CASE 5332: Application of C & K
PETROLEUM FOR APPROVAL OF THE
WEST AIRPORT UNIT AGREEMENT.

CASE Mo. 5332

Application,

Transcripts,

Small Ekhibts

Unit Name WEST AIRPORT UNIT- EXPLORATORY
Operator C & K Petroleum Inc.
County Eddy

1.17.7.1						ソード・フ ド	10-22-7/	1-30-75
TEDIA	CLAUSE	AND	FEDERAL	STATE	ACREAGE	DATE	CLU UKUEK NO. K=487 3	
	SECRECATION				TOTAL	Į.	OCC CASE NO. 5332	APPROVED

UNIT AREA

TOWNSHIP 22 SOUTH, RANGE 26 EAST, NMPM

Sections 20 and 21: All Sections 28 and 29: All Sections 32 and 33: All

ATERMINATED TERMINATED

Unit Name WEST AIRPORT UNIT -EXPLORATORY
Operator C & K PETROLEUM, INC.
County EDDY

	14	13	12	11	STATE
	LG-0177	LG-0017	L-4678-1	L-1614-1	LEASE
	C.S.	C.S.	C.S.	C.S.	INSTI-
	32	28	21	32	SEC.
	2::S	278	22.S	228	SEC. TVP. RGE.
	26E	26E	26E	26E	RGE.
N/25W/4, 5/25E/4	NE/4NW/4, NE/4, SW/4NW/4,	S/2SE/4	NE/4NE/4, NW/4NW/4	NW/4NW/4, SE/4NW/4, S/2SW/4, N/2SE/4	SUBSECTION
	12-2-74 40	12-2-74 8	œ	24	RATIFIED DATE AC
	400.00	80.00	80.00	240.00	ACRES
					ACREAGE NOT RATIFIED
	Cities Service Oil Co.	Cities Service Oil Co.	Amoco Production Compan	Amoco Production Compan	LESSEE

STED OFFICE OF STED OF



United States Department of the Interior

GEOLOGICAL SURVEY

Drawer 1857 Roswell, New Mexico 88201

August 5, 1976

C. & K. Petrolews, Inc. Attention: Ms. Danie Lebow 600 C & K. Petroleum Building Midland, Texas 79701

Gentlemen:

Our letter of June 2, 1976, returned unapproved your application for approval of the initial Delaware participating area for the West Airport unit agreement, Eddy County, New Mexico. Instead, inasmuch as the West Airport unit agreement terminated effective as of June 1, 1976, making a participating area inappropriate, a communitization agreement covering Delaware production from the NE% sec. 29, T. 22 S., R. 26 E., N.M.P.M. was requested.

In reply, your letter of August 2, 1976, requests that such a communitization agreement not be required, indicating that inasmuch as the unit has terminated and the West Airport unit well No. 1-Y in the SELECT sec. 29, T. 22 S., R. 26 R., N.M.P.M., was plugged and abandoned on March 17, 1976, you do not feel that the 160 acre proration spacing would now apply. You suggest that 40 acre statewide spacing for Delaware production would be applicable to unit well No. 1-Y.

While 40 acre spacing is generally appropriate for Delaware oil wells, Rule No. 104 of the New Mexico Oil Conservation Commission's Rules and Regulations specifies a drilling tract of 160 acres for gas wells in formations above the Wolfcamp unless otherwise provided for in special pool rules. Our records show that the West Airport unit well No. 1-Y was completed as a Delaware-Brushy Canyon gas well on March 27, 1975, for a calculated absolute open flow potential of 5,462 MCF of gas per day. Our records also show that the NE½ sec. 29 was dedicated to such well. Although the well was equipped with a pumping unit during August 1975, for production of the large volume of water associated with gas production, only a small amount of gas condensate has been produced. Accordingly, we believe the communitization agreement requested is appropriate, and is still necessary for

proper allocation of the Delaware substances produced from unit well No. 1-E. You are requested to file such a communitisation agreement at your earliest convenience insumuch so the 60 days of filing provided by our letter of June 2, 1976, have already elapsed.

Sincerely yours,

Orig. Signot - CIRL C. TRIVENTOK Associate Area Cit & Cas Supervisor

CARL C. TRAYWICK Assistant Oil and Gas Supervisor

ARStall:js



TELEPHONE 505-827-2748





Commissioner of Public Lands
May 19, 1976

P. O. BOX H48 SANTA FE, NEW MEXICO 87901

C & K Petroleum, Inc. 600 C & K Petroleum Building Midland, Texas 79701

> Re: West Airport Unit TERMINATION Eddy County, New Mexico

ATTENTION: Mrs. Danie Lebow

Gentlemen:

We have been advised by the United States Geological Survey that you have transmitted an instrument designed to terminate the West Airport unit agreement, Eddy County, New Mexico. The USGS terminated the West Airport unit agreement effective as of June 1, 1976.

Accordingly, the Commissioner of Public Lands has also terminated The Wast Airport Unit effective as of June 1, 1976.

Very truly yours,

PHIL R. LUCERO COMMISSIONER OF PUBLIC LANDS

BY: RAY D. GRAHAM, Director Oil and Gas Division

PRL/RDG/s

cci

USGS-Roswell, New Mexico OCC- Sants Fe, New Mexico





State of New Mexico





Commissioner of Rubic Lands
December 5, 1975

P. O. BOX H48 SANTA FE, NEW NEXICO 87501

C&K Petroleum, Inc. 607 Midland National Bank Building Midland, Texas 79701

Re: Application for approval of the initial participating area for the Delaware formation, under the West Airport Unit Agreement, Eddy County, New Mexico

ATTENTION: Mr. G. C. Thompson

Gentlemen:

The Commissioner of Public Lands has this date approved the Initial Participating Area for the Delaware formation, under the West Airport Unit Agreement, Eddy County, New Mexico. The Initial Participating Area covers the NE/4 of Section 29, Township 22 South, Range 26 East. This approval is subject to like approval by the United States Geological Surwey.

Enclosed is one approved copy for your files.

Very truly yours,

PHIL R. LUCERO COMMISSIONER OF FUBLIC LANDS

BY:

RAY D. GRAHAM, Director Oil and Gas Division

PRL/RDG/s encl.

co:

USGS-Roswell, New Mexico
OCC- Santa Pe, New Mexico

5331







PHIL R. LUCERO COMMISSIONER



Commissioner of Rublic Lands

P. O. SOX 1148 SANTA FE, NEW MEXICO 87501

C & K Petrolous, Inc. 607 Midland, Mational Bank Building Midland, Terms 79701

> Re: Plan of Development West Airport Unit Eddy County, New Mexico

ATTENTION: Mr. G. C. Tompson

Gent lemen:

The Commissioner of Public Lands has this date approved your Plan of Development for the West Airport Unit, Eddy County, Here Hexico. This plan of development covers: six months period beginning October 1, 1975 and ending March 31, 1976.

Enclosed is one approved copy of the plan.

Please remit a Three (\$3.00) Bellar filing fee.

gond theila aunts:

PHIL R. LUCIRO COMMISSIONER OF PUBLIC LANDS

RY: RAY D. GRAHAM, Director Oil and Gas Division

PRL/RDG/a

cc:

USGS-Roswell, New Mexico OCC- Santa Ze, New Mexico



Unit Name WEST AIRPORT UNIT: EXPLORATORY
Operator C & K Petroleum Inc.
County Eddy

DATE	OCC CASE NO. 5332	EFFECTIVE TOTAL	TOTAL				CECH POLATICA	
APPROVED	OCC ORDER NO R-4883	DATE	A CBBACB		1		SEGREGATION	
	MAN ANTEN MIL Nº 1000	מחב	ACKERGE	STATE	FEDERAL	ANNERSKY - FEE	CLAUSE	TERM
1-30-75	10-22-74	2-5-75						
100	3 C 1 C	1	3,840.00	800.00	2,440.00	600.00	Modified	5 410
Commissioner					,		1	, , , o

UNIT AREA

TOWNSHIP 22 SOUTH, RANGE 26 EAST, NMPM

Sections 20 and 21: All Sections 28 and 29: All Sections 32 and 33: All

Unit Name WEST AIRPORT UNIT -EXPLORATORY
Operator C & K PETROLEUM, INC.
County EDDY

Cities Service Oil Co.	0	400.00	12-2-74	NE/4NW/4, NE/4, SW/4NW/4, N/2SW/4, S/2SE/4	26E	228	32	C.S.	LG-0177	14
Cities Service Oil Co.	0	80.00	12-2-74	S/2SE/4	26E	228	28	C.S.	LG~0017	13
Amoco Production Compa	0	80.00		NE/4NE/4, NW/4NW/4	26E	228	21	C.S.	L-4678-/	12
Amoco Production Compa:	0	240.00		NW/4NW/4, SE/4NW/4, S/2SW/4, N/2SE/4	26E	228	32	C.S.	L-1614-/	11
LESSEE	ACREAGE S NOT RATIFIED	RATIFIED ACRES	RATI DATE	SUBSECTION	RGE.	SEC. TWP. RGE.	SEC.	INSTI- TUTION	LEASE NO.	STATE TRACT NO.

RANDOLPH M. RICHARDSON

OIL AND GAS LAND AND UNIT CONSULTANT
FEDERAL - STATE - FEE
P. D. BOX 819

ROSWELL, NEW MEXICO 88201

OFFICE 505 622-8801 HOME 505 622-7985

February 7, 1975

Re: West Airport Unit Area
T-22-S, R-26-E, NMPM
Eddy County, New Mexico

Mrs. Ida Rodiquez New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Dear Ida:

Pursuant to OCC Order No. R-4883, entered in connection with the captioned West Airport Unit, I am enclosing one copy of Unit Agreement containing all signature pages together with approval by the Commissioner of Public Lands and U. S. G. S.

Please advise if you need anything additional in connection with this ${\tt Unit.}\,$ Thank you very much.

Yours very truly,

R. M. Richardson

RMR:gr

Enc.

OCC



United States Department of the Interior

GEOLOGICAL SURVEY

Drawer 1857 Roswell, New Mexico 88201

February 5, 1975

Mr. Randolph M. Richardson P. O. Box 819
Roswell, New Mexico 88201

Dear Mr. Richardson:

Two copies of a Certification-Determination instrument approving the West Airport unit agreement, Eddy County, New Mexico, with C & K Petroleum, Inc., as unit operator, are enclosed herewith. Such agreement has been assigned No. 14-08-0001-14176, and is effective as of February 5, 1975, the date of approval.

You are requested to furnish the New Mexico Oil Conservation Commission and all other interested principals with evidence of this approval.

Sincerely yours,

CARL C. TRAYWICK

Acting Area Oil and Gas Supervisor

Carl & 1/ roymen

CLRTIFICATION--DETERMINATION

Pursuant to the authority vested in the Secretary of Interior, under the act approved February 25, 1920, 41 Stat. 437, as amended, 30 U. S. C. secs. 181, et seq., and delegated to the Oil and Gas Supervisors of the Geological Survey (33 F.R. 5812), I do hereby:

	A. Approve	the attach	ed agreement	tor the	deactobment	and	operat	ion
of the _		WEST AI	RPORT				Unit	Area,
State of	New Me	K1 C-0	•					

- B. Certify and determine that the unit plan of development and operation contemplated in the attached agreement is necessary and advisable in the public interest for the purpose of more properly conserving the natural resources.
- C. Certify and determine that the drilling, producing, rental, minimum royalty, and royalty requirements of all Federal leases committed to said agreement are hereby established, altered, changed, or revoked to conform with the terms and conditions of this agreement.

Dated_ FEP 0 5 1875

ACTING Oil and Gas Supervisor, United States Geological Survey

Contract Number 14-08-0001-14176



NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO
WEST AIRPORT UNIT
KDDY COUNTY, NEW MEXICO

There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, the attached Agreement for the development and operation of acreage which is described within the attached Agreement, dated September 1, 1974, which said Agreement has been executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the state, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 7-11-39, 7-11-40, 7-11-41, 7-11-47, and 7-11-48, New Mexico Statutes Annotated, 1953 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, do hereby consent to and approve the said Agreement, however, such consent and approval being limited and restricted to such lands within the Unit Area, which are effectively committed to the Unit Agreement as of this date, and, further, that leases insofar as the lands covered thereby committed to this Unit Agreement shall be and the same are hereby amended to conform with the terms of such Unit Agreement, and said leases shall remain in full force and effect in accordance with the terms and conditions of said Agreement. This approval is subject to all of the provisions and requirements of the aforesaid statutes.

IN WI	TNESS	WHEREOF,	this	Certifi	icate	οf	Approval	is	executed,	wit	h	seal
affixed,	this_	30t	h	day	of		Janu	ary	- 	, 1	.9_	75

COMMISSIONER OF PUBLIC LANDS of the State of New Mexico

UNIT AGREEMENT

YOR THE DEVELOPMENT AND OFFRATION

OF THE

WEST AIRPORT UNIT AREA

EDDY COUNTY

STATE OF NEW MEXICO

NC	١.			

THIS AGREEMENT, entered into as of the <u>lst</u> day of <u>September</u>, 1974, 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 determinand certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Sec. 7-11-29 N.M. Statutes 1)53 Annotated to consent to or approve this agreement on behalf of the State of New Mexico, inspirate as it covers and includes lands and mineral interest of the State of New Mexico; acc.

whereas, the Oil Conservation Commission of the State of New Mexico is authorized by an Act of the Legislature (Chapter 72, Laws of 1935, as amended by Chapter 193, Laws of 1937; Chapter 166, Laws of 1941; and Chapter 168, Laws of 1949) to approve this agreement and the conservation provisions hereof; and,

WHEREAS, it is the purpose of the parties hereto to conserve natural reprevent waste, and secure other benefits obtainable through development and secure
of the area subject to this agreement under the terms, conditions, and limitates

herein set forth;

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

- 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.
- 2. <u>UNIT AREA</u>. The following described land is hereby designated and recognized as constituting the unit area:

T-22-S, R-26-E, NMPM Sections 20, 21; All Sections 28, 29; All Sections 32, 33; All

Containing 3,840.00 acres more or less Eddy County, New Mexico

Exhibit "A" attached hereto is a map showing the unit area and the boundaries and indentity of tracts and leases in said 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, percentage, and kind of ownership of oil and gas interests in all land in the unit area. 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. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes in the unit area render such revision necessary when requested by the Oil and Gas Supervisor, hereinafter referred to as "Supervisor," or when requested by the Commissioner of Public Lands of the State of New Mexico,

hereinafter referred to as "Land Commissioner," and not less than five (5) copies of the revised Exhibits shall be filed with the Supervisor and one (1) copy thereof shall be filed with the Land Commissioner, and one (1) copy with the New Mexico Oil Conservation Commission, hereinafter referred to as "State Commission."

The above-described unit area shall, when practicable, be expanded to include therein any additional lands or shall be contracted to exclude lands whenever such expansion or contraction is deemed to be necessary or advisable to conform with the purposes of this agreement. Such expansion or contraction shall be effected in the following manner:

- (a) Unit Operator, on its own motion or on demand of the Director of the Geological Survey, hereinafter referred to as "Director," or on demand of the Land Commissioner, after preliminary concurrence by the Director, shall prepare a notice of proposed expansion or contraction describing the contemplated changes in the boundaries of the unit area, the reasons therefor, and the proposed effective date thereof, preferably, the first day of a month subsequent to the date of notice.
- (b) Said notice shall be delivered to the Supervisor, the Land Commissioner and the State Commission, and copies thereof mailed to the last known address of each working-interest owner, lessee, and lessor whose interests are affected, advising that thirty (30) days will be allowed for submission to the Unit Operator of any objections.
- (c) Upon expiration of the 30-day period provided in the preceding item (b) hereof, Unit Operator shall file with the Supervisor, the Land Commissioner, and the State Commission, evidence of mailing of the notice of expansion or contraction and a copy of any objections thereto which have been filed with the Unit Operator, together with an application in sufficient number, for approval of such expansion or contraction and with appropriate joinders.
- (d) After due consideration of all pertinul information, the expansion or contraction shall, upon approval by the Supervisor, the Land Commissioner, become effective as of the date prescribed in the notice thereof.
- (e) All legal subdivisions of lands (i.e., 40 acres by Government survey or its nearest lot or tract equivalent; in instances of irregular surveys unusually large lots or tracts shall be considered in multiples of 40 acres or the nearest aliquot equivalent thereof), no pasts of which are entitled to be in a participating area on or before the fifth anniversary of the effective date of the first initial participating area established under this unit agreement, shall be eliminated actomatically from this agreement, effective as of said fifth anniversary, and such lands

shall no longer be a part of the unit area and shall no longer be subject to this agreement, unless diligent drilling operations are in progress on unitized lands not entitled to participation on said fifth anniversary, in which event all such lands shall remain subject hereto for so long as such drilling operations are continued diligently, with not more than 90 days' time elapsing between the completion of one such well and the commencement of the next such well. All legal subdivisions of lands not entitled to be in a participating area within 10 years after the effective date of the first initial participating area approved under this agreement shall be automatically eliminated from this agreement as of said tenth anniversary. All lands proved productive by diligent drilling operations after the aforesaid five-year period shall become participating in the same manner as during said five-year period. However, when such diligent drilling operations cease, all non-participating lands shall be automatically eliminated effective as of the 91st day thereafter. The unit operator shall within 90 days after the effective date of any elimination hereunder, describe the area so eliminated to the satisfaction of the Supervisor and the Land Commissioner and promptly notify all parties in interest.

If conditions warrant extension of the ten-year period specified in this subsection 2 (e), a single extension of not to exceed two years may be accomplished by consent of the owners of 90% of the working interests in the current non-participating unitized lands and the owners of 60% of the basic royalty interests (exclusive of the basic royalty interests of the United States) in non-participating unitized lands with approval of the Director and Land Commissioner, provided such extension application is submitted to the Director and the Land Commissioner not later then 60 days prior to the expiration of said ten-year period.

Any expansion of the unit area pursuant to this section which embraces lands theretofore eliminated pursuant to this subsection 2 (e) shall not be considered automatic commitment or recommitment of such lands.

- 3. UNITIZED LAND AND UNITIZED SUBSTANCES. All land committed to this agreement shall constitute land referred to herein as "unitized land" or "land subject to this agreement." All oil and gas in any and all formations of the unitized land are unitized under the terms of this agreement and herein are called "unitized substances."
- 4. UNIT OPERATOR. C & K Petroleum, Inc.
 is hereby designated as Unit Operator and by signature hereto as Unit Operator

agrees and consents to accept the duties and obligations of Unit Operator for the discovery, 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 the capacity and not as an owner of interest in unitized substances, and the term "working-interest owner" when used shall include or refer to Unit Operator as the owner of a working interest when such an interest is owned by it.

5. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time prior to the establishment of a participating area or areas hereunder, 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 notice of intention to resign has been served by Unit Operator on all working-interest owners and the Supervisor and the Land Commissioner, and until all wells then drilled hereunder are placed in a satisfactory condition for suspension or anandonment whichever is required by the Supervisor as to Federal lands and the State Commission as to State lands, unless a new Unit Operator shall have been selected and approved and shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

Unit Operator shall have the right to resign in like manner and subject to like limitations as above provided at any time a participating area established hereunder is in existence, but, in all instances of resignation or removal, until a successor unit operator is selected and approved as hereinafter provided, the working-interest owners shall be jointly responsible for performance of the duties of unit operator, and shall not later than 30 days before such resignation or removal becomes effective appoint a common agent to represent them in any action to be taken hereunder.

The resignation of Unit Operator shall not release Unit Operator from any liability for any default by it hereunder occurring prior to the effective date of its resignation.

The Unit Operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by the same percentage vote of the owners of working interests as herein provided for the selection of a new Unit Operator. Such removal shall be effective upon notice thereof to the Supervisor and the Land Commissioner.

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, materials, and appurtenances used in conducting the unit operations to the new duly qualified successor Unit Operator or to the common agent, if no such new Unit Operator is elected, to be used for the purpose of conducting unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment, and appurtenances needed for the preservation of any wells.

- 6. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender his or its resignation as Unit Operator or shall be removed as hereinabove provided, or a change of Unit Operator is negotiated by working-interest owners, the owners of the working interests in the participating area or areas according to their respective acreage interests in such participating area or areas, or until a participating area shall have been established, the owners of the working interests according to their respective acreage interests in all unitized land, shall by majority vote select a successor Unit Operator: Provided, That, if a majority but less than 75 per cent of the working interests qualified to vote are owned by one party to this agreement, a concurring vote of one or more additional working interest owners shall be required to select a new operator. 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 Supervisor and approved by the Land Commissioner.

If no successor Unit Operator is selected and qualified as herein provided, the Director and the Land Commissioner, at their election, may declare this unit agreement terminated.

7. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. If the Unit Operator is not the sole owner of working interests, costs, and expenses incurred by Unit Operator in conducting unit operations hereunder shall be paid and apportioned among and borne by the owners of working interests, all in accordance with the agreement or agreements entered into by and between the Unit Operator and the owners of working interests, whether one or more, capacately or collectively. Any agreement or agreements entered into between the working-interest owners and the

to as 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 independent contracts, and such other rights and obligations as between Unit Operator and the working-interest owners as may be agreed upon by 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 unit agreement or to relieve the Unit Operator of any right or obligation established under this unit agreement, and in case of any inconsistency or conflict between this unit agreement and the unit operating agreement, this unit agreement shall govern. Three true copies of any unit operating agreement executed pursuant to this section should be filed with the Supervisor and one true copy with the Land Commissioner, prior to approval of this unit agreement.

- 8. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto which are necessary or convenient for prospecting for, producing, storing, allocating, and distributing the unitized substances are herety delegated to and shall be exercised by the Unit Operator as herein provided. 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.
- 9. DRILLING TO DISCOVERY. Within six (6) months after the effective date hereof, the Unit Operator shall begin to drill an adequate test well at a location approved by the Supervisor, if on Federal land, or by the Land Commissioner, if on State land, unless on such effective date a well is being drilled conformably with the terms hereof, and thereafter continue such drilling diligently until the Mississippian formation (Barnett Shale) have been penetrated and all beds of Pennsylvanian Age have been tested ______, or until at a lesser depth unitized substances shall be discovered which can be produced in paying

quantities (to-wit: quantities sufficient to repay the costs of drilling, completing and producing operations, with a reasonable profit) or the Unit Operator shall, at any time, establish to the satisfaction of the Supervisor if on Federal land, or the Land Commissioner if on State land, that further drilling of said well would be unwarranted or impracticable; provided, however, that Unit Operator shall not, in any event, be required to drill said well to a depth in excess of 12,000_ feet. Until the discovery of a deposit of unitized substances capable of being produced in paying quantities, the Unit Operator shall continue drilling diligently one well at a time, allowing not more than six (6) months between the completion of one well and the beginning of the next well, until a well capable of producing unitized substances in paying quantities is completed to the satisfaction of said Supervisor if it be on Federal land or of the Land Commissioner if on State land, or until it is reasonably proved that the unitized land is incapable of producing unitized substances in paying quantities in the formations drilled hereunder. Nothing in this section shall be deemed to limit the right of the Unit Operator to resign as provided in Section 5 hereof, or as requiring Unit Operator to commence or continue any drilling during the period pending such resignation becoming effective in order to comply with the requirements of this section. The Director and Land Commissioner may modify the drilling requirements of this section by granting reasonable extensions of time when, in their opinion, such action is warranted.

Upon failure to commence any well provided for in this section within the time allowed, including any extension of time granted by the Supervisor and the Land Commissioner, this agreement will automatically terminate; upon failure to continue drilling diligently any well commenced hereunder, the Supervisor and the Land Commissioner may, after 15-days notice to the Unit Operator, declare this unit agreement terminated.

