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JASON KELLAHIN
OF COUNSEL

June 3, 1991

Mr. William J. LeMay
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87504-2088

HAND DELIVERED

Re: Application of Marathon
Oil Company for Statutory
Unitization of the Tamano
(BSSC) Unit, Eddy County,
New Mexico

RECEIVED

JUN 04 1991

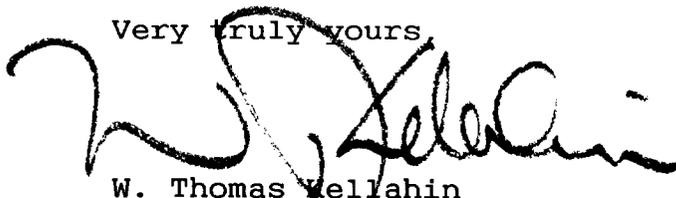
Re: Application of Marathon
Oil Company for Approval
of a Pressure Maintenance
Project Including Increase
Surface Injection Pressure,
Eddy County, New Mexico

OIL CONSERVATION DIVISION

Dear Mr. LeMay:

On Behalf of Marathon Oil Company, we request that the two referenced applications which deal with the Second Bone Springs Carbonate portion of the Tamano Bone Springs Pool be set for hearing at the next available Examiner's docket now scheduled for June 27, 1991.

Very truly yours,



W. Thomas Kellahin

WTK/ept
Enclosures

cc: Thomas C. Lowry, Esq.
1trt603.092

EXHIBIT "D"
OFFSET LEASEHOLD OPERATORS

Read & Stevens, Inc.
P. O. Box 1518
Roswell, New Mexico 88201

ARCO Oil & Gas Company
P. O. Box 1610
Midland, Texas 79702

Harvey E. Yates Company
P. O. Box 1933
Roswell, New Mexico 88201

GRSJ Petroleum
Box 234
Loco Hills, New Mexico 88255

Yates Energy Corp.
Suite 1010, Sunwest Centre
Roswell, New Mexico 88201

Pennzoil Exploration & Production Co.
P. O. Box 2967
Houston, Texas 77252

Hudson & Hudson
616 Texas Street
Fort Worth, Texas 76102

SURFACE OWNER

Bureau of Land Management
Roswell District Office
1717 W. Second
Roswell, New Mexico 88201

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

RECEIVED

JUN 03 1991

OIL CONSERVATION DIVISION

APPLICATION OF MARATHON OIL COMPANY
FOR STATUTORY UNITIZATION, TAMANO (BSSC) UNIT,
EDDY COUNTY, NEW MEXICO

CASE NO. 10341

A P P L I C A T I O N

MARATHON OIL COMPANY ("MARATHON") hereby applies to the New Mexico Oil Conservation Division for an order pursuant to the New Mexico Statutory Unitization Act (70-7-1 through 70-7-21 N.M.S.A. 1978) providing for the unitized management, operation and further development of the area and formation known as the Tamano (BSSC) Unit, Eddy County, New Mexico, and in support of its application states:

1) Marathon, is an Ohio corporation authorized to transact business in the State of New Mexico, and is engaged in the business of, among other things, producing and selling oil and gas as defined by the New Mexico Statutory Unitization Act (70-7-1 through 70-7-21 N.M.S.A. 1978), hereinafter referred to as the "Act".)

2) The proposed area ("Unit Area") for which application is made for unitized operations pursuant to the act consists of 880 acres, more or less, in Eddy County, New Mexico, being more particularly described as all of Section 11 and the S/2NE/4 and SE/4 Section 10, T18S, R31E. A map of the Unit Area is attached hereto and incorporated herein by reference as Exhibit "A".

3) "Unitized Formation" shall mean the Bone Spring Second Carbonate underlying the Unit Area. The top of the Bone Spring Second Carbonate formation for unitization purposes is defined as that point at 7,908 feet below Kelly Drive Bushing (4,156 feet subsea) in the Marathon Johnson "B" Federal No. 4 well (located 1980 feet from the South line and 1980 feet from the West line of the

Southwest Quarter of Section 11, T18S, R31E, Eddy County, New Mexico) as recorded by the Atlas Wireline compensated neutron-density-gamma ray log measured from the Kelly Drive Bushing elevation of 3752 feet and dated December 17, 1987. The bottom of the Bone Spring Second Carbonate formation for unitization purposes is defined as that point at 8,190 feet below Kelly Drive Bushing (4,438 feet subsea) in the Marathon Johnson "B" Federal No. 4 well as recorded by the same log described above. A copy of a portion of the log for said well is attached hereto and incorporated herein by reference as Exhibit "B".

4) The portion of the Unitized Formation included within the Unit Area has been reasonably defined by development.

5) Marathon proposes to institute a project for the secondary recovery of oil and gas from the Unitized Formation within the Unit Area.

6) The proposed plan of unitization is embodied in the Unit Agreement, a true and correct copy of which is attached hereto and incorporated herein by reference as Exhibit "C", and said plan is fair, reasonable and equitable.

7) The proposed operating plan covering the manner in which the unit will be supervised and managed and costs allocated and paid is embodied in the Unit Operating Agreement, a true and correct copy of which is attached hereto and incorporated herein by reference as Exhibit "D".

8) Marathon projects that the unitized management, operation and further development of the Unitized Formation will increase recoverable reserves by approximately 2.25 MMSTBO. It is therefore evident that the unitized management, operation and further development of the Unitized Formation is reasonably necessary in order to effectively carry on pressure maintenance and secondary recovery operations to substantially increase the ultimate recovery of oil and gas from the Unitized Formation within the Unit Area.

9) The method of operation which is proposed in the Unit Operating Agreement is feasible, will prevent waste and will result with reasonable probability in the increased recovery of substantially more oil and gas from the Unitized Formation than would otherwise be recovered.

10) The estimated additional costs of conducting unitized operations will not exceed the estimated value of the additional oil and gas to be recovered plus a reasonable profit.

11) The proposed unitization and adoption of the methods of operation embodied in the Unit Operating Agreement will benefit the working interest owners and royalty owners of the oil and gas rights within the Unitized Formation of the Unit Area.

12) Marathon has made a good faith effort to secure voluntary unitization within the Unitized Formation of the Unit.

13) Pursuant to Division rules, a copy of this application was mailed by certified mail, return receipt requested, to all parties listed on Exhibit "E" notifying them of the hearing set for June 27, 1991.

14) The participation formula contained in the Unit Agreement allocates the produced and saved unitized hydrocarbons to the separately owned tracts in the Unit Area on a fair, reasonable and equitable basis, and protects the correlative rights of all owners of interest within the Unit Area.

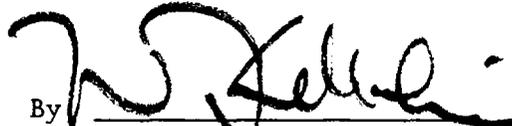
15) The statutory unitization of the Unitized Formation within the Unit Area in accordance with the plan embodied in the Unit Agreement and Unit Operating Agreement will prevent waste and protect correlative rights.

WHEREFORE, Marathon respectfully requests that this application be set for hearing before the Oil Conservation Division at the earliest practicable date and

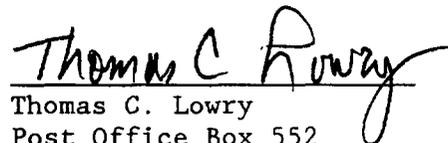
that the Division enter its order approving the Unit Agreement and Unit Operating Agreement and providing for the unitized management, operation and further development of the Unitized Formation and the Unit Area in accordance with the Act.

Respectfully submitted,

KELLAHIN, KELLAHIN & AUBREY

By 

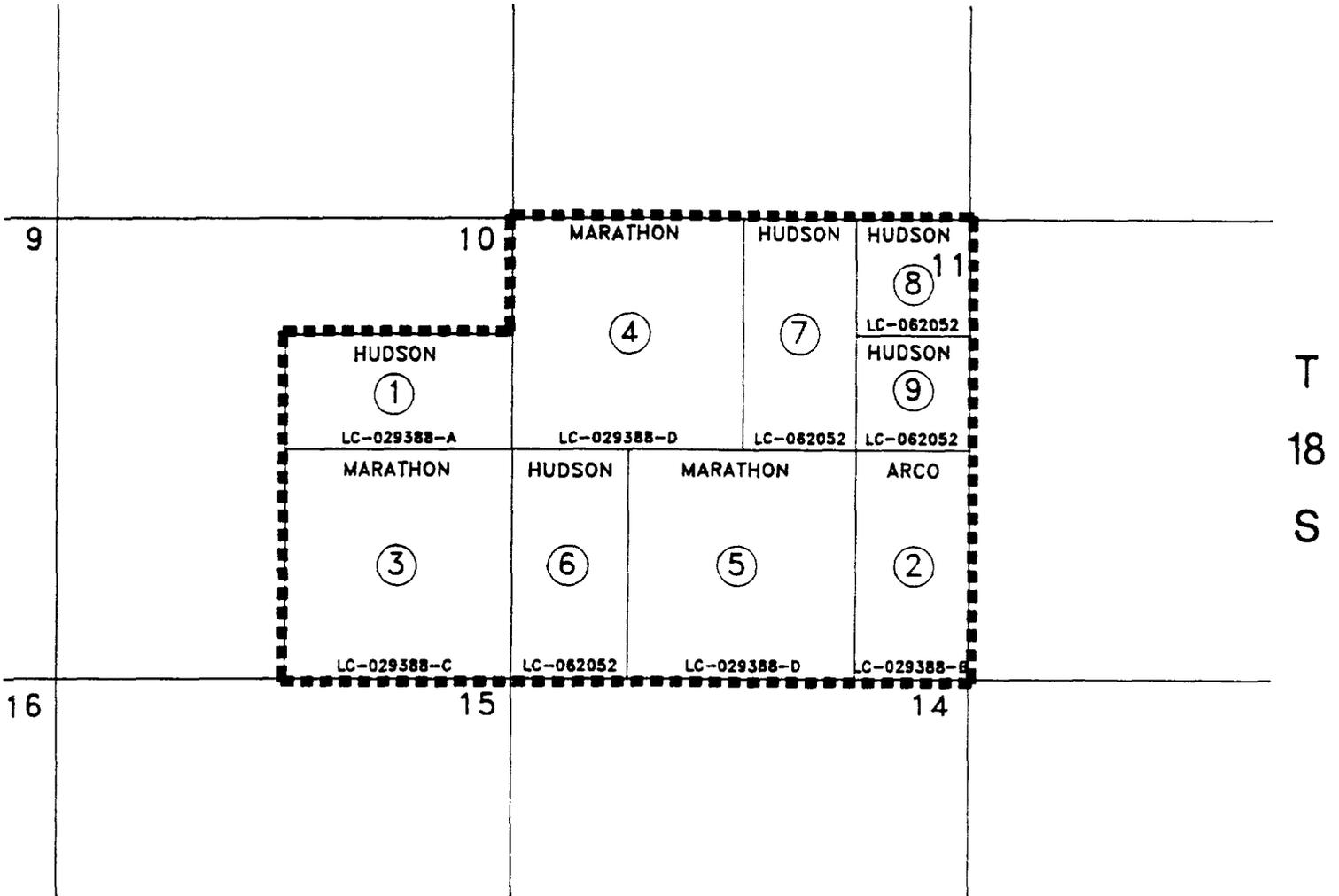
W. Thomas Kallahin
Post Office Box 2265
Santa Fe, New Mexico 87504
(505) 982-4285



Thomas C. Lowry
Post Office Box 552
Midland, Texas 79701

Attorneys for Marathon Oil Company

R - 31 - E



LEGEND

- UNIT BOUNDARY
- ① TRACT NUMBER

EXHIBIT "A"
 TAMANO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

UNIT AREA - 880.00 ACRES
 (ALL FEDERAL LANDS)

SCALE: 1" = 2000'

Western Atlas
International
 A Union/Dresser Company
 Atlas Wireline Services

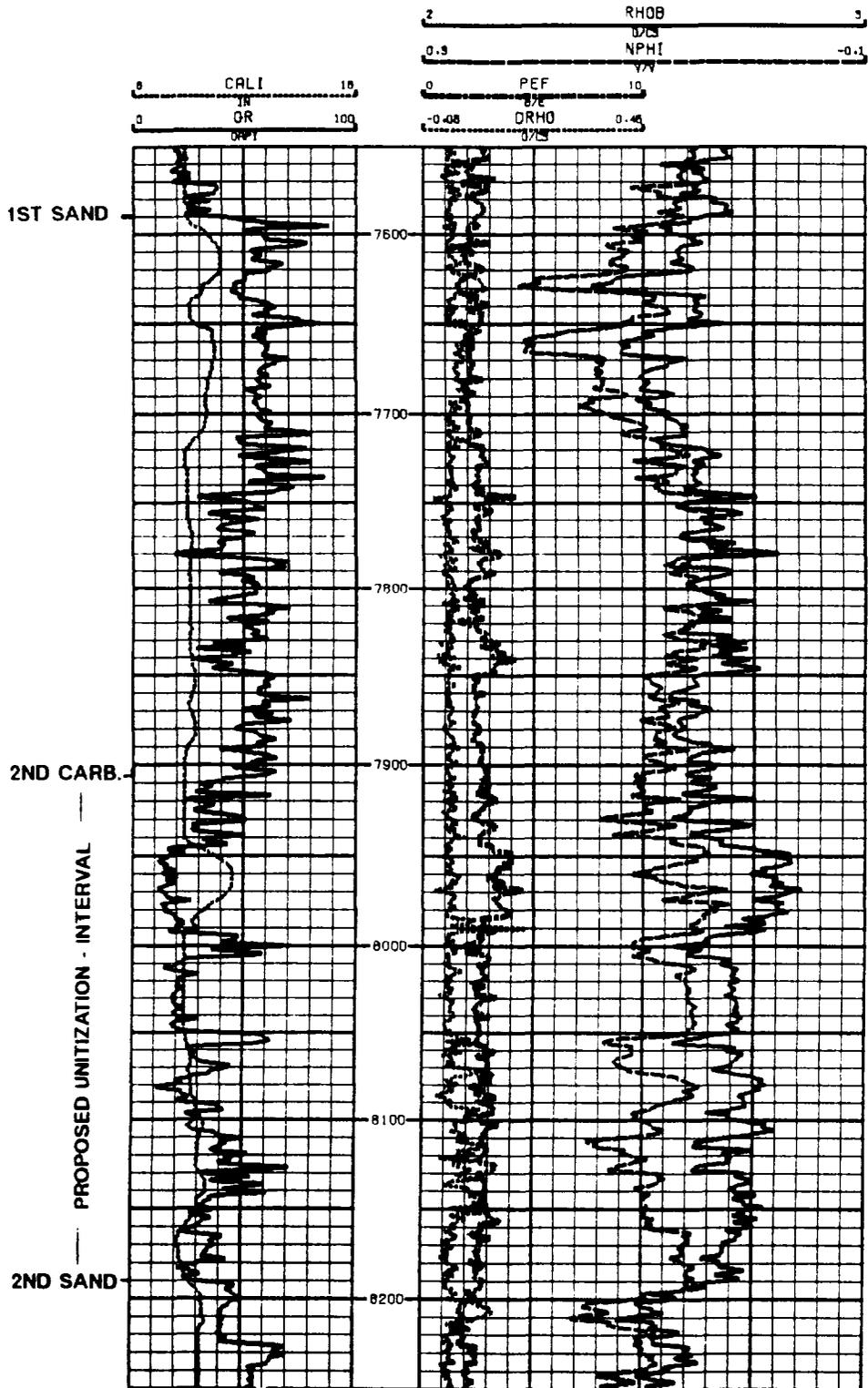
COMPENSATED Z-DENSILOG COMPENSATED NEUTRON
 GAMMA RAY

FILE NO.	COMPANY <u>MARATHON OIL COMPANY</u>		
API NO.	WELL <u>JOHNSON "B" FEDERAL NO. 4</u>		
<u>30-015-25825</u>	FIELD <u>NORTH SHUGART</u>		
	COUNTY <u>EDDY</u> STATE <u>NEW MEXICO</u>		
	LOCATION: <u>1900' FSL & 1900' FWL</u>		OTHER SERVICES <u>BHC-AC/GR/CAL DIFL/GR</u>
	SEC <u>11</u> TWP <u>18-S</u> RGE <u>31-E</u>		
PERMANENT DATUM	<u>GROUND LEVEL</u>	ELEV. <u>3736</u>	ELEVATIONS
LOGGING MEASURED FROM	<u>K.B. 15.7</u>	FT. ABOVE P.O.	KB <u>3751.7</u>
DRILLING MEASURED FROM	<u>KELLY BUSHING</u>		DF <u>3750.7</u>
			GL <u>3736</u>
DATE	<u>DEC 18, 1987</u>		
RUN	<u>1</u>		
SERVICE ORDER	<u>154224</u>		
DEPTH-DRILLER	<u>9520</u>		
DEPTH-LOGGER	<u>9522</u>		
BOTTOM LOGGED INTERVAL	<u>9519</u>		
TOP LOGGED INTERVAL	<u>2700</u>		
CASING - DRILLER	<u>8 5/8"</u>	@ <u>2720</u>	@
CASING - LOGGER	<u>2726</u>		
BIT SIZE	<u>7 7/8"</u>		
TYPE FLUID IN HOLE	<u>CAUSTIC POLYPAC</u>		
DENSITY / VISCOSITY	<u>9.2</u>	<u>35</u>	
PH / FLUID LOSS	<u>9</u>	<u>22</u>	
SOURCE OF SAMPLE	<u>MUD PIT</u>		
RM AT MEAS. TEMP.	<u>1.58</u>	@ <u>85</u>	@
RMF AT MEAS. TEMP.	<u>1.18</u>	@ <u>85</u>	@
RMC AT MEAS. TEMP.	<u>1.98</u>	@ <u>85</u>	@
SOURCE OF RMF / RMC	<u>MEAS.</u>	<u>MEAS.</u>	
RM AT BHT	<u>1.07</u>	@ <u>126</u>	@
TIME SINCE CIRCULATION	<u>21 HRS</u>		
MAX. REC. TEMP. DEG. F	<u>126</u>		
EQUIP. NO. / LOC.	<u>HL 6433</u>	<u>HOBBS</u>	
RECORDED BY	<u>CURTIS - ROQUEMORE</u>		
WITNESSED BY	<u>HARTER-TURMELLE-HOPKINS</u>		

EXHIBIT B

PAGE 1

K.B. 3752'
G.L. 3736'



MARATHON OIL COMPANY
MID-CONTINENT REGION

TAMANO (BSSC) UNIT
EDDY COUNTY, NEW MEXICO

TYPE LOG
JOHNSON "B" FEDERAL #4



1-91

EXHIBIT B

PAGE 2

UNIT AGREEMENT
TAMANO (BSSC) UNIT
EDDY COUNTY, NEW MEXICO

EXHIBIT "C"

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE
TAMANO (BSSC) UNIT
EDDY COUNTY, NEW MEXICO

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Exhibit "A" (Map of Unit Area)
Exhibit "B" (Schedule of Ownership and Tract
Participation)

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE
TAMANO (BSSC) UNIT
EDDY COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the ____ day of _____, 1991, by and between the parties subscribing, ratifying, or consenting hereto, and herein referred to as the "parties hereto,"

WITNESSETH:

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

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

WHEREAS, the Oil Conservation Division of the Energy, Minerals and Natural Resources Department of the State of New Mexico is authorized by law (Chapter 70, N.M.S. 1978 Annotated) to approve this Agreement and the conservation provisions hereof; and

WHEREAS, the parties hereto hold sufficient interest in the Unit Area covering the land hereinafter described to give reasonably effective control of operations therein; and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste, and secure other benefits obtainable through

development and operation of the area subject to this Agreement under the terms, conditions, and limitations herein set forth;

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

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

SECTION 2. UNIT AREA AND DEFINITIONS. For the purpose of this Agreement, the following terms and expressions as used herein shall mean:

(a) "Authorized Officer" or "A.O." is any employee of the Bureau of Land Management who has been delegated the required authority to act on behalf of the BLM.

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

(c) "Division" is defined as the Oil Conservation Division of the Energy, Minerals and Natural Resources Department of the State of New Mexico.

(d) "Effective Date" is the date determined in accordance with Section 24, or as redetermined in accordance with Section 39.

(e) "Oil and Gas Rights" is the right to explore, develop and operate lands within the Unit Area for the production of Unitized Substances, or to share in the production so obtained or the proceeds thereof.

(f) "Outside Substances" is any substance obtained from any source other than the Unitized Formation and injected into the Unitized Formation.

(g) "Plan of Operations" is defined as that statement of the nature of the operations Unit Operator contemplates conducting in furtherance of the purposes of this Agreement, as approved by Working Interest Owners, the A.O. and the Division.

(h) "Proper BLM Office" is defined as the Bureau of Land Management office having jurisdiction over the federal lands included in the Unit Area.

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

(j) "Royalty Owner" is the owner of a Royalty Interest.

(k) "Secretary" is defined as the Secretary of the Interior of the United States of America, or his duly authorized delegate.

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

(m) "Tract Operator" is defined as the respective operator of each tract within the Unit Area prior to unitization.

(n) "Tract Participation" is defined as the percentage of participation shown on Exhibit "B" for allocating Unitized Substances to a Tract under this Agreement.

(o) "Unit Area" is defined as those lands described in Exhibit "B" and depicted on Exhibit "A" hereof, and such land is hereby designated and recognized as constituting the Unit Area, containing 880 acres, more or less, in Eddy County, New Mexico.

(p) "Unit Equipment" is all personal property, lease and well equipment, plants, and other facilities and equipment taken over or otherwise acquired for the joint account for use in Unit Operations.

(q) "Unit Expense" is all cost, expense, or indebtedness incurred by Working Interest Owners or Unit Operator pursuant to this Agreement and the Unit Operating Agreement for or on account of Unit Operations.

(r) "Unit Manager" is any Working Interest Owner appointed by the other Working Interest Owners to perform the duties of Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Section 7 hereof.

(s) "Unit Operating Agreement" is the agreement entered into by and between the Unit Operator and the Working Interest Owners as provided in Section 9, infra, and shall be entitled "Unit Operating Agreement, Tamano (BSSC) Unit, Eddy County, New Mexico".

(t) "Unit Operations" is any operation conducted pursuant to this Agreement and the Unit Operating Agreement.

(u) "Unit Operator" is the Working Interest Owner designated by the other Working Interest Owners under the Unit Operating Agreement to conduct Unit Operations.

(v) "Unit Participation" is the sum of the percentages obtained by multiplying the Working Interest of a Working Interest Owner in each Tract by the Tract Participation of such Tract.

(w) "Unitized Formation" shall mean that vertical interval underlying the Unit Area, known as the Bone Spring Second Carbonate. This interval is correlative to the interval shown in the type log from the Marathon Johnson "B" Federal No. 4, Section 11, T-18-S, R-31-E, Eddy County, New Mexico. This interval is 7,908 feet below KB (-4,156 feet subsea) to 8,190 feet below KB (-4438 feet subsea).

(x) "Unitized Substances" are all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate and all associated and constituent liquid or liquidifiable hydrocarbons, other than Outside Substances, within and produced from the Unitized Formation.

(y) "Working Interest" is the right to search for, produce and acquire Unitized Substances whether held as an incident of ownership of mineral fee simple title, under an oil and gas lease, operating agreement, or otherwise held, which interest is chargeable with and obligated to pay or bear, either in cash or out of production, or otherwise, all or a portion of the cost of drilling, developing and producing the Unitized Substances from the Unitized Formation and operations thereof hereunder. Provided that any royalty interest created out of a working interest subsequent to the execution of this Agreement by the owner of the working interest shall continue to be subject to such working interest burdens and obligations.

(z) "Working Interest Owner" is any party hereto owning a Working Interest, including a carried working interest owner, holding an interest in Unitized Substances by virtue of a lease, operating agreement, fee title or

otherwise. The owner of oil and gas rights that are free of lease or other instrument creating a Working Interest in another shall be regarded as a Working Interest Owner to the extent of seven-eighths (7/8) of his interest in Unitized Substances, and as a Royalty Owner with respect to his remaining one-eighth (1/8) interest therein.

SECTION 3. EXHIBITS. The following exhibits are incorporated herein by reference: Exhibit "A" attached hereto is a map showing the Unit Area and the boundaries and identity of tracts and leases in said Unit Area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each Tract, percentages and kind of ownership of oil and gas interests in all land in the Unit Area, and Tract Participation of each Tract. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. The shapes and descriptions of the respective Tracts have been established by using the best information available. Each Working Interest Owner is responsible for supplying Unit Operator with accurate information relating each Working Interest Owner's interests. If it subsequently appears that any Tract, because of diverse royalty or working interest ownership on the Effective Date hereof, should be divided into more than one Tract, or when any revision is requested by the A.O., or any correction of any error other than mechanical miscalculations or clerical is needed, then the Unit Operator, with the approval of the Working Interest Owners, may correct the mistake by revising the exhibits to conform to the facts. The revision shall not include any reevaluation of engineering or geological interpretations used in determining Tract Participation. Each such revision of

an exhibit made prior to thirty (30) days after the Effective Date shall be effective as of the Effective Date. Each other such revision on an exhibit shall be effective at 7:00 a.m., on the first day of the calendar month next following the filing for record of the revised exhibit or on such other date as may be determined by Working Interest Owners and set forth in the revised exhibit. Not less than four (4) copies shall be filed with the A.O. In any such revision, there shall be no retroactive allocation or adjustment of Unit Expense or of interest in the Unitized Substances produced, or proceeds thereof.

SECTION 4. EXPANSION OF UNIT AREA. The Unit Area may, with the approval of the A.O., be expanded when practicable to include therein any additional Tract or Tracts whenever such expansion is regarded as reasonably necessary or advisable to conform with the purposes of this Agreement provided, however, in any such expansion there shall be no retroactive allocation or adjustment of Unit Expense or interests in the Unitized Substances produced or proceeds thereof. Such expansion may be accomplished either by order of the Division in accordance with Chapter 70, Article 7, N.M.S. 1978, Ann., as heretofore or hereafter amended from time to time, or pursuant to the following procedure:

(a) Unit Operator, acting on behalf of Working Interest Owners, shall negotiate an agreement with the owners of interests in the Tract or Tracts to be added setting out the basis for admission of the additional Tract or Tracts and the Tract Participation to be assigned to each Tract in the enlarged Unit Area. The revised Tract Participation of the respective Tract or Tracts included within the Unit Area prior to such enlargement shall remain in the same ratio one to another. Following commitment of all interests in the Tract or Tracts to be added to the agreement, Unit Operator shall submit the agreement to Working Interest Owners for approval.

(b) If at least three Working Interest Owners having in the aggregate eighty percent (80%) of the Unit Participation then in effect agree to inclusion of such Tract or Tracts in the Unit Area, then Unit Operator shall:

(1) After obtaining preliminary concurrence by the A.O., prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reason therefor, the basis for admission of the additional Tract or Tracts, the Tract Participation to be assigned thereto and the proposed effective date thereof; and

(2) Deliver copies of said notice to the A.O. at the proper BLM Office, each Working Interest Owner and to the last known address of each lessee and lessor whose interests are affected, advising such parties that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion; and

(3) File, upon the expiration of said thirty (30) day period as set out in (2) immediately above with the A.O. the following: (a) evidence of mailing or delivering copies of said notice of expansion; (b) an application for approval of such expansion; (c) a copy of all objections received along with Unit Operator's response thereto.

The expansion shall, after due consideration of all pertinent information and approval by the A.O., become effective as of the date prescribed in the notice thereof, or as amended and agreed to by the A.O., the Division and Unit Operator. The effective date of the expansion shall be the date as set out in the Certificate of Effectiveness, which will be filed of record as required in Section 24 hereof.

SECTION 5. UNITIZED LAND. All land committed to this Agreement as to the Unitized Formation shall constitute land referred to herein as "Unitized Land"

or "Land subject to this Agreement". Nothing herein shall be construed to unitize, pool, or in any way affect the oil, gas and other minerals contained in or that may be produced from any formation other than the Unitized Formation as defined in Section 2(w) of this Agreement.

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

SECTION 7. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners, and the A.O. unless a new Unit Operator shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

The Unit Operator shall, upon default or failure in the performance of its duties and obligations hereunder, be subject to removal by Working Interest Owners having the aggregate eighty percent (80%) or more of the Unit Participation then in effect exclusive of the Working Interest Owner who is the Unit Operator. Such removal shall be effective upon notice thereof to the A.O.

If Operator becomes insolvent, bankrupt, is placed in receivership or sells all of its interest in the Unit, it shall be deemed to have automatically resigned without any action by Non-Operators.

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

The resignation or removal of Unit Operator under this Agreement shall not terminate its right, title or interest as the owner of a Working Interest or other interest in Unitized Substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all wells, equipment, books and records, materials, appurtenances and any other assets used in connection with the Unit Operations to the new duly qualified successor Unit Operator or to the Unit Manager if no such new Unit Operator is elected. Nothing herein shall be construed as authorizing the removal of any material, equipment or appurtenances needed for the preservation of any wells. Nothing herein contained shall be construed to relieve or discharge any Unit Operator or Unit Manager who resigns or is removed hereunder from any liability or duties accruing or performable by it prior to the effective date of such resignation or removal.

SECTION 8. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, the Working Interest Owners shall select a successor Unit Operator as herein provided. Such selection shall not become effective until (a) a Unit

Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and (b) the selection shall have been approved by the A.O. If no successor Unit Operator or Unit Manager is selected and qualified as herein provided, the A.O., at his election, may declare this Agreement terminated.

In selecting a successor Unit Operator, the affirmative vote of three (3) or more Working Interest Owners having a total of eighty percent (80%) or more of the total Unit Participation shall prevail; provided that if any one Working Interest Owner has a Unit Participation of more than twenty percent (20%), its negative vote or failure to vote shall not be regarded as sufficient unless supported by the vote of one or more other Working Interest Owners having a total Unit Participation of at least five percent (5%). If the Unit Operator who is removed votes only to succeed itself or fails to vote, the successor Unit Operator may be selected by the affirmative vote of the owners of at least seventy-five percent (75%) of the Unit Participation remaining after excluding the Unit Participation of Unit Operator so removed.

