		12,576.04			566,876.23	554,668.09	Mar-96	381.46		11,373.17	11,373.17	208,898.12	1,202.87	428,191.89
May-96	05/13/96		Apr-96	Apr-96	Oxy	18,177.07				18,177.07			585,053.30		Apr-96			12,516.93	12,516.93	221,415.05	5,660.14	433,852.03
Jun-96	06/13/96		May-96	May-96	Oxy	20,083.41				20,083.41			605,136.71	585,053.30	May-96			12,258.78	12,258.78	233,673.83	7,824.63	441,676.66
Jul-96	07/15/96		Jun-96	Jun-96	Oxy	12,853.25				12,853.25			617,989.96	605,136.71	Jun-96			10,367.94	10,367.94	244,041.77	2,485.31	444,161.97
Aug-96	08/13/96		Jul-96	Jul-96	Oxy	7,477.09				7,477.09			625,467.05	(8)	Jul-96			10,554.63	10,554.63	254,596.40	-3,077.54	441,084.43
Sep-96	09/11/96		Aug-96	Aug-96	Oxy	16,466.39				16,466.39			641,933.44	(8)	Aug-96			11,309.92	11,309.92	265,906.32	5,156.47	446,240.90
Oct-96	10/07/96		Sep-96	Sep-96	Oxy	10,606.13				10,606.13			652,539.57	(8)	Sep-96			12,269.45	12,269.45	278,175.77	-1,663.32	444,577.58
Nov-96	11/07/96		Oct-96	Oct-96	Oxy	12,200.36				12,200.36			664,739.93	(8)	Oct-96			12,302.46	12,302.46	290,478.23	-102.10	444,475.48
Dec-96	12/06/96		Nov-96	Nov-96	Oxy	7,761.70				7,761.70			672,501.63	(8)	Nov-96			10,754.52	10,754.52	301,232.75	-2,992.82	441,482.66
Jan-97	01/07/97		Dec-96	Dec-96	Oxy	8,010.26				8,010.26			680,511.89	(8)	Dec-96			10,401.21	10,401.21	311,633.96	-2,390.95	439,091.71
Feb-97	02/10/97		Jan-97	Jan-97	Oxy	12,030.06				12,030.06			692,541.95	(8)	Jan-97			9,775.07	9,775.07	321,409.03	2,254.99	441,346.70
Mar-97	03/06/97		Feb-97	Feb-97	Oxy	11,266.65				11,266.65			703,808.60	(8)	Feb-97			9,252.60	9,252.60	330,661.63	2,014.05	443,360.75
Apr-97	04/10/97		Mar-97	Mar-97	Oxy	12,264.67				12,264.67			716,073.27	(8)	Mar-97			8,932.18	8,932.18	339,593.81	3,332.49	446,693.24
May-97	05/07/97		Apr-97	Apr-97	Oxy	12,971.42				12,971.42			729,044.69	(8)	Apr-97			9,230.18	9,230.18	348,823.99	3,741.24	450,434.48
Jun-97	06/12/97		May-97	May-97	Oxy	8,444.57				8,444.57			737,489.26	(8)	May-97			9,487.67	9,487.67	358,311.66	-1,043.10	449,391.38
Totals						797,833.69	77,198.74		16,854.31	737,489.26			737,489.26			6,987.96	70,210.78	288,100.88	358,311.66	358,311.66	449,391.38	449,391.38

(1) Hartman gave notice on August 19, 1994, of decision to go non-consent regarding OXY's proposed 20-acre spacing infill program.

(2) Upon receiving Hartman's non-consent notice, Oxy commenced netting Hartman oil runs against MLMU JIB's.

(3) Includes Thomas "A" revenues in the amount of $6,987.96 which Oxy USA, Inc. also netted against MLMU JIB's.

(4) Oxy monthly invoices netted Hartman revenues for a given production month against Oxy billings to Hartman for the equivalent accounting period.

(5) By letter dated August 11, 1995, Scurlock Permian was designated by Hartman as purchaser of Hartman's MLMU oil runs.

(6) By letter dated August 16, 1995, Oxy acknowledged Hartman's designation of Scurlock Permian as purchaser of Hartman's MLMU oil runs.

(7) Hartman, on April 24, 1996, received first MLMU oil revenue payment from Scurlock Permian, which payment corresponded to the production months of 9/95 to 2/96.