10. PLAN OF FURTHER DEVELOPMENT AND OPERATION. Within six (6) months after completion of a well capable of producing unitized substances in paying quantities, the Unit Operator shall submit for the approval of the Supervisor and the Land Commissioner an acceptable plan of development and operation for the unitized land which, when approved by the Supervisor and the Land Commissioner, shall constitute the further drilling and operating obligations of the Unit Operator under this agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit

for the approval of the Supervisor and the land Commissioner a plan for an additional specified period for the development and operation of the unitized land.

Any plan submitted pursuant to this section shall provide for the exploration of the unitized area and for the diligent drilling necessary for determination of the area or areas thereof capable of producing unitized substances in paying quantities in each and every productive formation and shall be as complete and adequate as the Supervisor and the Land Commissioner may determine to be necessary for timely development and proper conservation of the oil and gas resources of the unitized area and shall:

- (a) specify the number and locations of any wells to be drilled and the proposed order and time for such drilling; and
- (b) to the extent practicable specify the operating practices regarded as necessary and advisable for proper conservation of natural resources.

 Separate plans may be submitted for separate productive zones, subject to the approval of the Supervisor and the Land Commissioner.

Plans shall be modified or supplemented when necessary to meet changed conditions or to protect the interests of all parties to this agreement. Reasonable diligence shall be exercised in complying with the obligations of the approved plan of development. The Supervisor and the Land Commissioner are authorized to grant a reasonable extension of the six-month period herein prescribed for submission of an initial plan of development where such action is justified because of unusual conditions or circumstances. After completion hereunder of a well capable of producing any unitized substance in paying quantities, no further wells, except such as may be necessary to afford protection against operations not under this agreement and such as may be specifically approved by the Supervisor and the Land Commissioner, shall be drilled except in accordance with a plan of development approved as herein provided.

11. PARTICIPATION AFTER DISCOVERY. Upon completion of a well capable of producing unitized substances in paying quantities or as soon thereafter as required by the Supervisor or the Land Commissioner, the Unit Operator shall submit for approval by the Supervisor and the Land Commissioner a schedule, based on subdivisions of the public-land survey or aliquot parts thereof, of all land then regarded as reasonably proved to be productive in paying quantities; all lands in said schedule on approval of the Supervisor and the Land Commissioner to constitute a participating area, effective as of the date of completion of such well or the

effective date of this unit agreement, which wer is later. The acress of both Federal and non-Federal lands shall be based upon appropriate computations from the courses and distances shown on the last approved public-land curvey as of the effective date of each initial participating area. Said schedule shall also set forth the percentage of unitized substances to be allocated as herein provided to each tract in the participating area so established, and shall govern the allocation of production commencing with the effective date of the participating area. A separate participating area shall be established for each separate pool or deposit of unitized substances or for any group thereof which is produced as a single pool or zone, and any two or more participating areas so established may be combined into one, on approval of the Supervisor and the Land Commissioner. When production from two or more participating areas, so established, is subsequently found to be from a common pool or deposit said participating areas shall be combined into one effective as of such appropriate date as may be approved or prescribed by the Supervisor and the Land Commissioner. The participating area or areas so established shall be revised from time to time, subject to like approval, to include additional land then regarded as reasonably proved to be productive in paying quantities or necessary for unit operations, or to exclude land then regarded as reasonably proved not to be productive in paying quantities and the schedule of allocation percentages shall be revised accordingly. The effective date of any revision shall be the first of the month in which is obtained the knowledge or information on which such revision is predicated, provided, however, that a more appropriate effective date may be used if justified by the Unit Operator and approved by the Supervisor and the Land Commissioner. No land shall be excluded from a participating area on account of depletion of the unitized substances, except that any participating area established under the provisions of this unit agreement shall terminate automatically whenever all completions in the formation on which the participating area is based are abandoned.

It is the intent of this section that a participating area shall represent the area known or reasonably estimated to be productive in paying quantities; but regardless of any revision of the participating area, nothing herein contained shall be construed as requiring any retreactive adjustment for production obtained prior to the effective date of the revision of the participating area.

In the absence of agreement at any time between the Unit Operator and the Copervisor and the Land Coperison or so to the proper definition or redefinition

of a participating area, or until a participating area has, or areas have, been established as provided herein, the portion of all payments affected thereby shall be impounded in a manner mutually acceptable to the owners of working interests and the Supervisor and the Land Commissioner. Royalties due the United States shall be determined by the Supervisor for Federal lands and the Land Commissioner for the State lands and the amount thereof shall be deposited, as directed by the Supervisor and the Land Commissioner, to be held as uncarned money until a participating area is finally approved and then applied as earned or returned in accordance with a determination of the sum due as Federal and State royalty on the basis of such approved participating area.

Whenever it is determined, subject to the approval of the Supervisor and the Land Commissioner, that a well drilled under this agreement is not capable of production in paying quantities and inclusion of the land on which it is situated in a participating area is unwarranted, production from such well shall, for the purposes of settlement among all parties other than working-interest owners, be allocated to the land on which the well is located unless such land is already within the participating area established for the pool or deposit from which such production is obtained. Settlement for working interest benefits from such a well shall be made as provided in the unit operating agreement.

12. ALLOCATION OF PRODUCTION. All unitized substances produced from each participating area established under this agreement, except any part thereof used in conformity with good operating practices within the unitized area for drilling, operating, camp, and other production or development purposes, for repressuring or recycling in accordance with a plan of development approved by the Supervisor and Land Commissioner, or unavoidably lost, shall be deemed to be produced equally on an acreage basis from the several tracts of unitized land of the participating ares established for such production and, for the purpose of determining any benefits accruing under this agreement, each such tract of unitized land shall have allocated to it such percentage of said production as the number of acres of such tract included in said participating area bears to the total acres of unitized land in said participating area, except that allocation of production hereunder for purposes other than for settlement of the royalty, overriding royalty, or payment out of production obligations of the respective working-interest owners, shall be on the basis prescribed in the unit operating agreement whether in conformity with the basis of allocation herein set forth or otherwise. It is hereby

agreed that production of unitized substances from a participating area shall be allocated as provided herein regardless of whether any wells are drilled on any particular part or tract of said participating area. If any gas produced from one participating area is used for repressuring or recycling purposes in another participating area, the first gas withdrawn from such last-mentioned participating area for sale during the life of this agreement shall be considered to be the gas so transferred until an amount equal to that transferred shall be so produced for sale and such gas shall be allocated to the participating area from which initially produced as such area was last defined at the time of such final production.

party hereto owning or controlling the working interest in any unitized land having thereon a regular well location may with the approval of the Supervisor and the Land Commissioner, at such party's sole risk, costs, and expense, drill a well to test any formation for which a participating area has not been established or to test any formation for which a participating area has been established if such location is not within said participating area, unless within 90 days of receipt of notice from said party of his intention to drill the well the Unit Operator elects and commences to drill such a well in like manner as other wells are drilled by the Unit Operator under this agreement.

If any well drilled as aforesaid by a working-interest owner results in production such that the land upon which it is situated may properly be included in a participating area, such participating area shall be established or enlarged as provided in this agreement and the well shall thereafter be operated by the Unit Operator in accordance with the terms of this agreement and the unit operating agreement.

If any well drilled as aforesaid by a working-interest owner obtains production in quantities insufficient to justify the inclusion of the land upon which such well is situated in a participating area, such well may be operated and produced by the party drilling the same subject to the conservation requirements of this agreement. The royalties in amount or value of production from any such well shall be paid as specified in the underlying lease and agreements affected.

14. ROYALTY SETTLEMENT. The United States and any State and any royalty owner who is entitled to take in kind a share of the substances now unitized hereunder shall hereafter be entitled to the right to take in kind its share of the unitized substances, and the Unit Operator, or the working-int rest owner in case

of the operation of a well by a working-interest owner as herein provided for in operation cases, shall make deliveries of such royalty share taken in kind in conformity with the applicable contracts, laws, and regulations. Settlement for royalty interest not taken in kind shall be made by working-interest owners responsible therefor under existing contracts, laws, and regulations, or by the Unit Operator, on or before the last day of each month for unitized substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any royalties due under their leases.

If gas obtained from lands not subject to this agreement is introduced into any participating area hereunder, for use in repressuring, stimulation of production, or increasing ultimate recovery, in conformity with a plan of operations approved by the Supervisor and the Land Commissioner, a like amount of gas, after settlement as herein provided for any gas transferred from any other participating area and with appropriate deduction for loss from any cause, may be withdrawn from the formation into which the gas is introduced, royalty free as to dry gas, but not as to any products which may be extracted therefrom; provided that such withdrawal shall be at such time as may be provided in the approved plan of operations or as may otherwise be consented to by the Supervisor and the Land Commissioner as conforming to good petroleum engineering practice; and provided further, that such right of withdrawal shall terminate on the termination of this unit agreement.

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

Royalty due on account of State lands shall be computed and paid on the basis of all unitized substances allocated to such lands.

15. RENTAL SETTLEMENT. Rental or minimum royalties due on leases committed hereto shall be paid by working-interest owners responsible therefor under existing contracts, laws, and regulations, provided that nothing herein contained shall

operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty due under their leases. Rental or minimum royalty for lands of the United States subject to this agreement shall be paid at the rate specified in the respective leases from the United States unless such rental or minimum royalty is waived, suspended, or reduced by law or by approval of the Secretary or his duly authorized representative.

Rentals on State of New Mexico lands subject to this agreement shall be paid at the rates specified in the respective leases.

With respect to any lease on non-Federal land containing provisions which would terminate such lease unless drilling operations are commenced upon the land covered thereby within the time therein specified or rentals are paid for the privilege of deferring such drilling operations, the rentals required thereby shall, notwithstanding any other provision of this agreement, be deemed to accrue and become payable during the term thereof as extended by this agreement and until the required drilling operations are commenced upon the land covered thereby or until some portion of such land is included within a participating area.

- 16. 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 State or Federal law or regulation.
- 17. <u>DRAINAGE</u>. The Unit Operator shall take such measures as the Supervisor and Land Commissioner deem appropriate and adequate to prevent drainage of unitized substances from unitized land by wells on land not subject to this agreement.
- 18. 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, as to Federal leases and the Land Commissioner, as to State leases, shall and each 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 and State leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this agreement, and without limiting the generality of the foregoing.

all leases, subleaces, and contracts are particularly modified in accordance with the following:

- (a) The development and operation of lands subject to this agreement under the terms thereof shall be deemed full performance of all obligations for development and operation with respect to each and every separately owned tract subject to this agreement, regardless of whether there is any development of any particular tract of the unit area.
- (b) Drilling and producing operations performed hereunder upon any tract of unitized lands will be accepted and deemed to be performed upon and for the benefit of each and every tract of unitized land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.
- (c) Suspension of drilling or producing operations on all unitized lands pursuant to direction or consent of the Secretary and the Land Commissioner, or his duly authorized representative, shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every tract of unitized land. A suspension of drilling or producing operations limited to specified lands shall be applicable only to such lands.
- (d) Each lease, sublease, or contract relating to the exploration, drilling, development or operation for oil or gas of lands other than those of the United States and State of New Mexico committed to this agreement, which, by its terms might expire prior to the termination of this agreement, is hereby extended beyond any such terms so provided therein so that it shall be continued in full force and effect for and during the term of this agreement.
- (e) Any Federal lease for a fixed term of twenty (20) years or any renewal thereof or any part of such lease which is made cubject to this agreement shall continue in force beyond the term provided therein until the termination hereof. Any other Federal lease committed hereto shall continue in force beyond the term so provided therein or by law as to the land committed so long as such lease remains subject hereto, provided that production is had in paying quantities under this unit agreement prior to the expiration date of the term of such lease, or in the event actual drilling operations are commenced on unitined lane, in accordance with the provisions of this agreement, prior to the end of the primary term of such lease and are being diligently prosecuted at that time, such lease shall be extended for two years and so long thereafter as oil or gas is produced in paying quantities in

accordance with the provisions of the Mineral Leading Act Revision of 1960.

- (f) Each sublease or contract relating to the operation and development of unitized substances from lands of the United States committed to this agreement, which by its terms would expire prior to the time at which the underlying lease, as extended by the immediately preceding paragraph, will expire, 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 the underlying lease as such term is herein extended.
- (g) The segregation of any Federal Lease committed to this agreement is governed by the following provision in the fourth paragraph of Sec. 17 (j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 781-784):
 "Any (Federal) lease heretofore or hereafter committed to any such (unit) Plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization: Provided, however, that any such lease as to the 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."
- (h) Any lease embracing lands of the State of New Mexico which is made subject to this agreement, shall continue in force beyond the term provided therein as to the lands committed hereto until the termination hereof.
- (i) Any lease embracing lands of the State of New Mexico having only a portion of its lands committed hereto, shall be segregated as to the portion committed and the portion not committed, and the terms of such lease shall apply separately to such segregated portions commencing as of the effective date hereof; provided, however, notwithstanding any of the provisions of this agreement to the contrary any lease embracing lands of the State of New Mexico having only a portion of its lands committed hereto shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease, if oil or gas is discovered and is capable of being produced in paying quantities from some part of the lands embraced in such lease at the expiration of the secondary term of such lease; or if, at the expiration of the secondary term, the lessee or the Unit Operator is then engaged in bona fide drilling or reworking operations on some part of the lands embraced in such lease, the same, as to all lands embraced therein, shall

remain in full force and effect so long as such operations are being diligently prosecuted, and if they result in the production of oil or gas; said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as oil or gas in paying quantities is being produced from any portion of said lands.

- 19. 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, or 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, royalty, or other 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, photostatic, or certified copy of the instrument of transfer.
- 20. EFFECTIVE DATE AND TERM. This agreement shall become effective upon approval by the Secretary and the Land Commissioner or his duly authorized representative, and shall terminate five (5) years from said effective date unless
- (a) such date of expiration is extended by the Director and the Land Commissioner, or
- (b) it is reasonably determined prior to the expiration of the fixed term or any extension thereof that the unitized land is incapable of production of unitized substances in paying quantities in the formations tested hereunder and after notice of intention to terminate the agreement on such ground is given by the Unit Operator to all parties in interest at their last known addresses, the agreement is terminated with the approval of the Supervisor and the Land Commissioner, or
- (c) a valuable discovery of unitized substances has been made or accepted on unitized land during said initial term or any extension thereof, in which event the agreement shall remain in effect for such term and so long as unitized substances are produced in quantities sufficient to pay for the cost of producing same from wells on unitized land within any participating area established hereunder and, should production cease, so long thereafter as diligent operations are in progress for the restoration of production or discovery of new production and so long thereafter as unitized substances so discovered are produced as aforesaid, or

- (d) it is terminated as heretofore provided in this agreement. This agreement may be terminated at any time by not less than 75 per centum, on an acreage basis, of the working-interest owners signatory hereto, with the approval of the Supervisor and the Land Commissioner; notice of any such approval to be given by the Unit Operator to all parties hereto.
- 21. RATE OF PROSPECTING, DEVELOPMENT, AND PRODUCTION. The Director is hereby vested with authority to alter or modify from time to time in his discretion the quantity and rate of production under this agreement when such quantity and rate is not fixed pursuant to Federal or State law or does not conform to any state-wide voluntary conservation or allocation program, which is established, recognized, and generally adhered to by the majority of operators in such State, 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. Without regard to the foregoing, the Director is also hereby vested with authority to alter or modify from time to time in his discretion the rate of prospecting and development and the quantity and rate of production under this agreement when such alteration or modification is in the interest of attaining the conservation objectives stated in this agreement and is not in violation of any applicable Federal or State law.

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

- 22. APPEARANCES. Unit Operator shall, after notice to other parties affected, have the right to appear for and on behalf of any and all interests affected hereby before the Department of the Interior and the Commissioner of Pulbic Lands and to appeal from orders issued under the regulations of said Department or Land Commissioner or to apply for relief from any of said regulations or in any proceedings relative to operations before the Department of the Interior or the Land Commissioner or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his own expense to be heard in any such proceeding.
- 23. NOTICES. All notices, demands, or statements required hereunder to be given or rendered to the parties harato shall be deemed fully given if given in writing and personally delivered to the party or sent by postpaid registered or entified soil, addressed to such party or parties at their respective addresses.

set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party may have furnished in writing to party sending the notice, demand or statement.

- 24. 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 of the United States, 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.
- Unit Operator to commence or continue drilling or to operate on or produce unitized substances from any of the lands covered by this agreement shall be suspended while 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 agencies, unavoidable accidents, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not. No unit obligation which is suspended under this section shall become due less than thirty (30) days after it has been determined that the suspension is no longer applicable. Determination of creditable "Unavoidable Delay" time shall be made by the unit operator subject to approval of the Supervisor and the Land Commissioner.
- 26. NONDISCRIMINATION. In connection with the performance of work under this agreement, the operator agrees to comply with all 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.
- 27. LOSS OF TITLE. In the event title to any tract of unitized land shall fail and the true owner cannot be induced to join in this unit 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 as 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 and State land or leases, no payments of

funds due the United States or the State of New Mexico should be withheld, but such funds shull be deposited as directed by the Supervisor and such funds of the State of New Mexico shull be deposited as directed by the Land Commissioner, to be held as uncarned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

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

28. NON-JOINDER AND SUBSEQUENT JOINDER. If the owner of any substantial interest in a tract within the unit area fails or refuses to subscribe or consent to this agreement, the owner of the working interest in that tract may withdraw said tract from this agreement by written notice delivered to the Supervisor and the Land Commissioner and the Unit Operator prior to the approval of this agreement by the Supervisor. Any oil or gas interests in lands within the unit area not committed hereto prior to submission of this agreement for final approval may thereafter be committed hereto by the owner or owners thereof subscribing or consenting to this agreement, and, if the interest is a working interest, by the owner of such interest also subscribing to the unit operating agreement. After operations are commenced hereunder, the right of subsequent joinder, as provided in this section, by a working-interest owner is subject to such requirements or approvals, if any, pertaining to such joinder, as may be provided for in the unit operating agreement. After final approval hereof, joinder by a non-working interest owner must be consented to in writing by the working-interest owner committed hereto and responsible for the payment of any benefits that may accrue hereunder in behalf of such nonworking interest. A non-working interest may not be committed to this unit unless the corresponding working interest is committed hereto. Joindor to the unit agreement by a working-interest owner, at any time, must be accompanied by appropriate joinder to the unit operating agreement, if more than one committed working-interest owner is involved, in order for the interest to be regarded as committed to this unit agreement. Except as may otherwise herein be provided, subsequent joinders to this agreement shall be effective as of the first day of the month following the filing with the Supervisor and the Land Commissioner of duly executed counterparts of all or any papers necessary to establish effective commitment of any tract to this agreement unless objection to such joinder is duly made within sixty (60) days by the Supervisor and the Land Commissioner.

29. COUNTERPARTS. This agreement may be executed in any number of counterparts no one of which needs to be executed by all parties or 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 such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above-described unit area.

30. SURRENDER. Nothing in this agreement shall prohibit the exercise by any working-interest owner of the right to surrender vested in such party by any lease, sublease, or operating agreement as to all or any part of the lands covered thereby, provided that each party who will or might acquire such working interest by such surrender or by forfeiture as hereafter set forth, is bound by the terms of this agreement.

If, as a result of any such surrender, the working interest rights as to such lands become vested in any party other than the fee owner of the unitized substances, said party may forfeit such rights and further benefits from operation hereunder as to said land to the party next in the chain of title who shall be and become the owner of such working interest.

If, as the result of any such sweender or forfeiture, working interest rights become vested in the fee owner of the unitized substances, such owner may:

- (1) Accept those working-interests rights subject to this agreement and the unit operating agreement; or
- (2) Lease the portion of such land as is included in a participating area established hereunder subject to this agreement and the unit operating agreement.
- (3) Provide for the independent operation of any part of such land that are not then included within a participating area established hereunder.

If the fee owner of the unitized substances does not accept the workinginterest rights subject to this agreement and the unit operating agreement or lease,
such lands as above-provided within six (6) months after the surrendered or forfeited working-interest rights become vested in the fee owner, the benefits and
obligations of operations accruing to such lands under this agreement and the unit
operating agreement shall be shared by the remaining owners of unitized working
interests in accordance with their respective working interest ownerships, and
such owners or working interests shall compensate the fee owner of unitized sub-

stances in such lands by paying sums equal to the rentals, minimum royalties, and royalties applicable to such lands under the lease in effect when the lands were unitized.

An appropriate accounting and settlement shall be made, for all benefits accruing to or payments and expenditures made or incurred on behalf of such surrendered or forfeited working interest subsequent to the date of surrender or forfeiture, and payment of any moneys found to be owing by such an accounting shall be made as between the parties within thirty (30) days. In the event no unit operating agreement is in existence and a mutually acceptable agreement between the proper parties thereto cannot be consummated, the Supervisor may prescribe such reasonable and equitable agreement as he deems warranted under the circumstances.

The exercise of any right vested in a working-interest owner to reassign such working interest to the party from whom obtained shall be subject to the same conditions as set forth in this section in regard to the exercise of a right to surrender.

- 31. TAXES. The working-interest owners shall render and pay for their account and the account of the royalty owners all valid taxes on or measured by the unitized substances in and under or that may be produced, gathered, and sold from the land subject to this contract after the effective date of this agreement, or upon the proceeds derived therefrom. The working-interest owners on each tract shall and may charge the proper proportion of said taxes to the royalty owners having interests in said tract, and may currently retain and deduct sufficient of the unitized substances or derivative products, or net proceeds thereof from the allocated share of each royalty owner to secure reimbursement for the taxes so paid. No such taxes shall be charged to the United States or the State of New Mexico or to any lessor who has a contract with his lessor wh
- 32. NO PARTMERSHIP. It is expressly agreed that the relation of the parties hereto is that of independent contractors and nothing in this agreement contained, expressed, or implied, nor any operations conducted hereunder, shall create or be deemed to have created a partnership or association between the parties hereto or any of them.
- 33. CONFLICT OF SUPERVISION. Neither the Unit Operator nor the working-interest owners, nor any of them, shall be subject to any forfeiture, termination, or expiration of any right hereunder or under any leases or contracts subject hereto,

or to any penalty or liability on account of delay or failure in whole or in part to comply with any applicable provisions thereof to the extent that the said Unit Operator or the working-interest owners, or any of them, are hindered, delayed, or prevented from complying therewith by reason of failure of the Unit Operator to obtain, in the exercise of due diligence, the concurrence of proper representatives of the United States and proper representatives of the State of New Mexico in and about any matters or things concerning which it is required herein that such concurrence be obtained. The parties hereto, including the State Commission, agree that all powers and authority vested in the State Commission in and by any provisions of this agreement are vested in the State Commission and shall be exercised by it pursuant to the provisions of the laws of the State of New Mexico and subject in any case to appeal or judicial review as may now or hereafter be provided by the laws of the State of New Mexico.

34. SURFACE AND ENVIRONMENTAL PROTECTION STIPULATIONS. Nothing in this agreement shall modify or change either the special Federal Lease stipulations relating to surface management or such special Federal Lease stipulations relating to surface and environmental protection, attached to and made a part of, Oil and Gas Leases covering lands within the Unit Area.

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

ATTEST:

C & K PETROLEUM, INC.