In the event no Working Interest Owner obtains the percentage necessary to become successor Unit Operator under this Section, a Unit Manager shall be selected by a plurality vote of the Working Interest Owners and shall perform the duties of Unit Operator until a successor Unit Operator is elected.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. Costs and expenses incurred by Unit Operator in conducting Unit Operations hereunder shall be paid, apportioned among and borne by the Working Interest Owners in accordance with the Unit Operating Agreement. Such Unit Operating Agreement shall also provide the manner in which the Working Interest Owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases

or other contracts and such other rights and obligations as between Unit Operator and the Working Interest Owners as may be agreed upon by the Unit Operator and the Working Interest Owners; however, no such Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this Agreement or to relieve the Unit Operator of any right or obligation established under this Agreement, and in case of any inconsistency or conflict between this Agreement and the Unit Operating Agreement, this Agreement shall prevail. Copies of any Unit Operating Agreement executed pursuant to this Section shall be filed with the A.O. at the Proper BLM Office as required prior to approval of this Agreement.

SECTION 10. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto including surface rights which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the Unitized Substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Upon request, acceptable evidence of title to said rights shall be deposited with said Unit Operator, and together with this Agreement, shall constitute and define the rights, privileges and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this Agreement the Unit Operator, in its capacity as Unit operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

SECTION 11. PLAN OF OPERATIONS. It is recognized and agreed by the parties hereto that all of the land subject to this Agreement is reasonably proved to be productive of Unitized Substances or is necessary for Unit

Operations and that the object and purpose of this Agreement is to formulate and to put into effect an improved recovery project in order to effect additional recovery of Unitized Substances, prevent waste and conserve natural resources. Unit Operator shall have the right to inject into the Unitized Formation any substances for enhanced recovery or pressure maintenance purposes in accordance with a Plan of Operations approved by the Working Interest Owners, the A.O., and the Division, including the right to drill and maintain injection wells on the unitized Land and completed in the Unitized Formation, and to use abandoned wells or wells producing from the Unitized Formation for said purpose. Subject to like approval, the Plan of Operations may be revised as conditions may warrant.

The initial Plan of Operations shall be filed with the A.O., and the Division concurrently with the filing of this Unit Agreement for final approval. Said initial Plan of Operations and all revisions thereof shall be as complete and adequate as the A.O., and the Division may determine to be necessary for timely operation consistent herewith. Upon approval of this Agreement and the initial plan by the A.O., said plan, and all subsequently approved plans, shall constitute the operating obligations of the Unit Operator under this Agreement. After such operations are commenced, reasonable diligence shall be exercised by the Unit Operator in complying with the obligations of the approved Plan of Operation.

Notwithstanding anything to the contrary herein contained, should the Unit Operator fail to commence Unit Operations for the secondary recovery of Unitized Substances from the Unit Area within eighteen (18) months after the effective date of this Agreement, or any extension thereof approved by the A.O., this Agreement shall terminate automatically as of the date of default.

SECTION 12. USE OF SURFACE AND USE OF WATER. The parties, to the extent

of their rights and interests, hereby grant to Working Interest Owners the right to use as much of the surface of the land within the Unit Area as may be reasonably necessary for Unit Operations and the removal of Unitized Substances from the Unit Area.

Working Interest Owners shall have and are hereby granted free use of water from the Unit Area for Unit Operations, except water from any well, lake, pond, or irrigation ditch of a Royalty Owner or surface owner.

Working Interest Owners shall pay the surface owner for damages to growing crops, timber, fences, improvements, and structures on the Unit Area that result from Unit Operations and such payments shall be considered items of Unit Expense to be borne by all the Working Interest Owners.

SECTION 13. TRACT PARTICIPATION. In Exhibit "B" attached hereto there are listed and numbered the various Tracts within the Unit Area, and set forth opposite each Tract are figures which represent the Tract Participation, during Unit Operations. The Tract Participation of each Tract as shown in Exhibit "B" was determined in accordance with the following formula:

5% x $\frac{\text{acres in Tract}}{\text{acres in Unit}}$ plus

6% x $\frac{\text{usable wellbores in Tract}}{\text{usable wellbores in Unit}}$ plus

56% x $\frac{\text{sum of active day average oil rates for all wells on Tract for period of Oct. 1, 1990 through March 31, 1991.}}{\text{sum of active day average oil rates for all wells in Unit for period of Oct. 1, 1990 through March 31, 1991.}}$ plus

33% x $\frac{\text{remaining primary oil under the Tract as of April 1, 1991}}{\text{remaining primary oil under the Unit as of April 1, 1991}}$

If, after the Effective Date of this Agreement, there is any Tract or Tracts that are subsequently committed hereto, as provided in Section 4 (Expansion) hereof, or if any Tract is excluded from this Agreement as provided

for in Section 21 (Loss of Title), the Schedule of participation as shown in Exhibit "B" shall be revised by the Unit Operator, pursuant to the terms of this Agreement; and the revised Exhibit "B", upon approval by the A.O., shall govern the allocation of production on and after the Effective Date thereof until a revised schedule is approved as hereinabove provided.

SECTION 14. ALLOCATION OF UNITIZED SUBSTANCES. All Unitized Substances produced and saved (less, save and except any part of such Unitized Substances used in conformity with good operating practices on unitized land for drilling, operating, and other production or development purposes and for injection or unavoidable loss in accordance with a Plan of Operation approved by the A.O.) shall be apportioned among and allocated to the qualified Tracts in accordance with the respective Tract Participation factors effective hereunder during the respective periods such Unitized Substances were produced, as set forth in the schedule of participation in Exhibit "B". The amount of Unitized Substances so allocated to each Tract, and only that amount (regardless of whether it be more or less than the amount of the actual production of Unitized Substances from the well or wells, if any, on such Tract) shall, for all intents, uses and purposes, be deemed to have been produced from such Tract.

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

No Tract committed to this Agreement shall be subsequently excluded from participation hereunder on account of depletion of Unitized Substances.

If the Working Interest and/or the Royalty Interest in any Tract are divided with respect to separate parcels or portions of such Tract and owned now or hereafter in severalty by different persons, the Tract Participation shall in the absence of a recordable instrument executed by all owners in such Tract and furnished to Unit Operator fixing the divisions of ownership, be divided among such parcels or portions in proportion to the number of surface acres in each.

SECTION 15. TAKING UNITIZED SUBSTANCES IN KIND. The Unitized Substances allocated to each Tract shall be delivered in kind to the respective parties entitled thereto by virtue of the ownership of Oil and Gas Rights therein. Each such party shall have the right to construct, maintain and operate all necessary facilities for that purpose within the Unitized Area, provided the same are so constructed, maintained and operated as not to interfere with Unit Operations. Subject to Section 17 hereof, any extra expenditure incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the party taking delivery. In the event any Working Interest Owner shall fail to take or otherwise adequately dispose of its proportionate share of the production from the Unitized Formation, then so long as such condition continues, Unit Operator, for the account and at the expense of the Working Interest Owner of the Tract or Tracts concerned, and in order to avoid curtailing the operation of the Unit Area, may, but shall not be required to, sell or otherwise dispose of such production to itself or to others, provided that all contracts of sale by Unit Operator of any other party's share of Unitized Substances shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the circumstances, but in no event shall any such contract be for a period in excess of one year, and 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. The net proceeds, if any, of the Unitized Substances so disposed of by Unit Operator shall be paid to the Working Interest Owner of the Tract or Tracts concerned. Notwithstanding the foregoing, Unit Operator shall not make a sale into interstate commerce of any Working Interest Owner's share of gas production without first giving such Working Interest Owner thirty (30) days' notice of such intended sale.

Any Working Interest Owner receiving in kind or separately disposing of all or any part of the Unitized Substances allocated to any Tract, or receiving the proceeds therefrom if the same is sold or purchased by Unit Operator, shall be responsible for the payment of all royalty, overriding royalty and production payments due thereon, and each such party shall hold each other Working Interest Owner harmless against all claims, demands and causes of action by owners of such royalty, overriding royalty and production payments.

SECTION 16. OUTSIDE SUBSTANCES. If gas (including but not limited to carbon dioxide and nitrogen) obtained from formations not subject to this Agreement is introduced into the Unitized Formation for use in repressuring, stimulating production or increasing ultimate recovery which shall be in conformity with a Plan of Operation first approved by the A.O., a like amount of gas with appropriate deduction for loss or depletion from any cause may be withdrawn from unit wells completed in the Unitized Formation royalty free as to dry gas, but not royalty free as to the products extracted therefrom; provided that such withdrawal shall be at such time as may be provided in the approved Plan of Operations or as otherwise may be consented to or prescribed by the A.O. as conforming to good petroleum engineering practices and provided further that such right of withdrawal shall terminate on the termination date of this

Agreement.

SECTION 17. ROYALTY SETTLEMENT. The United States of America and all Royalty Owners who, under an existing contract, are entitled to take in kind a share of the substances produced from any Tract unitized hereunder, shall continue to be entitled to such right to take in kind their share of the Unitized Substances allocated to such Tract, and Unit Operator shall make deliveries of such Royalty share taken in kind in conformity with the applicable contracts, law and regulations. Settlement for Royalty not taken in kind shall be made by Working Interest Owners responsible therefor under existing contracts, laws and regulations on or before the last day of each month for the Unitized Substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any Royalty due under the leases, except that such Royalty shall be computed on Unitized Substances as allocated to each Tract in accordance with the terms of this Agreement. With respect to Federal leases committed hereto on which the royalty rate depends upon the daily average production per well, such average production shall be determined in accordance with the operating regulations pertaining to Federal leases as though the committed Tracts were included in a single consolidated lease.

If the amount of production or the proceeds thereof accruing to any Royalty Owner (except the United States of America) in a Tract depends upon the average production per well or the average pipeline runs per well from such Tract during any period of time, then such production shall be determined from and after the Effective Date hereof by dividing the quantity of Unitized Substances allocated hereunder to such Tract during such period of time by the number of wells located thereon capable of producing Unitized Substances as of the Effective Date hereof,

provided that any Tract not having any well so capable of producing Unitized Substances on the Effective Date hereof shall be considered as having one such well for the purpose of this provision.

All royalty due the United States of America and the other Royalty Owners hereunder shall be computed and paid on the basis of all Unitized Substances allocated to the respective Tract or Tracts committed hereto, in lieu of actual production from such Tract or Tracts.

With the exception of Federal requirements to the contrary, Working Interest Owners may use or consume Unitized Substances for Unit Operation and no Royalty, overriding royalty, production or other payments shall be payable on account of Unitized Substances used, lost, or consumed in Unit Operations.

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

SECTION 18. RENTAL SETTLEMENT. Rentals or minimum Royalties due on the leases committed hereto shall be paid by the Working Interest Owners responsible therefor under existing contracts, laws and regulations provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum Royalty in lieu thereof, due under their leases. Rental or minimum Royalty for lands of the United States of America subject to this Agreement shall be paid at the rate

specified in the respective leases from the United States of America, unless such rental or minimum Royalty is waived, suspended or reduced by law or by approval of the Secretary or his duly authorized representative.

SECTION 19. CONSERVATION. Operations hereunder and production of Unitized Substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to Federal and State laws and regulations.

SECTION 20. DRAINAGE. The Unit Operator shall take all reasonable and prudent measures to prevent drainage of Unitized Substances from unitized land by wells on land not subject to this Agreement.

The Unit Operator, upon approval by the Working Interest Owners, and the A.O., is hereby empowered to enter into a borderline agreement or agreements with working interest owners of adjoining lands not subject to this Agreement with respect to operation in the border area for the maximum economic recovery, conservation purposes and proper protection of the parties and interest affected.

SECTION 21. LOSS OF TITLE. In the event title to any Tract of unitized land shall fail and the true owner cannot be induced or compelled to join in this Agreement, such Tract shall be automatically regarded as not committed hereto, and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title to any Royalty, Working Interest, or other interests subject thereto, payment or delivery on account thereof may be withheld without liability for interest until the dispute is finally settled; provided, that, as to Federal lands or leases, no payments of funds due the United States shall be withheld, but such funds shall be deposited as directed by the A.O. to be held as unearned money pending final settlement of the title dispute, and then applied as earned

or returned in accordance with such final settlement.

If the title or right of any party claiming the right to receive in kind all or any portion of the Unitized Substances allocated to a Tract is in dispute, Unit Operator at the direction of Working Interest Owners shall either:

(a) require that the party to whom such Unitized Substances are delivered or to whom the proceeds thereof are paid furnish security for the proper accounting therefor to the rightful owner if the title or right of such party fails in whole or in part, or

(b) withhold and market the portion of Unitized Substances with respect to which title or right is in dispute, and impound the proceeds thereof until such time as the title or right thereto is established by a final judgement of a court of competent jurisdiction or otherwise to the satisfaction of Working Interest Owners, whereupon the proceeds so impounded shall be paid to the party rightfully entitled thereto.

Each Working Interest Owner shall indemnify, hold harmless, and defend all other Working Interest Owners against any and all claims by any party against the interest attributed to such Working Interest Owner on Exhibit "B".

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

SECTION 22. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas on lands committed to this Agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect, and the parties hereto hereby consent that the Secretary shall and by his approval hereof, or by the approval hereof by his

duly authorized representative, does hereby establish, alter, change or revoke the drilling, producing, rental, minimum Royalty and Royalty requirements of Federal leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement.

Without limiting the generality of the foregoing, all leases, subleases and contracts are particularly modified in accordance with the following:

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

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

(c) Suspension of drilling or producing operations within the Unit Area pursuant to direction or consent of the A.O., or his duly authorized representative, shall be deemed to constitute such suspension pursuant to such direction or consent as to each Tract within the Unitized Area.

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

(e) The segregation of any Federal lease committed to this Agreement is governed by the following provision in the fourth paragraph of Section 17(j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 781-784): "Any (Federal) lease heretofore or hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization; provided, however, that any such lease as to the nonunitized portion shall continue in force and effect for the term thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

SECTION 23. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any Working Interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument or transfer; and no assignment or transfer of any Royalty Interest subject hereto shall be binding upon the Working Interest Owner responsible therefor until the first day of the calendar month after said Working Interest Owner is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument or transfer.

SECTION 24. EFFECTIVE DATE AND TERM. This Agreement shall become binding upon each party who executes or ratifies it as of the date of execution or ratification by such party and shall become effective as of 7:00 a.m. Eddy County, New Mexico local time on the later of (1) January 1, 1992 or (2) the first day of the calendar month next following the approval of this Agreement by all of the Working Interest Owners and all of the Royalty Owners and final approval of this Agreement by the A.O. and the approval of the Plan of Operations by the A.O. and the Division.

If this Agreement does not become effective on or before January 1, 1993, it shall ipso facto expire on said date (hereinafter called "Expiration Date") and thereafter be of no further force or effect, unless prior thereto this Agreement has been executed or ratified by Working Interest Owners owning a combined Participation of at least eighty percent (80%); and at least seventy-five percent (75%) of such Working Interest Owners committed to this Agreement have decided to extend Expiration Date for a period not to exceed one (1) year (hereinafter called "Extended Expiration Date"). If Expiration Date is so extended and this Agreement does not become effective on or before Extended Expiration Date, it shall ipso facto expire on Extended Expiration Date and thereafter be of no further force and effect.

Unit Operator shall file for record within thirty (30) days after the Effective Date of this Agreement, in the office of the County Clerk of Eddy County, New Mexico, a Certificate of Effectiveness describing the lands and unitized formation committed and stating the effective date of the Agreement.

The term of this Agreement shall be for and during the time that Unitized Substances are produced from the unitized land and so long thereafter as drilling, reworking or other operations (including improved recovery operations)

are prosecuted thereon without cessation of more than ninety (90) consecutive days unless sooner terminated as herein provided.

This Agreement may be terminated with the approval of the A.O. by Working Interest Owners owning eighty percent (80%) of the Unit Participation then in effect whenever such Working Interest Owners determine that Unit Operations are no longer profitable, or in the interest of conservation. Upon approval, such termination shall be effective as of the first day of the month after said Working Interest Owners' determination. Notice of any such termination shall be filed by Unit Operator in the office of the County Clerk of Eddy County, New Mexico, within thirty (30) days of the effective date of termination.

Upon termination of this Agreement, the parties hereto shall be governed by the terms and provisions of the leases and contracts affecting the separate Tracts just as if this Agreement had never been entered into.

Notwithstanding any other provision in the leases unitized under this Agreement, Royalty owners hereby grant Working Interest Owners a period of six (6) months after termination of this Agreement in which to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit Operations.

SECTION 25. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. All production and the disposal thereof shall be in conformity with allocations and quotas made or fixed by any duly authorized person or regulatory body under any Federal or State statute. The A.O. is hereby vested with authority to alter or modify from time to time, in his discretion, the rate of prospecting and development and within the limits made or fixed by the Division to alter or modify the quantity and rate of production under this Agreement, such authority being hereby limited to alteration or modification in the public interest, the

purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification.

Powers in this Section vested in the A.O. shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen (15) days from notice, and thereafter subject to administrative appeal before becoming final.

SECTION 26. NONDISCRIMINATION. Unit Operator in connection with the performance of work under this Agreement relating to leases of the United States, agrees to comply with all of the provisions of Section 202(1) to (7) inclusive of Executive Order 11246, (30 F.R. 12319), which are hereby incorporated by reference in this Agreement.

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

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

notice, demand or statement.

SECTION 29. NO WAIVER OF CERTAIN RIGHTS. Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the State wherein said Unitized Lands are located, or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive, provided, however, each party hereto covenants that it will not resort to any action to partition the Unitized Land or the Unit Equipment.

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

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

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

SECTION 32. JOINDER. Joinder to this Agreement by a Working Interest Owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement in order for such interest to be regarded as effectively committed to this Agreement.

SECTION 33. COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties and may be ratified or consented to by separate instrument in writing, specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the land within the described Unit Area. Furthermore, this Agreement shall extend to and be binding on the parties hereto, their successors, heirs and assigns.

SECTION 34. JOINDER IN DUAL CAPACITY. Execution as herein provided by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests owned or controlled by such party; provided, that if the party is the owner of a Working Interest, he must also execute the Unit Operating Agreement.

SECTION 35. TAXES. Each party hereto shall, for its own account, render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the Unitized Land; provided, however, that if it is required or if it be determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account

of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes shall be reimbursed therefor by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated share of said Unitized Substances. No taxes shall be charged to the United States, nor to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

SECTION 36. NO PARTNERSHIP. The duties, obligations and liabilities of the parties hereto are intended to be several and not joint or collective. This Agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligation as herein provided.

SECTION 37. PRODUCTION AS OF THE EFFECTIVE DATE. Unit Operator shall make a proper and timely gauge of all leases and other tanks within the Unit Area in order to ascertain the amount of merchantable oil above the pipeline connection, in such tanks as of 7:00 a.m. on the Effective Date hereof. All such oil which has then been produced in accordance with established allowables shall be and remain the property of the Working Interest Owner entitled thereto, the same as if the unit had not been formed; and the responsible Working Interest Owner shall promptly remove said oil from the Unitized Land. Any such oil not so removed shall be sold by Unit Operator for the account of such Working Interest Owners, subject to the payment of all Royalty to Royalty Owners under the terms hereof. The oil that is in excess of the prior allowable of the wells from which it was produced shall be regarded as Unitized Substances produced after Effective Date hereof.

If, as of the Effective Date hereof, any Tract is over-produced with

respect to the allowable of the wells on that Tract and the amount of over-production has been sold or otherwise disposed of, which over-production shall be regarded as a part of the Unitized Substances produced after the Effective Date hereof and shall be charged to such Tract as having been delivered to the parties entitled to Unitized Substances allocated to such Tract.

SECTION 38. NO SHARING OF MARKET. This Agreement is not intended to provide and shall not be construed to provide, directly or indirectly, for any cooperative refining, joint sale or marketing of Unitized Substances.

SECTION 39. STATUTORY UNITIZATION. It is the intent of the Working Interest Owners to utilize the New Mexico Statutory Unitization Act in the formation of this Unit, if necessary. Following execution or ratification of this Agreement and the Unit Operating Agreement by Working Interest Owners owning at least seventy-five percent (75%) Unit Participation, Unit Operator may, if in its sole judgment such is necessary to the formation of the Unit, apply to the Division for statutory unitization of the uncommitted interest pursuant to Chapter 70, Article 7, N.M.S. 1978, Annotated. Unit Operator shall seek in its application for statutory unitization an effective date for the Unit of January 1, 1992. If such application is made and statutory unitization is approved by the Division, then effective as of the date of the Division's order approving statutory unitization, this Agreement and/or the Unit Operating Agreement will automatically be revised and/or amended in accordance with the following:

(1) Section 24 of this Agreement shall be revised by substituting for the first three paragraphs of said section the following:

"SECTION 24. EFFECTIVE DATE AND TERM. If and when the Working Interest Owners owning at least seventy-five percent (75%) Unit Participation and Royalty Owners owning at least seventy-five percent (75%) Royalty Interest have become

parties to this Agreement, and such Working Interest Owners have also in a like manner become parties to the Unit Operating Agreement, this Agreement shall become effective on the date and time indicated in the Division's order, or supplemental order approving the Unit, said date being mutually agreed upon by the A.O., the Division and the Unit Operator. In order for this Agreement to become effective, it must receive approval from the A.O., and the Division. The Division's order approving statutory unitization based upon the terms and conditions of this Agreement, as amended (if any amendment is necessary to conform to the Division's order) shall be referenced by Unit Operator when filing this Agreement or notice thereof for record in the office of the County Clerk of Eddy County, New Mexico. Unit Operator shall notify the Working Interest Owners of the effective date of this Agreement."

Unit Operator shall, within thirty (30) days after the Effective Date of this Agreement, file for record in the office of the County Clerk of Eddy County, New Mexico, a certificate to the effect that this Agreement has become effective in accordance with its terms, therein identifying the Division's order approving statutory unitization and stating the Effective Date."

(2) This Agreement and/or the Unit Operating Agreement shall be amended in any and all respects necessary to conform to the Division's order approving statutory unitization.

Any and all amendments of this Agreement and/or the Unit Operating Agreement that are necessary to conform said agreements to the Division's order approving statutory unitization shall be deemed to be hereby approved in writing by the parties hereto without any necessity for further approval by said parties, except as follows:

(a) If any amendment of this Agreement has the effect of reducing any

Royalty Owner's participation in the production of Unitized Substances, such Royalty Owner shall not be deemed to have hereby approved the amended agreement without the necessity of further approval in writing by said Royalty Owner; and

(b) If any amendment of this Agreement and/or the Unit Operating Agreement has the effect of reducing any Working Interest Owner's participation in the production of Unitized Substances or increasing such Working Interest Owner's share of Unit Expense, such Working Interest Owner shall not be deemed to have hereby approved the amended agreements without the necessity of further approval in writing by said Working Interest Owner.

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

Date of Execution:

MARATHON OIL COMPANY

By: _____
R. S. Keisler
Attorney-In-Fact

Date of Execution:

Pennzoil Exploration & Producing
Company

By: _____

Date of Execution:

Wainoco Oil & Gas Company

By: _____

Date of Execution:

Francis H. Hudson

Date of Execution:

Delmar H. Lewis

Date of Execution:

Edward R. Hudson, Jr., & William
A. Hudson, II, Trustees U/W
Edward R. Hudson

By: _____
Edward R. Hudson, Jr.

William A. Hudson, II

Date of Execution:

Moore & Shelton Co., Ltd.

By: _____

Date of Execution:

James H. Yates, Inc.

By: _____

Date of Execution:

Colkelan Corp.

By: _____

Date of Execution:

Explorers Petroleum Corp.

By: _____

Date of Execution:

Exby, Ltd.

By: _____

Date of Execution:

Heyco Employees Ltd.

By: _____

Date of Execution:

Spiral, Inc.

By: _____

Date of Execution:

Yates Energy Corp.

By: _____

Date of Execution:

Heyco Development Corp.

By: _____

Date of Execution:

ARCO Oil & Gas Co.

By: _____

Date of Execution:

Laurelind Corporation

By: _____

Date of Execution:

Tom Stephens

Date of Execution:

Rogers Aston

Date of Execution:

Bearing Services

By: _____

Date of Execution:

Manzano Oil Corp.

By: _____

Date of Execution:

James Guy

Date of Execution:

Loy Fletcher

Date of Execution:

J. T. Jackson

Date of Execution:

Kerr-McGee Corp.

By: _____

State of Texas §
 § ss.
County of Midland §

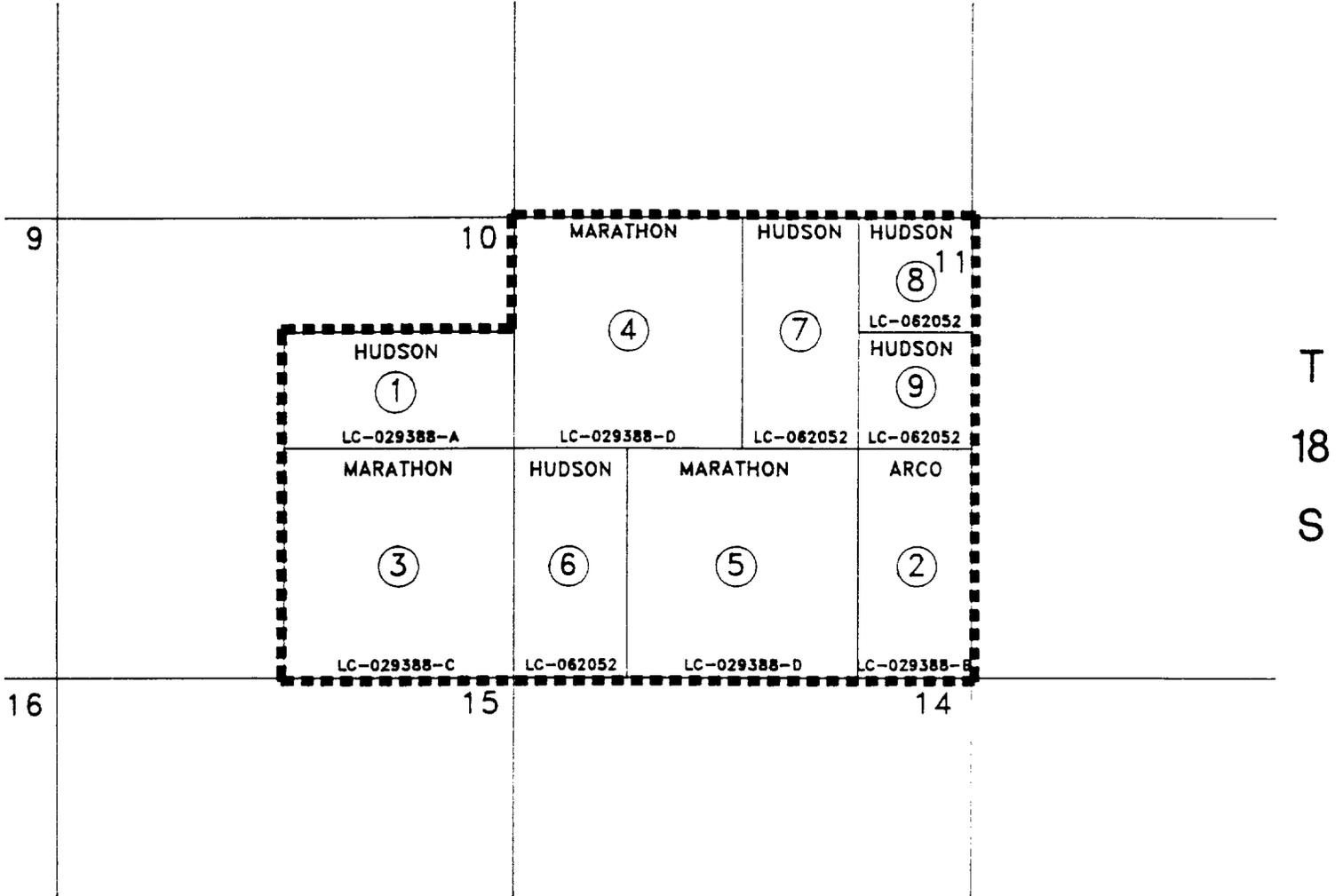
The "Unit Agreement, Tamano (BSSC) Unit, Eddy County, New Mexico" was
acknowledge before me by R. S. Keisler, Attorney-in-Fact for Marathon Oil
Company, this 31st day of May, 1991.

Witness my hand and official seal.