(8) OXY has not provided an MLMU JIB balance to Hartman since its invoice of July, 1996.

Tab 30

Analysis of Hartman's Myers Langlie Mattix Unit JIB'S, Payments and Set Asides
(From August, 1993 to Present)

MLMU Invoice Data													Hartman Oil Revenues							
Calendar Month	Date Invoice Received		Prod Period	Invoice Acctng Period	Unit Operator	Gross Amount Billed to DHOO	Oil Revenues Netted by Oxy[3]		Interest Charges	Net Amount Billed to DHOO	Amount Paid by DHOO	Date Paid by DHOO	End of Month Cumulative DHOO JIB Balance	Oxy's Stated Prior Month Balance	Prod Period	Hartman Thomas A Oil Rev's Netted by Oxy Against MLMU JIB's	Hartman MLMU Oil Rev's Netted by Oxy Against MLMU JIB's	MLMU Oil Rev's Set Aside by Hartman	Total Hartman MLMU Oil Rev's (Netted & Set Aside)	Cumulative Hartman MLMU Oil Rev's (Netted & Set Aside)	Net Amount Billed Less Payment or Rev Set Aside	Cumulative Net Amount Billed Less Payments and Rev Set Asides
Aug-93	08/11/93		Jul-93	Jul-93	Texaco	10,165.39				10,165.39	10,165.39	09/10/93			Jul-93							
Sep-93	09/13/93		Aug-93	Aug-93	Texaco	9,632.73				9,632.73	9,632.73	10/15/93			Aug-93							
Oct-93	10/13/93		Sep-93	Sep-93	Texaco	7,827.90				7,827.90	7,827.90	11/29/93			Sep-93							
Nov-93	11/11/93		Oct-93	Oct-93	Texaco	6,866.84				6,866.84	6,866.84	11/29/93			Oct-93							
Dec-93	12/10/93		Nov-93	Nov-93	Texaco	8,517.53				8,517.53	8,517.53	01/14/94			Nov-93							
Jan-94	01/12/94		Dec-93	Dec-93	Texaco	10,669.62				10,669.62	10,669.62	03/04/94			Dec-93							
Feb-94	02/14/94		Jan-94	Jan-94	Texaco	7,079.87				7,079.87	7,079.87	03/18/94			Jan-94							
Feb-94	02/10/94		Jan-94	Jan-94	Oxy	3,420.18				3,420.18	3,420.18	05/06/94			Jan-94							
Mar-94	03/14/94		Feb-94	Feb-94	Oxy	7,885.99				7,885.99	7,885.99	05/06/94			Feb-94							
Apr-94	04/14/94		Mar-94	Mar-94	Oxy	12,110.77				12,110.77	12,110.77	05/20/94			Mar-94							
May-94	05/12/94		Apr-94	Apr-94	Oxy	8,685.43				8,685.43	8,685.43	05/27/94			Apr-94							
Jun-94	06/10/94		May-94	May-94	Oxy	14,823.82				14,823.82	14,823.82	06/29/94	0.00		May-94						0.00	0.00
Jul-94	07/14/94		Jun-94	Jun-94	Oxy	21,408.27				21,408.27			21,408.27	14,823.82	Jun-94			6,995.39	6,995.39	6,995.39	14,412.88	14,412.88
Aug-94	08/11/94	[1]	Jul-94	Jul-94	Oxy	19,084.74				19,084.74	[1]		40,493.01	21,408.27	Jul-94			7,538.69	14,534.08	11,547.05	11,547.05	25,959.93
Sep-94	09/14/94	[2]	Aug-94	Aug-94	Oxy	81,249.02	5,158.36	[4]		76,090.66	[2]		116,583.67	40,493.01	Aug-94	416.83	4,741.53	3,309.61	8,051.14	22,585.22	72,783.05	98,742.98
Oct-94	10/12/94		Sep-94	Sep-94	Oxy	94,318.11	5,958.51	[4]		88,359.60			204,943.27	116,797.61	Sep-94	422.45	5,536.06	3,866.82	9,402.88	31,988.10	84,492.78	183,235.76
Nov-94	11/14/94		Oct-94	Oct-94	Oxy	77,976.76	6,543.47	[4]		71,433.29			276,376.56	205,978.13	Oct-94	438.17	6,105.30	4,264.39	10,369.69	42,357.79	67,168.90	250,404.66