B. Katiena Crin	BY: W. Sterner
associted Secretary	W. D. Kennedy Address: Executive Vice President
	· _ /
A STATE OF THE STA	UNIT OPERATOR Tr - 9
STATE OF <u>Jules</u>) ss COUNTY OF <u>hereland</u>)	•
COUNTY OF <u>hereland</u>)	
The foregoing instrument was	acknowledged before me this 13th day of
Mecenetical, 1974, b	y TU. B. Kennicky who is
Stee The President	of C & K Petroleum, Inc.
Melaurari corporatio	(State of incorp.) n, for and on behalf of said Corporation.
	·
My Commission Typlres:	Notary Public
19.2. 2. 1875 · ·	// Notary Public
	·

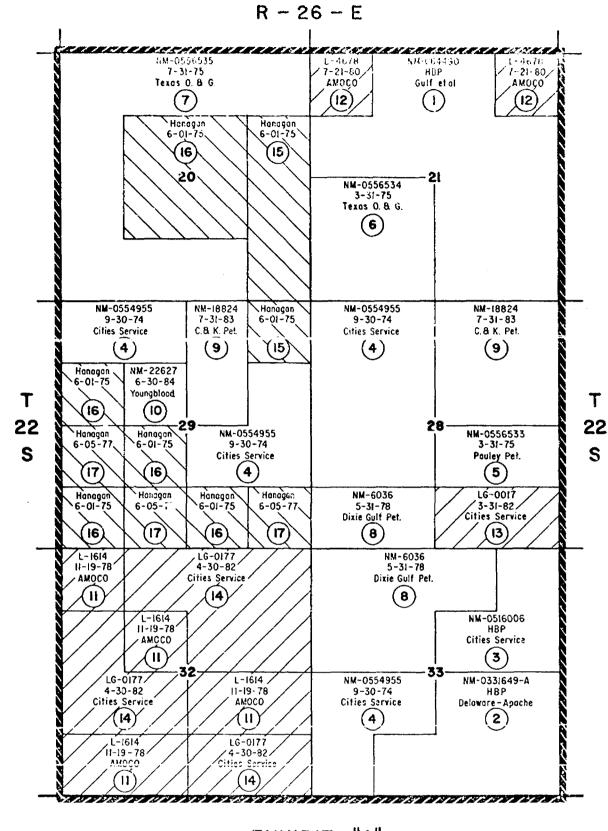


EXHIBIT "A"
WEST AIRPORT UNIT
EDDY COUNTY, NEW MEXICO

aring.	UNIT OUTLINE
(5)	IRACY NUMBER
	FEDERAL LANDS 2440.00 ACRES; 63.54 %
	STATE OF NEW MEXICO LANDS 600.00 ACRES; 20.83 %
	PATENTED (FEE) LANDS EQUIDO AGRES, 10163 %

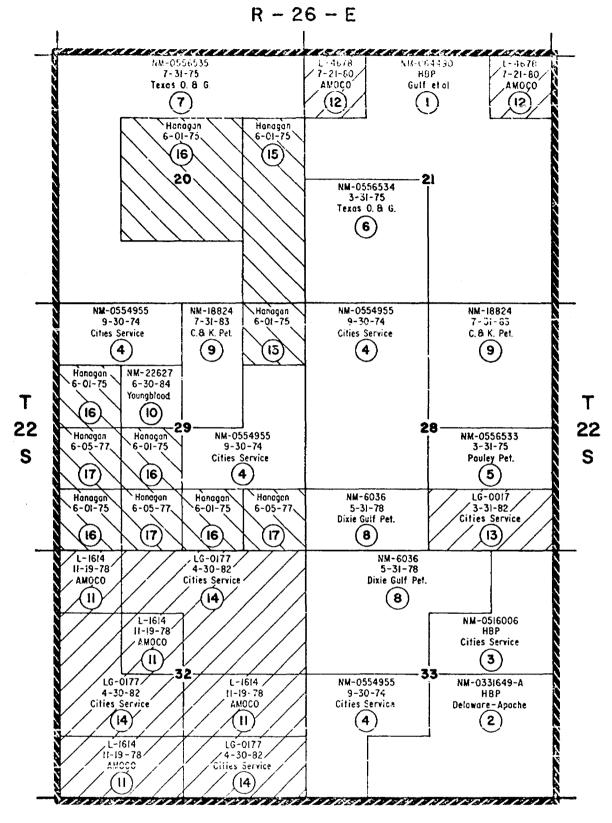


EXHIBIT "A"
WEST AIRPORT UNIT
EDDY COUNTY, NEW MEXICO

161 B B.	UNIT OUTLINE
(2)	IPACT NUMBER
	FEDERAL LANDS 2440.00 ACRES; 63.54 %
	STATE OF NEW MEXICO LANDS 800.00 ACRES; 20.83 %
	PATENTED (FEE) LAMOS EDOLOGI AGRES; 15.63 %

EXHIBIT "B" SCHEDULE OF LANDS AND LEASES WEST AIRPORT UNIT AREA Eddy County, New Mexico

5.	ŧ-	/ H		·	• H		TRACT	
Sec. 28; N/SE/4	Sec. 28; N/SW/4, Sec. 29; N/2NW/4, SE/ANE/4, N/2SE/4 Sec. 33; N/SW/4, Sw/4SW/4	Sec. 33; NE/ANE/A, S/ANT/4	Sec. 33; SEASWA, SEA		Sec. 21; NEIANWA, NWIYIEIA, SIAWA, SEM	All lands described below are in T-22-S, R-26-E, NMPM	DESCRIPTION	
80.00	560.00	120.00	200.00		£00.00	ned	ACRES	
NM-0556533	NM-0554955 9-30-74	ИМ-0516006	им-03316 49-а нвр		NM-064490		SERIAL NO. & EXP. DATE	
U.S.A. 12.5	U.S.A. 12.5	U.S.A. 12.5	U.S.A. 12.5		12.5		BASIC ROYALTY	
Pauley Petroleum Inc All	Cities Service Oil - All	Cities Service Oil - All	Apexco, Inc 50.00 AMOCO Production	*Payable out of Atlantic Richfield interest only	Gulf Oil Corp 53.125 David Fasken - 18.750 Atlantic Richfield - 25.000 Tom Brown Drilling Company - 3.125		LESSEE OF RECORD	
None	H. F. Schram & Est. E. A. Hanson	M. E. Gellert	Bettie L. Greenwade	tlantic st only	\$500 acre out of 25.000 Est. E. A. Hansen \$225 per acre out of Featherstone Farms \$225 per acre out of Kay Havenor Norman L. Stevens		OVERRIDING ROYALTY AND PERCENTAGE	
	5%	5%	5%		0.30% 1.35% 1.35% 0.625%*			
Pauley Petroleum, Inc.	Cities Service Oil Co.	Cities Service Oil Co.	Apexco, Inc. AMOCO Production	Atlantic Richfield David Fasken Tom Brown Drilling Co.	Above 10,600 ft. Gulf Oil Corp. Atlantic Richfield David Fasken Charles Read Tom Brown Drilling Co. Below 10,600 ft. Gulf Oil Corp		WORKING INTEREST AND PERCENTAGE	
700.co%	%03°00T	%03.COT	50.00%	25,00% 16,75% 3,12%	25 - 17 - 17 - 17 - 17 - 17 - 17 - 17 - 1			



				18	New Mexico Lands	State of	800.00 acres,	Total: 800	•
•			10110	CTCTOD ROTATION CTT CO.	12.5	4-30-82	50	NEA, SWANWA, NEA, SWANWA, NASWA, SYSEM	• †
100 COK			No.		12.5	3-31-82	00.00	3 0	· .
100.00%	Production Company		None	Production	State 12.5	L-4678 7-21-80	8 0	MNAKA 112	12.
100.CO%	AMOCO Production Company		None	AMOCO Production Co.	State 12.5	1-1614 11-19-78	240.00	Sec. 32; NWANWA, SEYAWA, SYSWA, NYSEK	11.
			NDS	STATE OF NEW MEXICO LANDS		s Federal Lands	•00 acres	fotal 2,440.00	
200-00%	ρ,		None	J. Lee Youngblood	12.5	NM-22627 6-30-84	₩.00	Sec. 29; SE/ANWA	10.
100.0%	C & X Petroleum, Inc.	6.25%	H. F. Darling \$750 per acre out of	G & K Petroleum, IncAll	17.8.A. 1.2.5	NM-18824 7-31-83	240.00	Sec. 28; NE% Sec. 29; W/ME%	9.
100.0%	Dixie Gulf Petroleum Co.	4.00%	Luanne C. Wells	Dixie Gulf Petroloum Company - All	U.S.A. 12.5	NM-6036 5-31-78	280.00	Sec. 28; SYSWA Sec. 33; NWANEA,	o
% 0.0% 20.0%	Nielsen Enterprises, Inc. Texas Oil & Gas Corp.	5-00%	George A. Breche	Nielsen Enterprises Inc 50.0 Texas Oil & Gas Corp 50.0	U.S.A. 12.5	NM-0556535 3-31-75	360.00	Sec. 20; N/27/2, SW/274/4, W/ASW/4, SE/S4/4, SW/ASE/4	?
50 P	Hexas Oll & Gas Ourg.	1.25% 2.50% 6.00%	Est. James R. Stephens T. H. McElvain, Jr. Catherine M. Harvey Marybea M. Letts	Nielsen Enterprises, Inc 50.0 Texas Oil & Gas Corp 50.0	U.S.A.	NM-0556534 3-31-75	160.00	Sec. 21; SW4	٠ •

PATENTED (FEE) LANDS

17.	16.	15 •
Sec. 29; SEMSEM, 120.00 NWASWA, SEMSWM	Sec. 20; SWANEA SEKNWA, NWASEA, NEKSWA Sec. 29; SWANWA, SWKSEM, NEMSWA, SWKSWA	Sec. 20; SEMNE%, =/&SE% Sec. 29; NE%NE%
120.00	320.00	160.00
6-06-77	Same as Above	5-26-77 6-01-75 6-01-75 6-01-75 6-05-77 Unleased
Berniece G. Hamilton 6.25% Richard I. Floyd 6.25% 12.50%	L. H. Tyson 2.343750% Hilda Veinert & Jane Blumbers 7.031250% Leila B. Goddard, John A. Bauchman, James J. Bauchman 2.343750% Carter Foundation 4.687500% Felmont Oil Corp. 1.562500% 17.968750%	L. H. Tyson 1.171875% Hilda Jeinert & Jane Blumbers 7.031250% Leila 3. Goddard, John A Bauchman, James 3. Bauchman 2.343750% Carter Foundation 4.687500% Marjor:e Hershelman, Evelyn Bundy, Helen Sutherland 2.343750% Felmont Oil Corp. 0.781250%
% Hanagan & Hanagan 100.00% F.G. Breckenridge 5% %	Hanagan & Hanagan 87.50% Felmont Cil Corp. 12.50%	Hanagan & Hanagan 93.75%
F.G. Breckenridg	None None	None
;e 5% Hanagan & Hanagan	Hanagan & Hanagan	Hanagan & Hanagan
100.00%	87.50% 12.50%	93.73% 100.00%

Total: 600.00 acres, Patented (Fee) Lands

Recapitulation

2,440.00 acres Federal Lands; 63.54% of Unit Area 800.00 acres State of New Mexico Lands; 20.83% Unit Area 600.00 acres Patented (Fee) Lands; 15.53% Unit Area 3,840.00

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area — embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

ATTICT		COUR OIL	COKPORATION		Serv. 31
ALLESE.					to to
		1 , ,	2 TT C		Prod.
mill marly		BY W 3	5400	mmp_	
Assistant Secretary		Atto	rney-in Fac	t	K
	INDIVIDU	: TAT.	. /		
	THOTATOC	AD	T1-1		
STATE OF	Y				
	— <u>x</u>				•
COUNTY OF	Î				
	_				
The foregoing instrument was	-	•			
, 1974, by		وأنبس والروائم لخاط			
					
MY COMMISSION EXPIRES:	**				
-	J.	Notary Pub	lic		
		•			
•	CORPORA	TE			
STATE OF TEXAS					
STATE OF TEXAS	— ĝ				•
COUNTY OF MIDLAND	ģ X				
	— <u>x</u>				•
The foregoing instrument was	_		1		•
December, 1974, by	W. B. HOF	KINS	who is	Aftornev-	in-Pact
of GULF OIL CORPORATION	a	<u>Pennsylva</u>	nia	Corpo	oration,
for and on behalf of acid Company	+4				
for and on behalf of said Corpora	r 1013	o · .	^		• • • • •
MY COMISSION DUPIRES:		hours	my Jon	res_	
•	Ī	votary Fub	-90		
	_	E E E	JONES - Notery	n-La	,
	•	<u>មាលសំ</u> រ	Or Billiand Comm	to crame	1
· · · · · · · · · · · · · · · · · · ·		7 C	ion Indus June	1, 19 75	

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date

set forth in their respective acknowledgments. November 27, 1974 608 First National Bank Bldg. Barbara Fasken Midland, Texas 79701 INDIVIDUAL STATE OF CALIFORNIA CITY& COUNTY OF SAN FRANCISCO The foregoing instrument was acknowledged before me this $3^{\nu l}$ day of , 1974, by David Fasken and Barbara Fasken, wife of David Fasken. MY COMMISSION EXPIRES: Notary Public, State of California, May 28, 977 City & County of San Francisco Spietestenenterinenterinenterinenterinenterinenterinenterinen PATRICK J. MALGHEY. JR.
NOTARY PUBLIC CALIFORNIA
CITY & COUNTY OF SAN FRANCISCO CORPORATE STATE OF COUNTY OF The foregoing instrument was acknowledged before me this ____ day of _____, 197%, by ______ who is ___ a _____ Corporation, for and on behalf of said Corporation. MY COMMISSION EXPIRES: Notary Public

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

ATTEST:	TOM BROWN INC
Elgina Meill	An tie Paul
Regina Neill - Assistant Secretary	Rl J. DePaul - Vice President
INDIVI	DUAL /
STATE OF	
COUNTY OF \$	
The foregoing instrument was acknowled	ged before me this day of
, 1974, by	·
MY COMMISSION EXPIRES:	Notary Public
CORPC	'TE
STATE OF TEXAS COUNTY OF MIDLAND	
The foregoing instrument was acknowled	ged before me thisof
November , 1974, by R. J. DEPA	UL who is <u>Vice President</u>
of TOM BROWN, INC. a	Nevada Corporation,
for and on behalf of said Corporation.	
MY COMMISSION EXPIRES:	Notary Public)

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

Cities Service Oil Company	CITIES SERVICE OIL COMPANY
P. O. Box 300	By Wiley Crice
Tulsa, Oklahoma 74102	Wiley C. Hill Attorney-in-Fact
	INDIVIDUAL Tr. 3-4-13-14
STATE OF	ĭ
COUNTY OF	— ¥ — ¥
	acknowledged before me this day of
, 1974, by	•
MY COMMISSION EXPIRES:	Notary Public
	CORPORATE
STATE OF Oklahoma	- ¥
COUNTY OF TULSA	
The foregoing instrument was	acknowledged before me this 2nd day of
	Wiley C. Eill who is Attorney-in-Fact
of CITIES SERVICE OIL COMPANY	a <u>Delaware</u> Corporation,
for and on behalf of said Corporat	tion.
MY CONTESSION EXPIRES:	Euglin M. Schultz
沙贝2 2 5 1976	Notary Public Evelyn M. Schultz
punital :	-

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

PAULEY, PETROLEUM INC.
Rv. Janus lin Lound
Vice-President A
By: / ////
Assistant Secretary
INDIVIDUAL
t_{r}
STATE OF
COUNTY OF
The foregoing instrument was acknowledged before me this day of
the foregoing instrument was acknowledged before me this day or
, 1974, by
MY COMMISSION EXPIRES:
Notary Public
CORPORATE
OOM OTH TH
STATE OF California
COUNTY OF Los Angeles
χ
The foregoing instrument was acknowledged before me this 20th day of
Wannahan and a same and
November , 1974, by James M. David who is Vice-President and E. J. Babineau, Jr., who is Assistant Secretary,
Pauley Potroloum Tro
of Pauley Petroleum Inc. a Delaware Corporation,
for and on behalf of said Corporation.
my commission expires: 7) lancella))) latteau
Notary Public



The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

ATTEST:	TEXAS OIL & G	AS CORP.
Philip a Aurend	ent By Koneld	have
Assistant Secretary	Donald Ch	ase ce President
_	INDIVIDUAL 6-7	
STATE OF	— j	
COUNTY OF	⁹	•
The foregoing instrument wa	s acknowledged before me this	s day of
MY COMMISSION EXPIRES:	Notary Public	
	•	
	CORPGRATE	
STATE OF TEXAS	~_ X	
COUNTY OF DALLAS	Š	
The foregoing instrument wa	s acknowledged before me this	29-day of
January, 1975, by	Donald Observe Who	is Conjon Vice Descident
,		
of TEXAS OIL & GAS CORP.	a <u>Delaware</u>	Corporation,
for and on behalf of said Corpor	ation 6 /	211
MY COMMISSION EXPIRES:		J. Mroud
6-1-75	Notary Public	
MY COMMISSION EXPIRES:	Notary Public	V. Stroud

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

NIELSON ENTERPRISES INC.

ATTEST:

Went of they a	By: WB Marson
Robert L. Snyder, Secretary-Trea	isurer By: W. B. Macey, Vice President
	INDIVIDUAL Tr. 6-7
STATE OF	- I
COUNTY OF	- ¥
The foregoing instrument was	acknowledged before me this day of
, 1974, by	•
MY COMMISSION EXPIRES:	Notary Public
	CORPORATE
STATE OF COLORADO CITY AND COUNTY OF DENVER	
The foregoing instrument was	acknowledged before me this 27 day of
7	. B. Macey who is Vice President
of Nielson Enterprises Inc. A D	
for and on behalf of said Corporat MY, COMMISSION EXPIRES:	Motary Public

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West irport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date

DIAIC Cult Petrolam Co. Li

Diaic Cult Petrolam Co. Li

Concrol Partner

PARTNERSHIP

STATE OF NEVADA

On Acception 13 1474 personally appeared before me, a notary public, Peter W. Hummel, who acknowledged that he executed the above instrument, on behalf of said partnership.

Colored Partner

J. C. BEAZLEY

NOTARY PUBLIC - STATE OF NEVADA

WASHOE COUNTY

My Commission Expires Aug. 15, 1976

for and on behalf of said Corporation.

MY COMMISSION EXPIRES:

Notary Public

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof. IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments. HANAGAN & HANAGAN, a partnership composed <u>solely of Robert G. Hanagan and Hugh E.</u> Robert G. Hanagan, Partner Tn. 15-16-17 STATE OF NEW MEXICO) COUNTY OF CHAVES The foregoing instrument was acknowledged before me this <u>6th</u> day of <u>December</u>, 1974 by <u>Robert G. Hanagan</u> on behalf of Hanagan & Hanagan, a Partnership. Salah Jaja Count My Commission Expires: October 1, 1978 Corporation, for and on behalf of said Corporation.

Notary Public

MY COMMISSION EXPIRES:

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments. J. Lee Youngblood INDIVIDUAL TEXAS STATE OF DALLAS COUNTY OF The foregoing instrument was acknowledged before me this 21st day of , 1974, by MY COMMISSION EXPIRES: June 1, 1975 CORPORATE STATE OF COUNTY OF The foregoing instrument was acknowledged before me this _____ day of _____, 1974, by ______ who is ____ for and on behalf of said Corporation. MY COMMISSION EXPIRES: Notary Public

The undersigned, AMOCO Production Company hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit a part of their said interests, as mentioned below, to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof, as to Tracts 11 and 12 only, specifically excluding and in no event committing Tract No. 2, identified as Federal Lease NM-0331649-A.

	Amoco Production Company
·	Marin
	ATTORNEY-IN-FACT
	11-12
CORPORAT	<u>E</u>
STATE OF TEXAS	
COUNTY OF HARRIS I	
The foregoing instrument was acknow	ledged before me this $\frac{28\%}{2}$ day of
Danceary, 1974 by G. N.	MENNINGER who is Attorney-landing
of AMOCO PRODUCTION COMPANY a	Corporation,
for and on behalf of said Corporation.	3
MY COMMISSION EXPIRES:	Frenc Claedas
6-1-75	Notary Public
	IRENE HALDAS
· · · · · · · · · · · · · · · · · · ·	lotary Public in and for Harris County, Texas

(F)

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

		FELMONT OIL	CORPORATION		
		BY Joe D. Mi	Mer, Manager	Western Division	a
	INDIVI	IDUAL 7	r 15-1	16	
STATE OF	1			· .	
COUNTY OF	Î				
The foregoing instrument was ac	knowled	lged before me	this	day of	
, 1974, by			·	•	
MY COMMISSION EXPIRES:		Notary Publi	c		
	. CORPO	DRATE			
STATE OF TEXAS COUNTY OF MIDLAND			·		
The foregoing instrument was ac	knowled	iged before me	this 6th	day of	
December , 1974, by Joe D					sion
of Felmont Oil Corporation for and on behalf of said Corporation	_		·	_ Corporation,	
MY COMMISSION EXPIRES:		Ireldred Notary Publi	Th. Suge	<u></u>	
June 1, 1975		HOURTY PUBLE	mith a	A.M. Saye olic in and for	

Midland County, Texas

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof. IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments. (Buck) Russell 712 No. Main St. Roswell, New Mexico 88201 INDIVIDUAL NEW MEXICO STATE OF CHAVES COUNTY OF The foregoing instrument was acknowledged before me this 15th day of , 1974, by Emma T. Russell MY COMMISSION EXPIRES: CORPORATE STATE OF COUNTY OF The foregoing instrument was acknowledged before me this ____ day of ____, 1974, by _____ who is __ Corporation, for and on behalf of said Corporation.

Notary Public

MY COMMISSION EXPIRES:

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date

set forth in their respective acknowledgments.

STATE OF NEW MEXICO

COUNTY OF CHAVES

NY GOMMISSION EXPIRES:

CORPORATE

STATE OF

COUNTY OF

CORPORATE

COUNTY OF

COUNTY OF

CORPORATE

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Fddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

and provisions thereof, exactly the sam	e as if the undersigned had executed the
original of said Unit Agreement or a co	unterpart thereof.
IN WITNESS WHEREOF, this instrument is	executed by the undersigned as of the date
set forth in their respective acknowled	gmentspeatherszone farms, LTD.
	111111
	(Olen F. Featherstone II-General Partn
<u>IN</u>	DIVIDUAL
STATE OF NEW MEXICO	
COUNTY OF CHAVES	
State of the state	wledged before me this <u>19th</u> day of
November , 1974, by Olen FEATHERSTONE FARMS, LTD., a limit	F. Featherstone II, General Partner of
MY COMMISSION EXPIRES:	Z. Lucille Wolf
のよう。 第 -8-77 / 0 / 2	Notary Public
STATE OF	ORPORATE
STATE OF	
COUNTY OF	
<u> </u>	
	wledged before me this day of
, 1974, by	who is
of	a Corporation,
for and on behalf of said Corporation.	
MY COMMISSION EXPIRES:	
	Notary Public

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date

INDIVIDUAL

STATE OF May form

COUNTY OF Confidence of May form

The foregoing instrument was acknowledged before me this 3/ day of

MY COMMISSION EXPIRES:

Notary Public Poory First, Soils of Mew York

Confidence of Mew Y

Notary Public

MY COMMISSION EXPIRES:

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments. Hany I Schron Single INDIVIDUAL STATE OF NEW MEXICO COUNTY OF The foregoing instrument was acknowledged before me this 21st. day of __, 1974, by ____ Harry F. Schrar MY COMMISSION EXPIRES: June 24, 1978 CORPORATE STATE OF COUNTY OF The foregoing instrument was acknowledged before me this day of _____, 1974, by ______ who is ____ __ a _____ Corporation, for and on behalf of said Corporation. MY COMMISSION EXPIRES:

Notary Public

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date
set forth in their respective acknowledgments.
Elizabet K. M. Elian Tredenik H. Hawry
INDIVIDUAL TAGE
COUNTY OF SANTA FE
The foregoing instrument was acknowledged before me this 34 day of
, 1974, by T. H. McElvain, Jr., and Elizabeth R. McElva
TY COMMISSION EXPIRES: 10-29-78 Actary Public
ENDIVIDUAL INDIVIDUAL
STATE OF NEW MEXICO COUNTY OF SANTA FE
The foregoing instrument was acknowledged before me this 3 day of
1974, by Catherine M. Harvey and Exederick H. Harvey
TOXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
10 - 29 - 78

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

	Umer all Russe
Raymond T. Duncan	Vincent J. Duncan
eban Vr. Dumun	Marine manage of the same
Joan R. Duncan, spouse	Annamarie Duncan, spouse
1800 Security Life Building	1800 Security Life Building
Denver, Colorado 80202	Denver, Colorado 80202
	INDIVIDUAL
	Tv- 6
STATE OF COLORADO	Y
CITY AND COUNTY OF DENVER	- <u>1</u> <u>1</u> X
The foregoing instrument was a new part of the foregoing instrument	cknowledged before me this Zu day of MOND T. DUNCAN and JOAN R. DUNCAN, his spouse. Notary Public

The foregoing instrument was acknowledged before me this Zeri day of 1974, by VINCENT J. DUNCAN and ANNAMARIE DUNCAN, his sponse.