Notary Public

My commission expires: _____

R - 31 - E



T
18
S

LEGEND

- UNIT BOUNDARY
- ① TRACT NUMBER

EXHIBIT "A"
TAMANO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO
 UNIT AREA - 880.00 ACRES
 (ALL FEDERAL LANDS)

SCALE: 1" = 2000'

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMANO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. & Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit	
1 Stetco 10 Fed #2	S/2NE/4 Section 10 T-18-S, R-31-E	80	LC-029368-A 12-15-39	USA 12.5	Francis H. Hudson Delmer H. Lewis Edward R. Hudson, Jr., & William A. Hudson, II, Trustee U/W Edward R. Hudson	John V. Riggins First Interstate Bank of Roswell, Trustee U/W Geraldine O. Johnson S. P. Johnson, III & Patricia J. Cooper Trustee U/W of S. P. Johnson, Jr. Lodwick Energy, Inc. Richard B. Lodwick Laura Patricia Lodwick John Widway Lodwick Laura B. Lodwick Spindletop Exploration Co. Mary Elizabeth Balish Katherine Mary Scott Betty Balish Strohmayr Margaret Balish Masters Ralph A. Shugart, Jr. San Diego Trust & Savings Bank, Trustee U/A dated 5/26/83 for Ralph A. Shugart Margaret Jane Johnson MCHB Tx. Mat'l Bank & C. R. Mallison, Trustees of the Selma E. Andrews Trust dated 5/8/69 Braille Institute of America Karen Elizabeth Charles	Marathon Oil Company Pennzoil Exploration & Production Company Mafinoco Oil & Gas Co. Francis H. Hudson Delmer H. Lewis Edward R. Hudson, Jr., & William A. Hudson, II, Trustees U/W Edward R. Hudson Moore & Shelton Co., Ltd.	25.000000 29.208760 20.791240 5.312500 5.312500 10.625000 3.750000 2.125000 2.125000 2.083333 2.083334 2.125000 .083333 .125000 .208333 .625000 .500000 .100000 .100000 .300000 2.400000 1.250000 .250000 1.500000 .268525 .231675 .100000	1.74951

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMANO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. & Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit
2 A. J. 11 fed.	E/2SE/4 Section 11 T-18-S, R-31-E	80	LC-029388-8 12-15-59	USA (sliding scale)	ARCO Oil & Gas Co.	Evelyn Jackson Edwards Floyd Gentry Karen Gentry Schurig Janice Gentry Middlebrooks Mary C. Fulton Charles Kyle Clark	James H. Yates, Inc. Colkelan Corp. Explorers Pet. Corp. Ekby, Ltd. Meyco Employees Ltd. Spiral, Inc. Yates Energy Corp. Meyco Dev. Corp. ARCO Oil & Gas Co.	.035000 .035000 2.469375 1.250000 1.285000 3.719375 15.785404 25.420766 50.000000

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMMO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. & Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit
3 Stetco 10 Fed. #1 & 3	SE/4 Section 10 T-18-S, R-31-E	160	LC-029368-C 12-28-39	USA 12.5	Marathon Oil Company	John W. Higgins 1.125000 Patricia J. Cooper, Trustee of the PJC Revocable Trust U/A dated 12/30/89 1.062500 S. P. Johnson, III, and Barbara Jo Johnson, Trustee of the S. P. Johnson, III and Barbara Jo Johnson Trust U/A dated 1/24/85 1.062500 S. P. Johnson, III, and Patricia J. Cooper, Trustees U/W S. P. Johnson Jr. 2.125000 Lodewick Energy, Inc. .083333 Richard B. Lodewick .125000 Laura Patricia Lodewick .208333 John Widney Lodewick .208334 Laura B. Lodewick .625000 Spindletop Exploration Co. .500000 Mary Elizabeth Balish .016666 Katherine Mary Scott .050000 Betty Balish Strommeyer .400000 Margaret Balish Masters San Diego Trust & Savings Bank Trustee U/A dated 5/26/83 for Ralph A. Shugart .250000 Margaret Jane Johnston .250000 MCNB Tx. Nat'l Bank & C.R. Mallison, Trustees of the Selma E. Andrews Trust dated 5/8/69 .268525 Braille Institute of America .231475 Karen Elizabeth Charles .016666	Marathon Oil Company 25.000000 Pennzoil Exploration & Production Co. 29.208760 Valinoco Oil & Gas Co. 20.791240 Francis H. Hudson 5.312500 Delmar H. Lewis 5.312500 Edward R. Hudson, Jr. & William A. Hudson, II, Trustees U/W Edward R. Hudson 10.625000 Moore & Shelton Co. Ltd. 3.750000	30.91362

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMAMO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit
4 Johnson B. Fed. acct. #1	NW/4 Section 11 T-18-S, R-31-E	160	LC-029388-0 12-28-39	USA 12.5	Marathon Oil Company	None	Marathon Oil Company 100.0	22.69964

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMANO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. & Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit
5 Johnson B Federal	E/25W/4, W/2SE/4 Section 11 T-18-S, R-31-E	160	LC-029388-D 12-28-39	USA 12.5	Marathon Oil Company	None	Marathon Oil Company 66.666667 Francis H. Hudson 7.083334 Delmar H. Lewis 7.083333 Edward R. Hudson, Jr. & William A. Hudson, II, Trustees U.M. Edward R. Hudson 14.166667 Moore & Shelton Co. Ltd. 4.999999	23.05599

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMANO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit	
7 Hudson 11 Fed. #3 & 4	W/2NE/4 Section 11 T-18-S, R-31-E	80	LC-062052 12-15-39 Exchange 12-1-59	USA 12.5	Francis H. Hudson Delmar H. Lewis Edward R. Hudson, Jr., & William A. Hudson, II, Trustees U/M Edward R. Hudson	Margaret Balsh Masters Betty Balsh Strohmeyer Karen Elizabeth Charles Katherine Mary Scott Mary Elizabeth Balsh Margaret Jane Johnson San Diego Trust & Savings Bank, Trustee U/A dated 5/26/83 for Ralph A. Shugart Francis H. Hudson Delmar H. Lewis Edward R. Hudson, Jr. & William A. Hudson, III, Trustees U/M Edward R. Hudson, Deceased Moore & Shelton Co., Ltd. Sally Header-Roberts D. E. Groves	Explorers Petroleum Corp. Eaby, Ltd. Laurelind Corporation Meyco Employees Ltd. Spiral, Inc. James H. Yates, Inc. Colkelan Corporation Kerr-McGee Corp. Yates Energy Corp. Tom Stephens Rogers Aston Bearing Services Manzano Oil Corp. Meyco Development Corp. James Guy Loy Fletcher J. T. Jackson	4.188750 1.250000 2.000000 2.570000 5.038750 .070000 20.000000 17.820969 2.500000 2.500000 2.625000 1.750000 33.241531 1.750000 .875000 1.750000	4.03210

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMANO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. & Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit	
9 Hudson 11 Fed. #2	SE/4WE/4 Section 11 T-18-S, R-31-E	40	LC-062052 12-15-39 Exchange 12-1-59	USA (sliding scale)	Francis H. Hudson Delmar H. Lewis Edward R. Hudson, Jr., & William A. Hudson, II, Trustee U/W Edward R. Hudson	Margaret Balsh Masters Betty Balsh Strohmeyer Karen Elizabeth Charles Katherine Mary Scott Mary Elizabeth Balsh Margaret Jane Johnson San Diego Trust & Savings Bank, Trustee U/A dated 5/26/83 for Ralph A. Shugart Francis H. Hudson Delmar H. Lewis Edward R. Hudson, Jr. & William A. Hudson, III, Trustees U/W Edward R. Hudson, Deceased Moore & Shelton Co., Ltd. Sally Header-Roberts O. E. Groves Explorers Petroleum Corp. Exby, Ltd. Keyco Employees, Ltd. Spiral, Inc. Yates Energy Corp. Keyco Development Corp. W. T. Wynn	James H. Yates, Inc. Colkelan Corp. Explorers Pet. Corp. Exby, Ltd. Keyco Employees Ltd. Spiral, Inc. Yates Energy Corp. Keyco Dev. Corp. ARCO Oil & Gas Co.	.035000 .035000 2.469375 1.250000 1.285000 3.719375 15.785484 25.420766 50.000000	1.08235

UNIT OPERATING AGREEMENT
TAMANO (BSSC) UNIT
Eddy COUNTY, NEW MEXICO

EXHIBIT "D"

UNIT OPERATING AGREEMENT
TAMANO (BSSC) UNIT
EDDY COUNTY, NEW MEXICO

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UNIT OPERATING AGREEMENT
TAMANO (BSSC) UNIT
EDDY COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the ____ day of _____, 1991, by the parties who have signed the original of this instrument, a counterpart thereof, or other instrument agreeing to be bound by the provisions hereof;

W I T N E S S E T H ;

WHEREAS, the parties hereto as Working Interest Owners have executed, an agreement entitled, "Unit Agreement, Tamano (BSSC) Unit, Eddy County, New Mexico," herein referred to as "Unit Agreement", which, among other things, provides for a separate agreement to be entered into by and between Working Interest Owners to provide for Unit Operations as therein defined;

NOW THEREFORE, in consideration of the mutual agreements herein set forth, it is agreed as follows:

ARTICLE I

CONFIRMATION OF UNIT AGREEMENT AND ADOPTION OF DEFINITIONS

1.1 Confirmation of Unit Agreement. The Unit Agreement and all exhibits attached thereto or any revisions thereof are hereby confirmed and by reference made a part of this Agreement. If there is any conflict between the Unit Agreement and this Agreement, the Unit Agreement shall govern.

1.2 Adoption of Definitions. The definitions in the Unit Agreement are adopted for all purposes of this Agreement.

ARTICLE 2

EXHIBITS

2.1 Exhibits. The following exhibits are incorporated herein by reference:

2.1.1 Exhibits "A" and "B" of the Unit Agreement.

2.1.2 Exhibit "C", attached hereto, which is a summary showing each Working Interest Owner's Working Interest in each Tract, the percentage of total Unit Participation attributable to each such interest, and the total Unit Participation of each Working Interest Owner. Exhibit "C", or a revision thereof, shall not be conclusive as to the information therein, however it may be relied on as to the Unit Participation of Working Interest Owners for purposes of this Agreement until shown to be in error or revised as herein authorized.

2.1.3 Exhibit "D", attached hereto, which is the Accounting Procedure applicable to Unit Operations. If there is any conflict between this Agreement and Exhibit "D", this Agreement shall govern.

2.1.4 Exhibit "E", attached hereto, which contains the insurance provisions applicable to Unit Operations.

2.1.5 Exhibit "F", attached hereto, which is the Gas Balancing Agreement applicable to Unit Operations.

2.1.6 Exhibit "G", attached hereto, which is the Notice of Unit Operating Agreement Lien.

2.1.7 Exhibit "H", attached hereto, which is a list of the wells included in the Unit.

2.2 Revision of Exhibits. Whenever Exhibit "A" or Exhibit "B" is revised, Exhibit "C" shall be revised accordingly and shall be effective as of the same date. Unit Operator shall also revise Exhibit "C" from time to time as required to conform to changes in ownership of which Unit Operator has been notified as provided in the Unit Agreement.

2.3 Reference to Exhibits. When reference is made herein to an exhibit,

it is to the exhibit as originally attached or, if revised, to the last revision.

ARTICLE 3

SUPERVISION OF OPERATIONS BY WORKING INTEREST OWNERS

3.1 Overall Supervision. Subject to the other terms and provisions of this Agreement and of the Unit Agreement, Working Interest Owners shall exercise overall supervision and control of all matters pertaining to Unit Operations pursuant to this Agreement and the Unit Agreement. In the exercise of such authority, each Working Interest Owner shall act solely in its own behalf in the capacity of an individual owner and not on behalf of the owners as an entirety.

3.2 Particular Powers and Duties. The Working Interest Owners, using the voting procedures given in Article 4.3, unless otherwise specifically provided in this Agreement or in the Unit Agreement, shall decide matters pertaining to Unit Operations which include, but are not limited, to the following:

3.2.1. Method of Operation. The method of operation, including any type of pressure maintenance, secondary recovery, or other recovery program to be employed.

3.2.2. Drilling of Wells. The drilling, deepening, or sidetracking of any well whether for production of Unitized Substances, for use as an injection well, or for other purposes.

3.2.3 Well Workovers and Conversion of Wells. The reworking, recompleting or repairing of any well for the purpose of production of Unitized Substances reasonably estimated to require an expenditure in excess of the expenditure limitation specified in Section 3.2.4 hereinbelow and the abandonment or conversion of the use of any well from one purpose to another or the use of any such well for injection or any other purpose other than production. Unit Operator shall have

the right to shut-in, temporarily abandon, or reactivate a well which was shut-in or temporarily abandoned to its former use, without notification to the Working Interest Owners if doing so is reasonably estimated to require an expenditure not in excess of the expenditure limitation specified in Article 3.2.4 hereinbelow.

3.2.4 Expenditures. The making of any single expenditure in excess of Fifty Thousand Dollars (\$50,000.00), subject, however, to the provisions of Article 7.9 hereof; provided, that approval by Working Interest Owners of the drilling, sidetracking, reworking, deepening, or plugging back of any well shall include approval of all necessary expenditures required therefore, and for completing, testing and equipping the same, including necessary flow lines, separators and lease tankage.

3.2.5 Disposition of Surplus Unit Equipment. The Unit Operator shall have the right to sell or otherwise dispose of any item of surplus Unit Equipment, according to the provisions of Exhibit "D".

3.2.6 Appearance Before a Court or Regulatory Agency. The designation of a representative to appear before any court or regulatory agency in matters pertaining to Unit Operations; provided, however, that such designation shall not prevent any Working Interest Owner from appearing in person or from designating another representative in its own behalf.

3.2.7 Audits. The auditing of the accounts of Unit Operator pertaining to Unit Operations hereunder according to the provisions of Exhibit "D"; provided that, the audits shall:

(a) not be conducted more than once each year except upon the

resignation or removal of Unit Operator and;

- (b) be made upon the approval of the Owner or Owners of a majority of Working Interest other than that of Unit Operator, at the expense of all Working Interest Owners other than Unit Operator, or;
- (c) be made at the expense of those Working Interest Owners requesting such audit if owners of less than a majority of Working Interest, other than that of Unit Operator, request such audit, and;
- (d) be made upon not less than thirty (30) days written notice to Unit Operator.

3.2.8 Inventories. The taking of periodic inventories under the terms of Exhibit "D".

3.2.9 Technical Services. The authorizing of charges to the Joint Account for services by consultants or Unit Operator's technical personnel in excess of \$20,000.00.

3.2.10 Assignments to Committees. The appointment of committees to study any problems in connection with Unit Operations.

3.2.11 The removal of Unit Operator and the selection of a successor.

3.2.12 The enlargement of the Unit Area.

3.2.13 The adjustment and readjustment of investments.

3.2.14 The termination of the Unit Agreement.

3.2.15 The authorization of Border Agreements.

3.2.16 Amendment of Overhead Rates. The amendment of overhead rates as provided for in Section III of Exhibit "D".

ARTICLE 4

MANNER OF EXERCISING SUPERVISION

4.1 Designation of Representatives. Not later than thirty (30) days after the effective date hereof, each Working Interest Owner shall inform Unit Operator in writing of the names and addresses of the representative and alternate who are authorized to represent and bind such Working Interest Owner with respect to Unit Operations. The representative or alternate may be changed from time to time by written notice to Unit Operator.

4.2 Meetings. All meetings of Working Interest Owners shall be called by Unit Operator upon its own motion or at the request of two (2) or more Working Interest Owners having a total Unit Participation of not less than ten percent (10%). No meeting shall be called on less than fourteen (14) days advance written notice, and an agenda for the meeting shall be attached. In absence of protest by any qualified member at the meeting Working Interest Owners who attend the meeting may amend items included in the agenda and may act upon an amended item or other items presented at the meeting. The representative of Unit Operator shall be chairman of each meeting.

4.3 Voting Procedure. Working Interest Owners shall decide all matters coming before them as follows:

4.3.1 Voting Interest. Each Working Interest Owner shall have a voting interest equal to its Unit Participation in effect at the time of the vote.

4.3.2 Vote Required - Generally. Unless otherwise provided herein or in the Unit Agreement, all matters shall be decided by an affirmative vote of sixty-five percent (65%) or more of the voting interest; provided that, should any one Working Interest Owner have more than

sixty-five percent (65%) voting interest, its vote must be supported by the vote of two or more Working Interest Owners having a combined voting interest of at least five percent (5%); provided, however, that if any Working Interest Owner has a voting interest of thirty-five percent (35%) or more, its negative vote or failure to vote shall not serve to defeat any motion, and such motion shall pass if approved by a majority voting interest, unless such negatively voting or non-voting Working Interest Owner is supported by the vote of two or more Working Interest Owners having a combined voting interest of at least five (5%), and such affirmative vote shall be binding upon all parties.

4.3.3 Vote at Meeting by Nonattending Working Interest Owner. Any Working Interest Owner who is not represented at a meeting may vote on any agenda item by letter or telegram addressed to the representative of the Unit Operator if its vote is received prior to the actual vote at the meeting. Such vote shall not be counted with respect to any item on the agenda which is amended at the meeting.

4.3.4 Poll Votes. Working Interest Owners may vote on and decide, by letter or telegram, any matter submitted in writing to Working Interest Owners. If a meeting is not requested, as provided in Article 4.2, within seven (7) days after a written proposal is sent to Working Interest Owners, the vote taken by letter or telegram shall become final. If a Working Interest Owner fails to respond to a matter submitted in writing within 30 days of the proposal being sent, such

non-response shall constitute an affirmative vote for the proposal. Unit Operator will give prompt notice of the results of such vote to all Working Interest Owners.

ARTICLE 5

INDIVIDUAL RIGHTS OF WORKING INTEREST OWNERS

5.1 Reservation of Rights. Working Interest Owners severally reserve to themselves all their rights, except as otherwise provided in this Agreement and the Unit Agreement.

5.2 Specific Rights. Each Working Interest Owner shall have, among others, the following specific rights:

5.2.1 Access to Unit Area. Access to the Unit Area at all reasonable times to inspect Unit Operations, all wells, and the records and data pertaining thereto.

5.2.2 Reports. The right to receive from Unit Operator, upon written request, copies of all reports to any governmental agency, reports of crude oil runs and stocks, inventory reports, and all other information pertaining to Unit Operations. The cost of gathering and furnishing information not ordinarily furnished by Unit Operator to all Working Interest Owners shall be charged to the Working Interest Owner who requests the information.

ARTICLE 6

UNIT OPERATOR

6.1 Initial Unit Operator. Marathon Oil Company is hereby designated as Unit Operator.

6.2 Resignation or Removal and Selection of Successor. Unit Operator may

resign at any time. The resignation or removal of Unit Operator and the selection of a successor shall be governed by the provisions of the Unit Agreement.

ARTICLE 7

AUTHORITIES AND DUTIES OF UNIT OPERATOR

7.1 Exclusive Right to Operate Unit. Subject to the provisions of this Agreement and to the orders, directions and limitations rightfully given or imposed by Working interest Owners, Unit Operator shall have the exclusive right and shall be obligated to conduct Unit Operations.

7.2 Workmanlike Conduct. Unit Operator shall conduct Unit Operations in a good and workmanlike manner as would a prudent operator under the same or similar circumstances. Unit Operator shall freely consult with Working Interest Owners and keep them informed of all matters which Unit Operator, in the exercise of its best judgement, considers important. Unit Operator shall not be liable to Working Interest Owners for damages, unless such damages result from its gross negligence or willful misconduct.

7.3 Liens and Encumbrances. Unit Operator shall endeavor to keep the lands and leases in the Unit Area and the Unit Equipment free from all liens and encumbrances occasioned by Unit Operations, except the lien and security interest of Unit Operator and Working Interest Owners granted hereunder.

7.4 Employees. The number of employees used by Unit Operator in conducting Unit Operations, their selection, hours of labor and compensation shall be determined by Unit Operator. Such employees shall be employees of Unit Operator.

7.5 Records. Unit Operator shall keep correct books, accounts and records of Unit Operations.

7.6 Reports to Working Interest Owners. Unit Operator shall furnish to

Working Interest Owners periodic reports of Unit Operations.

7.7 Reports of Governmental Authorities. Unit Operator shall make all reports to governmental authorities that it has the duty to make as Unit Operator.

7.8 Engineering and Geological Information. Unit Operator shall furnish to each Working Interest Owner, upon its written request, a copy of all logs and other engineering and geological data pertaining to wells drilled for Unit Operations.

7.9 Expenditures. Unit Operator is authorized to make single expenditures not in excess of Fifty Thousand Dollars (\$50,000.00) without prior approval of Working Interest Owners. If an emergency occurs, Unit Operator may immediately make or incur such expenditures as in its opinion are required to deal with the emergency. Unit Operator shall report to Working Interest Owners, as promptly as possible, the nature of the emergency and the action taken.

7.10 Wells Drilled by Unit Operator. All wells drilled by Unit Operator shall be at the usual rates prevailing in the area. Unit Operator may employ its own tools and equipment, but the charge therefor shall not exceed the usual prevailing rate in the area, and the work shall be performed by Unit Operator under the same terms and conditions as are usual in the area in contracts of independent contractors doing work of a similar nature.

7.11 Border Agreements. The Unit Operator, after approval by Working Interest Owners, may enter into a border protection agreement or agreements with working interest owners of the adjacent lands along the exterior boundary of the Unit area with respect to any cooperative operations in the border area for the proper protection of the parties and interests.

ARTICLE 8

TAXES

8.1 Ad Valorem Taxes. Beginning with the first calendar year after the Effective Date hereof, Unit Operator shall make and file all necessary ad valorem tax renditions and returns with the proper taxing authorities with respect to all property of each Working Interest Owner used or held by Unit Operator for Unit Operations. Unit Operator shall settle assessments arising therefrom. All such ad valorem taxes shall be paid by Unit Operator and charged to the Joint Account; however, if the interest of a Working Interest Owner is subject to a separately assessed overriding royalty interest, production payment, or other interest in excess of one-eighth (1/8) royalty, such Working Interest Owner shall notify Unit Operator of such interest prior to the rendition date and shall be given credit for the reduction in taxes paid resulting therefrom. Any Working Interest Owner dissatisfied with any assessment of its interest in real or personal property shall have the right, at its own expense, and after due notice to Unit Operator, to protest and resist any such assessment. If the ad valorem taxes are based in whole or in part upon separate valuation 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 percentage of tax value generated by each party's Working Interest.

8.2 Other Taxes. Each Working Interest Owner shall pay or cause to be paid all production, severance, gathering, and other taxes and assessments imposed upon or in respect of the production or handling of its share of Unitized Substances.

ARTICLE 9

INSURANCE

9.1 Insurance. Unit Operator, with respect to Unit Operations and at Unit Expense, shall do the following:

9.1.1 Comply with the Workman's Compensation Act of the State of New Mexico.

9.1.2 Carry Employer's Liability and other insurance as required by the laws of the State of New Mexico.

9.1.3 Provide insurance as set forth in Exhibit "E".

ARTICLE 10

ADJUSTMENT OF INVESTMENTS

10.1 Personal Property Taken Over. Upon the effective date hereof, Working Interest Owners shall deliver to Unit Operator the following:

10.1.1 Wells. All wells completed in the Unitized Formation.

10.1.2 Well and Lease Equipment. The casing and tubing in each such well, all subsurface equipment therein including sucker rods and pumps, the wellhead connections thereon, and all other well and lease equipment that is used in the operation of such wells which Unit Operator determines is necessary or desirable for conducting Unit Operations. Unit Operator shall have up to six (6) months after the effective date in which to make such determination, and all such property that is determined to be surplus shall be returned in the same condition less usual depreciation to each Tract Operator who was responsible for delivery of same to Unit Operator. There shall be no charge to the Unit for the use of any such surplus property during this six (6) month period. The individual Operators shall have ninety

(90) days from the date of notification in which to remove the surplus property returned to them. Surplus property shall then be disposed of by each Tract Operator in accordance with the respective Joint Operating Agreement which governs each Tract. If the surplus property has not been removed from the Unit Area within the ninety (90) day period, then Unit Operator shall have the right to dispose of the property in a good and workmanlike manner as would a prudent operator under the same or similar circumstances. Any proceeds received upon disposition in excess of removal or cleanup costs will be credited to the Working Interest Owners in the specific Tract. Any costs in excess of the proceeds credited to the Working Interest Owners will be charged to the Working Interest Owners in the specific Tract.

10.1.3 Records. A copy of all production and well records that pertain to such wells.

10.2 Inventory and Evaluation of Personal Property. The Working Interest Owners shall appoint an inventory committee which shall, as of the Effective Date or as soon thereafter as feasible, cause to be taken under the supervision of the Unit Operator at Unit Expense, joint physical inventories of lease and well equipment within the Unit Area, which inventories shall be used as a basis for determining the controllable items of equipment to be taken over by the Unit Operator hereunder. In the absence of an inventory committee, Unit Operator shall engage at Unit Expense a qualified independent firm to serve in place of an inventory committee. Such inventories shall include and be limited to those items of equipment normally considered controllable by operators of oil and gas properties except that certain items of equipment normally considered noncontrollable, such as sucker rods, subsurface pumps and other items as

determined by the Working Interest Owners may be included in the inventories in order to insure a more equitable adjustment of investment. All other noncontrol-able items of lease and well equipment installed within the Unit Area, although excluded from the inventories, which the Unit Operator decides are necessary and usable in Unit Operations, shall nevertheless be taken over by the Unit Operator. After the determination by Unit Operator as to surplus property, such inventories covering equipment taken over by the Unit Operator under Article 10.1.2 and retained for Unit Operations, shall be priced in accordance with the provision of Exhibit "D", Accounting Procedure. Casing shall be included in the inventory for record purposes but shall be excluded from pricing and investment adjustment. After completion of the inventory and evaluation of property Unit Operator shall submit to each Working Interest Owner a copy of the inventory and valuations thereon together with a letter ballot for approval of such inventory and valuations.

10.3 Investment Adjustment. As soon as practicable after approval by Working Interest Owners of the inventory and evaluation, each Working Interest Owner shall be credited with the value, as determined in accordance with Article 10.2 above, of its interest in all personal property taken over by Unit Operator under Article 10.1.2, and charged with an amount equal to that obtained by multiplying the total value of all such personal property taken over by Unit Operator under Article 10.1.2 by such Working Interest Owner's Unit Participation, as shown on Exhibit "C". If the charge against any Working Interest Owner is greater than the amount credited to such Working Interest Owner, the resulting net charge shall be paid and in all other respects be treated as any other item of Unit Expense chargeable against such Working Interest Owner. If the credit to any Working Interest Owner is greater than the

amount charged against such Working Interest Owner, the resulting net credit shall be paid to such Working Interest Owner by Unit Operator out of funds received by it in settlement of the net charges described above.

10.4 General Facilities. The acquisition of general facilities which service more than one lease and which are necessary for Unit Operations shall be by negotiation between the owners thereof and Unit Operator, subject to the approval of Working Interest Owners. There shall be no adjustment for lease roads or appurtenances thereto. General facilities which are owned one-hundred percent (100%) by the Unit Operator shall be acquired by negotiation between the Unit Operator and the Working Interest Owners.

10.5 Exchange of Interest in and Ownership of Personal Property and Facilities. Each Working Interest Owner hereby exchanges, and agrees to exchange, its interest in all of the personal property and facilities described in Article 10.1.2 above for its proportionate interest, as shown on Exhibit C, from and after the time the same may hereafter become effective, in all such personal property and facilities described in Article 10.1.2. Each Working Interest Owner, individually, shall by virtue hereof own an undivided interest in all personal property and facilities taken over or otherwise acquired by Unit Operator pursuant to this agreement equal to its Unit Participation.

ARTICLE 11

DEVELOPMENT AND OPERATING COSTS

11.1 Basis of Charge to Working Interest Owners. Unit Operator initially shall pay and discharge all Unit Expense including all preunitization expenses required for organization and/or formation of the unit. Each Working Interest Owner shall reimburse Unit Operator for its share of Unit Expense in proportion to the respective Unit Participation of the parties hereto. All charges,

credits, and accounting for Unit Expense shall be in accordance with Exhibit "D", Accounting Procedure.

11.2 Budgets. Before or as soon as practical after the Effective Date hereof, Unit Operator shall prepare a budget of estimated Unit Expense for the remainder of the calendar year, and, on or before, the first day of each September thereafter, shall prepare such a budget for the ensuing calendar year. A budget shall set forth the estimated Unit Expense by quarterly periods. Budgets shall be estimates only, and shall be adjusted or corrected whenever an adjustment or correction is proper. A copy of each budget and adjusted budget shall promptly be furnished to each Working Interest Owner.

11.3 Advance Billings. Unit Operator shall have the right without prejudice to any other rights or remedies, at its option, to require Working Interest Owners to advance their respective proportions of Unit Expense by submitting to Working Interest Owners, on or before the 15th day of any month, an itemized estimate of Unit Expense for the succeeding month with a request for payment in advance. If such advance is requested as to operating costs and expenses, the Working Interest Owner's proportionate shares thereof shall be deemed to be the same as for the preceding month, with an adjustment to be made on the basis of their actual proportionate shares thereof as determined at the end of the period for which such advance was requested. Within fifteen (15) days of receipt of said itemized estimate, each Working Interest Owner shall pay to Unit Operator its proportionate part of such estimate. Adjustment between estimates and the actual costs shall be made by Unit Operator at the close of each calendar month, and the accounts of the Working Interest Owners shall be adjusted accordingly.

11.4 Commingling of Funds. No funds received by Unit Operator under this agreement need be segregated or maintained by it as separate funds, but may be commingled with its own funds.

11.5 Lien of Unit Operator. Each Working Interest Owner grants to Unit Operator a lien upon its Oil and Gas Rights in each Tract, and a security interest in its share of Unitized Substances when produced, and its interest in all Unit Equipment, as security for payment of its share of Unit Expense to the full extent allowed by State and Federal Statutes, together with interest thereon at the prime rate charged by Chase Manhattan Bank during the period that such payment remains due, plus one percent (1%) per annum, or the maximum contract rate permitted by the applicable usury laws of the State of New Mexico, whichever is the lesser, plus attorney's fees, court costs and other costs in connection with the collection of unpaid amounts. To the extent that Unit Operator has a security interest under the Uniform Commercial Code, Unit 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 Unit 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 Working Interest Owner in the payment of its share of Unit Expense, Unit Operator shall have the right without prejudice to other rights and remedies, to collect from the purchaser the proceeds from the sale of such Working Interest Owner's share of Unitized Substances until the amount owed by such Working Interest Owner, plus interest as aforesaid, has been paid. Each purchaser shall be entitled to rely upon Unit Operator's written statement concerning the amount of any default. Unit Operator grants a like lien and security interest to the Working Interest Owners.

11.6 Unpaid Unit Expense. If any Working Interest Owner fails to pay its share of Unit Expense within sixty (60) days after rendition of a statement therefor by Unit Operator, the non-defaulting Interest Owners, shall, upon request by Unit Operator, pay their proportionate part of the unpaid share of Unit Expense of the defaulting Working Interest Owner. The non-defaulting Working Interest Owners that pay their share of Unit Expense of a defaulting Working Interest Owner shall be reimbursed by the Unit Operator for the amount so paid, plus any interest collected thereon, upon receipt by Unit Operator of any past due amount collected from the defaulting Working Interest Owner. Any non-defaulting Working Interest Owner so paying a defaulting Working Interest Owner's share of Unit Expense shall be subrogated to the lien and rights herein granted Unit Operator. A defaulting Working Interest Owner shall lose its voting interest (as defined in Section 4.3.1) during its period of default. Its voting rights shall be shared proportionately and exercised by each of the non-defaulting Working Interest Owner paying their share of the defaulting Working Interest Owner's share of Unit Expense.