Dec-94	12/12/94		Nov-94	Nov-94	Oxy	31,079.25	5,914.86	[4]		25,164.39			301,540.95	277,678.32	Nov-94	359.40	5,555.46	3,875.77	9,431.23	51,789.02	21,288.62	271,693.28
Jan-95	01/13/95		Dec-94	Dec-94	Oxy	24,921.68	5,601.89	[4]	8,240.40	27,560.19			329,101.14	303,171.45	Dec-94	367.53	5,234.36	3,655.64	8,890.00	60,679.02	23,904.55	295,597.83
Feb-95	02/13/95		Jan-95	Jan-95	Oxy	32,007.61	6,169.17	[4]	2,630.90	28,469.34			357,570.48	331,130.42	Jan-95	409.20	5,759.97	4,020.09	9,780.06	70,459.08	24,449.25	320,047.08
Mar-95	03/20/95		Feb-95	Feb-95	Oxy	27,039.03	6,131.27	[4]	2,743.01	23,650.77			381,221.25	363,739.65	Feb-95	467.25	5,664.02	3,955.75	9,619.77	80,078.85	19,695.02	339,742.10
Apr-95	04/09/95		Mar-95	Mar-95	Oxy	24,291.71	6,361.01	[4]	3,240.00	21,170.70			402,391.95	381,483.33	Mar-95	435.65	5,925.36	4,213.44	10,138.80	90,217.65	16,957.26	356,699.36
May-95	05/11/95		Apr-95	Apr-95	Oxy	14,913.33	4,058.64	[4]		10,854.69			413,246.64	409,292.24	Apr-95	416.14	3,642.50	6,658.72	10,301.22	100,518.87	4,195.97	360,895.33
Jun-95	06/15/95		May-95	May-95	Oxy	12,345.75	6,653.96	[4]		5,691.79			418,938.43	417,305.28	May-95	350.87	6,303.09	4,401.94	10,705.03	111,223.90	1,289.85	362,185.18
Jul-95	07/17/95		Jun-95	Jun-95	Oxy	18,455.98	5,829.23	[4]		12,626.75			431,565.18	419,349.17	Jun-95	433.27	5,395.96	3,768.43	9,164.39	120,388.29	8,858.32	371,043.50
Aug-95	08/11/95	[5] [6]	Jul-95	Jul-95	Oxy	13,573.28	5,461.17	[4]		8,112.11			439,677.29	431,565.18	Jul-95	362.49	5,098.68	3,560.67	8,659.35	129,047.64	4,551.44	375,594.94
Sep-95	09/14/95		Aug-95	Aug-95	Oxy	16,064.09	5,502.72	[4]		10,561.37			450,238.66	439,677.29	Aug-95	254.23	5,248.49	3,984.50	9,232.99	138,280.63	6,578.87	382,171.81
Oct-95	10/11/95		Sep-95	Sep-95	Oxy	9,728.34	446.77	[4]		9,281.57			459,520.23	451,025.09	Sep-95	446.77		10,245.31	10,245.31	148,525.94	-963.74	381,208.07
Nov-95	11/13/95		Oct-95	Oct-95	Oxy	16,512.24	683.29	[4]		15,828.95			475,349.18	459,801.61	Oct-95	683.29		9,341.49	9,341.49	157,867.43	6,487.46	387,695.53
Dec-95	12/11/95		Nov-95	Nov-95	Oxy	30,628.38	342.96	[4]		30,285.42			505,634.60	475,349.18	Nov-95	342.96		9,050.66	9,050.66	166,918.09	21,234.76	408,930.29
Jan-96	01/11/96		Dec-95	Dec-95	Oxy	15,120.89				15,120.89			520,755.49	505,634.60	Dec-95			10,982.66	10,982.66	177,900.75	4,138.23	413,068.52
Feb-96	02/12/96		Jan-96	Jan-96	Oxy	13,825.02				13,825.02			534,580.51	520,755.49	Jan-96			10,590.64	10,590.64	188,491.39	3,234.38	416,302.90
Mar-96	03/14/96		Feb-96	Feb-96	Oxy	19,719.68				19,719.68			554,300.19	534,580.51	Feb-96			9,033.56	9,033.56	197,524.95	10,686.12	426,989.02
Apr-96	04/12/96	[7]	Mar-96	Mar-96	Oxy	12,957.50	381.46	[4]		12,576.04			566,876.23	554,668.09	Mar-96	381.46		11,373.17	11,373.17	208,898.12	1,202.87	428,191.89
May-96	05/13/96		Apr-96	Apr-96	Oxy	18,177.07				18,177.07			585,053.30		Apr-96			12,516.93	12,516.93	221,415.05	5,660.14	433,852.03