MY COMMISSION EXPIRES:

Notary Public

The undersigned, (whether one or more) hereby ack: ledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

same o Brane			
James @ Branes Hestel Brune			
			
<u>1</u> 1	NDIVIDUAL	727	
STATE OF COLORADO			
COUNTY OF DEIVER			
The foregoing instrument was acknowledge	owledged befo	re me this 20th	_ day of
November , 1974, by James	0. Breene, J	r. & Leslee C.	Breene .
MY COMMESSION EXPIRES:	Kare	10 M W	aht
My Generaliston coupless July 11, 1973	Notary	Public	
· <u>·</u>	CORPORATE		
STATE OF			
COUNTY OF \$\frac{\frac}}}}}{\frac}}}}}}{\frac}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\f		•	
The foregoing instrument was ackn	owledged befo	re me this	_ day of
, 1974, by		who is	
of	_ a		Corporation,
for and on behalf of said Corporation.			
MY COMMISSION EXPIRES:	<u> </u>		
·	Notary	Public	

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do nereoy consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

set forth in their respective ack	nowledgments.	That is	Huslin .
STATE OF COUNTY OF	acknowledged	before me this	lth day of
My Commission expires July 11, 1978	Not	Saren) M	ly crautori greens and Wight
	CORPORATE	<u> </u>	
STATE OF	— ў — ў		
The foregoing instrument was	_		
, 1974, by		who is	
of	a	······································	Corporation,
for and on behalf of said Corpora	tion		
MY COMMISSION EXPIRES:	Not	tary Public	

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

Jane ann Millitan			
<u> </u>			
	INDIVIDUAL	1, 7	
STATE OF COLUMBIA	¥	₹₽°	
COUNTY OF DE NEW	ž — ž		
	- ! acknowledged befor	re me this 11th	_ day of
Departure 1974, by	Jane Ann Millik	en	•
The foregoing instrument was December 1974, by OF COMMISSION EXPIRES:	-72	rend M	Wight
My Commission expires July 11, 1978	Notarý l	Public	
,			•
	CORPORATE		
STATE OF	- I		
COUNTY OF	- Š		
The foregoing instrument was		re me this	day of
, 1974, by		who is	
of			
for and on behalf of said Corporat	tion.		
MY COMMISSION EXPIRES:	Notary	Public	
	-		

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

100 - 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+	
Eugene L. Dechant		Anne F. Dechant
	INDIV	IDUAL 7
COUNTY OF Arapshoe	Ž Ž	
The foregoing instrument was ac		dged before me this 18th day of
November , 1974, by Eu	gene L	Dechant and Anne F. Dechant, Husband &
MY COMMISSION EXPIRES:		Notary Public
	. CORP	ORATE
STATE OF		
COUNTY OF		
<u> </u>	knowle	dged before me this day of
, 1974, by		who is
of	a	Corporation,
for and on behalf of said Corporatio		
MY COMMISSION EXPIRES:		Notary Public

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

Elizabeth B. Gilgen	Michael Jeljen
TATE OF COLURADO	INDIVIDUAL 7,7
The foregoing instrument was acl	knowledged before me this day of
My Commission expires July 11, 1973	Notary Public M. Waglit
	CORPORATE
COUNTY OF Y	·
The foregoing instrument was ach	knowledged before me this day of
, 1974, by	who is
of	a Corporation,
or and on behalf of said Corporation	h.
Y COMMISSION EXPIRES:	Notary Public

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

wid provident moreout, once of	ame ab 11 one undersigned had executed one
original of said Unit Agreement or a	counterpart thereof.
IN WITNESS WHEREOF, this instrument is	s executed by the undersigned as of the date
set forth in their respective acknowle	edgments.
	Jan K Larling
,	INDIVIDUAL 7 - 9
STATE OF A STATE OF	
COUNTY OF EDITE	
Autoria de la companya della company	nowledged before me this 1212 day of
, 1974, by HEI	PRIT F. La. Like & JANE K. Lee
MY COMMISSION EXPIRES:	Little City
J. CLÍFFORDMEDANIEL, NOTARY PUBLIC.	Notary Public
्र भारदासुलेडर्गाटटर, हताह coomin, ए. १०	· · · · · · · · · · · · · · · · · · ·
My Commission evalues Herch 30, 19	
	CORPORATE
STATE OF	
COLDINAL OE	
COUNTY OF	
The foregoing instrument was ack	nowledged before me this day of
, 1974, by	who is
of	a Corporation,
for and on behalf of said Corporation	•
MY COMMISSION EXPIRES:	
	Notary Public

16

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

	, ,
Anto Cakino	Dort lu Vice- Pres.
STATE OF TOUNTY OF TOUNTY OF	DIVIDUAL TA. 15-16
The foregoing instrument was acknow	vledged before me this day of
MY COMMISSION EXPIRES:	Notary Public
. <u>cc</u>	DRPORATE
STATE OF TEXAS COUNTY OF TARRANT	
The foregoing instrument was acknow November, 1974, by Walte	vledged before me this 14 day of er Claer who is Vice-President
of <u>CARTER FOUNDATION PRODUCTION COMPANY</u> for and on behalf of said Corporation.	
MY COMMISSION EXPIRES: June 1975	Notary Public Tarrant County, Texas.

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

set forth in their respect	ive acknowledgments.	1
Mayin Huchtman	Willeamt	Hirskelman
Jague K. Hendelone	<u> </u>	
	- Husband &	lunge
	INDIVIDUAL	tr 15
STATE OF layrowy	¥	
COUNTY OF Action		
The foregoing instrum	ment was acknowledged before me t	his 18th day of
	Marjorie Hershelman aka I 74, by <u>and William L. Hershelma</u>	Margie K Hershelman
MY COMMISSION EXPIRES:	, <u> </u>	B Whenrich
March 4 1978		WEINFICH - Notary Public
	County	
	Natro	
STATE OF		
COUNTY OF	ĭ	
The foregoing instrum	ment was acknowledged before me t	this day of
, 197 ^L	, by	ho is
of	a	Corporation,
for and on behalf of said	Corporation	
MY COMMISSION EXPIRES:		
	Notary Public	

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

Freyn Bundy		
ET Bundi		
formed and into		
i i	INDIVIDUAL	Ta-15
STATE OF WYOMING	— ¥	
COUNTY OF NATRONA	— Ĭ	
The foregoing instrument was	s acknowledged bef	ore me this 13th day of
November , 1974, by	Evelyn Bundy and E	. R. Bundy - Husband and Wife .
MY COMMISSION EXPIRES:	Aul	ie B Wennich
March 4, 1978	Notary	Public
7,100 000		JULIE B. WEIT WICH - Notary Public
	CORPORATE	County of State of Natrons State of Wyoming
COMA DE COM	:	My Commission Expires Mar. 4, 1978
STATE OF	— <u>]</u>	
COUNTY OF	_ i	
The foregoing instrument was	s acknowledged bef	fore me this day of
, 1974, by		who is
of	a	Corporation,
for and on behalf of said Corpora	ation.	
MY COMMISSION EXPIRES:		
	Notary	Public

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Pevelopment and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments.

v)

		Selen Fieth	dand (WiDo
		alex Kina	100000000000000000000000000000000000000
		Skin K.	Buther bunks
	INDIVIDUAL	tr 15	(The dois
STATE OF	— i	<i>)</i>	
COUNTY OF	_ i		
The foregoing instrument was			day of known as
71000mbie, 1974, by			•
MY COMMISSION EXPIRES:	//_ Not	ary/Public Mary Lee	Machado (1)
7/1/28			
	CORPORATE	1	
STATE OF	– I		
COUNTY OF	_ I		
The foregoing instrument was	acknowledged	before me this	_ day of
, 1974, by		who is	
of	a		Corporation,
for and on behalf of said Corpora	tion		•
MY COMMISSION EXPIRES:	 Not	ary Public	

CONSENT AND RATIFICATION WEST AIRPORT UNIT AGREEMENT EDDY COUNTY, NEW MEXICO

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

Airport Unit Agreement and do hereby consent thereto and ratify all	of the terms						
and provisions thereof, exactly the same as if the undersigned had executed the							
original of said Unit Agreement or a counterpart thereof.							
IN WITNESS WHEREOF, this instrument is executed by the undersigned	as of the date						
set forth in their respective acknowledgments. (Erline &) Mrs Ri	ahard Hoyd						
INDIVIDUAL To 17							
STATE OF Michigan							
COUNTY OF							
The foregoing instrument was acknowledged before me this The Allerand The Mand and Talene	. //						
MY COMMISSION EXPIRES: Notary Public Notary Public	inthe !						
CORPORATE							
STATE OF							
COUNTY OF							
The foregoing instrument was acknowledged before me this	day of						
, 1974, by who is							
ofa	Corporation,						
for and on behalf of said Corporation.							
MY COMMISSION EXPIRES: Notary Fublic							
Notary Fublic							

CONSENT AND RATIFICATION WEST AIRPORT UNIT AGREEMENT EDDY COUNTY, NEW MEXICO

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent thereto and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

Airport Unit Agreement and do hereby	consent thereto and ratify all of the terms
and provisions thereof, exactly the	same as if the undersigned had executed the
original of said Unit Agreement or a	counterpart thereof.
IN WITNESS WHEREOF, this instrument	is executed by the undersigned as of the date
set forth in their respective acknow	eledgments.
	Jerence J. Hamitton
•	
	INDIVIDUAL TO 17
STATE OF NEW MEXICO	I
COUNTY OF LEA	Į Į
The state of the s	eknowledged before me this 4th day of erenice G. Hamilton, A Widow
NY COMMISSION EXPIRES: September 23, 1975	Notary Public McCluke
peptember 23, 1973	
OF HEN AN	CORPORATE
STATE OF COUNTY OF	
· ·	cknowledged before me this day of
, 1974, by	who is -
of	aCorporation,
for and on behalf of said Corporation	
MY COMMISSION EXPIRES:	
	Notary Public

CONSENT AND RATIFICATION WEST AIRPORT UNIT AGREEMENT EDDY COUNTY, NEW MEXICO

The undersigned, (whether one or more) hereby acknowledges receipt of a copy of the Unit Agreement for the Development and Operation of the West Airport Unit Area embracing lands situated in Eddy County, New Mexico, which said Agreement is dated the 1st day of September, 1974, and acknowledge that they have read the same and are familiar with the terms and conditions thereof. The undersigned, also being the owners of the leasehold, royalty, or other interests in the lands or minerals embraced in said Unit Area, as indicated on the schedule attached to said Unit Agreement as Exhibit "B", do hereby commit all of their said interests to the West Airport Unit Agreement and do hereby consent therets and ratify all of the terms and provisions thereof, exactly the same as if the undersigned had executed the original of said Unit Agreement or a counterpart thereof.

IN WITNESS WHEREOF, this instrument is executed by the undersigned as of the date set forth in their respective acknowledgments. INDIVIDUAL STATE OF Texas COUNTY OF Midland The foregoing instrument was acknowledged before me this 16 day of , 1974, by <u>F. G. Breckenridge</u> November SELCN EXPIRES: Notary Public NOTARY PUBLIC COUNTY OF MIDEAND, TEXAS CORPORATE IN COMMISSION EXPIRES JUNE 1, 1975 STATE OF COUNTY OF The foregoing instrument was acknowledged before me this ____ day of _____, 1974, by _____ ____who is ____ of Corporation, for and on behalf of said Corporation. MY COMMISSION EXPIRES: Notary Public

State of New Mexico

TELEPHONE 505-827-2748





Commissioner of Public Lands
January 30, 1975

PHIL R. LUCERO COMMISSIONER

P. O. BOX 1148 SANTA FE, NEW MEXICO 87501

Mr. Randolph M. Richardson, III Attorney at Law P. O. Box 819 Roswell, New Mexico 88201

> Re: C & K Petroleum, Inc.-WEST AIRPORT UNIT Eddy County, New Mexico

Dear Mr. Richardson:

The Commissioner of Public Lands has this date approved the West Airport Unit, Eddy County, New Mexico, which you submitted on behalf of C & K Petroleum, Inc. This approval is subject to like approval by the United States Geological Survey.

Our approval is with the understanding that Texas Oil & Gas Corporation and AMOCO Production Company will ratify the agreement, also, with the understanding that Tract 2 is not committed and Tract No. 1 is partially committed.

On your well records pertaining to the unit well please change your well name to read "W. Airport Fed. Unit" instead of Com as it appears on your well records.

Enclosed are five (5) Certificates of approval.

Very truly yours,

PHIL R. LUCERO
COMMISSIONER OF PUBLIC LANDS

BY: RAY D. GRAHAM, Director Oil and Gas Division

PRL/RDG/s encls.

cc:

USGS-Roswell, New Mexico
OCC- Santa Fe, New Mexico



UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY Drawer 1857 Roswell, New Mexico 88201

February 5, 1975

Mr. Randolph M. Richardson P. O. Box 819 Roswell, New Mexico 88201

Dear Mr. Richardson:

Two copies of a Certification-Determination instrument approving the West Airport unit agreement, Eddy County, New Mexico, with C & K Petroleum, Inc., as unit operator, are enclosed herewith. Such agreement has been assigned No. 14-08-0001-14176, and is effective as of February 5, 1975, the date of approval.

You are requested to furnish the New Mexico 0:1 Conservation Commission and all other interested principals with evidence of this approval.

Sincerely yours,

CRIC SCD.) CARL C. TRAYMING

CARL C. TRAYWICK Acting Area Oil and Gas Supervisor

cc:
NMOCC, Santa Fe (ltr. only)
Com. Pub. Lands, Santa Fe (ltr. only)
Area Geologist, Roswell (ltr. only)
Artesia (w/cy agr.)

ARStall:1h

Imw

BEFORE THE OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

APPLICATION FOR APPROVAL OF WEST AIRPORT UNIT AGREEMENT EDDY COUNTY, NEW MEXICO

New Mexico Oil Conservation Commission Santa Fe, New Mexico 87501

Clar 5 332

Comes the undersigned C & K Petroleum, Inc., with offices at Midland, Texas, and files herewith one (1) copy of the proposed Unit Agreement for the development and operation of the West Airport Unit Area, Eddy County, New Mexico, and hereby makes application for approval of said Unit Agreement as provided by law, and in support thereof, states:

1. That the proposed Unit Area covered by said Agreement embraces 3.840.00 acres of land, more or less, more particularly described as follows:

Township 22 South, Range 26 East, NMPM

Sections 20, 21; All Sections 28, 29; All Sections 32, 33; All

Eddy County, New Mexico

- 2. That of the lands embraced within the proposed Unit, 2,440.00 acres are lands of the United States, being 63.54% of the Area; and 600.00 acres are patented or fee lands, being 15.63% of the Unit Area; and 800.00 acres are State of New Mexico lands being 20.83% of the Area.
- 3. That Applicant is informed and believes, and upon such information and belief states, that the proposed unit area covers all or substantially all of the geological feature involved, and that in the event of a discovery of oil or gas thereon, that said Unit Agreement will permit the producing area to be developed and opersted in the interest of conservation and the prevention of waste of the unitized substances.
- 4. That C & K Petroleum, Inc. is designated as the Unit Operator in said Unit Agreement, and, as such, is given authority under the terms thereof to carry on all operations necessary for the development and operation of the Unit Area for oil and gas subject to all applicable laws and regulations. That said Unit Agreement provides for the drilling of an Initial Test Well to a depth sufficient to penetrate the Mississippian Formation, but applicant is not obligated to drill said well in any event to a depth in excess of 12,000 feet.
- 5. That applicant believes that in the event oil or gas is discovered in paying quantities on lands within the Unit Area, that the field or area can be developed more economically and efficiently under the terms of said Unit Agreement, to the end that maximum recovery will be obtained of unitized substances and that said Unit Agreement is in the interest of conservation of prevention of waste as contemplated by the New Mexico Oil Conservation rules and regulations.
- 6. That Application for Approval of said Unit Agreement has been filed with the Commissioner of Public Lands.
- 7. That upon an order being entered by the New Mexico Oil Conservation Commission approving said Unit Agreement, and after approval by the United States Department of Interior, an approved copy will be filed with the New Mexico Oil Conservation Commission.

WHEREFORE, the undersigned applicant respectfully requests that a hearing be held before an examiner on the matter of said Unit Agreement, and that upon said hearing, said Unit Agreement be approved by the New Mexico Oil Conservation Commission as being in the interest of conservation and the prevention of waste. Applicant respectfully requests that this matter be heard at the first available hearing following this date. DOCKET MAILED

DATED this 28th day of August, 1974.

C & K PETROLEUM, INC.

Randolph M. Richardson Attorney at Law

P. O. Box 819 Roswell. New Mexico

BEFORE THE OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

APPLICATION FOR APPROVAL OF WEST AIRPORT UNIT AGREEMENT

EDDY COUNTY, NEW MEXICO

· Br. 5332

New Mexico Oil Conservation Commission Santa Fe, New Mexico 87501

Comes the undersigned C & K Petroleum, Inc., with offices at Midland, Texas, and files herewith one (1) copy of the proposed Unit Agreement for the development and operation of the West Airport Unit Area, Eddy County, New Mexico, and hereby makes application for approval of said Unit Agreement as provided by law, and in support thereof, states:

1. That the proposed Unit Area covered by said Agreement embraces 3,840.00 acres of land, more or less, more particularly described as follows:

Township 22 South, Range 26 East, NMPM

Sections 20, 21; All Sections 28, 29; All Sections 32, 33;

Eddy County, New Mexico

- 2. That of the lands embraced within the proposed Unit, 2,440.00 acres are lands of the United States, being 63.54% of the Area; and 600.00 acres are patented or fee lands, being 15.63% of the Unit Area; and 800.00 acres are State of New Mexico lands being 20.83% of the Area.
- 3. That Applicant is informed and believes, and upon such information and belief states, that the proposed unit area covers all or substantially all of the geological feature involved, and that in the event of a discovery of oil or gas thereon, that said Unit Agreement will permit the producing area to be developed and operated in the interest of conservation and the prevention of waste of the unitized substances.
- 4. That C & K Petroleum, Inc. is designated as the Unit Operator in said Unit Agreement, and, as such, is given authority under the terms thereof to carry on all operations necessary for the development and operation of the Unit Area for oil and gas subject to all applicable laws and regulations. That said Unit Agreement provides for the drilling of an Initial Test Well to a depth sufficient to penetrate the Mississippian Formation, but applicant is not obligated to drill said well in any event to a depth in excess of 12,000 feet.
- 5. That applicant believes that in the event oil or gas is discovered in paying quantities on lands within the Unit Area, that the field or area can be developed more economically and efficiently under the terms of said Unit Agreement, to the end that maximum recovery will be obtained of unitized substances and that said Unit Agreement is in the interest of conservation of prevention of waste as contemplated by the New Mexico Oil Conservation rules and regulations.
- 6. That Application for Approval of said Unit Agreement has been filed with the Commissioner of Public Lands.
- 7. That upon an order being entered by the New Mexico Oil Conservation Commission approving said Unit Agreement, and after approval by the United States Department of Interior, an approved copy will be filed with the New Mexico Oil Conservation Commission.

WHEREFORE, the undersigned applicant respectfully requests that a hearing be held before an examiner on the matter of said Unit Agreement, and that upon said hearing, said Unit Agreement be approved by the New Mexico Oil Conservation Commission as being in the interest of conservation and the prevention of waste. Applicant respectfully requests that this matter be heard at the first available hearing following this date.

DATED this 28th day of August, 1974.

C & K PETROLEUM, INC.

BY: Kund of Mil Kerken In Randolph M. Richardson

Attorney at Law P. O. Box 819

Roswell, New Mexico 88201

BEFORE THE OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

APPLICATION FOR APPROVAL OF WEST AIRPORT UNIT AGREEMENT EDDY COUNTY, NEW MEXICO

£ 124 3 332

New Mexico Oil Conservation Commission Santa Fe, New Mexico 87501

Comes the undersigned C & K Petroleum, Inc., with offices at Midland, Texas, and files herewith one (1) copy of the proposed Unit Agreement for the development and operation of the West Airport Unit Area, Eddy County, New Mexico, and hereby makes application for approval of said Unit Agreement as provided by law, and in support thereof, states:

1. That the proposed Unit Area covered by said Agreement embraces 3,840.00 acres of land, more or less, more particularly described as follows:

Township 22 South, Range 26 East, NMPM

Sections 20, 21; All Sections 28, 29; All Sections 32, 33; All

Eady County, New Mexico

- 2. That of the lands embraced within the proposed Unit, 2,440.00 acres are lands of the United States, being 63.54% of the Area; and 600.00 acres are patented or fee lands, being 15.63% of the Unit Area; and 800.00 acres are State of New Mexico lands being 20.83% of the Area.
- 3. That Applicant is informed and believes, and upon such information and belief states, that the proposed unit area covers all or substantially all of the geological feature involved, and that in the event of a discovery of oil or gas thereon, that said Unit Agreement will permit the producing area to be developed and operated in the interest of conservation and the prevention of waste of the unitized substances.
- 4. That C & K Petroleum, Inc. is designated as the Unit Operator in said Unit Agreement, and, as such, is given authority under the terms thereof to carry on all operations necessary for the development and operation of the Unit Area for oil and gas subject to all applicable laws and regulations. That said Unit Agreement provides for the drilling of an Initial Test Well to a depth sufficient to penetrate the Mississippian Formation, but applicant is not obligated to drill said well in any event to a depth in excess of 12,000 feet.
- 5. That applicant believes that in the event oil or gas is discovered in paying quantities on lands within the Unit Area, that the field or area can be developed more economically and efficiently under the terms of said Unit Agreement, to the end that maximum recovery will be obtained of unitized substances and that said Unit Agreement is in the interest of conservation of prevention of waste as contemplated by the New Mexico Oil Conservation rules and regulations.
- 6. That Application for Approval of said Unit Agreement has been filed with the Commissioner of Public Lands.
- 7. That upon an order being entered by the New Mexico Oil Conservation Commission approving said Unit Agreement, and after approval by the United States Department of Interior, an approved copy will be filed with the New Mexico Oil Conservation Commission.

WHEREFORE, the undersigned applicant respectfully requests that a hearing be held before an examiner on the matter of said Unit Agreement, and that upon said hearing, said Unit Agreement be approved by the New Mexico Oil Conservation Commission as being in the interest of conservation and the prevention of waste. Applicant respectfully requests that this matter be heard at the first available hearing following this date.