11.7 Carved-out Interest. If any working Interest Owner shall, after executing this Agreement, create an overriding royalty, production payment, net profits, or carried interest, or any other interest out of its Working Interest then subject to this Agreement, such carved-out interest shall be subject to the terms and provisions of this Agreement, specifically including, but without limitation, Article 11.5 hereof. If the Working Interest Owner creating such carved-out interest (i) fails to pay any Unit Expense chargeable to such Working Interest Owner under this Agreement and the production of Unitized Substances accruing to the credit of such Working Interest Owner is insufficient for that purpose, or (ii) withdraws from this Agreement under the terms and provisions of

Article 17 hereof, the carved-out interest shall be chargeable with a pro-rata portion of all Unit Expense incurred hereunder and Unit Operator shall have the right to enforce against such carved-out interest the lien and all other rights granted in said Article 11.5 for the purpose of collecting the Unit Expense chargeable to said carved-out interest.

11.8 Rentals and Minimum Royalties. The Working Interest Owner in each Tract shall, at its own expense, pay any and all rentals required to continue its lease in force, and any and all minimum royalties payable thereunder. Upon request of Unit Operator, each such Working Interest Owner shall furnish Unit Operator satisfactory evidence as to the payment of such rentals not less than thirty (30) days prior to the rental payment date and as to the payment of such minimum royalty payments when same are due. Unit Operator shall have the right, but shall be under no obligation, to pay any and all such rentals and minimum royalties on behalf of each Working Interest Owner, and any and all amounts so paid by Unit Operator shall be charged solely to the account of such Working Interest Owner. In the event the Working Interest Owner in any Tract fails to pay any rental required to continue its lease in force as to such Tract or any minimum royalties payable under such lease and as a result said lease terminates or is cancelled as to such Tract, the termination or cancellation of said lease as to such Tract shall be considered for all purposes of this agreement and the Unit Agreement to be a failure of title to said lease for reasons other than Unit Operations.

ARTICLE 12

OPERATION OF NON-UNITIZED FORMATIONS

12.1 Right to Operate in Non-Unitized Formations. Any Working Interest Owner that now has, or hereafter acquires the right to drill for and produce oil,

gas or other minerals, from a formation underlying the Unit Area other than the Unitized Formation, shall have the right to do so notwithstanding this Agreement or the Unit Agreement. In exercising said right, however, such Working Interest Owner shall exercise every reasonable precaution to prevent unreasonable interference with Unit Operations hereunder. No Working Interest Owner (other than Unit Operator) shall produce Unitized Substances through any well drilled or operated by it. If any Working Interest Owner drills any well into or through the Unitized Formation, the Unitized Formation shall be protected during drilling operations in a manner satisfactory to Unit Operator, and following drilling operations, the Unitized Formation shall be protected by cement or by casing and cement and shall otherwise be protected in such a manner that the Unitized Formation and the production of Unitized Substances will not be adversely affected.

12.2 Multiple Completions. No well now or hereafter completed in Unitized Formation shall ever be completed as a multiple completion in any other formation or formations unless such multiple completion and the subsequent handling of the multiple completion is approved by Working Interest Owners in accordance with Article 4.3 of this Agreement.

ARTICLE 13

TITLES

13.1 Warranty and Indemnity. Each Working Interest Owner represents and warrants that it is the owner of the respective working interests set forth opposite its name in Exhibit "B" of the Unit Agreement and hereby agrees to indemnify and hold harmless the other Working Interest Owners from any loss due to failure, in whole or in part, of its title to any such interest, except failure of title arising out of Unit Operations; provided that, such indemnity

shall be limited to an amount equal to the net value that has been received from the sale or receipt of Unitized Substances attributed to the Interest as to which title failed. Each failure of title will be deemed to be effective, insofar as this Agreement is concerned, as of 7:00 a.m. the first day of the calendar month in which such failure is finally determined, and there shall be no retroactive adjustment of Unit Expense, or retroactive allocation of Unitized Substances or the proceeds therefrom, as a result of title failure.

13.2 Failure of Title Because of Unit Operations. The failure of title to any Working Interest in any Tract because of Unit Operations, including nonproduction from such Tract, shall not change the Unit Participation of the Working Interest Owner whose title failed in relation to the Unit Participations of the other Working Interest Owners at the time of the title failure.

ARTICLE 14

LIABILITY, CLAIMS AND SUITS

14.1 Individual Liability. The duties, obligations and liabilities of Working Interest Owners shall be several and not joint or collective; and nothing herein contained shall ever be construed as creating a partnership of any kind, joint venture, association or trust among Working Interest Owners.

14.2 Settlements. Unit Operator may settle any single damage claim or suit involving Unit Operations if the expenditure does not exceed Twenty-five Thousand Dollars (\$25,000.00) and if the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above specified amount, Unit Operator shall notify Working Interest Owners and shall continue handling the claim or suit unless such authority is expressly denied by Working Interest Owners after notification. All costs and expense of handling, settling, or otherwise discharging such claim or suit shall be an item of Unit Expense.

If a claim is made against any Working Interest Owner or if any Working Interest Owner is sued on account of any matter arising from Unit Operations over which such Working Interest Owner individually has no control because of the rights given Working Interest Owners and Unit Operator by this Agreement and the Unit Agreement, the Working Interest Owner shall immediately notify the Unit Operator, and the claim or suit shall be treated as any other claim or suit involving Unit Operations.

ARTICLE 15

INTERNAL REVENUE PROVISION

15.1 Internal Revenue Provision. Notwithstanding any provisions herein that the rights and liabilities of the parties hereunder are several and not joint or collective or that this Agreement and the operations hereunder shall not constitute a partnership, if for Federal income tax purposes this Agreement and the operations hereunder are regarded as a partnership, then each of the parties hereto hereby elects to be excluded from the application of all of the the provisions of Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1986, as permitted and authorized by Section 761 of said Code and the regulations promulgated thereunder. Unit Operator is hereby authorized and directed to execute on behalf of each of the parties hereto such evidence of this election as may be required by the Secretary of the Treasury of the United States or by the Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements and the data required by the Internal Revenue Service or as may be necessary to evidence this election. Should there be any requirement that each Party hereto 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. Each party hereto further agrees not to 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 in which the property covered by this Agreement is located, or any future income tax laws of the United States, contain, or shall hereafter contain, provisions similar to those contained in Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1986, under which an election similar to that provided by Section 761 of said Subchapter K is permitted, each of the parties hereto hereby makes such election or agrees to make such election as may be permitted or required by such laws. In making this election, each of the parties hereto hereby states that the income derived by it from the operations under this Agreement can be adequately determined without the computation of partnership taxable income.

ARTICLE 16

NOTICES

16.1 Notices. All notices required hereunder shall be in writing and shall be deemed to have been properly served when sent by certified mail ("return receipt requested") or telegram or telefax to the address of the representative of each Working Interest Owner as furnished to Unit Operator in accordance with Article 4.

ARTICLE 17

WITHDRAWAL OF WORKING INTEREST OWNER

17.1 Withdrawal. A Working Interest Owner may withdraw from this Agreement by transferring, without warranty of title, either express or implied, to the other Working Interest Owners, ("transferees"), all its Oil and Gas Rights, exclusive of Royalty Interests, together with its interest in all Unit Equipment and in all wells used in Unit Operations. The instrument of transfer shall be

delivered to Unit Operator for the transferees. Such transfer shall not relieve the Working Interest Owner from any obligation or liability incurred prior to the date of the delivery of the instrument of transfer. The tender must be accepted unless Working Interest Owners decide within ninety (90) days of tender to terminate the Unit. The interest transferred shall be owned by the transferees in proportion to their respective Unit Participations then in effect. The transferees, in proportion to the respective interest so acquired, shall pay transferor for its interest in Unit Equipment the net salvage value thereof less its share of the estimated cost of salvaging same and of plugging and abandoning all wells then being used or held for Unit Operations and of restoring the surface of the Unit Area upon Unit abandonment, as determined by Working Interest Owners. In the event such withdrawing party's interest in the aforesaid salvage value is less than the withdrawing party's share of the estimated costs, the withdrawing party, as a condition precedent to its withdrawal, shall pay the Unit Operator, for the benefit of Working Interest Owners succeeding to its interest, a sum equal to the deficiency.

Within sixty (60) days after receiving delivery of the transfer, Unit Operator shall render a final statement to the withdrawing owner for its share of Unit Expense, including any deficiency in salvage value, as determined by Working Interest Owners, incurred as of the first day of the month following the date of receipt of the transfer. Provided all Unit Expense, including any deficiency hereunder, due from the withdrawing owner has been paid in full within thirty (30) days after the rendering of such final statement by Unit Operator, the transfer shall be effective the first day of the month following its receipt by Unit Operator and, as of such effective date, the withdrawing Working Interest Owner shall be relieved from all further obligations and liabilities hereunder

and under the Unit Agreement, and the rights of the withdrawing Working Interest Owner hereunder and under the Unit Agreement shall cease insofar as they existed by virtue of the interest transferred.

17.2 Limitation on Withdrawal. Notwithstanding anything set forth in Article 17.1, Working Interest Owners may refuse to permit the withdrawal of a Working Interest Owner if its Working Interest is burdened by any royalties, overriding royalties, production payments, net proceeds interest, carried interest, or any other interest created out of the Working Interest in excess of one-eighth (1/8) lessor's royalty, unless the other Working Interest Owners willing to accept the assignment agree to accept the Working Interest subject to such burdens.

ARTICLE 18

ABANDONMENT OF WELLS

18.1 Rights of Former Owners. If Working Interest Owners decide to abandon permanently any well completed in the Unitized Formation within the Unit Area prior to termination of the Unit Agreement, Unit Operator shall give written notice thereof to the Working Interest Owners of the Tract on which the well is located, and they shall have the option for a period of ninety (90) days after the sending of such notice to notify Unit Operator in writing of their election to take over and own the well and to deepen or plug back the well to a formation other than the Unitized Formation. Such deepening or plugging back operations shall be governed by the applicable operating agreement(s) affecting such Tract. Within ten (10) days after the Working Interest Owners of the Tract have notified Unit Operator of their election to take over the well, they shall pay Unit Operator, for credit to the Joint Account, the amount estimated by Working Interest Owners to be the salvage value of the equipment in and on the well,

except casing and other equipment originally contributed at no cost less salvage costs. The Working Interest Owners of the Tract, by taking over the well, agree to seal off effectively and protect the Unitized Formation, in a manner satisfactory to Working Interest Owners, and upon abandonment to plug the well in compliance with applicable laws and regulations.

18.2 Plugging. If the Working Interest Owners of a Tract do not elect to take over a well located thereon that is proposed for abandonment, Unit Operator shall plug and abandon the well at Unit expense in compliance with applicable laws and regulations.

ARTICLE 19

EFFECTIVE DATE AND TERM

19.1 Effective Date. This agreement shall be binding on each party who executes or ratifies the same as of the date of execution or ratification by such party, but shall not become effective for the purpose of conducting Unit Operations hereunder until the effective date of the Unit Agreement.

19.2 Term. This Agreement shall continue in full force and effect so long as the Unit Agreement remains in force and effect, and thereafter until (a) all Unit Wells have been abandoned and plugged or turned over to the Working Interest Owners in accordance with Article 18, (b) all Unit Equipment and real property acquired for the Joint Account have been disposed of by the Unit Operator in accordance with the instructions of the Working Interest Owners, and (c) there has been a final accounting.

ARTICLE 20

ABANDONMENT OF OPERATIONS

20.1 Termination. Upon termination of the Unit Agreement, the following will occur:

20.1.1 Oil and Gas Rights. The Oil and Gas Rights in and to each separate Tract shall no longer be affected by this Agreement, and thereafter the parties shall be governed by the terms and provisions of the leases, contracts, and other instruments affecting the separate Tracts.

20.1.2 Right to Operate. Working Interest Owners of any Tract that desire to take over and continue to operate wells located thereon may do so by paying Unit Operator, for credit to the Joint Account, the net salvage value of the casing and equipment in and on the wells taken over, except the casing therein if contributed by such Working Interest Owners under Article 10.1.1 less salvage costs as estimated by Working Interest Owners, and by agreeing upon abandonment to plug each well in compliance with applicable laws and regulations.

20.1.3 Salvaging Wells. Unit Operator shall salvage as much of the casing and equipment in or on wells not taken over by Working Interest Owners of separate Tracts as can economically and reasonably be salvaged, and shall cause the wells to be plugged and abandoned in compliance with applicable laws and regulations.

20.1.4 Cost of Salvaging & Distribution of Assets. Working Interest Owners shall share the cost of salvaging and abandonment, as well as distribution of assets and properties used in Unit Operation, in proportion to their respective Unit Participations.

ARTICLE 21

EXECUTION

21.1 Execution by Separate Counterparts or Ratifications. This Agreement may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument and as if all parties to the aggregate counterparts had signed the same instrument, or may be ratified by a separate instrument in writing referring to this Agreement, each such ratification having the force and effect of an executed counterpart hereof and in effect incorporating by reference all of the provisions hereof.

ARTICLE 22

SUCCESSORS AND ASSIGNS

22.1 Successors and Assigns. This Agreement shall constitute a covenant running with the lands and leases covered hereby, and shall be binding upon and inure to the benefit of the heirs, devisees, legal representatives, successors and assigns of the parties hereto, respectively. Each assignment or other transfer of Working Interest by any party hereof shall be made expressly subject to this Agreement and shall provide expressly that the transferee shall assume and be bound by all obligations accruing hereunder in respect to the Working Interest transferred from and after the assignment or other transfer.

22.2 Notice of Transfer. An assignment or other transfer of Working Interest that is subject to this Agreement shall not be binding upon Unit Operator and shall not relieve the transferor of obligations accruing hereunder, until the first day of the calendar month next succeeding receipt by Unit Operator of written notice of such assignment or transfer accompanied by certified copy of the recorded instrument evidencing the transfer.

ARTICLE 23

GOVERNMENTAL REGULATIONS

23.1 Governmental Regulations. Working Interest Owners agree to release Unit Operator from any and all losses, damages, injuries, claims and causes of action arising out of, incident to, or resulting directly or indirectly from Unit Operator's interpretation or application of rules, regulations, or orders of any governmental agency or predecessor agencies to the extent Unit Operator's interpretation or application of such rules, rulings, regulations, or orders were made in good faith. Working Interest Owners further agree to reimburse Unit Operator for their proportionate share of any amounts Unit Operator may be required to refund, rebate or pay as a result of an incorrect interpretation or application of the above noted rules, rulings, regulations, or orders, together with their proportionate part of interest and penalties owed by Unit Operator as a result of such incorrect interpretation or application of such rules, ruling, regulations or orders.

23.2 Equal Employment Opportunity. Unless this Agreement is within one of the exemptions provided for in Executive Order 11246, effective September 24, 1965, as amended by Executive Order 11375 signed October 13, 1967, each of the parties hereto shall comply with paragraphs (1) through (7) of Section 202 of Executive Order 11246 (as amended) which are incorporated herein by reference.

IN WITNESS WHEREOF, the parties hereto have executed this agreement on the dates opposite their respective signatures.

MARATHON OIL COMPANY

Date of Execution:

By: _____

Date of Execution:

Pennzoil Exploration & Producing
Company

By: _____

Date of Execution:

Wainoco Oil & Gas Company

By: _____

Date of Execution:

Francis H. Hudson

Date of Execution:

Delmar H. Lewis

Date of Execution:

Edward R. Hudson, Jr., & William
A. Hudson, II, Trustees U/W
Edward R. Hudson

By: _____
Edward R. Hudson, Jr.

William A. Hudson, II

Date of Execution:

Moore & Shelton Co., Ltd.

By: _____

Date of Execution:

James H. Yates, Inc.

By: _____

Date of Execution:

Colkelan Corp.

By: _____

Date of Execution:

Explorers Petroleum Corp.

By: _____

Date of Execution:

Exby, Ltd.

By: _____

Date of Execution:

Heyco Employees Ltd.

By: _____

Date of Execution:

Spiral, Inc.

By: _____

Date of Execution:

Yates Energy Corp.
By: _____

Date of Execution:

Heyco Development Corp.
By: _____

Date of Execution:

Atlantic Richfield Co.
By: _____

Date of Execution:

Laurelind Corporation
By: _____

Date of Execution:

Tom Stephens

Date of Execution:

Rogers Aston

Date of Execution:

Bearing Services
By: _____

Date of Execution:

Manzano Oil Corp.

By: _____

Date of Execution:

James Guy

Date of Execution:

Loy Fletcher

Date of Execution:

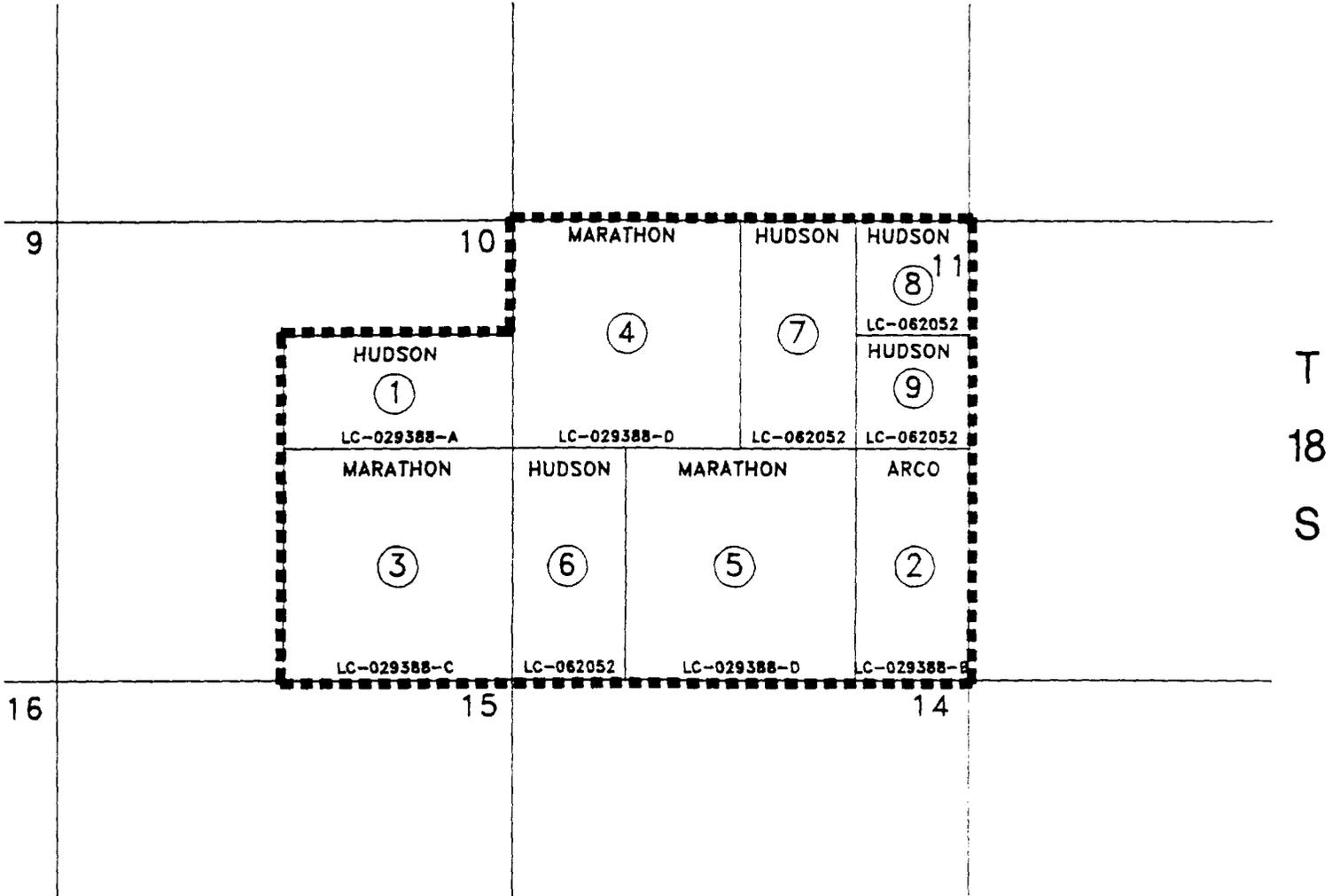
J. T. Jackson

Date of Execution:

Kerr-McGee Corp.

By: _____

R - 31 - E



LEGEND

■■■■■■■■ UNIT BOUNDARY

① TRACT NUMBER

EXHIBIT "A"
TAMANO (BSSC) UNIT
EDDY COUNTY, NEW MEXICO

UNIT AREA - 880.00 ACRES
(ALL FEDERAL LANDS)

SCALE: 1" = 2000'

EXHIBIT '87
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMANO (BSSC) UNIT
 EDOY COUNTY, NEW MEXICO

Tract No. Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit
2 . J. 11 Fed.	E/2SE/4 Section 11 1-18-S, R-31-E	80	LC-029388-8 12-15-39	USA (sliding scale)	ARCO Oil & Gas Co.	Evelyn Jackson Edwards Floyd Gentry Karen Gentry Schurig Janice Gentry Middlebrooks Mary C. Fulton Charles Kyle Clark	James H. Yates, Inc. Colkelan Corp. Explorers Pet. Corp. Exby, Ltd. Meyco Employees Ltd. Spiral, Inc. Yates Energy Corp. Meyco Dev. Corp. ARCO Oil & Gas Co.	2.68945
						1.500000 .750000 .750000 .750000 1.875000 1.875000	.035000 2.469375 1.250000 1.285000 3.719375 15.785484 25.420766 50.000000	

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMANO (BSSC) UNIT
 EDOY COUNTY, NEW MEXICO

Tract No.	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit
3	SE/4 Section 10	160	LC-029388-C	USA 12.5	Marathon Oil Company	John W. Higgins Patricia J. Cooper, Trustee of the PJC Revocable Trust U/A dated 12/30/89	Marathon Oil Company Pennzoil Exploration & Production Co. Wainoco Oil & Gas Co.	30.91362
retro 10	T-18-S, R-31-E		12-28-39			S. P. Johnson, III, and Barbara Jo Johnson, Trustee of the S. P. Johnson, III and Barbara Jo Johnson Trust U/A dated 1/24/85	29.208760 20.791240 5.312500	
ed. #1 & 3						S. P. Johnson, III, and Patricia J. Cooper, Trustees U/W S. P. Johnson Jr. Lodewick Energy, Inc. Richard B. Lodewick Laura Patricia Lodewick John Widney Lodewick Laura B. Lodewick Spiridletop Exploration Co. Mary Elizabeth Balish Katherine Mary Scott Betty Balish Strommeyer Margaret Balish Masters San Diego Trust & Savings Bank Trustee U/A dated 5/26/83 for Ralph A. Shugart Margaret Jane Johnston MCHB Tx. Nat'l Bank & C.R. Mallison, Trustees of the Selma E. Andrews Trust dated 5/8/69 Braille Institute of America Karen Elizabeth Charles	1.062500 1.062500 2.125000 .083333 .125000 .208333 .208334 .625000 .500000 .016666 .016667 .050000 .400000 .250000 .250000 .250000 .250000 .268525 .231475 .016666	10.625000 3.750000

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNITIZED FORMATION FOR THE TAMANO (BSSC) UNIT
 EDOY COUNTY, NEW MEXICO

Tract No.	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage of Participation of Tract in Unit
4	NW/4 Section 11 T-18-S, R-31-E	160	LC-029388-0 12-28-39	USA 12.5	Marathon Oil Company	None	Marathon Oil Company 100.0	22.49964

Tract Name
 Division B, Fed.
 ct. #1

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UTILIZED FORMATION FOR THE TAMAMO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit
5 Johnson B Federal	E/2SW/4, W/2SE/4 Section 11 T-18-S, R-31-E	160	LC-029388-D 12-28-39	USA 12.5	Marathon Oil Company	None	Marathon Oil Company Francis R. Hudson Delmar H. Lewis Edward R. Hudson, Jr. & William A. Hudson, II, Trustees U.W. Edward R. Hudson Moore & Shelton Co., Ltd.	23.05599 66.666667 7.083334 7.083333 14.166667 4.999999

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UTILIZED FORMATION FOR THE TAMANO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit
6	W/2SW/4 Section 11 T-18-S, R-31-E	80	LC-062052 12-15-39 Exchange 12-1-59	USA 12.5	Francis H. Hudson Delmar H. Lewis Edward R. Hudson, Jr., & William A. Hudson, II, Trustee U/W Edward R. Hudson	Margaret Balsh Masters Betty Balsh Strohmeyer Karen Elizabeth Charles Katherine Mary Scott Mary Elizabeth Balsh Margaret Jane Johnson San Diego Trust & Savings Bank, Trustee U/A dated 5/26/83 for Ralph A. Shugart	Marathon Oil Company Francis H. Hudson Delmar H. Lewis Edward R. Hudson, Jr. & William A. Hudson, II, Trustees U/W Edward R. Hudson Moore & Shelton Co. Ltd. 4.9999999	12.52820
						2.000000 .250000 .083334 .083333 .083333 1.250000	66.666667 7.083334 7.083335	
						1.250000	14.166667	
						1.250000		

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UTILIZED FORMATION FOR THE TAMAMO (BSSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. & Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage		Percentage Participation of Tract in Unit	
7	W/2NE/4 Section 11	80	LC-062052	USA 12.5	Francis H. Hudson	Margaret Balish Masters	2.000000	Explorers Petroleum Corp.	4.188750	4.03210
Hudson 11 Fed. #3 & 4	T-18-S, R-31-E		12-15-39	Exchange	Delmar H. Lewis	Betty Balish Strahmeyer	.250000	Exby, Ltd.	1.250000	
						Karen Elizabeth Charles	.083334	Laurelind Corporation	2.000000	
						Katherine Mary Scott	.083333	Heyco Employees Ltd.	2.570000	
						Mary Elizabeth Balish	.083333	Spiral, Inc.	5.038750	
						Margaret Jane Johnson	1.250000	James H. Yates, Inc.	.070000	
						San Diego Trust & Savings Bank, Trustee U/A dated 5/26/83 for Ralph A. Shugart	1.250000	Kerr-McGee Corp.	20.000000	
						Francis H. Hudson	1.593750	Yates Energy Corp.	17.820969	
						Delmar H. Lewis	1.593750	Tom Stephens	2.500000	
						Edward R. Hudson, Jr.	1.593750	Rogers Astom	2.500000	
						Edward R. Hudson, Jr. & William A. Hudson, III, Trustees U/M Edward R. Hudson, Deceased	3.187500	Bearing Services	2.625000	
Hudson, Deceased	1.125000	Manzano Oil Corp.	1.750000							
Moore & Shelton Co., Ltd.	1.125000	Heyco Development Corp.	33.241531							
Sally Heeder-Roberts	.500000	James Guy	1.750000							
O. E. Groves	.500000	Loy Fletcher	.875000							
		J. T. Jackson	1.750000							

EXHIBIT 'B'
 SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF
 OIL AND GAS INTERESTS IN ACCORDANCE WITH THE PARTICIPATION FORMULA
 FOR THE UNUTILIZED FORMATION FOR THE TAMANO (8SSC) UNIT
 EDDY COUNTY, NEW MEXICO

Tract No. & Tract Name	Description of Land	Acres	Serial No. & Eff. Date	Basic Royalty Owner and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Percentage Participation of Tract in Unit
8	NE/4NE/4 Section 11	40	LC-062052	USA 12.5	Francis H. Hudson	Margaret Balish Masters	James H. Yates, Inc.	.035000
Hudson 11	T-18-S, R-31-E		12-15-39		Delmar H. Lewis	Betty Balish Strohmeyer	Colkelen Corp.	.035000
Fed. #5			Exchange		Edward R. Hudson, Jr., & William A. Hudson, II, Trustees U/W Edward R. Hudson	Karen Elizabeth Charles	Explorers Pet. Corp.	2.469375
			12-1-59			Katherine Mary Scott	Eddy, Ltd.	1.250000
						Mary Elizabeth Balish	Heyco Employees Ltd.	1.265000
						Margaret Jane Johnson	Spiral, Inc.	3.719375
						San Diego Trust & Savings Bank, Trustee U/A dated 5/26/83 for Ralph A. Shugart	Yates Energy Corp.	15.785484
						Francis H. Hudson	Heyco Dev. Corp.	25.420766
						Delmar H. Lewis	ARCO Oil & Gas Co.	50.000000
						Edward R. Hudson, Jr. & William A. Hudson, II, Trustees U/W Edward R. Hudson		
						Hudson		
						Moore & Shelton Co., Ltd.		
						Sally Heeder-Roberts		
						O. E. Groves		
						Explorers Petroleum Corp.		
						Eddy, Ltd.		
						Heyco Employees, Ltd.		
						Spiral, Inc.		
						Yates Energy Corp.		
						Heyco Development Corp.		
						W. T. Wynn		

EXHIBIT "C"
 WORKING INTEREST OWNER SUMMARY - TAMANO (BCCS) UNIT
 EDDY COUNTY, NEW MEXICO

<u>Working Interest Owner</u>	<u>Tract</u>	<u>Unit Participation</u>
Edward R. Hudson, Jr., & William A. Hudson, II, Trustees U/W Edward R. Hudson	1 3 5 6	.185885 3.284572 3.266265 <u>1.774828</u>
	Total	8.511550
Francis H. Hudson	1 3 5 6	.092943 1.642286 1.633133 <u>.887415</u>
	Total	4.255777
J. T. Jackson	7	.070562
James H. Yates, Inc.	2 7 8 9	.000941 .002822 .000507 <u>.000379</u>
	Total	.004649
Kerr-McGee Corp.	7	.806420
Laurelind Corp.	7	.080642
Delmar H. Lewis	1 3 5 6	.092943 1.642286 1.633133 <u>.887415</u>
	Total	4.255777
Manzano Oil Corp.	7	.070562
Marathon Oil Co.	1 3 4 5 6	.437377 7.728405 22.499640 15.370660 <u>8.352133</u>
	Total	54.388215
Moore & Shelton Co., Ltd.	1 3 5 6	.065607 1.159261 1.152799 <u>.626409</u>
	Total	3.004076

EXHIBIT "C"
 WORKING INTEREST OWNER SUMMARY - TAMANO (BCCS) UNIT
 EDDY COUNTY, NEW MEXICO

<u>Working Interest Owner</u>	<u>Tract</u>	<u>Unit Participation</u>
ARCO Oil & Gas Company	2	1.344725
	8	.724570
	9	<u>.541175</u>
	Total	2.610470
Rogers Aston	7	.100802
Bearing Services		.105843
Colkelan Corp.	2	.000941
	7	.002822
	8	.000507
	9	<u>.000379</u>
	Total	.004649
Exby, Ltd.	2	.033618
	7	.050402
	8	.018115
	9	<u>.013529</u>
	Total	.115664
Explorers Pet. Corp.	2	.066413
	7	.168895
	8	.035785
	9	<u>.026727</u>
	Total	.297820
Loy Fletcher	7	.035281
James Guy	7	.070562
HEYCO Development Corp.	2	.683679
	7	1.340332
	8	.368382
	9	<u>.275142</u>
	Total	2.667535
HEYCO Employees Ltd.	2	.034559
	7	.103625
	8	.018621
	9	<u>.013908</u>
	Total	.170713

EXHIBIT "C"
 WORKING INTEREST OWNER SUMMARY - TAMANO (BCCS) UNIT
 EDDY COUNTY, NEW MEXICO

<u>Working Interest Owner</u>	<u>Tract</u>	<u>Unit Participation</u>
Pennzoil Exploration & Production Co.	1	.511010
	3	<u>9.029485</u>
	Total	9.540495
Spiral, Inc.	2	.100031
	7	.203167
	8	.053899
	9	<u>.040257</u>
	Total	.397354
Tom Stephens	7	.100802
Wainoco Oil & Gas Co.	1	.363745
	3	<u>6.427325</u>
	Total	6.791070
Yates Energy Corp.	2	.424543
	7	.718559
	8	.228754
	9	<u>.170854</u>
	Total	1.542710

EXHIBIT

" D "

Attached to and made a part of the Unit Operating Agreement, Tamano (BSSC) Unit, Eddy County,
New Mexico.