Jun-96	06/13/96		May-96	May-96	Oxy	20,083.41				20,083.41			605,136.71	585,053.30	May-96			12,258.78	12,258.78	233,673.83	7,824.63	441,676.66
Jul-96	07/15/96		Jun-96	Jun-96	Oxy	12,853.25				12,853.25			617,989.96	605,136.71	Jun-96			10,367.94	10,367.94	244,041.77	2,485.31	444,161.97
Aug-96	08/13/96		Jul-96	Jul-96	Oxy	7,477.09				7,477.09			625,467.05	[8]	Jul-96			10,554.63	10,554.63	254,596.40	-3,077.54	441,084.43
Sep-96	09/11/96		Aug-96	Aug-96	Oxy	16,466.39				16,466.39			641,933.44	[8]	Aug-96			11,309.92	11,309.92	265,906.32	5,156.47	446,240.90
Oct-96	10/07/96		Sep-96	Sep-96	Oxy	10,606.13				10,606.13			652,539.57	[8]	Sep-96			12,269.45	12,269.45	278,175.77	-1,663.32	444,577.58
Nov-96	11/07/96		Oct-96	Oct-96	Oxy	12,200.36				12,200.36			664,739.93	[8]	Oct-96			12,302.46	12,302.46	290,478.23	-102.10	444,475.48
Dec-96	12/06/96		Nov-96	Nov-96	Oxy	7,761.70				7,761.70			672,501.63	[8]	Nov-96			10,754.52	10,754.52	301,232.75	-2,992.82	441,482.66
Jan-97	01/07/97		Dec-96	Dec-96	Oxy	8,010.26				8,010.26			680,511.89	[8]	Dec-96			10,401.21	10,401.21	311,633.96	-2,390.95	439,091.71
Feb-97	02/10/97		Jan-97	Jan-97	Oxy	12,030.06				12,030.06			692,541.95	[8]	Jan-97			9,775.07	9,775.07	321,409.03	2,254.99	441,346.70
Mar-97	03/06/97		Feb-97	Feb-97	Oxy	11,266.65				11,266.65			703,808.60	[8]	Feb-97			9,252.60	9,252.60	330,661.63	2,014.05	443,360.75
Apr-97	04/10/97		Mar-97	Mar-97	Oxy	12,264.67				12,264.67			716,073.27	[8]	Mar-97			8,932.18	8,932.18	339,593.81	3,332.49	446,693.24
May-97	05/07/97		Apr-97	Apr-97	Oxy	12,971.42				12,971.42			729,044.69	[8]	Apr-97			9,230.18	9,230.18	348,823.99	3,741.24	450,434.48
Jun-97	06/12/97		May-97	May-97	Oxy	8,444.57				8,444.57			737,489.26	[8]	May-97			9,487.67	9,487.67	358,311.66	-1,043.10	449,391.38
Totals						905,519.76	77,198.74		16,854.31	845,175.33	107,683.07		737,489.26			6,987.96	70,210.78	288,100.88	358,311.66	358,311.66	449,391.38	449,391.38

(1) Hartman gave notice on August 19, 1994, of decision to go non-consent regarding OXY's proposed 20-acre spacing infill program.

(2) Upon receiving Hartman's non-consent notice, Oxy commenced netting Hartman oil runs against MLMU JIB's.

(3) Includes Thomas "A" revenues in the amount of $6,987.96 which Oxy USA, Inc. also netted against MLMU JIB's.

(4) Oxy monthly invoices netted Hartman revenues for a given production month against Oxy billings to Hartman for the equivalent accounting period.

(5) By letter dated August 11, 1995, Scurlock Permian was designated by Hartman as purchaser of Hartman's MLMU oil runs.

(6) By letter dated August 16, 1995, Oxy acknowledged Hartman's designation of Scurlock Permian as purchaser of Hartman's MLMU oil runs.

(7) Hartman, on April 24, 1996, received first MLMU oil revenue payment from Scurlock Permian, which payment corresponded to the production months of 9/95 to 2/96.

(8) OXY has not provided an MLMU JIB balance to Hartman since its invoice of July, 1996.

Tab 31