DATED this 28th day of August, 1974.

C & K PETROLEUM, INC.

BY: A Pandal ph M. Richardson

Randolph M. Richardson Attorney at Law

P. O. Box 819

Roswell. New Mexico 88201

UNIT ACREEMENT

FOR THE DEVELOPMENT AND OPERATION

OF THE

STATE OF NEW MEXICO

NO. 5332-

THIS AGREEMENT, entered into as of the <u>lst</u> day of <u>September</u>, 1974, 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 Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Sec. 7-11-29 N-M. Statutes 1953 Annotated) to consent to or approve this agreement on behalf of the State of New Mexico, insofar as it covers and includes lands and mineral interest of the State of New Mexico; and,

VHEREAS, the Oil Conservation Commission of the State of New Mexico is authorized by an Act of the Legislature (Chapter 72, Laws of 1935, as amended by Chapter 193, Laws of 1937; Chapter 166, Laws of 1941; and Chapter 168, Laws of 1949) to approve this agreement and the conservation provisions hereof; and,

WHEREA	AS, the	parties	hereto	hold	sufficien	t interes	ts in	the	West	
Airport					Unit Area	covering	the	land	hereinafter	des-
cribed to giv	ve reaso	onably e	ffective	cont	rol of op	erations	there	in; a	and	

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste, and secure other benefits obtainable through development and operations of the erea 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 interests in the below-defined unit area, and agree severally among themselves as follows:

- 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.
- 2. UNIT AREA. The following described land is hereby designated and recognized as constituting the unit area:

T-22-S, R-26-E, NMPM Sections 20, 21; All Sections 28, 29; All Sections 32, 33; All

Containing 3,840.00 acres more or less Eddy County, New Mexico

Exhibit "A" attached hereto is a map showing the unit area and the boundaries and indentity of tracts and leases in said 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, percentage, and kind of ownership of oil and gas interests in all land in the unit area. 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. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes in the unit area render such revision necessary when requested by the Oil and Gas Supervisor, hereinafter referred to as "Supervisor," or when requested by the Commissioner of Public Lands of the State of New Mexico,

hereinafter referred to as "Land Commissioner," and not less than five (5) copies of the revised Exhibits shall be filed with the Supervisor and one (1) copy thereof shall be filed with the Land Commissioner, and one (1) copy with the New Mexico Oil Conservation Commission, hereinafter referred to as "State Commission."

The above-described unit area shall, when practicable, be expanded to include therein any additional lands or shall be contracted to exclude lands whenever such expansion or contraction is deemed to be necessary or advisable to conform with the purposes of this agreement. Such expansion or contraction shall be effected in the following manner:

- (a) Unit Operator, on its own motion or on demand of the Director of the Geological Survey, hereinafter referred to as "Director," or on demand of the Land Commissioner, after preliminary concurrence by the Director, shall prepare a notice of proposed expansion or contraction describing the contemplated changes in the boundaries of the unit area, the reasons therefor, and the proposed effective date thereof, preferably, the first day of a month subsequent to the date of notice.
- (b) Said notice shall be delivered to the Supervisor, the Land Commissioner and the State Commission, and copies thereof mailed to the last known address of each working-interest owner, lessee, and lessor whose interests are affected, advising that thirty (30) days will be allowed for submission to the Unit Operator of any objections.
- (c) Upon expiration of the D-day period provided in the preceding item (b) hereof, Unit Operator shall file with the Supervisor, the Land Commissioner, and the State Commission, evidence of mailing of the notice of expansion or contraction and a copy of any objections thereto which have been filed with the Unit Operator, together with an application in sufficient number, for approval of such expansion or contraction and with appropriate joinders.
- (d) After due consideration of all pertinent information, the expansion or contraction shall, upon approval by the Supervisor, the Land Commissioner, become effective as of the date prescribed in the notice thereof.
- (e) All legal subdivisions of lands (i.e., 40 acres by Government survey or its nearest lot or tract equivalent; in instances of irregular surveys unusually large lots or tracts shall be considered in multiples of 40 acres or the nearest aliquot equivalent thereof), no parts of which are entitled to be in a participating area on or before the fifth anniversary of the effective date of the first initial participating area established under this unit agreement, shall be eliminated automatically from this agreement, effective as of said fifth anniversary, and such lands

thall no longer be a part of the unit area and shall no longer be subject to this agreement, unless diligent drilling operations are in progress on unitized lands not entitled to participation on said fifth anniversary, in which event all such lands shall remain subject hereto for so long as such drilling operations are continued diligently, with not more than 90 days' time elapsing between the completion of one such well and the commencement of the next such well. All legal subdivisions of lands not entitled to be in a participating area within 10 years after the effective date of the first initial participating area approved under this agreement shall be automatically eliminated from this agreement as of said tenth anniversary. All lands proved productive by diligent drilling operations after the aforesaid five-year period shall become participating in the same manner as during said five-year period. However, when such diligent drilling operations cease, all non-participating lands shall be automatically eliminated effective as of the 91st day thereafter. The unit operator shall within 90 days after the effective date of any elimination hereunder, describe the area so eliminated to the satisfaction of the Supervisor and the Land Commissioner and promptly notify all parties in interest.

If conditions warrant extension of the ten-year period specified in this subsection 2 (e), a single extension of not to exceed two years may be accomplished by consent of the owners of 90% of the working interests in the current non-participating unitized lands and the owners of 60% of the basic royalty interests (exclusive of the basic royalty interests of the United States) in non-participating unitized lands with approval of the Director and Land Commissioner, provided such extension application is submitted to the Director and the Land Commissioner not later then 60 days prior to the expiration of said ten-year period.

Any expansion of the unit area pursuant to this section which embraces lands theretofore eliminated pursuant to this subsection 2 (e) shall not be considered automatic commitment or recommitment of such lands.

- 3. UNITIZED LAND AND UNITIZED SUBSTANCES. All land committed to this agreement shall constitute land referred to herein as "unitized land" or "land subject to this agreement." All oil and gas in any and all formations of the unitized land are unitized under the terms of this agreement and herein are called "unitized substances."
- 4. UNIT OPERATOR. C & K Petroleum, Inc.
 is hereby designated as Unit Operator and by signature hereto as Unit Operator

Agrees and consents to accept the duties and obligations of Unit Operator for the discovery, 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 the capacity and not as an owner of interest in unitized substances, and the term "working-interest owner" when used shall include or refer to Unit Operator as the owner of a working interest when such an interest is owned by it.

5. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time prior to the establishment of a participating area or areas hereunder, 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 notice of intention to resign has been served by Unit Operator on all working-interest owners and the Supervisor and the Land Commissioner, and until all wells then drilled hereunder are placed in a satisfactory condition for suspension or abandonment whichever is required by the Supervisor as to Federal lands and the State Commission as to State lands, unless a new Unit Operator shall have been selected and approved and shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

- Unit Operator shall have the right to resign in like manner and subject to like limitations as above provided at any time a participating area established hereunder is in existence, but, in all instances of resignation or removal, until a successor unit operator is selected and approved as hereinafter provided, the working-interest owners shall be jointly responsible for performance of the duties of unit operator, and shall not later than 30 days before such resignation or removal becomes effective appoint a common agent to represent them in any action to be taken hereunder.

The resignation of Unit Operator shall not release Unit Operator from any liability for any default by it hereunder occurring prior to the effective date of its resignation.

The Unit Operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by the same percentage vote of the owners of working interests as herein provided for the selection of a new Unit Operator. Such removal shall be effective upon notice thereof to the Supervisor and the Land Commissioner.

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, materials, and appurtenances used in conducting the unit operations to the new duly qualified successor Unit Operator or to the common agent, if no such new Unit Operator is elected, to be used for the purpose of conducting unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment, and appurtenances needed for the preservation of any wells.

- 6. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender his or its resignation as Unit Operator or shall be removed as hereinabove provided, or a change of Unit Operator is negotiated by working-interest owners, the owners of the working interests in the participating area or areas according to their respective acreage interests in such participating area or areas, or until a participating area shall have been established, the owners of the working interests according to their respective acreage interests in all unitized land, shall by majority vote select a successor Unit Operator: Provided, That, if a majority but less than 75 per cent of the working interests qualified to vote are owned by one party to this agreement, a concurring vote of one or more additional working interest owners shall be required to select a new operator. 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 Supervisor and approved by the Land Commissioner.

If no successor Unit Operator is selected and qualified as herein provided, the Director and the Land Commissioner, at their election, may declare this unit agreement terminated.

7. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. If the Unit Operator is not the sole owner of working interests, costs, and expenses incurred by Unit Operator in conducting unit operations hereunder shall be paid and apportioned among and borne by the owners of working interests, all in accordance with the agreement or agreements entered into by and between the Unit Operator and the owners of working interests, whether one or more, separately or collectively. Any agreement or agreements entered into between the working-interest owners and the

to as 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 independent contracts, and such other rights and obligations as between Unit Operator and the working-interest owners as may be agreed upon by 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 unit agreement or to relieve the Unit Operator of any right or obligation established under this unit agreement, and in case of any inconsistency or conflict between this unit agreement and the unit operating agreement, this unit agreement shall govern. Three true copies of any unit operating agreement executed pursuant to this section should be filed with the Supervisor and one true copy with the Land Commissioner, prior to approval of this unit agreement.

- 8. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto which are necessary or convenient for prospecting for, producing, storing, allocating, and distributing the unitized substances are herety delegated to and shall be exercised by the Unit Operator as herein provided. 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.
- 9. DRILLING TO DISCOVERY. Within six (6) months after the effective date hereof, the Unit Operator shall begin to drill an adequate test well at a location approved by the Supervisor, if on Federal land, or by the Land Commissioner, if on State land, unless on such effective date a well is being drilled conformably with the terms hereof, and thereafter continue such drilling diligently until the Mississippian formation (Barnett Shale) have been penetrated and all beds of Pennsylvanian Age have been tested _______, or until at a lesser depth unitized substances shall be discovered which can be produced in paying

quantities (to-wit: quantities sufficient to repay the costs of drilling, completing and producing operations, with a reasonable profit) or the Unit Operator shall, at any time, establish to the satisfaction of the Supervisor if on Federal land, or the Land Commissioner if on State land, that further drilling of said well would be unwarranted or impracticable; provided, however, that Unit Operator shall not, in any event, be required to drill said well to a depth in excess of 12,000 feet. Until the discovery of a deposit of unitized substances capable of being produced in paying quantities, the Unit Operator shall continue drilling diligently one well at a time, allowing not more than six (6) months between the completion of one well and the beginning of the next well, until a well capable of producing unitized substances in paying quantities is completed to the satisfaction of said Supervisor if it be on Federal land or of the Land Commissioner if on State land. or until it is reasonably proved that the unitized land is incapable of producing unitized substances in paying quantities in the formations drilled hereunder. Nothing in this section shall be deemed to limit the right of the Unit Operator to resign as provided in Section 5 hereof, or as requiring Unit Operator to commence or continue any drilling during the period pending such resignation becoming effective in order to comply with the requirements of this section. The Director and Land Commissioner may modify the drilling requirements of this section by granting reasonable extensions of time when, in their opinion, such action is warranted.

Upon failure to commence any well provided for in this section within the time allowed, including any extension of time granted by the Supervisor and the Land Commissioner, this agreement will automatically terminate; upon failure to continue drilling diligently any well commenced hereunder, the Supervisor and the Land Commissioner may, after 15-days notice to the Unit Operator, declare this unit agreement terminated.

10. PLAN OF FURTHER DEVELOPMENT AND OPERATION. Within six (6) months after completion of a well capable of producing unitized substances in paying quantities, the Unit Operator chall submit for the approval of the Supervisor and the Land Commissioner an acceptable plan of development and operation for the unitized land which, when approved by the Supervisor and the Land Commissioner, shall constitute the further drilling and operating obligations of the Unit Operator under this agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit

for the approval of the Supervisor and the Land Commissioner a plan for an additional specified period for the development and operation of the unitized land.

Any plan submitted pursuant to this section shall provide for the exploration of the unitized area and for the diligent drilling necessary for determination of the area or areas thereof capable of producing unitized substances in paying quantities in each and every productive formation and shall be as complete and adequate as the Supervisor and the Land Commissioner may determine to be necessary for timely development and proper conservation of the oil and gas resources of the unitized area and shall:

- (a) specify the number and locations of any wells to be drilled and the proposed order and time for such drilling; and
- (b) to the extent practicable specify the operating practices regarded as necessary and advisable for proper conservation of natural resources.

 Separate plans may be submitted for separate productive zones, subject to the approval of the Supervisor and the Land Commissioner.

Plans shall be modified or supplemented when necessary to meet changed conditions or to protect the interests of all parties to this agreement. Reasonable diligence shall be exercised in complying with the obligations of the approved plan of development. The Supervisor and the Land Commissioner are authorized to grant a reasonable extension of the six-month period herein prescribed for submission of an initial plan of development where such action is justified because of unusual conditions or circumstances. After completion hereunder of a well capable of producing any unitized substance in paying quantities, no further wells, except such as may be necessary to afford protection against operations not under this agreement and such as may be specifically approved by the Supervisor and the Land Commissioner, shall be drilled except in accordance with a plan of development approved as herein provided.

11. PARTICIPATION AFTER DISCOVERY. Upon completion of a well capable of producing unitized substances in paying quantities or as soon thereafter as required by the Supervisor or the Land Commissioner, the Unit Operator shall submit for approval by the Supervisor and the Land Commissioner a schedule, based on subdivisions of the public-land survey or aliquot parts thereof, of all land then regarded as reasonably proved to be productive in paying quantities; all lands in said schedule on approval of the Supervisor and the Land Commissioner to constitute a participating area, effective as of the date of completion of such well or the

effective date of this unit agreement, whichever is later. The acreages of both Federal and non-Federal lands shall be based upon appropriate computations from the courses and distances shown on the last approved public-land survey as of the effective date of each initial participating area. Said schedule shall also set forth the percentage of unitized substances to be allocated as herein provided to each tract in the participating area so established, and shall govern the allocation of production commencing with the effective date of the participating area. A separate participating area shall be established for each separate pool or deposit of unitized substances or for any group thereof which is produced as a single pool or zone, and any two or more participating areas so established may be combined into one, on approval of the Supervisor and the Land Commissioner. When production from two or more participating areas, so established, is subsequently found to be from a common pool or deposit said participating areas shall be combined into one effective as of such appropriate date as may be approved or prescribed by the Supervisor and the Land Commissioner. The participating area or areas so established shall be revised from time to time, subject to like approval, to include additional land then regarded as reasonably proved to be productive in paying quantities or necessary for unit operations, or to exclude land then regarded as reasonably proved not to be productive in paying quantities and the schedule of allocation percentages shall be revised accordingly. The effective date of any revision shall be the first of the month in which is obtained the knowledge or information on which such revision is predicated, provided, however, that a more appropriate effective date may be used if justified by the Unit Operator and approved by the Supervisor and the Land Commissioner. No land shall be excluded from a participating area on account of depletion of the unitized substances, except that any participating area established under the provisions of this unit agreement shall terminate automatically whenever all completions in the formation on which the participating area is based are abandoned.

It is the intent of this section that a participating area shall represent the area known or reasonably estimated to be productive in paying quantities; but regardless of any revision of the participating area, nothing herein contained shall be construed as requiring any retroactive adjustment for production obtained prior to the effective date of the revision of the participating area.

In the absence of agreement at any time between the Unit Operator and the Supervisor and the Land Commissioner as to the proper definition or redefinition

of a participating area, or until a participating area has, or areas have, been established as provided herein, the portion of all payments affected thereby shall be impounded in a manner mutually acceptable to the owners of working interests and the Supervisor and the Land Commissioner. Royalties due the United States shall be determined by the Supervisor for Federal lands and the Land Commissioner for the State lands and the amount thereof shall be deposited, as directed by the Supervisor and the Land Commissioner, to be held as unearned money until a participating area is finally approved and then applied as earned or returned in accordance with a determination of the sum due as Federal and State royalty on the basis of such approved participating area.

Whenever it is determined, subject to the approval of the Supervisor and the Land Commissioner, that a well drilled under this agreement is not capable of production in paying quantities and inclusion of the land on which it is situated in a participating area is unwarranted, production from such well shall, for the purposes of settlement among all parties other than working-interest owners, be allocated to the land on which the well is located unless such land is already within the participating area established for the pool or deposit from which such production is obtained. Settlement for working interest benefits from such a well shall be made as provided in the unit operating agreement.

12. ALLOCATION OF PRODUCTION. All unitized substances produced from each participating area established under this agreement, except any part thereof used in conformity with good operating practices within the unitized area for drilling, operating, camp, and other production or development purposes, for repressuring or recycling in accordance with a plan of development approved by the Supervisor and Land Commissioner, or unavoidably lost, shall be deemed to be produced equally on an acreage basis from the several tracts of unitized land of the participating area established for such production and, for the purpose of determining any benefits accruing under this agreement, each such tract of unitized land shall have allocated to it such percentage of said production as the number of acres of such tract included in said participating area bears to the total acres of unitized land in said participating area, except that allocation of production hereunder for purposes other than for settlement of the royalty, overriding royalty, or payment out of production obligations of the respective working-interest owners, shall be on the basis prescribed in the unit operating agreement whether in conformity with the basis of allocation herein set forth or otherwise. It is hereby

agreed that production of unitized substances from a participating area shall be allocated as provided herein regardless of whether any wells are drilled on any particular part or tract of said participating area. If any gas produced from one participating area is used for repressuring or recycling purposes in another participating area, the first gas withdrawn from such last-mentioned participating area for sale during the life of this agreement shall be considered to be the gas so transferred until an amount equal to that transferred shall be so produced for sale and such gas shall be allocated to the participating area from which initially produced as such area was last defined at the time of such final production.

party hereto owning or controlling the working interest in any unitized land having thereon a regular well location may with the approval of the Supervisor and the Land Commissioner, at such party's sole risk, costs, and expense, drill a well to test any formation for which a participating area has not been established or to test any formation for which a participating area has been established if such location is not within said participating area, unless within 90 days of receipt of notice from said party of his intention to drill the well the Unit Operator elects and commences to drill such a well in like manner as other wells are drilled by the Unit Operator under this agreement.

If any well drilled as aforesaid by a working-interest owner results in production such that the land upon which it is situated may properly be included in a participating area, such participating area shall be established or enlarged as provided in this agreement and the well shall thereafter be operated by the Unit Operator in accordance with the terms of this agreement and the unit operating agreement.

If any well drilled as aforesaid by a working-interest owner obtains production in quantities insufficient to justify the inclusion of the land upon which such well is situated in a participating area, such well may be operated and produced by the party drilling the same subject to the conservation requirements of this agreement. The royalties in amount or value of production from any such well shall be paid as specified in the underlying lease and agreements affected.

14. ROYALTY SETTLEMENT. The United States and any State and any royalty owner who is entitled to take in kind a share of the substances now unitized hereunder shall hereafter be entitled to the right to take in kind its share of the unitized substances, and the Unit Operator, or the working-interest owner in case

of the operation of a well by a working-interest owner as herein provided for in special cases, shall make deliveries of such royalty share taken in kind in conformity with the applicable contracts, laws, and regulations. Settlement for royalty interest not taken in kind shall be made by working-interest owners responsible therefor under existing contracts, laws, and regulations, or by the Unit Operator, on or before the last day of each month for unitized substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any royalties due under their leases.

If gas obtained from lands not subject to this agreement is introduced into any participating area hereunder, for use in repressuring, stimulation of production, or increasing ultimate recovery, in conformity with a plan of operations approved by the Supervisor and the Land Commissioner, a like amount of gas, after settlement as herein provided for any gas transferred from any other participating area and with appropriate deduction for loss from any cause, may be withdrawn from the formation into which the gas is introduced, royalty free as to dry gas, but not as to any products which may be extracted therefrom; provided that such withdrawal shall be at such time as may be provided in the approved plan of operations or as may otherwise be consented to by the Supervisor and the Land Commissioner as conforming to good petroleum engineering practice; and provided further, that such right of withdrawal shall terminate on the termination of this unit agreement.

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

Royalty due on account of State lands shall be computed and paid on the basis of all unitized substances allocated to such lands.

15. RENTAL SETTLEMENT. Rental or minimum royalties due on leases committed hereto shall be paid by working-interest owners responsible therefor under existing contracts, laws, and regulations, provided that nothing herein contained shall

operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty due under their leases. Rental or minimum royalty for lands of the United States subject to this agreement shall be paid at the rate specified in the respective leases from the United States unless such rental or minimum royalty is waived, suspended, or reduced by law or by approval of the Secretary or his duly authorized representative.

Rentals on State of New Mexico lands subject to this agreement shall be paid at the rates specified in the respective leases.

With respect to any lease on non-Federal land containing provisions which would terminate such lease unless drilling operations are commenced upon the land covered thereby within the time therein specified or rentals are paid for the privilege of deferring such drilling operations, the rentals required thereby shall, notwithstanding any other provision of this agreement, be deemed to accrue and become payable during the term thereof as extended by this agreement and until the required drilling operations are commenced upon the land covered thereby or until some portion of such land is included within a participating area.

- 16. 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 State or Federal law or regulation.
- 17. DRAINAGE. The Unit Operator shall take such measures as the Supervisor and Land Commissioner deem appropriate and adequate to prevent drainage of unitized substances from unitized land by wells on land not subject to this agreement.
- 18. 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, as to Federal leases and the Land Commissioner, as to State leases, shall and each 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 and State leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this agreement, and without limiting the generality of the foregoing,

1. 1. 1. 1. Labelanes, and contracts are particularly modified in accordance with the Allie wing:

- (a) The development and operation of lands subject to this agreement therefore the terms theref shall be deemed full performance of all obligations for development and operation with respect to each and every separately owned tract subject to this agreement, regardless of whether there is any development of any particular tract of the unit area.
- (b) Drilling and producing operations performed hereunder upon any tract of unitized lands will be accepted and deemed to be performed upon and for the benefit of each and every tract of unitized land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.
- pursuant to direction or consent of the Secretary and the Land Commissioner, or his duly authorized representative, shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every tract of unitized land. A suspension of drilling or producing operations limited to specified lands shall be applicable only to such lands.
- advolopment or operation for oil or gas of lands other than those of the United Suggest and State of New Mexico committed to this agreement, which, hy its berns anglet apply arrior to the termination of this agreement, is hereby extended to any such across that it shall be continued in full force and afflect for this during the term of this agreement.

The standard bodde for a fixed term of twenty (20) years or any renowal across standard to be as which is made subject to this agreement shall continue in the termination herical. Any standard the term provided therein until the termination herical. Any standard to hereto shall continue in force beyond the term as to the land committed so long as such lease remains that the term of such lease, it is the first with the term of such lease, it is the standard that production is had in paying quantities under this will be action date of the term of such lease, it is the standard with the providence of the primary term of such lease and the providence with the providence of the primary term of such lease and the providence of the primary term of such lease shall be extincted as years to be a place of the time, such lease shall be extincted as years to be primary to the paying the paying the paying the paying the providence as oil or gas is produced in paying the paying

recordance with the provisions of the Mineral beasing Act Revision of 1960.