ACCOUNTING PROCEDURE
JOINT OPERATIONS

I. GENERAL PROVISIONS

1. Definitions

- "Joint Property" shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.
- "Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.
- "Joint Account" shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.
- "Operator" shall mean the party designated to conduct the Joint Operations.
- "Non-Operators" shall mean the Parties to this agreement other than the Operator.
- "Parties" shall mean Operator and Non-Operators.
- "First Level Supervisors" shall mean those employees whose primary function in Joint Operations is the direct supervision of other employees and/or contract labor directly employed on the Joint Property in a field operating capacity.
- "Technical Employees" shall mean those employees having special and specific engineering, geological or other professional skills, and whose primary function in Joint Operations is the handling of specific operating conditions and problems for the benefit of the Joint Property.
- "Personal Expenses" shall mean travel and other reasonable reimbursable expenses of Operator's employees.
- "Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.
- "Controllable Material" shall mean Material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies.

2. Statement and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of the Joint Account for the preceding month. Such bills will be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits summarized by appropriate classifications of investment and expense except that items of Controllable Material and unusual charges and credits shall be separately identified and fully described in detail.

3. Advances and Payments by Non-Operators

- A. Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation within fifteen (15) days after receipt of the billing or by the first day of the month for which the advance is required, whichever is later. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.
- B. Each Non-Operator shall pay its proportion of all bills within ~~seven (7) days~~ ^{thirty (30)} days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the prime rate in effect at Chase ~~Manhattan Bank-New York~~ on the first day of the month in which delinquency occurs plus 1% or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; provided, however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of Controllable Material as provided for in Section V.

5. Audits

A. A Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the Joint Account for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided, however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct a joint audit in a manner which will result in a minimum of inconvenience to the Operator. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator. The audits shall not be conducted more than once each year without prior approval of Operator, except upon the resignation or removal of the Operator, and shall be made at the expense of those Non-Operators approving such audit.

B. The Operator shall reply in writing to an audit report within 180 days after receipt of such report.

6. Approval By Non-Operators

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other sections of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, Operator shall notify all Non-Operators of the Operator's proposal, and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

1. Ecological and Environmental

Costs incurred for the benefit of the Joint Property as a result of governmental or regulatory requirements to satisfy environmental considerations applicable to the Joint Operations. Such costs may include surveys of an ecological or archaeological nature and pollution control procedures as required by applicable laws and regulations.

2. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

3. Labor

A. (1) Salaries and wages of Operator's field employees directly employed on the Joint Property in the conduct of Joint Operations.

(2) Salaries of First Level Supervisors in the field.

(3) Salaries and wages of Technical Employees directly employed on the Joint Property if such charges are excluded from the overhead rates.

(4) Salaries and wages of Technical Employees either temporarily or permanently assigned to and directly employed in the operation of the Joint Property if such charges are excluded from the overhead rates.

B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Paragraph 3A of this Section II. Such costs under this Paragraph 3B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 3A of this Section II. If percentage assessment is used, the rate shall be based on the Operator's cost experience.

C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's costs chargeable to the Joint Account under Paragraphs 3A and 3B of this Section II.

D. Personal Expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 3A of this Section II.

4. Employee Benefits

Operator's current costs of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost chargeable to the Joint Account under Paragraphs 3A and 3B of this Section II shall be Operator's actual cost not to exceed the percent most recently recommended by the Council of Petroleum Accountants Societies.

5. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use and is reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

6. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store where like material is normally available or railway receiving point nearest the Joint Property unless agreed to by the Parties.

- B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store where like material is normally available, or railway receiving point nearest the Joint Property unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by the Parties.
- C. In the application of subparagraphs A and B above, the option to equalize or charge actual trucking cost is available when the actual charge is \$400 or less excluding accessorial charges. The \$400 will be adjusted to the amount most recently recommended by the Council of Petroleum Accountants Societies.

7. Services

The cost of contract services, equipment and utilities provided by outside sources, except services excluded by Paragraph 10 of Section II and Paragraph i, ii, and iii, of Section III. The cost of professional consultant services and contract services of technical personnel directly engaged on the Joint Property if such charges are excluded from the overhead rates. The cost of professional consultant services or contract services of technical personnel not directly engaged on the Joint Property shall not be charged to the Joint Account unless previously agreed to by the Parties.

8. Equipment and Facilities Furnished By Operator

- A. Operator shall charge the Joint Account for use of Operator owned equipment and facilities at rates commensurate with costs of ownership and operation. Such rates shall include costs of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on gross investment less accumulated depreciation not to exceed ten percent (10%) per annum. Such rates shall not exceed average commercial rates currently prevailing in the immediate area of the Joint Property.
- B. In lieu of charges in paragraph 8A above, Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property less 20%. For automotive equipment, Operator may elect to use rates published by the Petroleum Motor Transport Association.

9. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other cause, except those resulting from Operator's gross negligence or willful misconduct. Operator shall furnish Non-Operator written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

10. Legal Expense

Expense of handling, investigating and settling litigation or claims, discharging of liens, payment of judgements and amounts paid for settlement of claims incurred in or resulting from operations under the agreement or necessary to protect or recover the Joint Property, except that no charge for services of Operator's legal staff or fees or expense of outside attorneys shall be made unless previously agreed to by the Parties. All other legal expense is considered to be covered by the overhead provisions of Section III unless otherwise agreed to by the Parties, except as provided in Section I, Paragraph 3.

11. Taxes

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof, or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties. 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.

12. Insurance

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Worker's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

13. Abandonment and Reclamation

Costs incurred for abandonment of the Joint Property, including costs required by governmental or other regulatory authority.

14. Communications

Cost of acquiring, leasing, installing, operating, repairing and maintaining communication systems, including radio and microwave facilities directly serving the Joint Property. In the event communication facilities/systems serving the Joint Property are Operator owned, charges to the Joint Account shall be made as provided in Paragraph 8 of this Section II.

15. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III and which is of direct benefit to the Joint Property and is incurred by the Operator in the necessary and proper conduct of the Joint Operations.

III. OVERHEAD

1. Overhead - Drilling and Producing Operations

- i. As compensation for administrative, supervision, office services and warehousing costs, Operator shall charge drilling and producing operations on either:

Fixed Rate Basis, Paragraph 1A, or
 Percentage Basis, Paragraph 1B

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 3A, Section II. The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting or matters before or involving governmental agencies shall be considered as included in the overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.

- ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property:

shall be covered by the overhead rates, or
 shall not be covered by the overhead rates.

- iii. The salaries, wages and Personal Expenses of Technical Employees and/or costs of professional consultant services and contract services of technical personnel either temporarily or permanently assigned to and directly employed in the operation of the Joint Property:

shall be covered by the overhead rates, ~~or~~ but may be charged if approved under Section 3.2.9 of
 shall not be covered by the overhead rates. the Unit Operating Agreement.

A. Overhead - Fixed Rate Basis

- (1) Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate \$ 5,494.00
 (Prorated for less than a full month)

Producing Well Rate \$ 556.00

- (2) Application of Overhead - Fixed Rate Basis shall be as follows:

(a) Drilling Well Rate

- (1) Charges for drilling wells shall begin on the date the well is spudded and terminate on the date the drilling rig, completion rig, or other units used in completion of the well is released, whichever is later, except that no charge shall be made during suspension of drilling or completion operations for fifteen (15) or more consecutive calendar days.
- (2) Charges for wells undergoing any type of workover or recompletion for a period of five (5) consecutive work days or more shall be made at the drilling well rate. Such charges shall be applied for the period from date workover operations, with rig or other units used in workover, commence through date of rig or other unit release, except that no charge shall be made during suspension of operations for fifteen (15) or more consecutive calendar days.

(b) Producing Well Rates

- (1) An active well either produced or injected into for any portion of the month shall be considered as a one-well charge for the entire month.
- (2) Each active completion in a multi-completed well in which production is not commingled down hole shall be considered as a one-well charge providing each completion is considered a separate well by the governing regulatory authority.
- (3) An inactive gas well shut in because of overproduction or failure of purchaser to take the production shall be considered as a one-well charge providing the gas well is directly connected to a permanent sales outlet.
- (4) A one-well charge shall be made for the month in which plugging and abandonment operations are completed on any well. This one-well charge shall be made whether or not the well has produced except when drilling well rate applies.
- (5) All other inactive wells (including but not limited to inactive wells covered by unit allowable, lease allowable, transferred allowable, etc.) shall not qualify for an overhead charge.
- (3) The well rates shall be adjusted as of the first day of April each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the calendar year preceding as shown by the index of average weekly earnings of Crude Petroleum and Gas Production Workers as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian index as published by Statistics Canada, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

B. Overhead - Percentage Basis

- (1) Operator shall charge the Joint Account at the following rates:

(a) Development

_____ Percent (_____ %) of the cost of development of the Joint Property exclusive of costs provided under Paragraph 10 of Section II and all salvage credits.

(b) Operating

_____ Percent (_____ %) of the cost of operating the Joint Property exclusive of costs provided under Paragraphs 2 and 10 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

(2) Application of Overhead - Percentage Basis shall be as follows:

For the purpose of determining charges on a percentage basis under Paragraph 1B of this Section III, development shall include all costs in connection with drilling, re-drilling, deepening, or any remedial operations on any or all wells involving the use of drilling rig and crew capable of drilling to the producing interval on the Joint Property; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when the well is not completed as a producer, and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 2 of this Section III. All other costs shall be considered as operating.

2. Overhead - Major Construction

To compensate Operator for overhead costs incurred in the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, Operator shall either negotiate a rate prior to the beginning of construction, or shall charge the Joint Account for overhead based on the following rates for any Major Construction project in excess of \$ _____ :

- A. 5 % of first \$100,000 or total cost if less, plus
- B. 3 % of costs in excess of \$100,000 but less than \$1,000,000, plus
- C. 2 % of costs in excess of \$1,000,000.

Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single project shall not be treated separately and the cost of drilling and workover wells and artificial lift equipment shall be excluded.

3. Catastrophe Overhead

To compensate Operator for overhead costs incurred in the event of expenditures resulting from a single occurrence due to oil spill, blowout, explosion, fire, storm, hurricane, or other catastrophes as agreed to by the Parties, which are necessary to restore the Joint Property to the equivalent condition that existed prior to the event causing the expenditures, Operator shall either negotiate a rate prior to charging the Joint Account or shall charge the Joint Account for overhead based on the following rates:

- A. 5 % of total costs through \$100,000; plus
- B. 3 % of total costs in excess of \$100,000 but less than \$1,000,000; plus
- C. 2 % of total costs in excess of \$1,000,000.

Expenditures subject to the overheads above will not be reduced by insurance recoveries, and no other overhead provisions of this Section III shall apply.

4. Amendment of Rates

The overhead rates provided for in this Section III may be amended from time to time only by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. PRICING OF JOINT ACCOUNT MATERIAL PURCHASES, TRANSFERS AND DISPOSITIONS

Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for all Material movements affecting the Joint Property. Operator shall provide all Material for use on the Joint Property; however, at Operator's option, such Material may be supplied by the Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, such disposal being made either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus condition A or B Material. The disposal of surplus Controllable Material not purchased by the Operator shall be agreed to by the Parties.

1. Purchases

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. In case of Material found to be defective or returned to vendor for any other reasons, credit shall be passed to the Joint Account when adjustment has been received by the Operator.

2. Transfers and Dispositions

Material furnished to the Joint Property and Material transferred from the Joint Property or disposed of by the Operator, unless otherwise agreed to by the Parties, shall be priced on the following basis exclusive of cash discounts:

A. New Material (Condition A)

(1) Tubular Goods Other than Line Pipe

- (a) Tubular goods, sized 2½ inches OD and larger, except line pipe, shall be priced at Eastern mill published carload base prices effective as of date of movement plus transportation cost using the 80,000 pound carload weight basis to the railway receiving point nearest the Joint Property for which published rail rates for tubular goods exist. If the 80,000 pound rail rate is not offered, the 70,000 pound or 90,000 pound rail rate may be used. Freight charges for tubing will be calculated from Lorain, Ohio and casing from Youngstown, Ohio.
- (b) For grades which are special to one mill only, prices shall be computed at the mill base of that mill plus transportation cost from that mill to the railway receiving point nearest the Joint Property as provided above in Paragraph 2.A.(1)(a). For transportation cost from points other than Eastern mills, the 30,000 pound Oil Field Haulers Association interstate truck rate shall be used.
- (c) Special end finish tubular goods shall be priced at the lowest published out-of-stock price, f.o.b. Houston, Texas, plus transportation cost, using Oil Field Haulers Association interstate 30,000 pound truck rate, to the railway receiving point nearest the Joint Property.
- (d) Macaroni tubing (size less than 2½ inch OD) shall be priced at the lowest published out-of-stock prices f.o.b. the supplier plus transportation costs, using the Oil Field Haulers Association interstate truck rate per weight of tubing transferred, to the railway receiving point nearest the Joint Property.

(2) Line Pipe

- (a) Line pipe movements (except size 24 inch OD and larger with walls ¼ inch and over) 30,000 pounds or more shall be priced under provisions of tubular goods pricing in Paragraph A.(1)(a) as provided above. Freight charges shall be calculated from Lorain, Ohio.
 - (b) Line pipe movements (except size 24 inch OD and larger with walls ¼ inch and over) less than 30,000 pounds shall be priced at Eastern mill published carload base prices effective as of date of shipment, plus 20 percent, plus transportation costs based on freight rates as set forth under provisions of tubular goods pricing in Paragraph A.(1)(a) as provided above. Freight charges shall be calculated from Lorain, Ohio.
 - (c) Line pipe 24 inch OD and over and ¼ inch wall and larger shall be priced f.o.b. the point of manufacture at current new published prices plus transportation cost to the railway receiving point nearest the Joint Property.
 - (d) Line pipe, including fabricated line pipe, drive pipe and conduit not listed on published price lists shall be priced at quoted prices plus freight to the railway receiving point nearest the Joint Property or at prices agreed to by the Parties.
- (3) Other Material shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store nearest the Joint Property, or point of manufacture, plus transportation costs, if applicable, to the railway receiving point nearest the Joint Property.
- (4) Unused new Material, except tubular goods, moved from the Joint Property shall be priced at the current new price, in effect on date of movement, as listed by a reliable supply store nearest the Joint Property, or point of manufacture, plus transportation costs, if applicable, to the railway receiving point nearest the Joint Property. Unused new tubulars will be priced as provided above in Paragraph 2 A (1) and (2).

B. Good Used Material (Condition B)

Material in sound and serviceable condition and suitable for reuse without reconditioning:

(1) Material moved to the Joint Property

At seventy-five percent (75%) of current new price, as determined by Paragraph A.

(2) Material used on and moved from the Joint Property

- (a) At seventy-five percent (75%) of current new price, as determined by Paragraph A, if Material was originally charged to the Joint Account as new Material or
- (b) At sixty-five percent (65%) of current new price, as determined by Paragraph A, if Material was originally charged to the Joint Account as used Material.

(3) Material not used on and moved from the Joint Property

At seventy-five percent (75%) of current new price as determined by Paragraph A.

The cost of reconditioning, if any, shall be absorbed by the transferring property.

C. Other Used Material

(1) Condition C

Material which is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced at fifty percent (50%) of current new price as determined by Paragraph A. The cost of reconditioning shall be charged to the receiving property, provided Condition C value plus cost of reconditioning does not exceed Condition B value.

(2) Condition D

Material, excluding junk, no longer suitable for its original purpose, but usable for some other purpose shall be priced on a basis commensurate with its use. Operator may dispose of Condition D Material under procedures normally used by Operator without prior approval of Non-Operators.

- (a) Casing, tubing, or drill pipe used as line pipe shall be priced as Grade A and B seamless line pipe of comparable size and weight. Used casing, tubing or drill pipe utilized as line pipe shall be priced at used line pipe prices.
- (b) Casing, tubing or drill pipe used as higher pressure service lines than standard line pipe, e.g. power oil lines, shall be priced under normal pricing procedures for casing, tubing, or drill pipe. Upset tubular goods shall be priced on a non upset basis.

(3) Condition E

Junk shall be priced at prevailing prices. Operator may dispose of Condition E Material under procedures normally utilized by Operator without prior approval of Non-Operators.

D. Obsolete Material

Material which is serviceable and usable for its original function but condition and/or value of such Material is not equivalent to that which would justify a price as provided above may be specially priced as agreed to by the Parties. Such price should result in the Joint Account being charged with the value of the service rendered by such Material.

E. Pricing Conditions

- (1) Loading or unloading costs may be charged to the Joint Account at the rate of ~~twenty five cents (25¢)~~ ^{thirty one cents (31¢)} per hundred weight on all tubular goods movements, in lieu of actual loading or unloading costs sustained at the stocking point. The above rate shall be adjusted as of the first day of April each year following January 1, 1985 by the same percentage increase or decrease used to adjust overhead rates in Section III, Paragraph 1.A(3). Each year, the rate calculated shall be rounded to the nearest cent and shall be the rate in effect until the first day of April next year. Such rate shall be published each year by the Council of Petroleum Accountants Societies.
- (2) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

3. Premium Prices

Whenever Material is not readily obtainable at published or listed prices because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, in making it suitable for use, and in moving it to the Joint Property; provided notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within ten days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

4. Warranty of Material Furnished By Operator

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

V. INVENTORIES

The Operator shall maintain detailed records of Controllable Material.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, inventories shall be taken by Operator of the Joint Account Controllable Material. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator.

2. Reconciliation and Adjustment of Inventories

Adjustments to the Joint Account resulting from the reconciliation of a physical inventory shall be made within six months following the taking of the inventory. Inventory adjustments shall be made by Operator to the Joint Account for overages and shortages, but, Operator shall be held accountable only for shortages due to lack of reasonable diligence.

3. Special Inventories

Special inventories may be taken whenever there is any sale, change of interest, or change of Operator in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory. In cases involving a change of Operator, all Parties shall be governed by such inventory.

4. Expense of Conducting Inventories

- A. The expense of conducting periodic inventories shall not be charged to the Joint Account unless agreed to by the Parties.
- B. The expense of conducting special inventories shall be charged to the Parties requesting such inventories, except inventories required due to change of Operator shall be charged to the Joint Account.

EXHIBIT "E"

ATTACHED TO AND MADE A PART OF THAT CERTAIN
UNIT OPERATING AGREEMENT
TAMANO (BSSC) UNIT
EDDY COUNTY, NEW MEXICO

INSURANCE REQUIREMENTS

1. Operator shall carry insurance as follows for the benefit and protection of the Parties to this Agreement:
 - a) Workers' Compensation Insurance in accordance with laws of governmental bodies having jurisdiction and Employers' Liability Insurance. Employers' Liability Insurance shall provide coverage of not less than \$100,000 per accident.
 - b) Operator may include the aforesaid risks under its qualified self-insurance program provided Operator complies with applicable laws, and in such event Operator shall charge to the Joint Account, a premium determined by applying manual insurance rates to the payroll.
2. Operator shall not be obligated or authorized to obtain or carry on behalf of the Joint Account any additional insurance covering the Parties or the operations to be conducted hereunder without the consent and agreement of all Parties. Each Party individually may acquire at its own expense such insurance or may self-insure as it deems proper to protect itself against claims, losses, or damages arising out of the joint operations, and any such insurance policy or self insurance program shall inure solely to the benefit of such Party; provided that such insurance shall include a waiver of subrogation against the other Parties in respect of their interests hereunder. All losses not covered by the insurance carried under 1 above and all damages to jointly owned property shall be borne by the Parties in proportion to their respective interests.
3. Operator shall require all contractors engaged in operations under this Agreement to comply with the applicable Workers' Compensation laws and to maintain such other insurance and in such amounts as Operator deems necessary.

EXHIBIT "F"

ATTACHED TO AND MADE A PART OF THAT CERTAIN
UNIT OPERATING AGREEMENT
TAMANO (BSSC) UNIT
EDDY COUNTY, NEW MEXICO

GAS BALANCING AGREEMENT

I. OWNERSHIP OF GAS

The parties to the Unit Operating Agreement to which this Gas Balancing Agreement "(Agreement)" is attached own the working interest in the gas rights underlying the Unit Area covered by the Unit Operating Agreement in accordance with the percentages of participation as set forth in Exhibit "C" to the Unit Operating Agreement.

In accordance with the terms of the Unit Agreement for the Tamano (BSSC) Unit, each party shall take in kind its share of gas produced from the Unitized Formation underlying the Unit Area or separately dispose of the same. In the event any party fails to take or market its share of gas or has contracted to sell its share of gas produced from the Unitized Formation underlying the Unit Area to a purchaser which fails to take the full share of gas attributable to the interest of such party, the terms of this Agreement shall automatically become effective.

II. SOURCE OF PRODUCTION

This Agreement shall apply separately to each vintage gas produced from the Unitized Formation underlying the Unit Area and any gas imbalance for any particular vintage gas shall not be used to offset a gas imbalance on any other vintage gas. The term "vintage" as used in this Agreement refers to each separate maximum lawful price category provided for by the Natural Gas Policy Act (NGPA) of 1978, or any amendment thereto, or any subsequent law or regulation which prescribes maximum lawful prices, and the terms of this Agreement shall apply separately to each such pricing category provided by the NGPA. Any gas that is deregulated shall be deemed a separate vintage and all deregulated gas shall constitute one vintage.

III. SALE OF PRODUCTION

During the period or periods when any party hereto fails to market or otherwise take its share of gas produced from the Unitized Formation underlying the Unit Area, the other parties shall have the right and option, but not the obligation to collectively produce each month in addition to their own respective shares of production, that portion of such other party's share which that party fails to market or otherwise take and shall be entitled to take and deliver to their respective purchasers their respective pro rata share of such gas production. All parties hereto shall share in and own the liquid hydrocarbons recovered from such gas by conventional lease separation equipment in accordance with their

respective interests and subject to the Unit Operating Agreement to which this Agreement is attached, but each party taking such gas shall own all of the gas delivered to its purchaser.

IV. STORAGE

On a cumulative basis, each party not taking or marketing its full share of the gas produced shall be credited with gas in storage equal to its full share of the gas produced under this agreement, less its share of gas used in Unit operations or vented or lost, and less that portion such party took or delivered to its purchaser.

V. STATEMENTS

Each party taking gas shall furnish, or cause to be furnished, to Operator a monthly statement of gas sold for that party's account. Operator will furnish all parties hereto and their purchasers monthly statements showing the total quantity of gas produced, the amount used in Unit operations or vented or lost, the total quantity of gas delivered for sale, the total quantity of liquid hydrocarbons recovered therefrom, and the monthly and cumulative over and under account of each party.

VI. VOLUMETRIC BALANCING

To allow for makeup of underproduced gas and to balance the gas account between the parties in accordance with their respective interests, any underproduced party shall, by giving written notice to the Operator fifteen (15) days prior to the beginning of a calendar month, be entitled to take, in addition to its proportional share of gas, an additional fifty percent (50%) of the "offpeak" monthly volume or twenty percent (20%) of the "peak" monthly volume of gas attributable to the working interest of the overproduced party or parties, until it has brought its gas account into balance. During peak months an overproduced party, at its sole option, may make available to underproduced party or parties, gas in excess of such twenty percent (20%). For the purposes of this Agreement, "peak" months are January, February, July, August, November and December; "offpeak" months are March, April, May, June, September and October. The recovery of makeup gas by an underproduced party shall be in the order of accrual in storage (i.e., first-in, first-out basis). In the event that there is more than one underproduced party, each underproduced party's share of makeup gas shall be in the ratio that the underproduction of such underproduced party bears to the total underproduction of all such taking underproduced parties, unless otherwise mutually agreed.

VII. PAYMENT OF ROYALTY

Each party hereto shall be solely responsible for settlement with the respective royalty owners to whom it is accountable for royalties, overriding royalties, production payments and similar interest due on the gas so taken or delivered. Each party hereto agrees to hold each other party harmless from any and all claims for royalty payments asserted by royalty owners to whom such party is accountable.

VIII. REGULATION OF PRODUCTION

Nothing herein shall be construed to deny any party the right, from time to time, to produce and take or deliver to its purchaser the full Unit stream for a period not to exceed seventy two (72) hours to meet the deliverability tests required by its purchaser. Operator may also overproduce in any other situation, providing that such overproducing is consistent with prudent operations. Each party hereto shall at all times use its best efforts to regulate its takes and deliveries from the Unit Area, so that no well thereon shall be shut in for overproducing the allowable, if any, assigned thereto by the regulatory authority having jurisdiction.

IX. PRODUCTION AND SEVERANCE TAXES

Each party shall pay, or cause to be paid, all production, excise, and severance taxes due on all volumes of gas actually utilized or sold for its own account.

X. CASH SETTLEMENT

A cash settlement of any imbalance of gas production shall be made among the underproduced and overproduced parties whenever gas production from a vintage gas is depleted, or any overproduced party shall sell, assign or otherwise dispose of any portion of its interest (excluding mergers and reorganizations). Within ninety (90) days of the permanent cessation of production or receipt of notice of transfer of interest, Operator shall prepare and furnish to each party a statement of production, which details the allocation of overproduced gas to the underproduced parties on a month by month basis.

Within sixty (60) days after receipt of the Operator's prepared volume statement, each overproduced party pursuant to the conditions established hereinabove, shall be responsible for the valuation of its respective overproduced volumes and shall pay the appropriate underproduced party or parties a cash sum equal to the value of such corresponding cumulative overproduction. If payment is not made within such time, the unpaid balance shall bear interest at a rate not to exceed the lesser of: (a) the prime rate in effect at the Chase Manhattan Bank plus one percent (1%), or (b) the maximum interest rate allowed by law, until paid. The price to be paid for such cash settlement shall be the actual price received for the overproduction by the overproduced party, or parties, less appropriate deductions for taxes and royalties paid on such production by the overproduced party. The price basis shall be the rate collected from time to time, which is not subject to possible refund, as provided by the Federal Energy Regulatory Commission (FERC) pursuant to final order or settlement applicable to the gas sold from such vintage, plus any additional collected amount which is not ultimately required by said Commission to be refunded, such determination is made with respect thereto. In no event shall the overproduced party or parties be required to pay a sum for such makeup gas greater than the maximum lawful price established by FERC or its successor regulatory authority. Gas used off the premises by a party or sold to an affiliate shall be considered gas taken and sold by such party and for the purposes hereof the price to be paid for such adjustment shall be the higher of the price actually received or the weighted

average price received by all other parties for sales to non-affiliates during the period of such overproduction. If from time to time no other parties are making sales to non-affiliates, then the value received shall be deemed to be the greater of the value actually received by the overproduced party or the price upon which the overproduced party remits to its royalty owners.

XI. OPERATING COSTS AND LIABILITIES

Nothing herein shall change or affect each party's obligation to pay its proportionate share of all costs and liabilities incurred, as its share thereof is set forth in the Unit Operating Agreement, irrespective of whether all parties are selling or using gas or whether the sales and use of each are in proportion to ownership. Nothing herein shall obligate Operator, or any Non-Operator, to negotiate, consummate or in any way market the production of other parties to this Agreement.

XII. EFFECTIVE DATE, SUCCESSORS & ASSIGNS

This Agreement shall become effective in accordance with its terms and shall remain in force and effect as long as the Unit Operating Agreement to which it is attached remains in effect, and thereafter until the gas balance accounts among the parties are settled in full, and shall inure to the benefit of and be binding upon the parties hereto, their heirs, successors, legal representatives and assigns. The parties hereto agree to give notice of the existence of this agreement to any successor in interest and make any transfer of any interest in the Unit or part thereof subject to the terms of this agreement.

XIII. INDEMNITY

Each party hereto hereby indemnifies the other parties hereto against all liability for and agrees to defend said other parties against all claims which may be asserted by third parties purchasing gas from the Unit Area who now or hereafter have a contractual relationship with such indemnifying party which arise out of the operation of this Agreement or activities authorized to be conducted by any party under its provisions; and further agrees to save the other parties hereto harmless from all judgments or damages sustained and costs incurred in connection therewith.

EXHIBIT "G"

Attached to and made a part of Unit Operating Agreement, Tamano (BSSC) Unit, Eddy County, New Mexico.

NOTICE OF UNIT OPERATING AGREEMENT - NOTICE OF LIENS
AND NON-STANDARD FORM FINANCING STATEMENT

This Notice of Unit Operating Agreement - Notice of Liens and Non-Standard Form Financing Statement, ("Notice") is to evidence that the parties hereto executed a Unit Operating Agreement dated _____, 1991, ("Operating Agreement") by and between Marathon Oil Company, as Unit Operator and Pennzoil Exploration and Production Company, et al, as Working Interest Owners, both Unit Operator and Working Interest Owners sometimes singly referred to as "party", and collectively as "parties", with COPAS Accounting Procedure attached thereto as Exhibit "D" governing oil and gas exploration and development operations on the following described lands ("Unit Area"):

Township 18 South-Range 31 East
Section 10: S/2NE/4, SE/4
Section 11: All
containing 880.00 acres, more or less

WHEREAS, the Unit Operating Agreement provides in part that the designated Unit Operator and Working Interest Owners under said agreement shall be granted like lien priorities in the Unit Area, together with interest thereon at a rate specified therein, to wit;

Section 11.5. Lien of Unit Operator

"Each Working Interest Owner grants to Unit Operator a lien upon its Oil and Gas Rights in each Tract, and a security interest in its share of Unitized Substances when produced, and its interest in all Unit Equipment, as security for payment of its share of Unit Expense to the full extent allowed by State and Federal Statutes, together with interest thereon at the prime rate charged by Chase Manhattan Bank during the period that such payment remains due, plus one percent (1%) per annum, or the maximum contract rate permitted by the applicable usury laws of the State of New Mexico, whichever is the lesser, plus attorney's fees, court costs and other costs in connection with the collection of unpaid amounts. To the extent that Unit Operator has a security interest under the Uniform Commercial Code, Unit 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 a judgment by Unit 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 payment thereof. In addition, upon default by any Working Interest Owner in the payment of its share of Unit Expense, Unit Operator shall have the right without prejudice to other rights and remedies, to collect from the purchaser the proceeds from the sale of such Working Interest Owner's share of Unitized Substances until the amount owed by such Working Interest Owner, plus interest as aforesaid, has been paid. Each purchaser shall be entitled to rely upon Unit Operator's written statement concerning the amount of

any default. Unit Operator grants a like lien and security interest to the Working Interest Owners."

WHEREAS, the parties to the Operating Agreement hereby elect to perfect their security interests in the Operating Agreement and to provide notice to all interested third parties of their lien upon and security interest in the Unit Area.

NOW THEREFORE, this Notice is executed and filed with the appropriate authorities and it is hereby noted that this Notice shall apply to the following types of property:

A. All rights, titles, interests and estates now owned or hereafter acquired by each of the parties in and to the oil, hydrocarbons, gaseous hydrocarbons and all products refined therefrom in and under and which may be produced and saved from or attributable to each party's interest in the Unit Area, including all oil in tanks and all profits, proceeds, products, revenues and other income from or attributable to each party's interest in the Unit Area.

B. All rights, titles, interests and estates now owned or hereafter acquired by each party in and to any oil or gas leases covering any or all of the Unit Area or any properties now or hereafter unitized with the Unit Area; all existing or future agreements created thereby (including without limitation all units created under orders, rules or other official acts of any governmental agency having jurisdiction) which may affect all or any portion of the Unit Area; all operating agreements, farmout agreements, contracts and other agreements entered into by any of the parties which relate to any portion of the Unitized Formation of the Unit Area or to the production, sale, purchase, exchange or processing of hydrocarbons from or attributable to the Unit Area.

C. All personal property now owned or hereafter acquired and situated upon, used, held for use, or useful in connection with Unit Operations, including without limitation any and all oil wells, gas wells, injection wells or other wells, buildings, structures, field separators, liquid extraction plants, plant compressors, pumps, pumping units, field gathering systems, tanks and tank batteries, fixtures, valves, fittings, machinery and parts, engines, boilers, meters, apparatus, equipment appliances, tools, implements, cables, wires, towers, casing, tubing and rods, rights-of-ways, easements and servitudes together with all additional, substitution, replacements, accessions and attachments to any and all of the foregoing properties within the Unit Area.

This Notice covers oil, gas and associated minerals in and under the Unit Area, plus proceeds from the sale of oil, gas and associated minerals, plus personal property equipment which are or may become fixtures on the Unit Area. This Notice is to be recorded in the real estate records of the County Recorder for the County in which the Unit Area is located. The record owners of the Unit Area may include parties other than the parties signing below; but for the purposes of this Notice the parties signing below shall be deemed to be the record owners of the collateral relating to the Unit Area which is covered by this Notice.

To the extent the parties have a security interest under the Uniform Commercial

Code of the State ("Code"), parties shall be entitled to exercise the rights and remedies of a secured party under the Code.

In addition to constituting a Notice for the security interest granted by the Operating Agreement, this Notice constitutes a notice of a lien granted to the parties named above, under the terms of the Operating Agreement. The lien granted under the Operating Agreement applies to all the interests of each party in the Unit Area as set forth in subparagraphs (A) (B) and (C) hereof.

The subject Operating Agreement is available for review by any party having a vested interest in the Unit Area at Operator's offices.

This Notice is intended to constitute a notice that a lien exists under the Operating Agreement for operations conducted thereunder, effective as of the date operations benefiting the Unit Area were begun; and that Operator has performed services and furnished materials and labor for the development of the Unit Area, and is continuing to do so on an open account and as part of a continuing contract. Any claim for a lien under the Operating Agreement relates back to, and has priority as of the date the first services, materials or labor benefiting the Unit Area were provided.

This Notice shall remain in full force and effect as long as the Operating Agreement applicable to same is in force. It is agreed, however, that the termination of this Notice shall not relieve any party hereto from any liabilities which have accrued or attached to prior to the date of such termination. A carbon, photographic or other reproduction of this Notice shall be sufficient as a financing statement.

This Notice may be executed in counterparts, no one of which needs to be executed by all parties hereto, and shall be binding upon each party executing same and effective as to the interest of such party, their heirs, successors and assigns with the same force and effect as if all such parties had signed the same document.

IN WITNESS WHEREOF, this Notice of Operating Agreement, Notice of Liens and Non-Standard Form Financing Statement is executed as of this ____ day of _____ 19__, but effective between the parties as of the date of the Operating Agreement referred to in Paragraph 1 hereof.

SECURED PARTIES:

Exhibit "H"
TAMANO (BSSC) UNIT
Tamano (Bone Spring) Field
Eddy County, New Mexico
Page 1

Tract No.	Well No.	Original Well Name & No.	Original Operator	Well Location
1	102	Stetco "10" Federal No. 2	Marathon Oil Company	2310' FNL & 660' FEL (H) Section 10-18S-31E
2	201	A. J. "11" Federal No. 1	Harvey E. Yates Co.	560' FSL & 990' FEL (P) Section 11-18S-31E
2	202	A. J. "11" Federal No. 2	Harvey E. Yates Co.	1650' FSL & 660' FEL (I) Section 11-18S-31E
3	301	Stetco "10" Federal No. 1	Marathon Oil Company	1950' FSL & 410' FEL (I) Section 10-18S-31E
3	303	Stetco "10" Federal No. 3	Marathon Oil Company	1980' FSL & 1650' FEL (J) Section 10-18S-31E
4	403	Johnson "B" Fed. A/C 1 No. 3	Marathon Oil Company	660' FNL & 1980' FWL (C) Section 11-18S-31E
4	407	Johnson "B" Fed. A/C 1 No. 7	Marathon Oil Company	2310' FNL & 2160' FWL (F) Section 11-18S-31E
4	409	Johnson "B" Fed. A/C 1 No. 9	Marathon Oil Company	2310' FNL & 600' FWL (E) Section 11-18S-31E
4	410	Johnson "B" Fed. A/C 1 No. 10	Marathon Oil Company	990' FNL & 450' FWL (D) Section 11-18S-31E
5	504	Johnson "B" Fed. No. 4	Marathon Oil Company	1980' FSL & 1980' FWL (K) Section 11-18S-31E
5	505	Johnson "B" Fed. No. 5	Marathon Oil Company	2260' FSL & 1980' FEL (J) Section 11-18S-31E
5	506	Johnson "B" Fed. No. 6	Marathon Oil Company	660' FSL & 1980' FWL (N) Section 11-18S-31E
5	508	Johnson "B" Fed. No. 8	Marathon Oil Company	510' FSL & 2030' FEL (O) Section 11-18S-31E
6	601	Marathon-Shugart "B" No. 1	Marathon Oil Company	660' FWL & 470' FSL (M) Section 11-18S-31E
6	602	Marathon-Shugart "B" No. 2	Marathon Oil Company	1800' FSL & 760' FWL (L) Section 11-18S-31E

Exhibit "H"
TAMANO (BSSC) UNIT
Tamano (Bone Spring) Field
Eddy County, New Mexico
Page 2

Tract No.	Well No.	Original Well Name & No.	Original Operator	Well Location
7	703	Hudson "11" Federal No. 3	Harvey E. Yates Co.	990' FNL & 1980' FEL (B) Section 11-18S-31E
7	704	Hudson "11" Federal No. 4	Harvey E. Yates Co.	2310' FNL & 2310' FEL (G) Section 11-18S-31E
8	805	Hudson "11" Federal No. 5	Harvey E. Yates Co.	990' FNL & 760' FEL (A) Section 11-18S-31E
9	902	Hudson "11" Federal No. 2	Harvey E. Yates Co.	1930' FNL & 660' FEL (H) Section 11-18S-31E

Tamano (BSSC) Unit
Interest Owners
Address List

EXHIBIT "E"

Mr. Rogers Aston
P. O. Box 1090
Roswell, New Mexico 88202

ARCO Oil & Gas Co.
P. O. Box 1610
Midland, Texas 79702

Mary Elizabeth Baish
102 Logan Avenue
Altoona, Pennsylvania 16602

Bearing Services
P. O. Box 100
Artesia, New Mexico 88210

Bearing Services
Attn: James Guy
P. O. Box 100
Artesia, New Mexico 88210

Bearing Services
Attn: Loy Fletcher
P. O. Box 100
Artesia, New Mexico 88210

Bearing Services
Attn: J. T. Jackson
P. O. Box 100
Artesia, New Mexico 88210

Braille Institute of America
c/o NCNB Texas National Bank
Trust Oil & Gas
P. O. Box 842029
Dallas, Texas 75284

Bureau of Land Management
Roswell District Office
1717 W. Second
Roswell, New Mexico 88201

Karen Elizabeth Charles
110 Hudson Avenue
Altoona, Pennsylvania 16602

Charles Kyle Clark
706 Mann
Artesia, New Meixco 88210

Colkelan Corp.
906 S. St. Francis Drive
Suite C
Santa Fe, New Mexico 87501

Patricia J. Cooper
Trustee of the PJC Revocable Trust U/A
dated 12/30/89
1409 S. Sunset
Roswell, New Mexico 88202

Evelyn Jackson Edwards
1000 3rd Street
Brownwood, Texas 76801

Explorers Petroleum Corporation
P. O. Box 1933
Roswell, New Mexico 88202

Exby, Ltd.
P. O. Box 1933
Roswell, New Mexico 88202

First Interstate Bank of Roswell,
Trustee U/W of Geraldine O. Johnson
P. O. Box 2057
Roswell, New Mexico 88201

Mary C. Fulton
P. O. Box 1121
Artesia, New Mexico 88210

Floyd Gentry
1925 Sycamore
Abilene, Texas 79602

O. E. Groves
3008 Catalina
Roswell, New Mexico 88202

Heyco Development Corporation
P. O. Box 1933
Roswell, New Mexico 88202

Heyco Employees, Ltd.
P. O. Box 1933
Roswell, New Meixco 88202

John W. Higgins
2502 Quail Point
Midland, Texas 79705

Edward R. Hudson, Jr., and
William A. Hudson, II,
Trustees U/W of Edward R. Hudson
616 Texas Street
Fort Worth, Texas 76102

Francis H. Hudson
616 Texas Street
Fort Worth, Texas 76102

S. P. Johnson, III & Patricia J. Cooper,
Trustees U/W of S. P. Johnson, Jr.
P. O. Box 1713
Roswell, New Mexico 88201

S. P. Johnson, III, and
Barbara Jo Johnson,
Trustees of the S.P. Johnson, III and
Barbara Jo Johnson Trust
U/A dated 1/24/85
P. O. Box 1641
Roswell, New Mexico 88202

E. Bernard Johnston & Mary Ellen Johnston
Personal Representatives of the
Margaret Jane Johnston Estate
2715 N. Kentucky Avenue, #16
Roswell, New Mexico 88201

Kerr-McGee Corp.
P. O. Box 11050
Midland, Texas 79702

Laurelind Corporation
P. O. Box 2143
Roswell, New Mexico 88202

Delmar H. Lewis
616 Texas Street
Fort Worth, Texas 76102

Lodewick Energy, Inc.
5927 Morningside
Dallas, Texas 75206

John W. Lodewick
Personal Representative for
Laura B. Lodewick Estate
P. O. Box 1180
Roswell, New Mexico 88202

John Widney Lodewick
3305 Wentwood
Dallas, Texas 75225

Laura Patricia Lodewick
511 Newell
Dallas, Texas 75223

Richard B. Lodewick
2100 W. Wadley Avenue #21
Midland, Texas 79701

Manzano Oil Corp.
P. O. Box 571
Roswell, New Mexico 88202

Margaret Baish Masters
47 Oakwood Drive
Wormleysburg, Pennsylvania 17043

Janice Gentry Middlebrooks
P. O. Box 5331
Abilene, Texas 79605

Moore & Shelton Company, Ltd.
P. O. Box 3070
Galveston, Texas 77552

NCNB Texas National Bank & C. R. Mallison,
Trustees of the Selma E. Andrews
Trust dated 5/8/69
P. O. Box 842029
Dallas, Texas 75284

Pennzoil Exploration & Production Co.
P. O. Box 2967
Houston, Texas 77252

Sally Meader Roberts
P. O. Box 8189
Roswell, New Mexico 88202

San Diego Trust & Savings Bank,
Trustee U/A dated 5/26/83
for Ralph A. Shugart (Trust #385839014)
P. O. Box 8529
La Jolla, California 92028

Karen Gentry Schuzig
211 Rosemont Avenue
Mill Valley, CA 94941

Katherine Mary Scott
809 Sheridan Street
Altoona, Pennsylvania 16602

Mr. Tom Stephens
P. O. Box 698
Roswell, New Mexico 88202

Spindletop Exploration Co., Inc.
4600 Greenville Avenue
Dallas, Texas 75206

Spiral, Inc.
P. O. Box 1933
Roswell, New Mexico 88202

Betty Baish Strohmeier
5362 E. Rosewood
Tuscon, Arizona 85711

Wainoco Oil & Gas Company
1200 Smith St.
Suite 1500
Houston, Texas 77002

W. T. Wynn
1603 W. Dengar
Midland, Texas 79705

Yates Energy Corporation
P. O. Box 2323
Suite 1010 Sunwest Centre
Roswell, New Mexico 88201

James H. Yates, Inc.
906 St. Francis Dr.
Suite C
Santa Fe, New Mexico 87501

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no

II. Operator: Marathon Oil Company
Address: P. O. Box 552, Midland, Texas 79702
Contact party: Engineering Manager Phone: (915) 682-1626

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? yes no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: D. J. Loran Title Engineering Manager

Signature: David J. Loran Date: May 21, 1991

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. All well data on the proposed injectors has been submitted to the NMOCD on

appropriate completion and remedial workover notices at various times from January, 1988 to current date.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

EXHIBIT "C"

ATTACHMENT TO FORM C-108

PROPOSED TAMANO (BSSC) UNIT

SECTION

- III. Well Data: See attached well diagram sheets for each of the five proposed injection wells. All five injectors were originally drilled as Bone Spring Second Carbonate producers. The next higher zone productive of hydrocarbons in the area around the injection wells is the Bone Spring First Sand at approximately 7,650'. The next lower zone productive of hydrocarbons in the area is the Bone Spring Second Sand at approximately 8,250'.
- V. Area of Review: See attached map.
- VI. Well Data in Area of Review: See attached well data spreadsheet and wellbore schematics on any plugged wells.
- VII. 1. Proposed Average Daily Injection Rate: 5,000 BWPD, 1,000 BWPW
Proposed Average Maximum Daily Injection Rate: 7,500 BWPD, 1,500 BWPW.
2. The proposed system will be closed.
3. Proposed average surface injection pressure: 1,600 psig
Proposed maximum surface injection pressure: 2,300 psig
- Note: Step rate test data will be submitted at the hearing on the application to support a surface injection pressure in excess of 0.2 psi/ft (1,600 psi).
4. Injection Water Source: 20% North Shugart Grayburg water, 78% City of Carlsbad Double Eagle fresh water system (Ogallala) and 2% Bone Spring Second Carbonate produced water.
- Compatibility tests (see attached water analysis).
5. Not applicable.
- VII. Geologic Data Injection Zone: The proposed injection zone will be the Bone Spring Second Carbonate. The productive interval of the aforementioned zone is a vuggy, naturally fractured dolomite debris flow confined by dense dolomites having no matrix or secondary porosity. The injection interval occurs at a depth of approximately 8,000' to 8,200' from the surface.

Two sources of drinking water overlying the zone of injection are the alluvium and the triassic. The alluvium is a sand and gravel zone and is present at a depth of 10 - 40' over the area of interest. The

Triassic is comprised of clays and sands and is encountered between depth of 40' - 800' in the area of interest. Water analysis of these water bearing formations are as follows:

Alluvium: 6 Mg/L, 597 MMhos (Section 7, T-18-S, R-32-E, Lea County, New Mexico).

Triassic: 222 Mg/L, 1,234 MMhos (Section 12, T-18-S, R-31-E, Eddy County, New Mexico).

There are no sources of drinking water below the zone of injection. Fresh water data was obtained from Ken Fesquez, Water Specialist, with the State Engineering Office, Roswell, New Mexico.

- IX. The stimulation program for the proposed injection wells will consist of re-acidizing with approximately 5,000 gallons of HCl acid (may vary depending on interval thickness).
- X. Log and test data on all proposed injection wells has been submitted to the NMOCD and are on file in the Artesia office.
- XI. See above for fresh water analysis and the "area of review" map for their locations.
- XII. Not applicable.
- XIII. Notice, by submission of this application, has been sent to surface owners, surface lessees and offset operators by registered mail.

WELL DATA SHEET

MARATHON OIL CO
 PROPOSED TAMANO (BSSC) UNIT
 STETCO "10" FEDERAL #3
 1980' FSL & 1650' FEL (J)
 SEC 10, T-18-S, R-31-E
 EDDY CO., NEW MEXICO

TD: 8800' PBTD: 8709' KB: 3738' GL: 3702'

SURFACE CSG: 13-3/8", 48#/FT
 SET @ 743'. CMT'D W/347 SX CLASS 'C'.
 CIRCULATED CMT. HOLE SIZE 17-1/2"

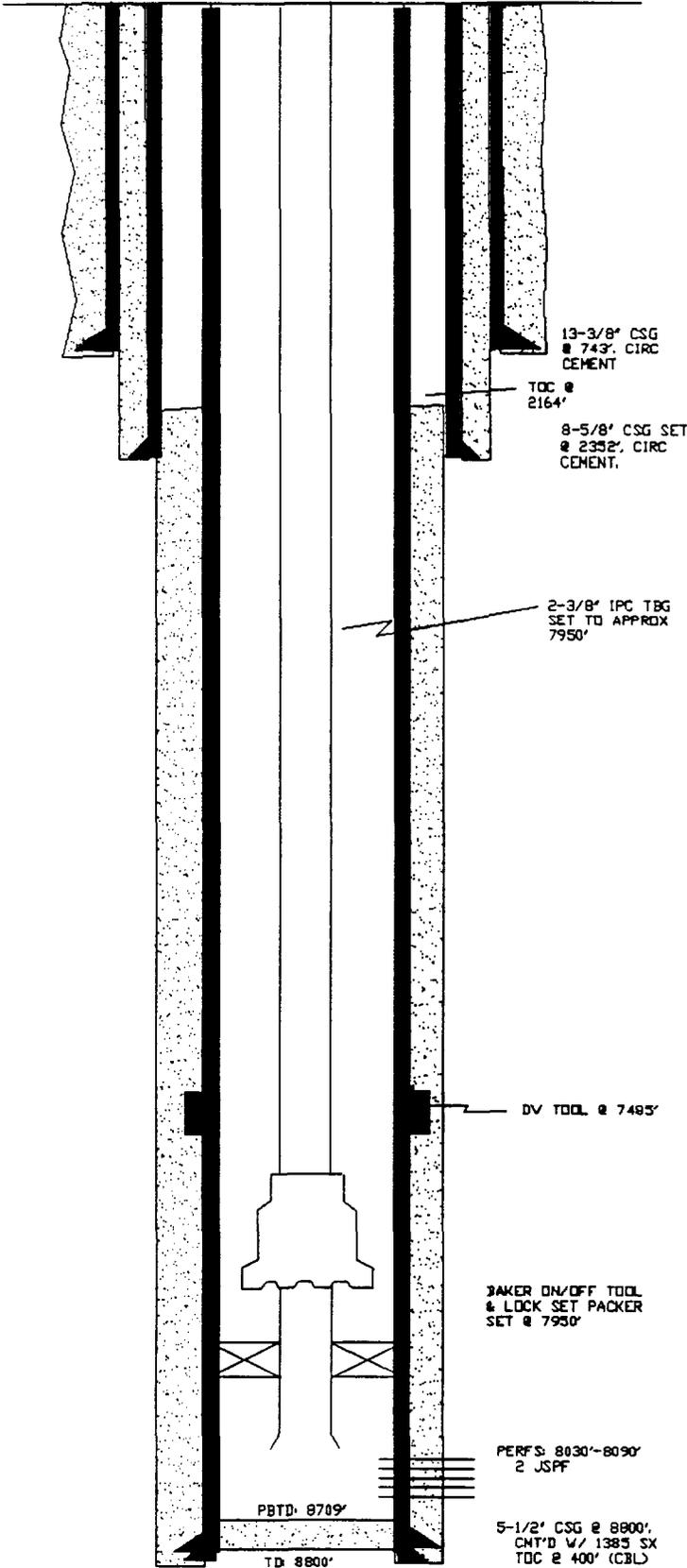
INTERMEDIATE CSG: 8-5/8", 24#/FT, SET @
 2352'. CMT'D W/658 SX CLASS 'C'.
 CIRCULATED CMT. HOLE SIZE 11".

PRODUCTION CSG: 5-1/2", 15.5# & 17#/FT
 SET @ 8800'. DV TOOL @ 7485'. CMT'D
 1ST STAGE W/ 285 SX CLASS 'H'.
 CMT'D 2ND STAGE W/ 1000 SX CLASS 'H'
 LITE AND 100 SX CLASS 'H'. TOC @
 APPROX 2164'(CALC). HOLE SIZE 7-7/8".

TBG/BHA: 2-3/8", 4.7#/FT, N-80, EUE IPC
 TBG TO BE SET @ APPROX 7950'.
 2-3/8" x 1.781" BAKER MODEL 'FL'
 ON/OFF TOOL W/ 1.781" 'F' PROFILE
 NIPPLE (316 STAINLESS) ON/OFF TOOL
 PLASTIC COATED. 5-1/2" x 2-3/8"
 BAKER MODEL LOK-SET PKR (IPC, EPC).
 1 JT 2-3/8" TAILPIPE W/ WIRELINE
 RE-ENTRY GUIDE.

PERFS: 8030'-8090' W/ 2 JSPF

HISTORY: COMPLETED JAN 1991, AS A 2ND
 BONE SPRING CARBONATE OIL WELL. ACID
 FRAC'D W/ 10,000 GALS GELLED 15% ACID
 W/ 275 BALLS. POTENTIALLED 1-7-91 @
 600 BOPD, 0 BWPD, 347 MCFD, FTP=300
 PSIG ON A 30/64" CHOKE.
 PROPOSED AS AN INJECTION WELL.
 INJECTION WILL BE INTO THE 2ND BONE
 SPRING CARBONATE PERFS @ 8030'-8096'



13-3/8" CSG
 @ 743'. CIRC
 CEMENT

TOC @
 2164'

8-5/8" CSG SET
 @ 2352'. CIRC
 CEMENT.

2-3/8" IPC TBG
 SET TO APPROX
 7950'

DV TOOL @ 7485'

BAKER ON/OFF TOOL
 & LOCK SET PACKER
 SET @ 7950'

PERFS: 8030'-8090'
 2 JSPF

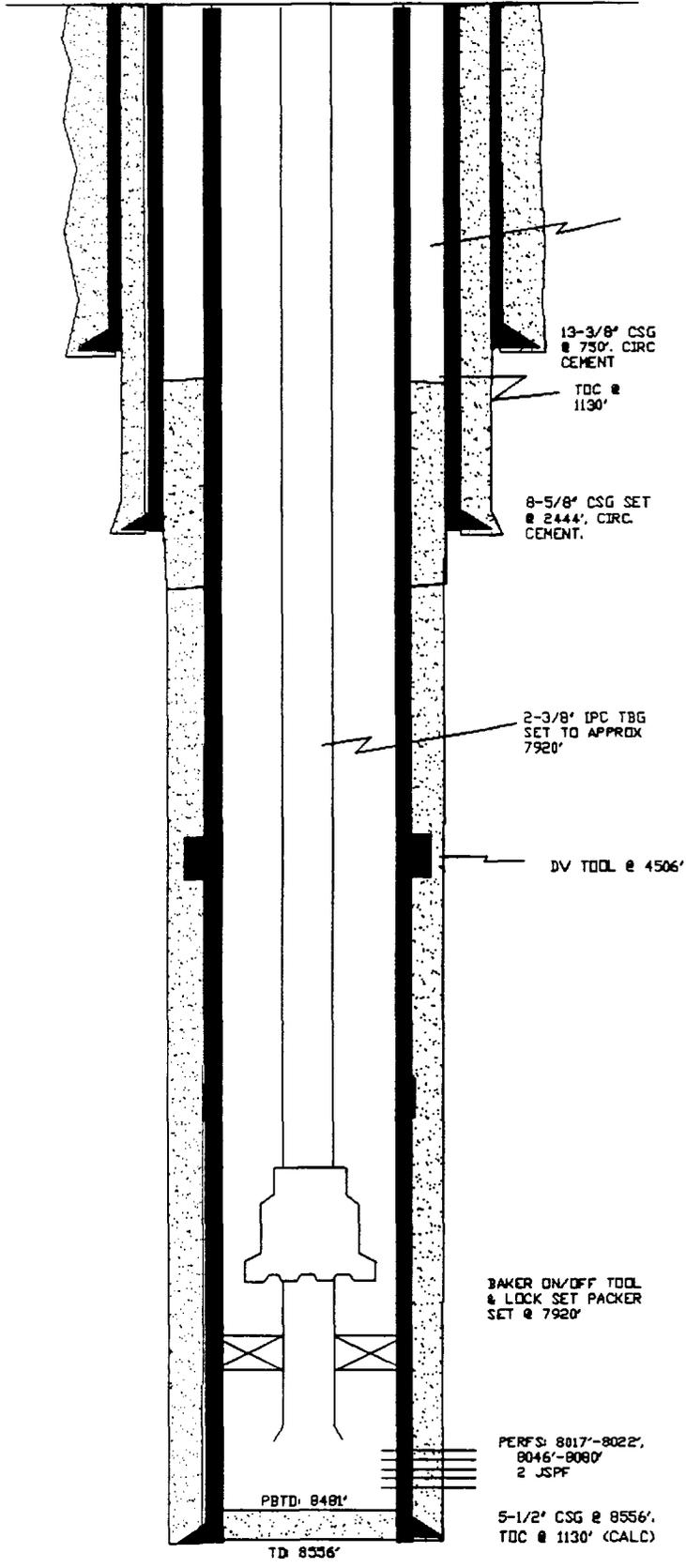
5-1/2" CSG @ 8800'.
 CMT'D W/ 1385 SX
 TOC @ 400' (CBL)

PBTD: 8709'

TD: 8800'

WELL DATA SHEET

MARATHON OIL CO
 PROPOSED TAMANO (BSSC) UNIT
 JOHNSON "B" FEDERAL A/C 1 #10
 990' FNL & 450 FWL (D)
 SEC 11, T-18-S,R-31-E
 EDDY CO., NEW MEXICO



TD: 8556' PBD: 8481' KB: 3767' GL: 3749'

SURFACE CSG: 13-3/8", 48# & 72# /FT
 SET @ 750'. CMT'D W/635 SX CLASS
 'C'. CIRCULATED CMT. HOLE SIZE 17-1/2"

INTERMEDIATE CSG: 8-5/8", 24# & 32# /FT, SET @
 2444'. CMT'D W/600 SX CLASS 'C'.
 CIRCULATED CMT. HOLE SIZE 11".

PRODUCTION CSG: 5-1/2", 15.5# & 17# /FT
 SET @ 8556'. DV TOOL @ 4506'. CMT'D
 1ST STAGE W/ 700 SX CLASS 'H LITE.
 CMT'D 2ND STAGE W/ 850 SX CLASS 'H'
 LITE AND 100 SX CLASS 'H'. TDC @
 APPROX 1130'(CALC). (CBL SHOWED CMT UP
 INTO THE INTM CASING)

TBG/BHA: 2-3/8", 4.7# /FT, N-80, EUE IPC
 TBG TO BE SET @ APPROX 7920'.
 2-3/8" x 1.781" BAKER MODEL 'FL' ON/OFF TOOL
 W/ 1.781" 'F' PROFILE NIPPLE (316 STAINLESS)
 ON/OFF TOOL PLASTIC COATED.
 5-1/2" x 2-3/8" BAKER MODEL LOK-SET
 PKR (IPC, EPC). 1 JT 2-3/8" TAILPIPE
 W/ WIRELINE RE-ENTRY GUIDE.