- and extended by the immediately preceding paragraph, will expire, 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 the underlying lease as such term is herein extended.
- (g) The segregation of any Federal Lease committed to this agreement is governed by the following provision in the fourth paragraph of Sec. 17 (j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 781-784):

 "Any (Federal) lease heretofore or hereafter committed to any such (unit) Plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization: Provided, however, that any such lease as to the 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."
- (h) Any lease embracing lands of the State of New Mexico which is made subjust to this agreement, shall continue in force beyond the term provided therein as to the lands committed hereto until the termination hereof.
- i) Any lease embracing lands of the State of New Mexico having only a section of its lands committed hereto, shall be segregated as to the portion committed and the terms of such lease shall apply repurrately to such segregated portions commencing as of the effective date hereof; provided, and ever, notwithstanding any of the provisions of this agreement to the contrary any lease embracing lands of the State of New Mexico having only a portion of its lands committed hereto shall continue in full force and effect beyond the term provised therein as to all lands embraced in such lease, if oil or gas is alcovered and is capable of being produced in paying quantities from some part of the lands embraced in such lease at the expiration of the secondary term of such lease; or if, at the expiration of the secondary term, the lessee or the Unit Operator is then engaged in bona fide drilling or reworking operations on some part of the lands embraced in such lease, the same, as to all lands embraced therein, shall the lands embraced in such lease, the same, as to all lands embraced therein, shall

remain in full force and effect so long as such operations are being diligently prosecuted, and if they result in the production of oil or gas; said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as oil or gas in paying quantities is being produced from any portion of said lands.

- 19. 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, or 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, royalty, or other 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, photostatic, or certified copy of the instrument of transfer.
- 20. EFFECTIVE DATE AND TERM. This agreement shall become effective upon approval by the Secretary and the Land Commissioner or his duly authorized representative, and shall terminate five (5) years from said effective date unless
- (a) such date of expiration is extended by the Director and the Land Commissioner, or
- or any extension thereof that the unitized land is incapable of production of unitized substances in paying quantities in the formations tested hereunder and after notice of invention to terminate the agreement on such ground is given by the Unit Operator to all parties in interest at their last known addresses, the agreement is terminated with the approval of the Supervisor and the Land Commissioner, or
- on unlitude and during maid initial term or any extension thereof, in which went the agreement shall remain in effect for such term and so long as unitially shall are produced in quantities sufficient to pay for the cost of producing that from wells on unitized land within any participating area established hereof er and should production cease, so long thereafter as diligent operations are in progression the restoration of production or discovery of new production and so long thereafter as unitized substances so discovered are produced as aforesaid, or

- (d) it is terminated as heretofore provided in this agreement. This agreement may be terminated at any time by not less than 75 per centum, on an acreage basis, of the working-interest owners signatory hereto, with the approval of the Supervisor and the Land Commissioner; notice of any such approval to be given by the Unit Operator to all parties hereto.
- 21. RATE OF PROSPECTING, DEVELOPMENT, AND PRODUCTION. The Director is hereby vested with authority to alter or modify from time to time in his discretion the quantity and rate of production under this agreement when such quantity and rate is not fixed pursuant to Federal or State law or does not conform to any statewide voluntary conservation or allocation program, which is established, recognized, and generally adhered to by the majority of operators in such State, 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. Without regard to the foregoing, the Director is also hereby vested with authority to alter or modify from time to time in his discretion the rate of prospecting and development and the quantity and rate of production under this agreement when such alteration or modification is in the interest of attaining the conservation objectives stated in this agreement and is not in violation of any applicable Federal or State law.

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

- 22. APPEARANCES. Unit Operator shall, after notice to other parties affected, have the right to appear for and on behalf of any and all interests affected hereby before the Department of the Interior and the Commissioner of Pulbic Lands and to appeal from orders issued under the regulations of said Department or Land Commissioner or to apply for relief from any of said regulations or in any proceedings to the to operations before the Department of the Interior or the Land Commissioner or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his own expense to be heard in any such proceeding.
- 23. NOTICES. All notices, demands, or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if given in writing and personally delivered to the party or sent by postpaid registered or certified mail, addressed to such party or parties at their respective addresses

set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party may have furnished in writing to party sending the notice, demand or statement.

- 24. NO WAIVER OF CERTAIN RIGHTS. Nothing in this agreement contained chall 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 of the United States, 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.
- 25. UNAVOIDABLE DELAY. All obligations under this agreement requiring the Unit Operator to commence or continue drilling or to operate on or produce unitized substances from any of the lands covered by this agreement shall be suspended while 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 agencies, unavoidable accidents, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not. No unit obligation which is suspended under this section shall become due less than thirty (30) days after it has been determined that the suspension is no longer applicable. Determination of creditable 'Thavoidable Delay" time shall be made by the unit operator subject to approval of the Supervisor and the Land Commissioner.
- 26. NONDISCRIMINATION. In connection with the performance of work under this agreement, the operator agrees to comply with all the provisions of section 202 (1) to (1) inclusive of Executive Order 11246 (30 F.R. 12319), which are nerecy incorporated by resonance in this agreement.
- shall full and the true owner cannot be induced to join in this unit agreement, such tract shall be automatically regarded as not committed hereto and the shall be automatically regarded as not committed hereto and the shall be such readjustment of future costs and benefits as may be required on absolut of the loss of such withe. In the event of a dispute as to title as 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 and State land or leases, no payments of

funds due the United States or the State of New Mexico should be withheld, but such funds shall be deposited as directed by the Supervisor and such funds of the State of New Mexico shall be deposited as directed by the Land Commissioner, to be held as unearned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

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

28. NON-JOINDER AND SUBSEQUENT JOINDER. If the owner of any substantial interest in a tract within the unit area fails or refuses to subscribe or consent to this agreement, the owner of the working interest in that tract may withdraw said tract from this agreement by written notice delivered to the Supervisor and the Land Commissioner and the Unit Operator prior to the approval of this agreement by the Supervisor. Any oil or gas interests in lands within the unit area not committed hereto prior to submission of this agreement for final approval may thereafter be committed hereto by the owner or owners thereof subscribing or consenting to this agreement, and, if the interest is a working interest, by the owner of such interest also subscribing to the unit operating agreement. After operations are esumenced hereunder, the right of subsequent joinder, as provided in this section, by a working-interest owner is subject to such requirements or approvals, if any, pertaining to such joinder, as may be provided for in the unit operating agreement. After final approval hereof, joinder by a non-working interest owner must be conrested to an writing by the working-interest owner committed hereto and responsible for the payment of any benefits that may accrue hereunder in behalf of such nonworking interact. A non-working interest may not be committed to this unit unless the corresponding working interest is committed hereto. Joinder to the unit greement by a working-interest owner, at any time, must be accompanied by appropriate goinder to the write eperating agreement, if more than one committed working-interest caller is hittilized, in order for the interest to be regarded as committed to this unit agreement. Except as may otherwise herein be provided, subsequent joinders to this agreement shall be effective as of the first day of the month following to filing with the Supervisor and the hand Commissioner of duly executed countersert. of all or any papers necessary to establish effective commitment of any tract to this agreement unless objection to such joinder is duly made within sixty 60% days. by the Supervisor and the Land Commissioner.

29. COUNTERPARTS. This agreement may be executed in any number of counterparts no one of which needs to be executed by all parties or 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 such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above-described unit area.

FO. SURRENDER. Nothing in this agreement shall prohibit the exercise by any working-interest owner of the right to surrender vested in such party by any lease, sublease, or operating agreement as to all or any part of the lands covered thereby, provided that each party who will or might acquire such working interest by such surrender or by forfeiture as hereafter set forth, is bound by the terms of this agreement.

If, as a result of any such surrender, the working interest rights as to such lands become vested in any party other than the fee owner of the unitized substances, said party may forfeit such rights and further benefits from operation. hereunder as to said land to the party next in the chain of title who shall be and become the owner of such working interest.

If, as the result of any such surrender or forfeiture, working interest rights liceas vested in the fee owner of the unitized substances, such owner may:

- (1) Accept those working-interests rights subject to this agreement and the unit operating agreement; or
- (2) Lease the portion of such land as is included in a participating area established hereunder subject to this agreement and the unit operating agreement.
- (3) Provide for the independent operation of any part of such land that are not then included within a participating area established hereunder.

If the fee owner of the unitized substances does not accept the workinginterest rights subject to this agreement and the unit operating agreement or lease
such lands as above-provided within six (6) months after the surrendered or forfeeted working-interest rights become vested in the fee owner, the benefits and
obligations of operations accruing to such lands under this agreement and the unit
operating agreement shall be shared by the remaining owners of unitized working
interests in accordance with their respective working interest ownerships, and
such owners or working interests shall compensate the fee owner of unitized suc-

remains an such lands by paying sums equal to the rentals, minimum royalties, and royalties applicable to such lands under the lease in effect when the lands were unitized.

An appropriate accounting and settlement shall be made, for all benefits accruing to or payments and expenditures made or incurred on behalf of such surrendered or forfeited working interest subsequent to the date of surrender or forfeiture, and payment of any moneys found to be owing by such an accounting shall be made as between the parties within thirty (30) days. In the event no unit operating agreement is in existence and a mutually acceptable agreement between the proper parties thereto cannot be consummated, the Supervisor may prescribe such reasonable and equitable agreement as he deems warranted under the circumstances.

The exercise of any right vested in a working-interest owner to reassign such working interest to the party from whom obtained shall be subject to the same conditions as set forth in this section in regard to the exercise of a right to surrender.

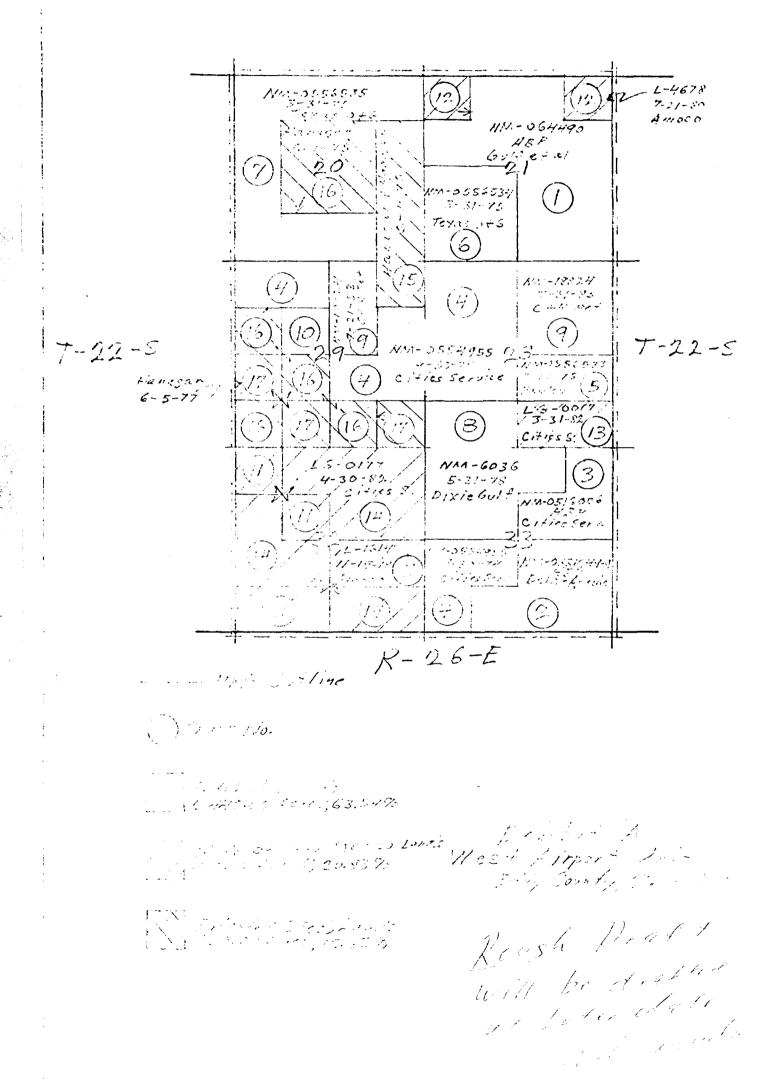
- 31. TAXES. The working-interest owners shall render and pay for their account and the account of the royalty owners all valid taxes on or measured by the unitized substances in and under or that may be produced, gathered, and sold from the land subject to this contract after the effective date of this agreement, or upon the proceeds derived therefrom. The working-interest owners on each tract shall and may charge the proper proportion of said taxes to the royalty owners having interests an said tract, and may currently retain and deduct sufficient of the unitized substances or derivative products, or net proceeds thereof from the allocated share of such royalty owner to secure reimbursement for the taxes as pill. We such taxes and the charged to the United States or the State of New Mexico or to say become who may a contract with his lessor who has a contract with him lessor who
- 52. NO PARTAGRETIP. It is expressly agreed that the relation of the part of her sto we that of independent contractors and nothing in this agreement contained, expressed, or implied, nor any operations conducted hereunder, shall create on at deemed to have created a partnership or association between the parties her sto or any of them.
- interest owners, nor any of them, shall be subject to any forfeiture, termination, as expiration of any right hereunder or under any leases or contracts subject here.

to comply with any applicable provisions thereof to the extent that the said Unit Operator or the working-interest owners, or any of them, are hindered, delayed, or prevented from complying therewith by reason of failure of the Unit Operator to obtain, in the exercise of due diligence, the concurrence of proper representatives of the United States and proper representatives of the State of New Mexico in and about any matters or things concerning which it is required herein that such concurrence he obtained. The parties hereto, including the State Commission, agree that all powers and authority vested in the State Commission in and by any provisions of this agreement are vested in the State Commission and shall be exercised by it pursuant to the provisions of the laws of the State of New Mexico and subject in any case to appeal or judicial review as may now or hereafter be provided by the laws of the State of New Mexico.

34. SURFACE AND ENVIRONMENTAL PROTECTION STIPULATIONS. Nothing in this agreement shall modify or change either the special Federal Lease stipulations relating to surface management or such special Federal Lease stipulations relating to surface and environmental protection, attached to and made a part of, Oil and Gas Leases covering lands within the Unit Area.

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

ATTEST:	C & K PETROLEUM, INC.
6 Y :	BY:
	Address:
•	UNIT OPERATOR
STATE OF) ss	
The foregoing instrument was a	acknowledged before me this day of
, 1974, by	who is
	of C & K Petroleum, Inc. (State of Incorp.) , for and on behalf of said Corporation.
My Commission Expires:	Notary Public



SCHEDULE OF LANDS AND GEASES WEST AIRPORT OFFICE AREA Eddy County, New Mexico

'n	÷	Ņ.	N.	٠	TRACT
360. 28; 17/8FM	Sec. 28; NYSWA, Sec. 29; NYSWA, Sec. 29; NYSEK SEATEL, NYSEK Sec. 33; NYSWA, Sec. 33; NYSWA,	Sec. 33; NEVINEM, Symem	Sec. 33; SEMSWA,	Fill lands described celow are in	DESCRIPTION
80.00	560.00	120.00	200.00	400.00 MPM	ACRES
NM-0556 533 3-31-75	NM-0554955 9-30-74	NM-0516006 HBP	NM-0331649 -A HBP	NM-064490 HBP	SERIAL NO. & EXP. DATE
U.S.A. 12.5	U.S.A. 12.5	U.S.A. 12.5	U.S.A. 12.5	U.S.A. 12.5	BASIC ROYALTY
Pauley Petroleum Inc All	Cities Service Oil - All	Cities Service Oil - All	Delaware-Apache Corp 50.00 Midland Oil Corp - 500.00	Gulf Oil Corp 53.125 1 David Fasken - 18.750 Atlantic Richfield - 25.000 Tom Brown Drilling Company - 3.235	LESSEE OF RECORD
ll None	H. P. Firam & Est. F. A. Hanson	M. E. Gellert	Bettie L. Greenwade	Est. Buck Russell \$500 acres out of OO Est. E. A. Hanson \$225 per acre out of Featherstone Farms \$225 per acre out of Kay Havenor Norman L. Stevens	OVERRIDING ROYALIY AND PERCINTAGE
	5%	5%	55%	0.30% 1.35% 0.625% 0.625%	
Pauley Petroleum, Inc.	Dities Service Oil Co.	Cities Service Oil Co.	Deleware-Apache Corp. Midlard Oil Corp.	Above 10,600 ft. Gulf Cil Corp. Atlantic Richfield David Fasken Charles Read Tom Brown Drilling Co. Below 10,600 ft. Gulf Cil Corp Atlantic Richfield David Fasken Tom Brown Drilling Co.	WORKING INTEREST AND PERCENTAGE
1.00.00%	100.00%	%co.oot	50.00%	25.0% 25.0% 25.0% 25.0% 25.0% 25.0% 25.0% 25.0%	

4	14.	13.	12.	. 11.			10.	ì	9	~	?	6
Total: 800	Sec. 32; NEMNWA, 1154, SWANWA, 11/55WA, SYSEK	Sec. 28; S%SE%	Sec. 21; NEXNEX,	Sec. 32; Naanwa, Selanga, Syswa, Nasea		Total 2,440.00	Sec. 29; SEANWA		Sec. 28; NE%	Sec. 28; S/SW/A Sec. 33; NW/ANEX. NW/A	Sec. 20; N/AN/2, S'//ANW/4, W/ASW/4, SE//SW/4, SW/ASE/4	Sec. 21; SWA
800.00 acres,	400.00	80.00	80.00	240.00		.00 acres	£0.00	3	240.00	280.00	360.00	160.00
s, State of New	LG-0177 4-30-82	1G-0017 3-31-82	1-4678 7-21 -8 0	L-1614 11-19-78		s Federal Lands	9-30-84 8-2027	7-31-83	NM-18824	NM-6036 5-31-78	NM-05565 35 3-31-75	NM-05565 34 3-31-75
Mexico Lands	State 12.5	State 12.5	State 12.5	State			12.5	12.5	U./S.A.	U.S.A. 12.5	U.S.A. 12,5	U.S.A. 12.5
1ds	Cities Service Oil Co.	Cities Service Oil Co.	AMOCO Production Co.	AMOCO Production Co.	STATE OF NEW MEXICO LANDS				C & K Petroleum, IncAll	Dixie Gulf Petroleum Company - All	Nielsen Enterprises Inc 50.0 Texas Oil & Gas Corp 50.0	Nielsen Enterprises, Inc 50.0 Texas Oil & Gas Corp 50.0
	None	None	None	None	NDS			\$750 per acre out of	H. F. Darling	Luanne C. Wells	Gcorge A. Breene	Fst. James R. Stephens T. H. McElvain, Jr. Cutherine M. Harvey Marybea M. Letts
								6.25%		4.00%	5.00%	1.00% 1.25% 1.25% 2.50%
	Cities Service Oil Co.	Cities Service Oil Co.	AMMOO Production Company	AMOCO Production Company					C & K Petroleum, Inc.	Dixie Gulf Petroleum Co.	Nielsen Enterprises, Inc. Texas Oil & Gas Corp.	Nielsen Enterprises, Inc. Texas Oil & Gar Corp.
	%00 . 00%	100.00%	300.00%	%00.001					100.00%	100.00%	50.00% 50.00%	50.00%

PATENTED (REE) LANDS

Mark Town App.

:7•	16.	15.
Sec. 29; SE%SE%, 120.00 NW/SW%, SE %SW	Sec. 20; SWANEA, 320.00 SE/4NW/A, NWASE/A, NE/4SW/A Sec. 29; SWANWA, SW/4SE/A, NE/4SW/A, SW/4SW/A	Sec. 20; SEMNE4, 160.00 E%SE% Sec. 29; NE%NE%
6-05-77	Same as Above	5-26-77 6-01-75 6-01-75 6-01-75 6-05-77 Unleased
Berniece G. Hamilton 6.25% Richard I. Floye 6.25%	Same Basic Royalty and ownership as Tract 15 above, except Marjorie H. Helman, et al have no interes: and First National Bank trustee has 12.50% minerals and L. H. Tyson has 2.343750 Basic Royalty Midland National Bank, Trustee	Hilda Wein art & Jane Blumbars 2.343750% Leila B. Gaddard, John A. Bauchman, James B. Buchman 1.562500% Carter Foundation 4.687500% Marjorie H. Helman, Evelyn Bundy, Helen Sutherland 2.343750% Midland Namional Bank, Trustee 12.109375%
Hanagan & Hanagan 100.00%	Open	Hanagan × Falls vo. 3.75%
100.00%	12.50%	6.25%
None		€.ct⊕
itua ugan & Fanagan	Open	Open
100.00%	12.50%	93.75% 6.25% 100.00%

Total: 600.00 acres, Patented (Fee) Land 3

Recapitulation

2,440.00 screet Moders to Eds; 65.55% of Unit And Research Co.00 screet Make of Maximo Lands; y. M. out Area (600.00 area Moderated Co. Maximo Lands; y. M. out Area (600.00 area Moderated Co. Maximo Lands; No. M. out Area (600.00 area Moderated) Co. Maximo Lands; No. M. out Area (600.00 area Moderated) Co. M. out Area (600.00 area (6

Dockets Nos. 29-74 and 30-74 are tentatively set for hearing on October 16 and October 30. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 2, 1974

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

Sign on its own motion to consider the amendment of Rule 109 of the Commission Rules and Regulations to require installation of blowout preventers on all drilling and workover rigs operating in areas of unknown pressures or high pressures and on all drilling and workover rigs operating within the corporate limits of any city, town, or village or within 1320 feet of a habitation, school, or church, wherever located.

CASE 5305: (Continued and Readvertised)

Application of Continental Oil Company for simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order approving the simultaneous dedication of its Britt B Well No. 17 located in Unit P of Section 10 and its Skaggs B Well No. 7 located in Unit K of Section 11, Township 20 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, said wells to be dedicated to a 320-acre non-standard proration unit comprising the SE/4 of said Section 10 and the SW/4 of said Section 11, said unit having previously been approved by Commission Order No. R-908.

CASE 5330: Application of Texas Pacific Oil Company, Inc. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its J. H. Ansley Unit Well No. 1 to be located 660 feet from the North and East lines of Section 2/, Township 1/ South, Range 26 East, Kennedy Farms-Morrow Gas Pool, Eddy County, New Mexico, the N/2 of said Section 27 to be dedicated to the well.

CASE 4976: (Reopened)

In the matter of Case No. 4976 being reopened pursuant to the provisions of Order No. R-4638 to permit all operators in the West Parkway-Strawn and West Parkway-Atoka Gas Pools in Section 28, Township 19 South, Range 29 East, Eddy County, New Mexico, to appear and present evidence to clearly establish the nature of the reservoirs, proper rates of production for wells therein, and special rules therefor.

CASE 5331: Application of J. Gregory Merrion for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Devils Fork-Mesaverde and Devils Fork-Gallup production in the wellbore of his NCRA State Wells Nos. 1 and 4 located in Units E and J, respectively, of Section 16, Township 24 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 5288: (Continued from the September 18, 1974, Examiner Hearing)

Application of Merrion & Bayless for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of hydrocarbon production from the top of the Gallup formation at 5434 feet to the base of the Dakota formation at 6570 feet in its Keeling Federal Well No. 1 located in Unit B of Section 20, Township 25 North, Range 8 West, Dufers Point-Dakota Pool, San Juan County, New Mexico.

- CASE 5332: Application of C & K Petroleum, Inc. for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the West Airport Unit Area comprising 3,840 acres, more or less, of Federal, Fee and State lands in Township 22 South, Range 26 East, Eddy County, New Mexico.
- CASE 5333: Application of Mark Production Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a gas well to be drilled 660 feet from the South and West lines of Section 9, Township 20 South, Range 25 East, Cemetery-Morrow Gas Pool, Eddy County, New Mexico, the S/2 of said Section 9 to be dedicated to the well.
- CASE 5334: Application of Stoltz, Wagner & Brown for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter and clean out to a depth of approximately 8400 feet its H. L. Vinson Well No. 1, formerly Gulf Oil Corporation Vinson Well No. 2, the surface location of which is 1980 feet from the North and East lines of Section 22, Township 9 South, Range 36 East, Cross-roads Siluro-Devonian Pool, Lea County, New Mexico, and to then directionally drill said well in such a manner as to bottom the well in the Devonian formation within a 180-foot radius of a point 2310 feet from the North line and 1320 feet from the East line of said Section 22.
- CASE 5337: Application of Keesee & Thomas for an unorthodox oil well location, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Chacon Jicarilla Apache "D" Well No. 1 located 870 feet from the North line and 1140 feet from the East line of Section 23, Township 23 North, Range 3 West, Sandoval County, New Mexico. Said well was projected at an orthodox location for a Basin-Dakota gas well, but was completed as an oil well in the Dakota formation.

CASE 5335: Northwestern nomenclature case calling for the creation and extension of certain pools in Rio Arriba, San Juan and McKinley Counties, New Mexico:

> (a) Create a new pool in McKinley County, New Mexico, classified as an oil pool for Gallup production, designated the Arroyo Chico-Gallup 011 Pool. The discovery well is the Northern Minerals, Inc. Santa Fe Pacific Railroad Well No. 7 located in Unit G of Section 29, Township 16 North, Range 6 West, completed October 15, 1973. The depth of the casing shoe is 764 feet. Said pool would comprise:

TOWNSHIP 16 NORTH, RANGE 6 WEST, NMPM Section 29: SW/4 NE/4

(b) Create a new pool in San Juan County, New Mexico, classified as a gas pool for Chacra production, designated the Bloomfield-Chacra Pool. The discovery well is the El Paso Natural Gas Company Hubbell Well No. 9, located in Unit P of Section 18, Township 29 North, Range 10 West. Said pool would comprise:

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM Section 7: SW/4 Section 18: All Section 19: All Section 20: NW/4

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM

Section 4: SW/4 Section 5: SE/4 Section 9: N/2 & SE/4 Section 10: S/2 Section 11: S/2

Section 12: W/2 & SE/4 Section 13: All

Section 14: E/2 Section 23: E/2Section 24: All Section 26: E/2

(c) Create a new pool in Rio Arriba County, New Mexico, classified as a gas pool for Gallup production, designated the Campo-Gallup Pool. The discovery well is the Continental Oil Co. Conoco 29-4 Well No. 2 located in Unit H of Section 11, Township 29 North, Range 4 West. Said pool would comprise:

TOWNSHIP 29 NORTH, RANGE 4 WEST, NMPM Section 11: NE/4

(Case 5335 continued from Page 3)

(d) Create a new pool in Rio Arriba County, New Mexico, classified as a gas pool for Pictured Cliffs production, designated the Gobernador-Pictured Cliffs Pool. The discovery well is the Lone Star Industries, Inc. Schalk 52 Well No. 1 located in Unit M of Section 24, Township 29 North, Range 5 West. Said pool would comprise:

TOWNSHIP 29 NORTH, RANGE 5 WEST, NMPM Section 24: All

(e) Create a new pool in Rio Arriba County, New Mexico, classified as a gas pool for Gallup production, designated the Rosa-Gallup Pool. The discovery well is the Merrion & Bayless Gibbins Well No. 1, located in Unit L of Section 20, Township 32 North, Range 5 West. Said pool would comprise:

TOWNSHIP 32 NORTH, RANGE 5 WEST, NMPM

Section 20: S/2 Section 28: SW/4 Section 29: E/2 Section 33: NW/4

(f) Extend the Aztec-Pictured Cliffs Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 10 WEST, NMPM Section 15: SW/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM Section 7: N/2

(g) Extend the Blanco-Mesaverde Pool boundary in Rio Arriba & San Juan Counties, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 2 WEST, NAFM Section 16: All

(h) Extend the Blanco-Pictured Cliffs Pool boundary in Rio Arriba & San Juan Counties, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 7 WEST, NMPM Section 7: All

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM Section 9: SW/4

TOWNSHIP 30 NORTH, RANGE 8 WEST, MITM Section 17: SW/4

TOWNSHIP 30 NORTH, RANGE 9 WEST, NMPM Section 25: NE/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM

Section 5: SW/4 Section 26: SE/4

(Case 5335 continued from Page 4)

TOWNSHIP 31 NORTH, RANGE 11 WEST, NMPM

Section 2: NW/4
Section 7: E/2

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM

Section 19: E/2
Section 20: All
Section 21: W/2
Section 22: SE/4

(i) Extend the Gonzales-Mesaverde Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 25 NORTH, RANGE 6 WEST, NMPM Section 1: NE/4

(j) Extend the Harris Mesa-Chacra Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 9 WEST, NMPM Section 34: NE/4

(k) Extend the Largo-Chacra Pool boundary in Rio Arriba & San Juan Counties, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 7 WEST, NMPM Section 5: SW/4 Section 6: E/2 Section 7: E/2 Section 8: All Section 9: W/2 & SE/4 Section 16: All Section 17: All Section 18: All Section 19: N/2 Section 20: All Section 21: All Section 28: W/2 Section 29: N/2 Section 30: All

TOWNSHIP 27 NORTH, RANGE 8 WEST, NMPM

Section 13: NE/4 Section 24: N/2

Section 33: W/2

Section 25: E/2

TOWNSHIP 28 NORTH, RANGE 7 WEST, NMPM

Section 31: SE/4

(Case 5335 continued from Page 5)

(1) Extend the Otero-Chacra Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM Section 36: NE/4

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM Section 24: E/2

(m) Extend the Tapacito-Pictured Cliffs Pool boundary in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 4 WEST, NMPM Section 3: N/2 Section 4: N/2

TOWNSHIP 27 NORTH, RANGE 4 WEST, NMPM
Section 19: NW/4
Section 22: SE/4
Section 26: NW/4
Section 27: All
Section 28: All

Section 28: All Section 33: E/2 Section 34: All

TOWNSHIP 27 NORTH, RANGE 5 WEST, NMPM

Section 9: SE/4
Section 10: SW/4
Section 27: SE/4
Section 34: NE/4
Section 35: NW/4

(n) Extend the Tocito Dome-Pennsylvanian D Oil Pool boundary in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 18 WEST, NMPM

Section 7: SW/4

Section 15: S/2 & NE/4

Section 20: NW/4
Section 22: N/2
Section 26: NE/4
Section 27: SE/4

CASE 5336: Southeastern nomenclature case calling for the creation and extension of certain pools in Chaves, Eddy and Lea Counties, New Mexico:

(a) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated the Avalon-Morrow Gas Pool. The discovery well is the David Fasken El Paso Federal Well No. 1 located in the SW/4 NW/4 of Section 3, Township 21 South, Range 26 East, NMPM. Said pool would comprise:

(Case 5336 continued from Page 6)

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM Section 33: S/2

TOWNSHIP 21 SOUTH, RANGE 26 EAST, NMPM

Section 3: Lots 1 through 16

Sections 4 and 5: All

Sections 8 and 9: All

Section 16: All Section 21: All

(b) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated the Avalon-Strawn Gas Pool. The discovery well is the David Fasken El Paso Federal Well No. 1 located in the SW/4 NW/4 of Section 3, Township 21 South, Range 26 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 26 EAST, NMPM Section 3: Lots 1 through 16

(c) Create a new pool in Chaves County, New Mexico, classified as a gas pool for Mississippian production and designated the Denton Camp-Mississippian Gas Pool. The discovery well is The Superior Oil Company Chatten & Muncy Well No. 1 located in Unit 0 of Section 18, Township 6 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 6 SOUTH, RANGE 28 EAST, NMPM

Section 18: S/2 Section 19: E/2

(d) Create a new pool in Eddy County, New Mexico, classified as an oil pool for Wolfcamp production and designated the LaHuerta-Wolfcamp Pool. The discovery well is the Cities Service Oil Company Simpson A Well No. 1 located in Unit H of Section 29, Township 21 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM Section 29: NE/4

(e) Extend the Antelope Ridge-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 34 EAST, NMPM Section 21: S/2

Section 28: E/2

(f) Extend the Atoka-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM

Section 10: E/2

(Case 5336 continued from Page 7)

(g) Extend the North Bagley-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 12 SOUTH, RANGE 33 EAST, NMPM Section 6: NW/4

(h) Extend the South Bell Lake-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 600T4, RANGE 34 EAST, NMPM Section 5: NW/4
Section 6: N/2

(i) Extend the Blinebry Oil and Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM Section 35: NE/4

(j) Extend the Boyd-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPM Section 16: N/2

(k) Extend the Burton Flat-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM Section 14: N/2

(1) Extend the Cabin Lake-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 30 EAST, NMPM Section 1: S/2

(m) Extend the Catclaw Draw Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 25 EAST, NMPM Section 27: All

Section 27: All Section 34: All

TOWNSHIP 22 SOUTH, RANGE 25 EAST, NMPM Section 3: All

(Case 5336 continued from Page 8)

(n) Extend the Cemetary-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 25 EAST, NMPM Section 5: S/2

(o) Extend the Double L-Queen Associated Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM Section 2: All

(p) Extend the Eagle Creek-San Andres Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM Section 13: E/2 SW/4

(q) Extend the South Flying M-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 32 EAST, NMPM Section 14: SE/4 Section 23: E/2

(r) Extend the Golden Lane-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 30 EAST, NMPM Section 31: E/2

TOWNSHIP 21 SOUTH, RANGE 29 EAST, NMPM Section 5: Lots 1 & 2, 7, 8, 9 & 10 and 15 & 16

(s) Extend the Golden Lane-Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 30 EAST, NMPM Section 29: S/2

(t) Extend the Los Medanos-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 30 EAST, NMPM Section 1: N/2

(u) Extend the McMillan Seven Rivers-Queen Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 26 EAST, NMPM

Section 1: SE/4 NE/4 Section 12: SE/4 NE/4

(Case 5336 continued from Page 9)

(v) Extend the Monument-Paddock Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPM

Section 15: SW/4
Section 22: NW/4

(w) Extend the South Salt Lake-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 32 EAST, NMPM Section 4: Lots 3, 4, 5 and 6

(x) Extend the Sams Ranch Grayburg-San Andres Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 28 EAST, NMPM

Section 10: SE/4

Section 11: S/2

Section 14: N/2 and SE/4

Section 15: NE/4

(y) Extend the North Shoe Bar-Strawn Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM Section 13: SW/4

(z) Extend the Square Lake Grayburg-San Andres Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM Section 9: E/2 NW/4

(aa) Extend the North Vacuum-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM Section 7: W/2

(bb) Extend the Vada-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMPM Section 2: NW/4

(cc) Extend the Winchester-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMPM Section 2: S/2

CASE 4548: (Reopened)

In the matter of Case No. 4548 being reopened on the motion of the Commission to consider the amendment of the special pool rules for the Catclaw Draw-Morrow Gas Pool, Eddy County, New Mexico, to limit the applicability of said special rules to the confines of the pool's horizontal limits.

Da	ר
rage	

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico October 2, 1974

EXAMINER HEARING

IN THE MATTER OF:

Application of C and K
Petroleum, Inc., for a unit
agreement, Eddy County,
New Mexico.

Case No. 5332

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil Conservation Commission:

Thomas Derryberry, Esq. Legal Counsel for the

Commission

State Land Office Building

Santa Fe, New Mexico

For the Applicant:

Ralph M. Richardson, Esq. White Building

Roswell, New Mexico

CASE 5332
Page.....2

11

$\underline{I} \underline{N} \underline{D} \underline{E} \underline{X}$

	PAGE
DONALD L. McCLURG	
Direct Examination by Mr. Richardson Cross Examination by Mr. Nutter	3 9

Applicant's Exhibit No. 1-A

$\underline{E} \underline{X} \underline{H} \underline{I} \underline{B} \underline{I} \underline{T} \underline{S}$ Applicant's Exhibits Nos. 1, 2, 3 and 4

Page.....3

MR. NUTTER: Case 5332.

MR. DERRYBERRY: Case 5332. Application of C and K Petroleum, Inc. for a unit agreement, Eddy County, New Mexico.

MR. RICHARDSON: I am Ralph M. Richardson, Roswell, New Mexico, appearing on behalf of the Applicant. We have one witness.

(Witness sworn.)

DONALD L. McCLURG

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

DIRECT EXAMINATION

BY MR. RICHARDSON:

- Q Mr. McClurg, will you please state your name and present occupation?
- Λ Donald L. McClurg, Consulting Geologist for C and K Petroleum.
- Q Would you please state your educational and professional background to enable you to testify as an expert witness in this case?
- A I graduated in 1960 from the University of Texas in El Paso with a Bachelor's degree in geology. I worked about $6\frac{1}{9}$ years for Amoco Production Company, and one year

Page.....4

for Great Western Drilling Company, and have been consulting for the last two years.

Q Are you familiar with the West Airport Unit Area and the matters contained in the Application for the Commission's approval for a unit agreement?

A Yes, I am.

MR. RICHARDSON: Are his qualifications acceptable?
MR. NUTTER: Yes, they are.

BY MR. RICHARDSON:

Q Is the form of unit agreement that prescribed by Federal Regulations?

A Yes, it is.

Q Has a unit area been designated by the United States Geological Survey as an area logically suitable for development under a unit plan of operation?

A Yes, it has.

Q Would you please tell the Commission the total number of acres within the unit area and the number and percentage of Federal and fee lands?

A The total unit area comprises approximately 3840 acres, or 6 sections. Federal is approximately 63.54 percent. Fee lands are 16.3 percent, and State lands are 20.83 percent.

Page.....5.....

Q Would you please tell the Commission the Township and Range in which the unit is located and the approximate location with reference to the nearest town?

A This Township 22 South, Range 26 East, about three miles southwest of Carslbad.

Q Would you please refer to the Geological Report which has been handed to the Commissioner marked Exhibits 1 through 4. Was this report written by you or prepared by you?

A The report was written by Harold Gardner, who is another consultant geologist that worked for C and K. I was involved, assisting with Mr. Gardner in the preparation of the report.

- Q It was a joint combination, in other words?
- A Yes.
- Q Would you review the report briefly referring to the maps and names and indicating the significance of the maps?

A The report is comprised of a written portion which is Exhibit 4, and a map portion which is a structure map on the Middle Morrow Unit which is defined as Exhibit No. 1. And the Middle Morrow Unit is representative of the general lay of the structure.

Page......6

MR. NUTTER: Just a moment. This particular book here has two index plats, but it doesn't seem to have the Morrow structure plat.

THE WITNESS: I believe it is in the enclosure on the back side there.

(Whereupon, a discussion was held off the record.)

THE WITNESS: This structure map is Exhibit 1 and illistrates -- there appear to be a string of nonproductive wells in the Morrow formation on the west side of the South Carlsbad Field. We feel that this reoresents a permeability barrier on the west side of the South Carlsbad Field. And then to the west of that is the West Airport Unit, and then we encounter west of the unit, as shown in blue on the maps, another permeability barrier which we think exists which would be updip of the unit area. The cross sections illistrate the reasons that we think that permeability barriers exist in the area primarily because the main pay in the South Carlsbad Field is not productive in the permeability barrier immediately to the west of South Carlsbad, and it has produced gas in Section 34, 22, 26 and the well is designated Midwest Federal 1-L on this map. The well was eventually completed in the

upper portion of the Morrow for 4.5 million, but the main pay in the South Carlsbad Field was tested up to 3 million. The well experienced extreme mechanical difficulty when it was over a year completing, but gas was present in the main pay of the South Carlsbad Field which would be an area of the West Airport Unit. And updip and past the next permeability barrier, all of the sands that we think are equivalent to the pay in the South Carlsbad Field are either tight, wet or shaley, so there must be another separation of these units updip of the area we intend to drill. So, basically, what we have is the rig report which describes in greater detail the plat which shows the expected structure of the proposed location and two cross sections which support the existence of the permeability barrier inferred on the map.

BY MR. RICHARDSON:

Q Will you please tell the Commission your conclusions as to the formations likely to be encountered and considered prospective for production?

A Well, the uppermost formation likely to be productive in the area is the Wolfcamp which does produce in the general area to the east of the West Airport Unit in the Gulf Olive Well and the Pennzoil Moore Well. It

Page.....8

is colored orange on the plat. The Wolfcamp is a very erratic reservoir, but it is always a possibility in this general area here. Then, the Canyon produces in several wells in the area, once again, very similar to the Wolfcamp, a very erratic reservoir, but it is a potential productive zone. The primary target would, of course, be the Lower Morrow Sand. That is the main pay. The Morrow Sand is the primary target which we are after.

Q Would you please give the projected depth and the location of the initial test well?

A Okay. The proposed depth is 12,000 feet which should TD in the Barnett Shale which would assure an adequate penetration of all Morrow Sands. And the proposed location is 2250 from the north line, 990 from the west line of Sectiln 29, 22 South, 26 East in Eddy County, and that location is at a slight variance with the plats in the report.

- Q Is that 990 from the west line or the east line?
- A 990 -- I am sorry -- from the east line of Section 29.
- Q Have the other working interest owners of the unit been contacted?
 - A Yes, they have.

Page 9

Q In your opinion, what percentage of the working interest will be committed and what percentage of the royalty will be committed?

A About 90 percent of the working interest owners and assuming State approval, 85 percent of the royalty.

Q In your opinion, will the operation of this area under the proposed unit plan of operation be in the interest of conservation and prevention of waste?

A Yes.

Q And will the correlative rights of all parties to the unit agreement be protected?

A Yes.

MR. RICHARDSON: We would like to enter the Geological Report, marked Exhibits 1 through 4 into evidence at this time.

MR. NUTTER: The Geological Reports with the enclosed exhibits will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1, 2, 3 and 4 were marked for identification, and were admitted into evidence.)

MR. RICHARDSON: I have nothing further.

CROSS EXAMINATION

BY MR. NUTTER:

McCLURG-CROSS

Page 10

- Q What was the location of that well again?
- A The location is 2250 from the north line and 990 from the east line of Section 29. That map may have an old-
- Q (Interrupting) The location that is marked on this exhibit wouldn't correspond.
- A Yes, it would not. I could give you my copy here which has the corrected location.
- Q I can just draw the location on it if I can find out --
 - A (Interrupting) Here, let me have that.
 - Q It is in Section 28?
 - A No, sir, 29.
 - Q Oh, Section 29.
- A That was the preliminary location and the management decided to move it saightly updip.
- Q So, then, this location, I believe, would be a standard location?
- A Yes, sir. It is at a slight variance from the 660 and 1980, but it is -- because of the topography.
 - Q But it will still be still ard?
- A Yes, sir, I think it would still be a stan and location.
 - Q We can mark this one, then, Exhibit 1-A, which

McCLURG-CROSS

Page......11

is the corrected well location plat?

A Yes, sir.

MR. NUTTER: And it will be admitted in evidence too.

(Whereupon, Applicant's Exhibit No. 1-A was marked for identification, and was admitted into evidence.)

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

(Witness dismissed.)

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

MR. RICHARDSON: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 5332? We will take the case under advisement.

Page...... 12

STATE OF NEW MEXICO)
) SS.
COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

COURT PERORUER

a complete record of the proceedings in the Examiner hearing of Case No. 5357

Wexico Oil Conservation C. alseion

_																		
۲	ag	e.	 -	,				,	,			7	Ļ					

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico October 2, 1974

EXAMINER HEAR ING

IN THE MATTER OF:

Application of C and K
Petroleum, Inc., for a unit
agreement, Eddy County,
New Mexico.

Case No. 5332

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil Conservation Commission:

Thomas Derryberry, Esq. Legal Counsel for the

Commission

State Land Office Building Santa Fe, New Mexico

For the Applicant:

Ralph M. Richardson, Esq.

White Building

Roswell, New Mexico

CASE 5332
Page 2

INDEX

	PAGE
DONALD L. McCLURG	
Direct Examination by Mr. Richardson Cross Examination by Mr. Nutter	3 9

<u>E X H I B I T S</u>

Applicant's	Exhibits Nos.	1, 2,	3 and 4	9
Applicant's	Exhibit No. 1	-A		11

MR. NUTTER: Case 5332.

MR. DERRYBERRY: Case 5332. Application of C and K Petroleum, Inc. for a unit agreement, Eddy County, New Mexico.

MR. RICHARDSON: I am Ralph M. Richardson,
Roswell, New Mexico, appearing on behalf of the Applicant.
We have one witness.

(Witness sworn.)

DONALD L. McCLURG

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

DIRECT EXAMINATION

mr. RICHARDSON:

- Q Mr. McClurg, will you please state your name and present occupation?
- A Donald L. McClurg, Consulting Geologist for C and K Petroleum.
- Q Would you please state your educational and professional background to enable you to testify as an expert witness in this case?
- A I graduated in 1960 from the University of Texas in El Paso with a Bachelor's degree in geology. I worked about $6\frac{1}{5}$ years for Amoco Production Company, and one year

Page. 4

for Great Western Drilling Company, and have been consulting for the last two years.

Q Are you familiar with the West Airport Unit Area and the matters contained in the Application for the Commission's approval for a unit agreement?

A Yes, I am.

MR. RICHARDSON: Are his qualifications acceptable?
MR. NUTTER: Yes, they are.

BY MR. RICHARDSON:

- Q Is the form of unit agreement that prescribed by Federal Regulations?
 - A Yes, it is.
- Q Has a unit area been designated by the United States Geological Survey as an area logically suitable for development under a unit plan of operation?
 - A Yes, it has.
- Q Would you please tell the Commission the total number of acres within the unit area and the number and percentage of Federal and fee lands?
- A The total unit area comprises approximately 3840 acres, or 6 sections. Federal is approximately 63.54 percent. Fee lands are 16.3 percent, and State lands are 20.83 percent.

Q Would you please tell the Commission the Township and Range in which the unit is located and the approximate location with reference to the nearest town?

A It is Township 22 South, Range 26 East, about three miles southwest of Carolbad.

Q Would you please refer to the Geological Report which has been handed to the Commissioner marked Exhibits 1 through 4. Was this report written by you or prepared by you?

A The report was written by Harold Gardner, who is another consultant geologist that worked for C and K. I was involved, assisting with Mr. Gardner in the preparation of the report.

- Q It was a joint combination, in other words?
- A Yes.
- Q Would you review the report briefly referring to the maps and names and indicating the significance of the maps?
- A The report is comprised of a written portion which is Exhibit 4, and a map portion which is a structure map on the Middle Morrow Unit which is defined as Exhibit No. 1. And the Middle Morrow Unit is representative of the general lay of the structure.

Page 6

MR. NUTTER: Just a moment. This particular book here has two index plats, but it doesn't seem to have the Morrow structure plat.

THE WITNESS: I believe it is in the enclosure on the back side there.

(Whereupon, a discussion was held off the record.)

THE WITNESS: This structure map is Exhibit 1 and illistrates -- there appear to be a string of nonproductive wells in the Morrow formation on the west side of the South Carlsbad Field. We feel that this represents a permeability barrier on the west side of the South Carlsbad Field. And then to the west of that is the West Airport Unit, and then we encounter west of the unit, as shown in blue on the maps, another permeability barrier which we think exists which would be updip of the unit area. The cross sections illistrate the reasons that we think that permeability barriers exist in the area primarily because the main pay in the South Carlsbad Field is not productive in the permeability barrier immediately to the west of South Carlsbad, and it has produced gas in Section 34, 22, 26 and the well is designated Midwest Federal 1-L on this map. The well was eventually completed in the

Page......7.....

upper portion of the Morrow for 4.5 million, but the main pay in the South Carlsbad Field was tested up to 3 million. The well experienced extreme mechanical difficulty when it was over a year completing, but gas was present in the main pay of the South Carlsbad Field which would be an area of the West Airport Unit. And updip and past the next permeability barrier, all of the sands that we think are equivalent to the pay in the South Carlsbad Field are either tight, wet or shaley, so there must be another separation of these units updip of the area we intend to drill. So, basically, what we have is the rig report which describes in greater detail the plat which shows the expected structure of the proposed location and two cross sections which support the existence of the permeability barrier inferred on the map.