PERFS: 8017'-8022' & 8046'-8080' W/ 2 JSPF

HISTORY: COMPLETED SEPT 1990, AS A 2ND
 BONE SPRING CARBONATE OIL WELL. ACIDIZED
 W/ 5,000 GALS 20% NEFE. ACID FRACED W/
 W/ 25,000 GALS X-LINKED 20% NEFE & 27,050
 GALS GELLED 2% KCL. POTENTIALLED 10-5-90 @
 53 BOPD , 0 BWPB, & 305 MCFD.

PROPOSED AS AN INJECTION WELL.
 INJECTION WILL BE INTO THE 2ND BONE
 SPRING CARBONATE PERFS @ 8017'-8022'
 & 8046'-8080'.

WELL DATA SHEET

MARATHON OIL CO
 PROPOSED TAMANO (BSSC) UNIT
 MARATHON-SHUGART "B" #1
 660' FWL & 470' FSL (M)
 SEC 11, T-18-S, R-31-E
 EDDY CO., NEW MEXICO

TD: 9007' PBD: 8960' KB: 3740' GL: 3725'

SURFACE CSG: 13-3/8", 48#/FT
 SET @ 754'. CMT'D W/395 SX LITE & 250 SX
 CLASS 'C'. CIRCULATED CMT. HOLE SIZE 17-1/2'

INTERMEDIATE CSG: 8-5/8", 24# & 32#/FT, SET @
 2703'. CMT'D W/1000 SX LITE & 250 SX CLASS 'C'.
 CIRCULATED CMT. HOLE SIZE 11'.

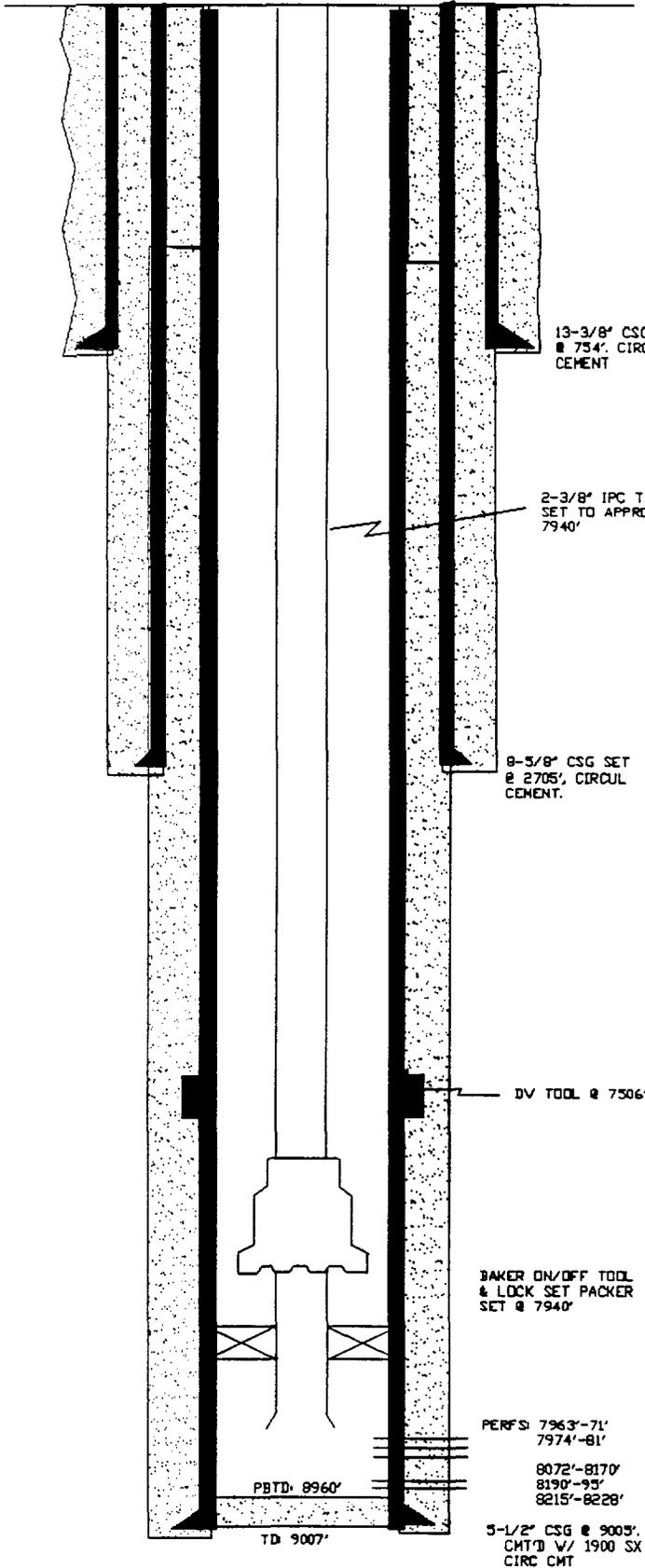
PRODUCTION CSG: 5-1/2", 15.5# & 17#/FT
 SET @ 9005'. DV TOOL @ 7506'. CMT'D
 1ST STAGE W/ 360 SX CLASS 'H'.
 CMT'D 2ND STAGE W/ 1440 SX CLASS 'H'
 PDZ AND 100 SX CLASS 'H'. CIRC CMT.

TBG/BHA: 2-3/8", 4.7#/FT, N-80, EUE IPC
 TBG TO BE SET @ APPROX 7940'.
 2-3/8" x 1.781" BAKER MODEL 'FL'
 ON/OFF TOOL W/ 1.781" 'F' PROFILE
 NIPPLE (316 STAINLESS) ON/OFF TOOL
 PLASTIC COATED. 5-1/2" x 2-3/8"
 BAKER MODEL PKR (IPC, EPC) W/ 1 JT
 2-3/8" TAILPIPE W/ WIRELINE RE-ENTRY
 GUIDE.

PERFS: 7963'-71' & 7974'-81'. (WILL BE SQUEEZED
 PRIOR TO INJECTION)
 8072'-8170', 8190'-8195', & 8215'-28' (265 HOLES)

HISTORY: COMPLETED IN SEPTEMBER, 1989 AS A 2ND
 BONE SPRING CARBONATE OIL WELL. PERF'D 2ND
 BONE SPRING CARBONATE FROM 8072'-8120' (2 JSPF)
 ACIDIZED W/ 3000GAL 15% HCL. IP 9-28-89: 40
 BOPD, 0 BWPD, 58 MCFD. 12-17-88 ADDED PERFS
 8120'-70', 8190'-95', 8215'-28', (139 HOLES).
 ACIDIZED W/6400 GALS 15% HCL (W/100 BALL
 SEALERS). PRODUCED 136 BOPD, 8 BWPD. 8-3-90
 FRACED W/90934 GALS (PAD & GEL) & 1-4 PPG
 20/40 SAND AND 4 PPG RESIN COATED 20/40.
 10-24-90 PERF'D 7963'-81'. ACIDIZED W/ 3000 GALS
 15% NEFE. PRODUCED 22 BOPD, 3 BWPD, & 30 MCFD.

PROPOSED AS AN INJECTOR INTO THE 2ND BONE
 SPRING CARBONATE PERFS @ 8072'-8228'. THE
 PERFS @ 7963'-71' & 7974'-81' WILL BE SQUEEZED
 W/ CEMENT PRIOR TO INJECTION.



PERFS: 7963'-71'
 7974'-81'
 8072'-8170'
 8190'-95'
 8215'-8228'

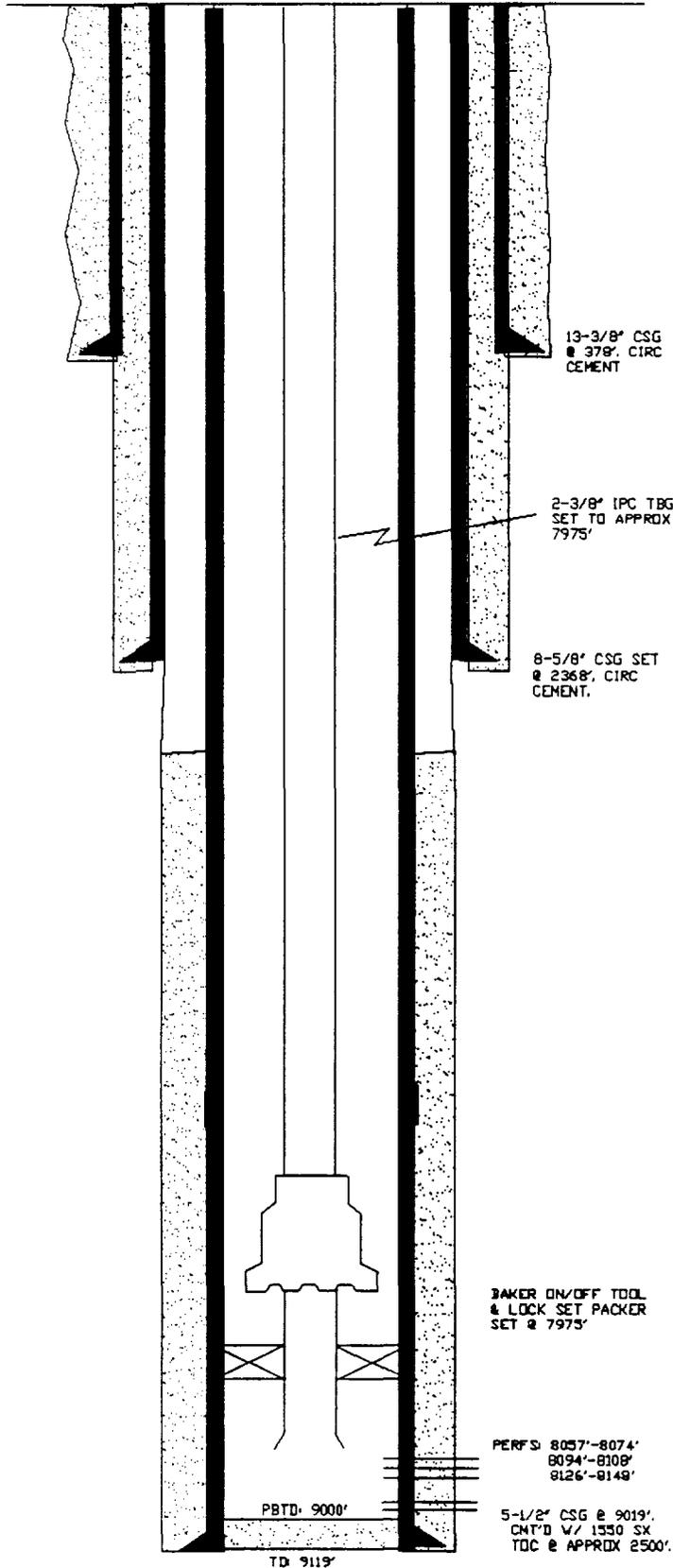
5-1/2" CSG @ 9005'
 CMT'D W/ 1900 SX
 CIRC CMT

PBD: 8960'

TD: 9007'

WELL DATA SHEET

HARVEY E. YATES COMPANY
 PROPOSED TAMANO (BSSC) UNIT
 HUDSON "11" FEDERAL #4
 2310' FNL & 2310' FEL (G)
 SEC 11, T-18-S, R-31-E
 EDDY CO., NEW MEXICO



TD: 9119' PBTD: 9000' KB: 3747' GL: 3756'

SURFACE CSG: 13-3/8",
 SET @ 378', CMT'D W/385 SX
 CIRCULATED CMT. HOLE SIZE 17-1/2"

INTERMEDIATE CSG: 8-5/8 SET @ 2368'.
 CMT'D W/1300 SX. CIRCULATED CMT.
 HOLE SIZE 11".

PRODUCTION CSG: 5-1/2" SET @ 9119'.
 CMT'D W/1550 SX. TOC @ 2500'.
 HOLE SIZE 7-7/8".

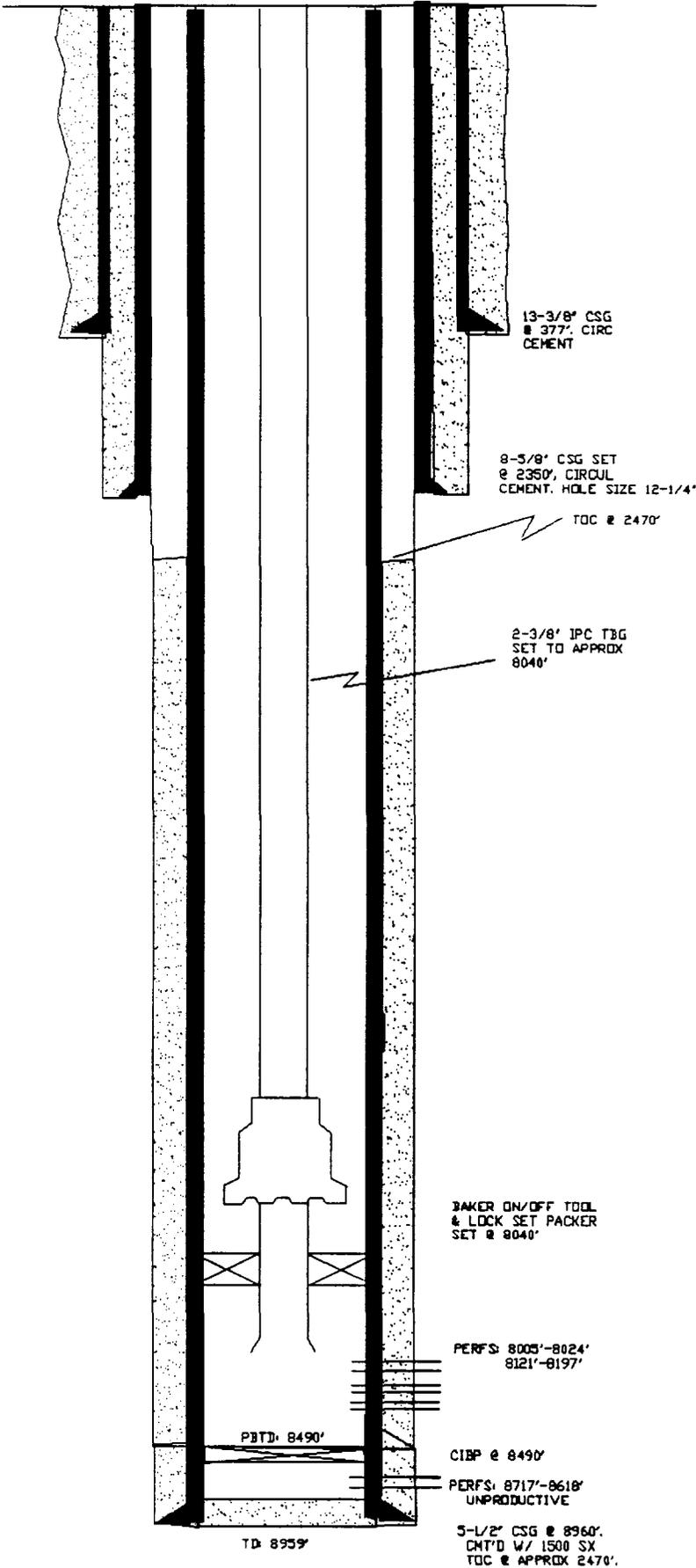
TBG/BHA: 2-3/8", 4.7#/FT, N-80, EUE IPC
 TBG TO BE SET @ APPROX 7975'.
 2-3/8" x 1.781" BAKER MODEL 'FL'
 ON/OFF TOOL W/ 1.781" 'F' PROFILE
 NIPPLE (316 STAINLESS) ON/OFF TOOL
 PLASTIC COATED. 5-1/2" x 2-3/8"
 BAKER MODEL PKR (IPC, EPC) W/ 1 JT
 2-3/8" TAILPIPE W/ WIRELINE RE-ENTRY
 GUIDE.

PERFS: 8057'-74', 8094'-8108', & 8126'-8148'.

HISTORY: COMPLETED 7-14-88. WELL POTENTIALLED FLOWING 216 BOPD, 24 BWPD,
 & 138 MCFD ON A 16/64" CHOKE W/350 PSIG FLOWING PRESSURE.
 THIS WELL IS PROPOSED AS AN INJECTOR. THE WELL WILL INJECT INTO
 THE 2ND BONE SPRING CARBONATE THROUGH PERFS @ 8057'-74', 8094'-8108',
 & 8126'-48'.

WELL DATA SHEET

HARVEY E. YATES COMPANY
 PROPOSED TAMAND (BSSC) UNIT
 A.J. '11' FEDERAL #1
 560' FSL & 990' FEL (P)
 SEC 11, T-18-S, R-31-E
 EDDY CO., NEW MEXICO



TD: 8959' PBD: 8490' KB: 3740' GL: 3751'

SURFACE CSG: 13-3/8" SET @ 377'
 CMT'D W/ 600 SX. CIRC CMT.
 HOLE SIZE 17-1/2"

INTERMEDIATE CSG: 8-5/8" SET @ 2350'.
 CMT'D W/1600 SX. CIRCULATED CMT.
 HOLE SIZE 12-1/4"

PRODUCTION CSG: 5-1/2" SET @ 8960'.
 CMT'D W/1500 SX. TOC @ 2470'.
 HOLE SIZE 7-7/8. CIBP SET @ 8490'

TBG/BHA: 2-3/8", 4.7#/FT, N-80, EUE IPC
 TBG TO BE SET @ APPROX 8040'.
 2-3/8" x 1.781" BAKER MODEL 'FL'
 ON/OFF TOOL W/ 1.781" 'F' PROFILE
 NIPPLE (316 STAINLESS) ON/OFF TOOL
 PLASTIC COATED. 5-1/2" x 2-3/8"
 BAKER MODEL PKR (IPC, EPC) W/ 1 JT
 2-3/8" TAILPIPE W/ WIRELINE RE-ENTRY
 GUIDE.

PERFS: 8005'-24' & 8121'-97'.

BAKER ON/OFF TOOL
 & LOCK SET PACKER
 SET @ 8040'

PERFS: 8005'-8024'
 8121'-8197'

CIBP @ 8490'

PERFS: 8717'-8618'
 UNPRODUCTIVE

5-1/2" CSG @ 8960'.
 CMT'D W/ 1500 SX
 TOC @ APPROX 2470'.

HISTORY: COMPLETED 7-4-89. WELL POTENTIAL PUMPING 255 BOPD, 91 BVPD,
 & 240 MCFD. ADDED PERFS (8005'-8024') 10-3-90. ACIDIZED W/17,700 GALS
 20% ACID.

WELL PROPOSED FOR WATER INJECTION. INJECTION WILL BE INTO THE
 2ND ZONE SPRING CARBONATE THROUGH PERFS @
 8005'-8024' & 8121'-8197'

WELL DATA SHEET

TAYLOR "12" FEDERAL #5
990' FNL & 660' FWL (D)
SEC 12, T-18-S, R-31-E
EDDY CO., NEW MEXICO
STATUS: P & A

PLUG #6: SURFACE
(50 SX)

13-3/8" CSG
SET @ 350'
CMT'D W/375 SX
CIRC.

PLUG #5: 930'-1030' (100 SX)

8-5/8" CSG
SET @ 2360'
CMT'D W/1300 SX
CIRC.

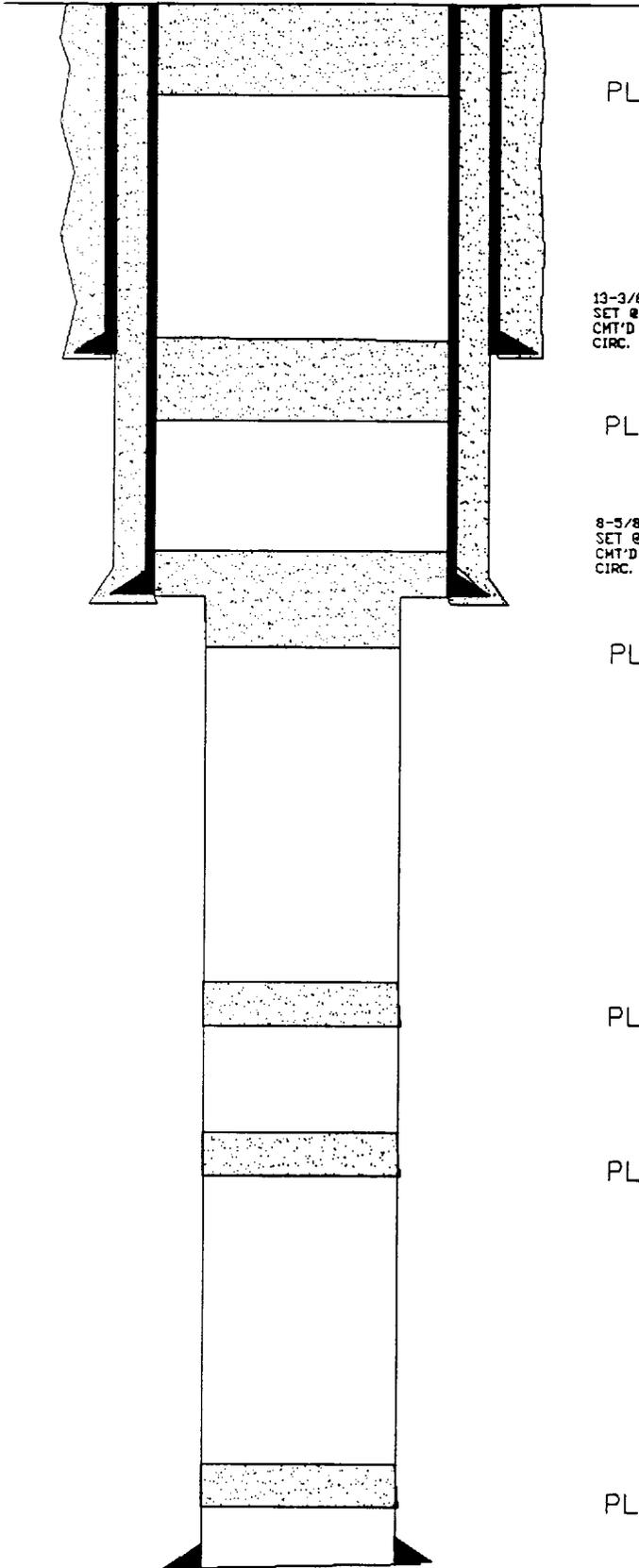
PLUG #4: 2211'-2418' (100 SX)

PLUG #3: 4800'-4900' (100 SX)

PLUG #2: 5600'-5780' (100 SX)

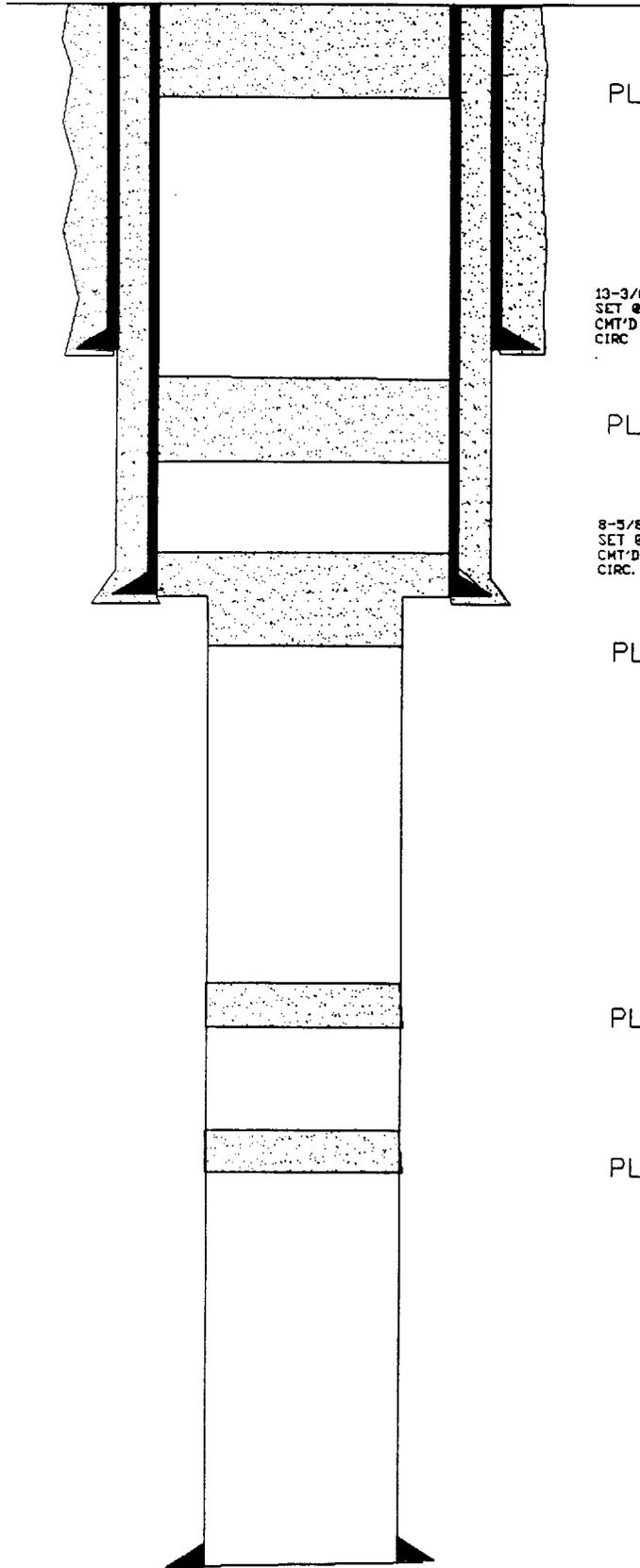
PLUG #1: 8800'-8900' (100 SX)

TD: 8902'



WELL DATA SHEET

TAYLOR '12" FEDERAL #2
660' FSL & 330' FWL (M)
SEC 12, T-18-S, R-31-E
EDDY CO., NEW MEXICO
STATUS: P & A



PLUG #5: SURFACE
(15 SX)

13-3/8" CSG
SET @ 348'
CMT'D W/350 SX.
CIRC.

PLUG #4: 298'-398' (45 SX)

8-5/8" CSG
SET @ 2345'
CMT'D W/1350 SX
CIRC.

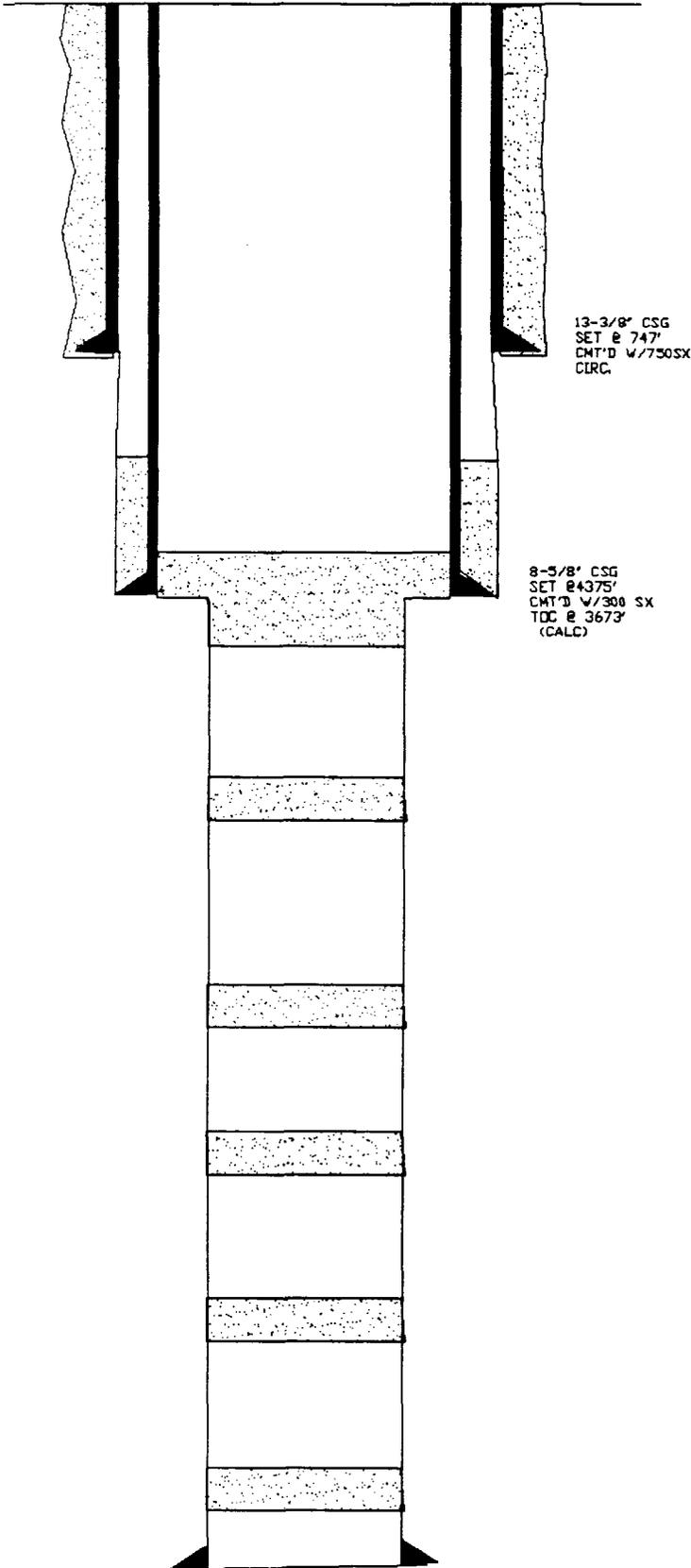
PLUG #3: 2295'-2395' (45 SX)

PLUG #2: 4764'-4864' (45 SX)

PLUG #1: 5894'-5994' (35 SX)

WELL DATA SHEET

HUDSON FEDERAL #1
990' FNL & 1980' FEL (B)
SEC 11, T-18-S, R-31-E
EDDY CO., NEW MEXICO
STATUS: P & A



13-3/8" CSG
SET @ 747'
CMT'D W/750SX
CIRC.

8-5/8" CSG
SET @ 4375'
CMT'D W/300 SX
TDC @ 3673'
(CALC)

PLUG #6: 4320'-4430' (30 SX)

PLUG #5: 5900'-6030' (50 SX)

PLUG #4: 6490'-6600' (30SX)

PLUG #3: 8000'-8150' (50 SX)

PLUG #2: 9400'-9600' (60 SX)

PLUG #1: 11,100'-11,400' (100 SX)

TD 11,500'

WELL DATA SHEET

READ & STEVENS
JAMIE FEDERAL #1

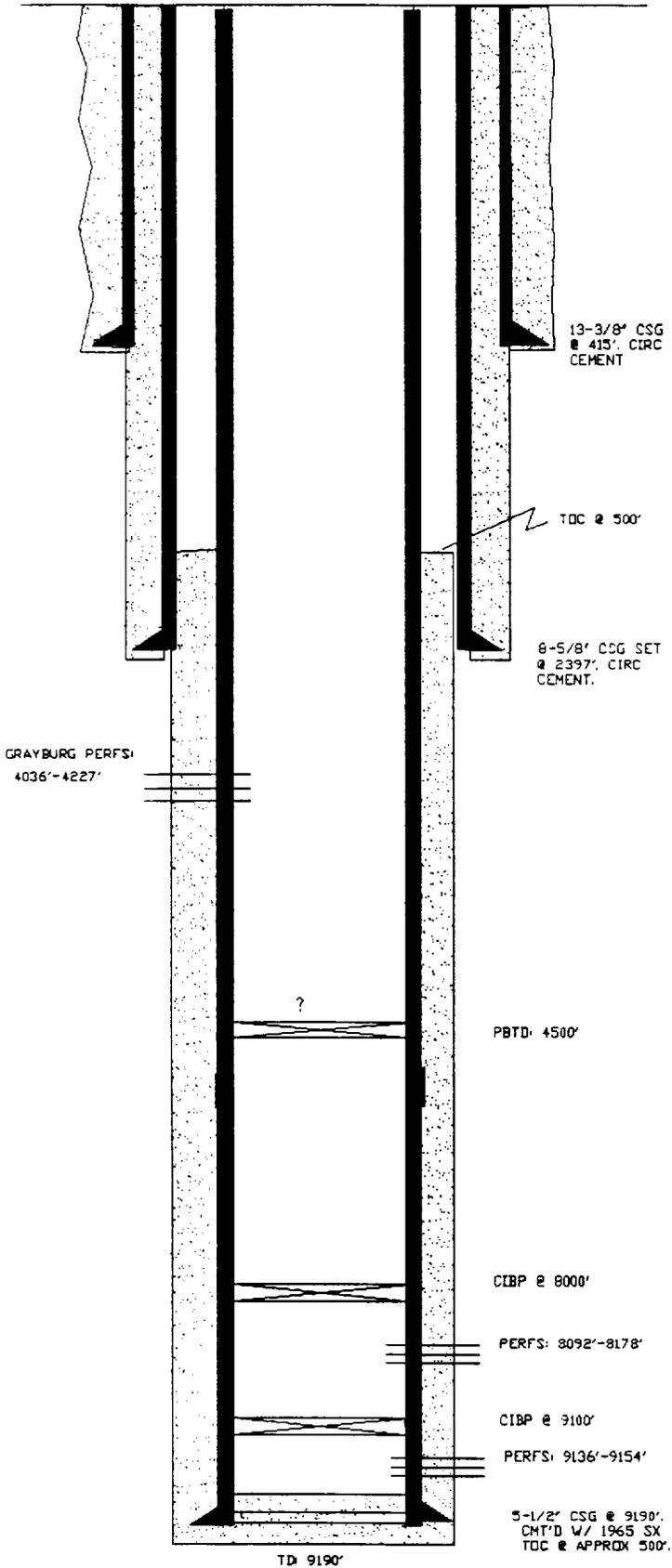
330' FNL & 1920' FWL (C)
SEC 14, T-18-S, R-31-E
EDDY CO., NEW MEXICO

TD: 9190' PBD: 4500' KB: ? GL: 3722'

SURFACE CSG: 13-3/8",
SET @ 415', CMT'D W/500 SX
CIRCULATED CMT. HOLE SIZE 17-1/2"

INTERMEDIATE CSG: 8-5/8" SET @ 2397',
CMT'D W/1250 SX. CIRCULATED CMT.
HOLE SIZE 11".

PRODUCTION CSG: 5-1/2" SET @ 9190',
CMT'D W/1965 SX. TOC @ 500'.
HOLE SIZE 7-7/8".



Unichem International

707 North Leech P.O.Box 1499
 Hobbs, New Mexico 88240

Company : MARATHON OIL COMPANY
 Date : 03-11-1991
 Location: COMPATABILITY - (on 3-8-1991)

	Sample 1
Specific Gravity:	1.025
Total Dissolved Solids:	35565
pH:	8.06
IONIC STRENGTH:	0.696

<u>CATIONS:</u>		me/liter	mg/liter
Calcium	(Ca ⁺²)	94.6	1890
Magnesium	(Mg ⁺²)	49.0	595
Sodium	(Na ⁺¹)	476	11000
Iron (total)	(Fe ⁺²)	0.500	14.0
Barium	(Ba ⁺²)	0.007	0.515

<u>ANIONS:</u>		me/liter	mg/liter
Bicarbonate	(HCO ₃ ⁻¹)	2.06	126
Carbonate	(CO ₃ ⁻²)	0.600	18.0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	7.69	369
Chloride	(Cl ⁻¹)	610	21600

DISSOLVED GASES
 Carbon Dioxide (CO₂)
 Hydrogen Sulfide (H₂S)
 Oxygen (O₂)

SCALING INDEX (positive value indicates scale)

	Temperature	Calcium	Calcium
	86°F 30°C	Carbonate	Sulfate
		0.90	-34

Comments:
 JOHNSON B FEDERAL A/C #1= 5% SHUGART B = 5% JOHNSON B FEDERAL = 5%
 STETCO 10 FEDERAL #2 = 5% STETCO 10 FEDERAL #1 & 3 = 5%
 CITY OF CARLSBAD FRESH WATER = 75%

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT

No. W101-91

TO Hudson & Hudson

Date March 17, 1991

P. O. Box 9

Maljamar, NM 88264

This report is the property of Halliburton Services and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management. It may however be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Services

Submitted by Dwaine Howard Date Rec. March 16, 1991

Well No. Shugart B #4 Depth 4030-42 Formation Carlsburg

Field Shugart Queen - SA-01 County Eddy Source Swab

Resistivity 0.079 @ 70°

Specific Gravity .. 1.0815 @ 70°

pH 7.0

Calcium 6,565

Magnesium 2,759

Chlorides 70,000

Sulfates Over 1,600

Bicarbonates 153

Soluble Iron 250

KCL 0

Remarks:

This water sample was taken after the load water was recovered. It is a representation analysis.

Scott Taylor

Respectfully submitted

Analyst: Scott Taylor - EIT

HALLIBURTON SERVICES

NOTICE:

This report is for information only and the content is limited to the sample described. Halliburton makes no warranties, express or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage, regardless of cause.

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : MARATHON OIL COMPANY

Date : 03-07-1991

Location: JOHNSON "B" FEDERAL 4,5,6,8 (on 6-23-1989)

Specific Gravity:	Sample 1
Total Dissolved Solids:	1.150
pH:	209859
IONIC STRENGTH:	7.37
	3.845

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca ⁺²)	356	7120
Magnesium	(Mg ⁺²)	56.0	680
Sodium	(Na ⁺¹)	3200	73500
Iron (total)	(Fe ⁺²)	0.745	20.8
Barium	(Ba ⁺²)	0.086	5.90
<u>ANIONS:</u>			
Bicarbonate	(HCO ₃ ⁻¹)	2.39	146
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	51.0	2450
Chloride	(Cl ⁻¹)	3550	126000

SCALING INDEX (positive value indicates scale)

	<u>Temperature</u>	Calcium	Calcium
86°F	30°C	Carbonate	Sulfate
		1.4	16

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : MARATHON OIL COMPANY

Date : 03-11-1991

Location: JOHNSON B FEDERAL A/C #1 (on 3-8-1991)

Specific Gravity:	Sample 1
Total Dissolved Solids:	1.130
pH:	182031
IONIC STRENGTH:	6.00
	3.598

CATIONS:		me/liter	mg/liter
Calcium	(Ca ⁺²)	544	10900
Magnesium	(Mg ⁺²)	256	3110
Sodium	(Na ⁺¹)	2380	54800
Iron (total)	(Fe ⁺²)	1.61	45.0
Barium	(Ba ⁺²)	0.016	1.10

ANIONS:			
Bicarbonate	(HCO ₃ ⁻¹)	0.800	48.8
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	24.5	1180
Chloride	(Cl ⁻¹)	3160	112000

SCALING INDEX (positive value indicates scale)

	Temperature	Calcium	Calcium
86°F	30°C	Carbonate	Sulfate
		-0.37	2.2

Unichem International

707 North Leech

P.O. Box 1499

Hobbs, New Mexico 88240

Company : MARATHON OIL COMPANY

Date : 03-07-1991

Location: JOHNSON B FEDERAL - A/C (HT) - (on 2/9/90)

	Sample 1
Specific Gravity:	1.143
Total Dissolved Solids:	200515
pH:	6.95
Resistivity:	0.047 ohms @ 74°F
IONIC STRENGTH:	4.013

CATIONS:

		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca ⁺²)	600	12000
Magnesium	(Mg ⁺²)	360	4370
Sodium	(Na ⁺¹)	2560	58900
Iron (total)	(Fe ⁺²)	2.61	73.0
Barium	(Ba ⁺²)	0.013	0.900

ANIONS:

Bicarbonate	(HCO ₃ ⁻¹)	3.80	232
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	20.8	1000
Chloride	(Cl ⁻¹)	2500	124000

SCALING INDEX (positive value indicates scale)

	<u>Temperature</u>	Calcium	Calcium
86°F	30°C	Carbonate	Sulfate
		1.5	1.6

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : MARATHON OIL COMPANY

Date : 03-11-1991

Location: STETCO 10 FEDERAL #1 & 3 (on 3-8-1991)

Specific Gravity:	Sample 1
Total Dissolved Solids:	1.061
pH:	85977
IONIC STRENGTH:	6.60
	1.791

<u>CATIONS:</u>		me/liter	mg/liter
Calcium	(Ca ⁺²)	304	6080
Magnesium	(Mg ⁺²)	216	2620
Sodium	(Na ⁺¹)	1000	23000
Iron (total)	(Fe ⁺²)	2.86	80.0
Barium	(Ba ⁺²)	0.007	0.500

<u>ANIONS:</u>			
Bicarbonate	(HCO ₃ ⁻¹)	3.20	195
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	22.4	1080
Chloride	(Cl ⁻¹)	1490	53000

SCALING INDEX (positive value indicates scale)

	Calcium	Calcium
<u>Temperature</u>	Carbonate	Sulfate
86°F 30°C	-0.03	-11

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : MARATHON OIL COMPANY
Date : 03-11-1991
Location: STETCO FEDERAL 10 FED #2 (on 3-8-1991)

Specific Gravity: Sample 1
Total Dissolved Solids: 1.059
pH: 82908
IONIC STRENGTH: 6.40
1.637

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca ⁺²)	220	4400
Magnesium	(Mg ⁺²)	128	1560
Sodium	(Na ⁺¹)	1100	25200
Iron (total)	(Fe ⁺²)	2.65	74.0
Barium	(Ba ⁺²)	0.009	0.600

<u>ANIONS:</u>			
Bicarbonate	(HCO ₃ ⁻¹)	2.40	146
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	32.8	1580
Chloride	(Cl ⁻¹)	1410	50000

SCALING INDEX (positive value indicates scale)

		Calcium	Calcium
		Carbonate	Sulfate
Temperature		-0.50	-11
86°F	30°C		

Unichem International

707 North Leech P.O.Box 1499
 Hobbs, New Mexico 88240

Company : MARATHON OIL COMPANY
 Date : 03-11-1991
 Location: SHUGART B (on 3-8-1991)

	Sample 1
Specific Gravity:	1.105
Total Dissolved Solids:	146576
pH:	6.30
IONIC STRENGTH:	2.921

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca ⁺²)	456	9120
Magnesium	(Mg ⁺²)	224	2720
Sodium	(Na ⁺¹)	1890	43400
Iron (total)	(Fe ⁺²)	2.47	69.0
Barium	(Ba ⁺²)	0.001	0.100

<u>ANIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Bicarbonate	(HCO ₃ ⁻¹)	1.000	61.0
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	27.1	1300
Chloride	(Cl ⁻¹)	2540	90000

SCALING INDEX (positive value indicates scale)

		Calcium	Calcium
		Carbonate	Sulfate
<u>Temperature</u>			
86°F	30°C	-0.32	0.12

CITY OF CARLSBAD
 - WATER ANALYSIS REPORT -
 CARLSBAD CITY LABORATORY
 WASTEWATER TREATMENT PLANT
 Carlsbad, New Mexico 88220

SAMPLE SENT BY City of Carlsbad ANALYSIS NO. _____
 FROM Double Eagle Well Field SAMPLE RECEIVED Jan. 26, 1987
 ADDRESS _____ SAMPLE REPORTED Jan. 27, 1987
 WATER SOURCE Composite

PHYSICAL CHARACTERISTICS AS RECEIVED

Color _____ Odor _____ Turbidity 0

CHEMICAL CHARACTERISTICS

	PARTS per MILLION	PPM as CaCo ₃	As CaCo ₃ GRAINS per Gallon
Alkalinity-M:		148	
Alkalinity-P:		0	
Calcium-Ca:	62	156	9.1
Magnesium-MG:	14	56	3.3
Sodium-Na:			
Sulphates-So ₄ :	46		
Chlorides-Cl:	62		
Sp. Cond.:	375		
Iron-Fe:			
Free Chlorine:			
Fluoride:	0.84		
PH: As received:	8.2		
Aquapoise (PHs) at 70°F:			
TOTAL HARDNESS: (As CaCo ₃):		212	12.4
TOTAL DISSOLVED SOLIDS (As CaCo ₃):			

Jose A. Renteria

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : MARATHON OIL COMPANY

Date : 03-11-1991

Location: CITY OF CARLSBAD - FRESH WATER (on 3-8-1991)

	Sample 1
Specific Gravity:	1.000
Total Dissolved Solids:	504
pH:	8.60
IONIC STRENGTH:	0.012

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca ⁺²)	2.08	41.6
Magnesium	(Mg ⁺²)	3.42	41.6
Sodium	(Na ⁺¹)	2.75	63.2
Iron (total)	(Fe ⁺²)	0.014	0.400
Barium	(Ba ⁺²)	0.007	0.500

<u>ANIONS:</u>			
Bicarbonate	(HCO ₃ ⁻¹)	2.20	134
Carbonate	(CO ₃ ⁻²)	0.800	24.0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	1.02	49.0
Chloride	(Cl ⁻¹)	4.23	150

SCALING INDEX (positive value indicates scale)

		Calcium	Calcium
Temperature		Carbonate	Sulfate
86°F	30°C	0.98	-1.8

WELL DATA

AREA OF REVIEW: PROPOSED TAMANO (BSSC) UNIT

OPERATOR-WELL NAME LOCATION	COMPLETION DATE	TD	P8TD	CASING SIZE	CASING DEPTH	CEMENT SACKS/TOP	PRODUCING INTERVAL	STIMULATION	CURRENT STATUS	REMARKS
Yates Energy Thornbush Federal No. 1 330' FSL and 1,980' FML (N) Section 1, T-18-S, R-31-E	5/25/90	9,060'	7,600'	13-3/8" 8-5/8" 5-1/2"	350' 2,400' 9,058'	405/Circ 1,240/Circ 1,855/Circ	San Andres 4,636-38' Unproductive in the Bone Spring. Old perfs 8,949'-8,963' 8,908'-8,928', 7,931'-7,951'	A 3,200 gals A 4,000 gals A 4,250 gals	Producing in San Andres	Squeezed lowest perfs w/400 sx. CIBP's @ 8,800' & 7,600' w/35 sx on top.
Harvey E. Yates Mesquite "2" State No. 4 1,980' FSL and 660' FEL (1) Section 2, T-28-S, R-31-E	7/2/89	9,092'	8,668'	13-3/8" 8-5/8" 5-1/2"	356' 2,305' 9,092'	385/Circ 900/Circ 800/5,260' Calc	Bone Spring 2nd Sand 8,488'-94', 8,501'-24' 32', 56', 68', 85', 90' 8,600' & 8,351'-8,444' 1st Bone Spring Sand 7,469'-7,533'	A 3,000 gals SWF 100,000 Gals & 250,000# A 5,900 Gals SF 81,000 gals 7 51,000# (All parts)	Producing	
Harvey E. Yates Mesquite "2" State No. 3 1,980' FSL & 1,980' FEL (J) Section 2, T-18-S, R-31-E	1/7/86	9,025'	8,695'	13-3/8" 8-5/8" 5-1/2"	358' 2,275' 9,025'	350/Circ 900/Circ 1,275/2,918' Calc	Bone Spring 2nd Sand Selectively 8,492'-8,596'	A 3,000 SWF 97,500 Gals and 258,000#	Producing	
Harvey E. Yates Mesquite "2" State No. 5 660' FSL & 1,980' FML (N) Section 2, T-18-S, R-31-E	10/2/90	9,040'	8,990'	13-3/8" 8-5/8" 5-1/2"	359' 2,300' 9,040'	385/Circ 800/Circ 1,720/801' Calc	Bone Spring 7,862'-7,920' 8,074'-8,092'	A 7,500	Producing	
							Bone Spring 8,152'-8,618' Selectively	A 3,500 SF 140,000 Gals & 350,000#		

WELL DATA

AREA OF REVIEW: PROPOSED TAMANO (BSSC) UNIT

OPERATOR-WELL NAME LOCATION	COMPLETION DATE	TD	PBID	CASING SIZE	CASING DEPTH	CEMENT SACKS/TOP	PRODUCING INTERVAL	STIMULATION	CURRENT STATUS	REMARKS
Harvey E. Yates										
Mesquite "2" State No. 1	3/19/85	9,065'	8,833'	13-3/8"	618'	500/Circ	Bone Spring	A 2,500 (8,124' - 8,467')	Producing	
660' FSL & 1,980' FEL (O)				8-5/8"	2,650'	1,225/Circ	8,124'-8,646'	SWF 70,000 gals		
Section 2, T-18-S, R-31-E				5-1/2"	9,065'	1,375/2,479' Calc	Selectively	& 150,000#		
Harvey E. Yates										
Mesquite "2" State No. 2	8/15/85	9,086'	9,040'	13-3/8"	450'	450/Circ	Bone Spring 2nd Sand	A 2,500	Producing	
660' FSL & 660' FEL (P)				8-5/8"	2,364'	1,200/Circ	8,584'-8,660'	SF 75,000 gals &		
Section 2, T-18-S, R-31-E				5-1/2"	9,086'	1,505/1,877' Calc	Selectively	180,000#		
Harvey E. Yates										
Mesquite "3" Federal No. 3	5/15/90	10,400'	8,450'	13-3/8"	350'	375/Circ	Bone Spring 2nd Sand	A 5,200		
900' FSL & 990' FEL (P)				8-5/8"	2,316'	800/Circ	8,314', 24', 28', 36'	SWF 120,000 gals &		
Section 3, T-18-S, R-31-E				5-1/2"	10,400'	600/6,000' CBL	42', 47', 61', 65' 70', 80', 86', 91', 8,412' 22', 30'	171,250#		
Marathon										
Stetco "10" Federal No. 2	9/29/90	8,700'	8,617'	13-3/8"	756'	447/Circ	Bone Spring 2nd Carb	A 6,000 20% HCl	Producing	
2,310' FNL & 660' FE" (H)				8-5/8"	2,335'	647/Circ	8,020'-8,100'	& 31,800 20%		
Section 10, T-18-S, R-31-E				5-1/2"	8,700'	1,370/Circ		Gelled Acid		

WELL DATA

AREA OF REVIEW: PROPOSED TAMANO (BSSC) UNIT

OPERATOR-WELL NAME	LOCATION	COMPLETION DATE	TD	PBTD	CASING SIZE	CASING DEPTH	CEMENT SACKS/TOP	PRODUCING INTERVAL	STIMULATION	CURRENT STATUS	REMARKS
Marathon											
Stetco "10" Federal No. 1		8/16/90	8,800'	8,495'	13-3/8"	755'	835/Circ	Bone Spring 2nd Carb 8,041'-8,170'	A 8,200 gals	Producing	
1,950' FSL & 410' FEL (I)					8-5/8"	2,445'	1,150/Circ				
Section 10, T-18-S, R-31-E					5-1/2"	8,800'	1,625/1,016'	Calc			
Harvey E. Yates											
Hudson "11" Federal No. 5		10/25/89	8,916'	8,910'	13-3/8"	350'	375/Circ	Bone Spring 2nd Carb 8,048'-8,109'	A 3,200 SWF 20,000 gals & 30,000#	Producing	
990' FNL & 760' FEL (A)					8-5/8"	2,354'	900/Circ				
Section 11, T-18-S, R-31-E					5-1/2"	8,910'	1,450/1,946'	Calc			
Harvey E. Yates											
Hudson Federal No. 1		Original P&A 3/26/70	11,500'		13-3/8"	747'	750/Circ	NA	NA	P&A	See Wellbore Schematic
660' FNL & 1,980' FEL (B)		Re-entered & Junked & abandoned 12/15/84			8-5/8"	4,375'	300/3,673'	Calc			
Section 11, T-18-S, R-31-E											
Harvey E. Yates											
Hudson "11" Federal No. 3		4/3/89	9,034'	8,793'	13-3/8"	354'	350/Circ	Bone Spring 2nd Sand & 2nd Carb. 8,040'-70', 8,102'-25'	A 24,400 SF 334,000 gals & 217,500#	Producing	
990' FNL & 1,980' FEL (B)					8-5/8"	2,318'	1,600/Circ				
Section 11, T-18-S, R-31-E					5-1/2"	9,034'	2,150'/2,310'	CBL			
Marathon											
Johnson "B" Federal A/C 1 No. 3		2/20/86	8,830'	8,793'	13-3/8"	598'	700/Circ	Bone Spring 2nd Sand & 2nd Carb. 8,416'-8,644'	A 5,500 SF 80,000 Gals & 174,000#	Producing	
660' FNL & 1,980' FML (C)					8-5/8"	2,700'	2,700/Circ				
Section 11, T-18-S, R-31-E					5-1/2"	8,828'	1,494/5,976'	CBL Selectively			

WELL DATA

AREA OF REVIEW: PROPOSED TAMANO (BSSC) UNIT

OPERATOR-WELL NAME	COMPLETION DATE	TD	PBID	CASING SIZE	CASING DEPTH	CEMENT SACKS/TOP	PRODUCING INTERVAL	STIMULATION	CURRENT STATUS	REMARKS
Marathon										
Johnson "B" Federal A/C 1 No. 9	7/11/90	8,816'	8,723'	13-3/8"	755'	635/Circ	Bone Spring 2nd Carb.	A 6,000	Producing	
2,310' FNL & 600' FML (E)				8-5/8"	2,430'	1,100/Circ	8,048'-8,130'			
Section 11, T-18-S, R-31-E				5-1/2"	8,816'	1,720/2,974'				CBL
Marathon										
Johnson "B" Federal A/C 1 No. 7	7/16/88	9,000'	8,925'	13-3/8"	796'	536/Circ	Bone Spring 2nd Carb.	A 200	Producing	
2,310' FNL & 2,160' FML (F)				8-5/8"	2,702'	1,350/Circ	8,070'-8,160'			
Section 11, T-18-S, R-31-E				5-1/2"	9,000'	1,490/1,862'				Calc
Harvey E. Yates										
Hudson "11" Federal No. 2	9/5/87	8,813'	8,771'	13-3/8"	350'	350/Circ	Bone Spring 2nd Carb.	A 26,000	Producing	
1,930' FNL & 660' FEL (H)				8-5/8"	2,356'	1,000/Circ	7,934'-7,998'			
Section 11, T-18-S, R-31-E				5-1/2"	8,813'	1,985/<500'				Calc
Harvey E. Yates										
A. J. "11" Federal No. 2	10/7/85	8,966'	8,260'	13-3/8"	360'	375/Circ	Bone Spring 2nd Carb.	A 15,000	Producing	
1,650' FSL & 660' FEL (I)				8-5/8"	2,350'	1,200/Circ	7,995'-8,126'			
Section 11, T-18-S, R-31-E				5-1/2"	8,966'	1,425/2,140'				Calc
Marathon										
Johnson "B" Federal No. 5	5/29/88	8,967'	8,861'	13-3/8"	754'	635/Circ	Bone Spring 2nd Carb.	A 2,650	Producing	
2,260' FSL & 1,980' FEL (J)				8-5/8"	2,706'	1,350/Circ	8,082'-8,140'			
Section 11, T-18-S, R-31-E				5-1/2"	8,950'	1,750/2,200'				CBL

WELL DATA

AREA OF REVIEW: PROPOSED TAMANO (BSSC) UNIT

OPERATOR-WELL NAME LOCATION	COMPLETION DATE	TD	PBID	CASING SIZE	CASING DEPTH	CEMENT SACKS/TOP	PRODUCING INTERVAL	STIMULATION	CURRENT STATUS	REMARKS
Marathon										
Johnson "B" Federal No. 4 1,980' FSL & 1,980' FML (K) Section 11, T-18-S, R-31-E	1/14/88	9,522'	9,479'	13-3/8" 8-5/8" 5-1/2"	671' 2,728' 9,522'	700/Circ 1,450/Circ 1,450/3,560' CBL	Bone Spring 2nd Carb. 8,060'-8,150'	A 5,000	Producing	
Marathon										
Shugart "B" No. 2 1,800' FSL & 760' FML (L) Section 11, T-18-S, R-31-E	4/27/90	8,670'	8,553'	13-3/8" 8-5/8" 5-1/2"	755' 2,715' 8,670'	485/Circ 775/Circ 1,745/Circ	Bone Spring 2nd Carb. 8,056'-8,178'	A 8,600	Producing	
Marathon										
Johnson "B" Federal No. 6 660' FSL & 1,980' FML (N) Section 11, T-18-S, R-31-E	6/27/88	8,998'	8,919'	13-3/8" 8-5/8" 5-1/2"	760' 2,752' 8,998'	835/Circ 1,380/Circ 1,500/Circ	Bone Spring 2nd Carb. 8,078'-8,204'	A 4,000	Producing	
Marathon										
Johnson "B" Federal No. 8 510' FSL & 2,030' FEL (O) Section 11, T-18-S, R-31-E	10/25/88	9,000'	8,918'	13-3/8" 8-5/8" 5-1/2"	800' 2,706' 9,000'	500/Circ 1,046/Circ 1,625/1,216' Calc	Bone Spring 2nd Carb. 8,115'-8,200'	A 300	Producing	
Harvey E. Yates										
Taylor Deep "12" Federal No. 5 990' FNL & 660' FML (D) Section 12, T-18-S, R-31-E	7/14/90 P&A	8,902		13-3/8" 8-5/8"	350' 2,360'	375/Circ 1,300/Circ	NA	NA	P&A	See Wellbore Schematic

WELL DATA

AREA OF REVIEW: PROPOSED TAMANO (BSSC) UNIT

OPERATOR-WELL NAME	COMPLETION DATE	TD	PBTD	CASING SIZE	CASING DEPTH	CEMENT SACKS/TOP	PRODUCING INTERVAL	STIMULATION	CURRENT STATUS	REMARKS
Harvey E. Yates										
Taylor Deep "12" No. 1-Y	7/26/89	9,500'	9,460'	13-3/8"	350'	350/Circ	Bone Spring 3rd Sand	A 500	Producing	
2,235' FSL & 2,235' FML (K)				8-5/8"	2,410'	948/Circ	9,424'-9,432'			
Section 12, T-18-S, R-31-E				5-1/2"	9,500'	2,175/Circ				
Harvey E. Yates										
Taylor Deep "12" No. 2	7/25/89	8,933'		13-3/8"	348'	350/Circ	NA	NA	P&A	See Wellbore Schematic
660' FSL & 330' FML (M)			P&A	8-5/8"	2,345'	1,350/Circ				
Section 12, T-18-S, R-31-E										
Read & Stevens										
Marion Federal No. 1		8,842'		13-3/8"	402'	500/Circ	8,043'-8,294'	A 37,800	TA	
600' FNL & 2,100' FEL (B)				8-5/8"	2,408'	1,300/Circ	Unproductive	X-Linked Gelled		
Section 14, T-18-S, R-31-E				5-1/2"	8,842'	2,230/Circ	In Bone Spring	Acid		
Read & Stevens										
Jamie Federal No. 1		9,190'		13-3/8"	415'	500/Circ	9,136'-9,154'	A 1,000 20% Acid	Producing	Plugged back to Grayburg
330 FNL & 1,920' FML (C)				(8,192' Orig)	2,397'	1,250/Circ	8,092'-8,178'	A 5,000 20% Acid	in Grayburg	CIBP @ 9,100' W 10 sx
Section 14, T-18-S, R-31-E				5-1/2"	9,190'	1,965/<500' Calc	Unproductive in Bone Spring			CIBP @ 8,000'.

TOC EQN: TOC = CSG DEPTH - (AVE YIELD FT³/SX) (ANNULAR HEIGHT FT/FT³) (#SX) (SF)

AVE YIELD = 1.66 FT³/SX (Based on volume weighted average yield of filler and neat slurries, Class "H", all production strings.)

AVE YIELD = 1.19 FT³/SX (Based on Class "C" Neat on surface and intermediate casing strings)

SF = 50% (Safety Factor)

Annular height based on Halliburton Cementing Table data, assuming OD hole equals drilled hole size.