BY MR. RICHARDSON:

Q Will you please tell the Commission your conclusions as to the formations likely to be encountered and considered prospective for production?

A Well, the uppermost formation likely to be productive in the area is the Wolfcamp which does produce in the general area to the east of the West Airport Unit in the Gulf Olive Well and the Pennzoil Moore Well. It

Page.....8

erratic reservoir, but it is always a possibility in this general area here. Then, the Canyon produces in several wells in the area, once again, very similar to the Wolfcamp, a very erratic reservoir, but it is a potential productive zone. The primary target would, of course, be the Lower Morrow Sand. That is the main pay. The Morrow Sand is the primary target which we are after.

Q Would you please give the projected depth and the location of the initial test well?

A Okay. The proposed depth is 12,000 feet which should TD in the Barnett Shale which would assure an adequate penetration of all Morrow Sands. And the proposed location is 2250 from the north line, 990 from the west line of Sectiln 29, 22 South, 26 East in Eddy County, and that location is at a slight variance with the plats in the report.

- Q Is that 990 from the west line or the east line?
- A 990 -- I am sorry -- from the east line of Section 29.
- Q Have the other working interest owners of the unit been contacted?
 - A Yes, they have.

Page 9

Q In your opinion, what percentage of the working interest will be committed and what percentage of the royalty will be committed?

A About 90 percent of the working interest owners and assuming State approval, 85 percent of the revalty.

Q In your opinion, will the operation of this area under the proposed unit plan of operation be in the interest of conservation and prevention of waste?

A Yes.

Q And will the correlative rights of all parties to the unit agreement be protected?

A Yes.

MR. RICHARDSON: We would like to enter the Geological Report, marked Exhibits 1 through 4 into evidence at this time.

MR. NUTTER: The Geological Reports with the enclosed exhibits will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1, 2, 3 and 4 were marked for identification, and were admitted into evidence.)

MR. RICHARDSON: I have nothing further.

CROSS EXAMINATION

BY MR. NUTTER:

McCLURG-CROSS

Page.....

- Q What was the location of that well again?
- A The location is 2250 from the north line and 990 from the east line of Section 29. That map may have an old-
- Q (Interrupting) The location that is marked on this exhibit wouldn't correspond.
- A Yes, it would not. I could give you my copy here which has the corrected location.
- Q I can just draw the location on it if I can find out --
 - A (Interrupting) Here, let me have that.
 - Q It is in Section 28?
 - A No, sir, 29.
 - Q Oh, Section 29.
- A That was the preliminary location and the management decided to move it slightly updip.
- Q So, then, this location, I believe, would be a standard location?
- A Yes, sir. It is at a slight variance from the 660 and 1980, but it is -- because of the topography.
 - Q But it will still be standard?
- A Yes, sir, I think it would still be a standard location.
 - Q We can mark this one, then, Exhibit 1-A, which

McCLURG-CROSS

Page. 11

is the corrected well location plat?

A Yes, sir.

MR. NUTTER: And it will be admitted in evidence too.

(Whereupon, Applicant's Exhibit No. 1-A was marked for identification, and was admitted into evidence.)

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

(Witness dismissed.)

MR. NUTTER: Do you have anything further,

Mr. Richardson?

MR. RICHARDSON: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 5332? We will take the case under advisement.

CASE	5332
Page	12

STATE OF NEW MEXICO)

OUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

COURT REPORTER

New Mexico Oil Conservation Commission

GEOLOGICAL REPORT

OF

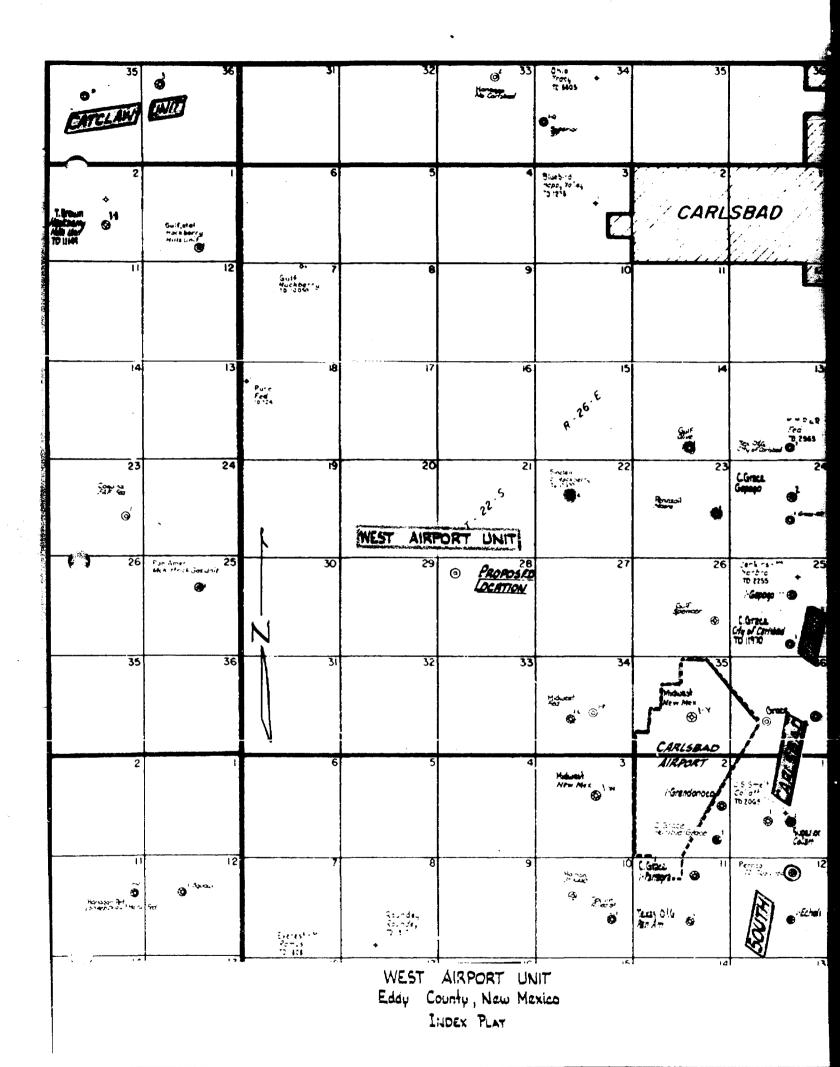
PROPOSED WEST AIRPORT UNIT

EDDY COUNTY, NEW MEXICO

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 53 54

TABLE OF CONTENTS

- 1. Index Map
- 2. Land Plat
- 3. Geological Report
- 4. Structural Map
- 5. Cross Sections A-A' and B-B'



CARLSBAD Gulf Nuckberry 18 JOST Pure Fed 19174 24 Sam Sa **③** WEST AIRPORT PROPOSED LOCATION Hansson Arthurs (Sheeks) and Hers Seresting Person TO set WEST AIRPORT UNIT

Eddy County, New Mexico INDEX PLAT

0205050 115 No Corlsbod

Superior M.P.Grace Superior

11 22 17

12 27

14 4331 12 7 77

12 37

14 4331 12 7 77 StoteFork V3 7613 31 472612 14 33 7 34 () 1m Superior in A R Ca. A sizeo Significant PEP nagené Hana 9 1 78 7297 Superior 42 (4 P Co.) 4-3700 Se Roy 12 15 50 1 52 53 Sugerier 941 2 1 4 4 M.F.Grese LACT TEST . . N P Groces
(4-1) 83,7
R S Light
R S Light
R G Berten.uc.
3 8 74
40 5 20 78
7 15 16
7 15 16
7 17 15 16
7 17 15 16
7 17 15 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 17 17
8 401032 641470 1 Sei Fet 3 4 60 11 12254 6----NLP Snore 25 75 78 2 22 76 1 4 73 76 50 Allied Chem 1 21 79 L 2352 26 43 inexcu B 1.77 Serifes Ceck Grace ! Count Carlabas STEEL BOILD TO BE STEEL TO BE Sy F Z-3-750 2-5473 Arti-Cict efal Face | 3 a. Hanagan Pet 4 - 1 73 0364690 ex CTS Inexco U.S. Saif HBU CIS 470 ATI_RICH_ Inexco On the M.P. Satire Searce Ver.046 14-1-75 3556537 8 5.... #8U 064410 411-Rich,etal 1 6.4760 State 16 15 (Tury) September 1 di 18-4

September Bridwell Oil 14
Del-Bosin Prop.
12 - 19 - 17
L 449 15 22
[Widwest | Widwest | 17
L 4478 | 17
L 4478 | 18
L 4478 | 18 Gull © HBU 364439 Allistichetal | Hidwest | 7 - 21-80 | 1-4470 | 1-34.39 15-FG Honogen | 4 · 1 · 73 | 0364690 S L Spinnler Ul U.S U, 3 Microsoft U-19-79 L-1613 State 37 75 T 22 26 22 S State Gulfi HSU 164139 Att. Rich. Pead E. Stevens Sulf att Texas CEG Neilson Eat Inc. 4-1-75 RI OSS6535 Floydi (RN Emilers) (AttirRich) 3 1 74 | lossestre 2554477 | lossestre 341 Rich Su'F HBU 264350 Att-Rich,e | Att-Rich. | 5 - 1 - 14 | 0 | 5 - 1 - 14 | 0 | 20 r Syngo Cany Disc. 22 MMI 5221 bols. diek Hack berry Hack Link 23 reyesty 19 without he (1.0. Com-M. Forsic M. Forsic M. Forsic Gross Att Meriand Inc. A. M. Meriant Veilson Ent.Inc Corter Fdn 14#1 R 1. Fleyd'S) Takes Democratical Property of the second se 9. 5 Serveter Gulf 4-4 % 8 27 73 4-3-% Penaza. 5-10-77 Gulf
8- 20- 76
Fennzoil
4- 9- 90
5- 18- 80
7- 21- 15
7 A Attentof
Guif
8- 675 - 44- 51
51 atc Cit Serv RF Durling
Cissess 8 8 83
RF Florido 18824 J.M.Huber 7 - 1 - 61 13783 R G Hanagan Service of the servic WEST AIRPORT UNIT Sulf 8 · 1 · er 13625 Surrey Ferred 30 (Hangan) 14 E Cir Serv. 12 pr - 14 155445 Čar i ici Jilak i(Cit es Service) Company Compan Carstos : 51 et Sere 13 17 13 17 13 17 13 17 Fie Suif Per Socie 13 Sult 8. 1. 9 9 5 13625 Guil 1- 1- ei 3675 12.22 1 Care Store Honograph Hanggar H Cit Serv 3: 1: 74 0519209 DistaGulf Pet. M F. Groze 3 (\$176 4 523) 47 3 1 0 Serv 3 1 74 05/5006 M. Sales Cit. Serv. 33----023:649 34 CARESBAD \$1.57 | \$1.52 \$1.50 | \$1.50 \$1.50 | \$1.50 | \$1.50 \$1.50 | \$1.50 | \$2.50 \$1.50 | \$1.50 | \$2.50 \$1.50 | \$1.50 | \$2.50 \$1.50 | \$1.50 | \$2.50 A IRPORT 13 Start 150 25 Discus Union 1 6 1 77 2 326 13-1-74 3110000 (Orlingrache) Midwest Nichest ٨ Ynon L Cities dervice บาร์สว Green of 10,7-63 • Serv • 5-11-81 • 1-11-81 हिन्दु इस्टिन्ड 5 Tarinne Grace I ្នុស | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150.0 | 150. The second of th J L. Homon (Arried Them?)

Zes in Per 2

X 4422 | X 4533 Union | Cities Service 9210 | 7.1.51 1024 7.1. Samedon 1 أكثر

GEOLOGICAL REPORT

0F

PROPOSED WEST AIRPORT UNIT

EDDY COUNTY, NEW MEXICO

I. Purpose

This report is written for the purpose of briefly summarizing the geological reasons for forming a six-section Federal unit to drill a 12,000' Morrow wildcat test in Section 28, T-22-S, R-26-E, Eddy County, New Mexico.

II. Location

The proposed West Airport Unit is located three miles southwest of the city of Carlsbad and one mile west of the Carlsbad Municipal Airport. The tentative drill site, located in the northwest-quarter of Section 28, will not endanger private or commercial aircraft utilizing the airport. Estimated ground level elevation is 3350'.

The proposed unit area contains six sections, or 3840 acres, and includes all of Sections 20, 21, 28, 29, 32, and 33, T-22-S, R-26-E, Eddy County, New Mexico. The terrain consists of a low relief, semi-arid surface over the south and southeast portion of the unit grading into the rougher topography of the Hackberry Hills to the north. The unit area is easily accessible by a paved road that extends southwest from Carlsbad through the unit and on to Dark Canyon.

III. Geology - Morrow Formation

A. General Discussion

The West Airport Unit is located on the northwest flank of the Delaware Basin. Approximately 14,000' of Permian, Pennsylvanian, Mississippian, Silurian, and Ordovician sediments are present, with the proposed test well projected to a total depth of 12,000' in the Mississippian Barnett shale.

The primary objective is the Lower Pennsylvanian Morrow sands while good secondary objectives exist through potential porous carbonate development in the Wolfcamp, Canyon, and Strawn sections.

Productive trends and permeability barriers in the Morrow sand section are usually parallel to the depositional and structural strike in this area of Southeast New Mexico.

B. Stratigraphy (See Cross Sections)

The primary objective of the West Airport Prospect is the gas producing sands of the Middle Morrow Unit (M3) and especially the main gas sand of the South Carlsbad Field. Two cross sections, A-A' and B-B', have been prepared using the top of the Morrow as a datum which illustrate the stratigraphy, permeability barriers, and fluid entrapment in the sands. The productive sands of the South Carlsbad Field are limited on the west side by a north-northeast to south-southwest trending permeability barrier supported by a series of Morrow dry holes. As indicated on cross section A-A', the Pennzoil No. 1 Moore-Com. (No. 3) test, located in Section 23, condemned all the Morrow sands as impermeable either by drill stem?

testing or electric log calculations. However, the Grace No. 2 Gopogo (No. 4) producer, located beyond the barrier to the east in the South Carlsbad Field, potentialed for 54 MMCFGPD from the main South Carlsbad pay sand and tested gas and/or water from several other zones.

Updip to the west from the non-productive Pennzoil test, the Sinclair No. 4 Hackberry Hills test (No. 2) stopped drilling in the Lower Strawn section and was completed in a Canyon carbonate zone through perforations 10,060' to 10,090'. Since the Superior No. 1-Q State Com. producer, located three miles to the north in Section 34, T-21-S, R-26-E, is considered on depositional strike, the Morrow portion of the electric log was projected into the Sinclair well on the cross section. The Superior test was perforated in several porous, permeable sands, including the South Carlsbad sand, and flowed 1,350,000 CFGPD and no water on production test.

In the Honolulu No. 1 McKittrick Canyon Unit (No. 1), also updip to the west, the potentially productive Morrow sands of the proposed unit area were wet, tight, or shaled out. Therefore, a second barrier is indicated in the position depicted on the cross section and structural map.

Cross section B-B' exhibits the same stratigraphic processes as section A-A'. The key well on this section showing the previously mentioned permeability barrier between the South Carlsbad Field and the West Airport Unit is the Midwest No. 1-Y dry hole located in Section 35. This well flowed an estimated 310,000 CFGPD on a drill

stem test; however, when it was perforated opposite the South Carlsbad Field pay and other sands above and below, it failed to establish commercial production even after acid and fracturing. To the east, the Antweil No. 1 Allen producer, located just off the plat in Section 31, T-22-S, R-27-E, of the South Carlsbad Field, potentialed for 3.468 MMCFGPD from the main sand.

West of the permeability barrier, the Midwest No. 1-L Federal producer (No. 3) was perforated opposite several sands in the Middle Morrow Unit (M₃) in addition to the South Carlsbad zone. After a 4500-gallon acid treatment, the well flowed up to 3 MMCFGPD before the pipe collapsed and various other mechanical problems occurred. A temperature survey indicated that most of the gas flow was from perforations at 11,416' and 11,475' opposite the main South Carlsbad sand with a lesser amount coming from perforations at 11,360'. After considerable remedial work, the latest reported flow test was 1,100,000 CFGPD through a 22/64" choke with 610# flowing tubing pressure. This well probably sustained extensive formation damage during workover; however, it is significant that no formation water has been produced.

The producing sands in the Midwest No. 1-L Federal are wet, tight, or shaled out updip to the southwest in the Hanagan producers in Sections 11 and 12, T-23-S, R-25-E. This substantiates the existence of a permeability barrier in the position indicated on the cross section and structural map separating the potentially productive Middle Morrow sands (M3) of the West Airport Unit from their non-productive updip equivalents.

C. Structure

As indicated on the contoured structural map, a productive trend exists updip and parallel to the permeability barrier that limits gas production on the west flank of the South Carlsbad Field. The productive trend is then bounded on the west by another permeability barrier which establishes the West Airport Unit's updip productive limits.

Strong structural nosing from the west extending eastward into the South Carlsbad area then establishes the productive limits of this prospect along strike to the north and south. The structural map has been contoured on the Middle Morrow Unit (M3) since it best represents current structural conditions of the entire Morrow section.

IV. Secondary Objectives (Refer to Section A-A')

The Wolfcamp produces in the Pennzoil No. 1 Moore-Com. well (No. 3) in Section 23. Although the occurrence of the Wolfcamp carbonate zones are erratic, they are considered a potential pay in the unit area.

The Canyon produces in the Sinclair No. 4 Hackberry Hills (No. 2) in Section 22 and in the Texas International Petroleum No. 1 Allied State two miles southeast of the unit in Section 10, T-23-S, R-26-E. Canyon carbonate deposition is also erratic, but the unit area is considered potentially productive.

Although biogenic banks or mounds are not anticipated in the Strawn in this area, localized porosity development in existing

units is anticipated. Generally, if porosity is present, it is gas productive; therefore, the Strawn is considered a good pay possibility.

V. Summary

- A. The West Airport Unit is primarily a Middle Morrow Sand (M₃) gas prospect.
- B. The unit is located on productive trend parallel to the South Carlsbad Morrow Sand Gas Field but separated from it on the west flank by a pronounced permeability barrier that is well defined by dry holes.

The key well of the prospect is the Midwest No. 1-L Federal gas well offsetting the southeast corner of the prospect in Section 34. This well produces gas and no reported water from all porous sands in the Middle Morrow Unit (M3), whereas the equivalent sands in the updip wells to the west are wet, tight, or shaly, thereby establishing another barrier just west of the unit.

- C. A strong structural nose across the unit delineates the boundaries of the prospect along strike.
- D. Good secondary possibilities exist in the area for potential development of porous, gas productive, carbonate zones in the Wolfcamp, Canyon, and Strawn.

VI. Conclusion

Geologically, there is strong justification for the formation of the six-section West Airport Unit as proposed.

Earl E. Gaertner

Geologist



DEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

Sen (IV)

CASE No. 5332

Order No. R- 7583

R

APPLICATION OF C K PETROLEUM, INC.,
FOR APPROVAL OF THE WEST AMPORT
UNIT AGREEMENT, EDDY, COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on 2,1974, at Santa Fe, New Mexico, before Examiner Daniel 5, Nutter.

NOW, on this _____ day of ______, 199__, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

 Covering 3840

 acres, more or less, of Federal lands and Fee described as follows:

Eddy county, New Mexico Township 22 Sector, Range 26 East, NMPM

> Secs. 20 and 21: All Secs. 28 and 27: All Secs. 32 and 33: All

(3) That approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

IT IS THEREFORE ORDERED:

- (1) That the West Airport Unit Agreement is hereby approved.
- (2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.
- (3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.
- of said unit agreement by the Commissioner of Public Lands for the State of New Mexico and the Director of the United States Geological Survey; that this order shall terminate <u>ipso facto</u> upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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



UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

FEDERAL CENTER, DENVER, COLORADO 80225



SEP 24 1974

Mr. Randolph M. Richardson P.O. Box 819 Roswell, New Mexico 88201

Dear Mr. Richardson:

Your application of August 30, 1974, filed in behalf of Cox Petroloum, Inc., with the Area Oil and Gas Supervisor, Roswell, New Mexico, requests the designation of the West Airport unit area embracing 3,840.00 acres, more or less, Eddy County, New Mexico, as logically subject to exploration and development under the unitization provisions of the Mineral Lessing Act, as amended.

Pursuant to the unit plan regulations of December 22, 1950, 30 CFR 226.3, the land requested, as described on your plat marked "Exhibit A, West Airport Unit, Eddy County, New Mexico," is hereby designated as a logical unit area.

The unit agreement submitted for the area designated should provide for the drilling of the initial exploratory well to test all beds of the Pennsylvanian Age, or to a depth of 12,000 feet. Use of the Standard Federal Form of Unit Agreement for Unproved Areas (1968 reprint) will be acceptable with the addition of the words "as amended" inserted after (30 F.R. 12314) in Section 26, Mondiscrimination, and the necessary provisions covering the inclusion of State and fee lands.

In the absence of any type of land requiring special provisions or any objection not now apparent, a duly executed agreement identical to said form will be approved if submitted in approvable status within a reasonable time.

However, the right is reserved to deay approval of any executed agreement which, in our opinion, does not have commitment of sufficient land to afford affective control of operations within the unit area.

When the agreement is transmitted to the Oil and das Supervisor for approval, include the latest status of all acreage. The forest of the sample exhibits attached to the Standard Federal Form of Unit Agreement for Unproved Areas should be farlowed closely in the preparation of Exhibits A and B.

Insomeh as this unit agreement involves State land, we are coming a copy of the letter to the Commissioner of Public Lands in Santa Pe. Places contact the State of New Mexico before soliciting joinders, regardless of prior contacts with or clearances from the State.

Sincerely years,

Conservation Manager, Central Region For the Director

Com. Pub. Lands, Santa Fe MMOCC, Santa Fe Roswell (2) Cons. Div. Reading File

AEStall:de



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2068 - SANTA FE 87501

October 22, 1974

I. R. TRUJILLO CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

Mr. Randolph Richardson Attorney at Law Post Office Box 819 Roswell, New Mexico 88201	Re:	CASE NO	5332
		ORDER NO	R-4883
		Applicant:	
		C & K Pet	roleum, Inc
Dear Sir:			
Enclosed herewith are two Commission order recently			
	very truly yours. A. L. Parter, J.		
	A. L. PORTER, Jr. Secretary-Director		
ALP/ir			
Copy of order also sent t	o:		
Hobbs OCC x			
Artesia OCC x			
Aztec OCC			
Other Unit Div	vision - St	ate Land Off	fice

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> CASE NO. 5332 Order No. R-4883

APPLICATION OF C & K PETROLEUM, INC. FOR APPROVAL OF THE WEST AIRPORT UNIT AGREEMENT, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 2, 1974, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this <u>22nd</u> day of October, 1974, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, C & K Petroleum, Inc., seeks approval of the West Airport Unit Agreement covering 3840 acres, more or less, of State, Federal and Fee lands described as follows:

EDDY COUNTY, NEW MEXICO TOWNSHIP 22 SOUTH, RANGE 26 EAST, NMPM Sections 20 and 21: All Sections 28 and 29: All Sections 32 and 33: All

(3) That approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

IT IS THEREFORE ORDERED:

- (1) That the West Airport Unit Agreement is hereby approved.
- (2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit

-2-CASE NO. 5332 Order No. R-4883

agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.

- (3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area. the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.
- (4) That this order shall become effective upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico and the Director of the United States Geological Survey; that this order shall terminate ipso facto upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

I. R. TRUJILLO, Chairman

ALEX J. ARMIJO, Member

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

SEAL