

DATE IN 2-6-04	SUSPENSE 2-26-04	ENGINEER MS	LOGGED IN MS	TYPE NSL	APP NO. PMESD-
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



Lockhart A-17#9  
A-17-215-37E

### ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

#### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] TYPE OF APPLICATION - Check Those Which Apply for [A]  
[A] Location - Spacing Unit - Simultaneous Dedication  
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM  
[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

- [D] Other: Specify \_\_\_\_\_

- [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☒ Does Not Apply  
[A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
[B] ☐ Offset Operators, Leaseholders or Surface Owner  
[C] ☐ Application is One Which Requires Published Legal Notice  
[D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,  
[F] ☐ Waivers are Attached

- [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

- [4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

James Bruce

Print or Type Name

Signature

Attorney for Applicant

Title

Date

jamesbruc@aol.com

e-mail Address

2/6/04

RECEIVED  
FEB 6 2004  
Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, NM 87505

**JAMES BRUCE**  
ATTORNEY AT LAW

POST OFFICE BOX 1056  
SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213  
SANTA FE, NEW MEXICO 87501

(505) 982-2043 (PHONE)  
(505) 660-6612 (CELL)  
(505) 982-2151 (FAX)

jamesbruc@aol.com

**RECEIVED**  
FEB 6 2004

Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, NM 87505

*deche -*

*all these Apache unatsoox locations  
are similar and close to each other.*

*Jim*

**JAMES BRUCE**  
ATTORNEY AT LAW

POST OFFICE BOX 1056  
SANTA FE, NEW MEXICO 87504

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(505) 660-6612 (CELL)  
(505) 982-2151 (FAX)

jamesbruc@aol.com

February 6, 2005

Hand Delivered

Michael E. Stogner  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Dear Mr. Stogner:

Pursuant to Division Rule 104.F(2), Apache Corporation applies for administrative approval of an unorthodox oil well location for the following well:

<u>Well:</u>	Lockhart A-17 Well No. 9
<u>Location:</u>	110 feet FNL & 80 feet FEL
<u>Well Unit:</u>	NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 17, Township 21 South, Range 37 East, N.M.P.M., Lea County, New Mexico

The well will be drilled to test the Grayburg formation (Penrose Skelly (Grayburg) Pool), which is an oil pool spaced on 40 acres. (Under Commission Order R-98-B, there is no limiting gas:oil ratio in the pool.)

The application is based on geologic and engineering reasons. A complete discussion, with appropriate exhibits, is attached as Exhibit A. The proposed well will be located in the approximate center of four Grayburg wells. Based on drainage calculations and the low permeability of the reservoir, applicant believes that drilling the infill well will recover reserves which will not be recovered by the existing Grayburg wells.

Attached as Exhibit B is a land plat, highlighting the proposed well's location. The operating rights owners in the lease on which the well is located, and in the offsetting leases, are as follows:

U.S. Lease NM 90161 (SE $\frac{1}{4}$  §8 & SW $\frac{1}{4}$  §9)  
Apache Corporation  
Chevron Texaco Inc.  
BP America Production Company

U.S. Lease LC 032096-A (NE $\frac{1}{4}$ NE $\frac{1}{4}$  §17)  
Apache Corporation  
Chevron Texaco Inc.

State Lease B-1557-1 (NW $\frac{1}{4}$  §16)  
Apache Corporation

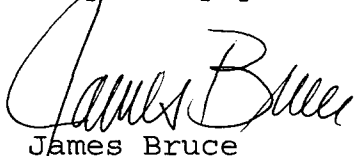
To allocate well costs and production equitably between the three leases, the operating rights owners have entered into a Cooperative Well Agreement, submitted as Exhibit C. Production and costs are being allocated to the three leases based on hydrocarbon pore volume and an estimated 28 acre drainage area for the proposed well. **The Bureau of Land Management has approved the agreement.**

In addition, for purposes of allocation of production, the Commissioner of Public Lands has approved a communitization agreement covering the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 8, SW $\frac{1}{4}$ SW $\frac{1}{4}$  of Section 9, NW $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 16, and the NE $\frac{1}{4}$ NE $\frac{1}{4}$  of Section 17. See Exhibit D. This is done for purposes of allocation of production, and is not meant to change the 40 acre proration unit dedicated to the well.

As a result of the foregoing, notice of this application need not be given to any offset.

Please call me if you need any further information on this matter.

Very truly yours,



James Bruce

Attorney for Apache Corporation

Application of Apache Corporation for administrative  
approval of an unorthodox well location:

40 acres – 110' FNL & 80' FEL  
Section 17, Township 21 South, Range 37 East, NMPM  
Lea County, New Mexico

PRIMARY OBJECTIVE: GRAYBURG

In support:

1. Apache Corporation (Apache) is the operator of the proposed **Lockhart A-17 #9** well (**Exhibit 1**). The proposed total depth is 4150' in the San Andres formation.
2. The location is in the Penrose Skelly; Grayburg Oil Pool and encroaches toward the following wells (**Exhibit 2**).

OPER	WELL	LOC	RESERVOIR	CUM O/G/W	DAILY O/G/W
Apache	Hawk B-1 #18	08-P	Grayburg	9/71/64	14/188/144
Apache	Hawk B-1 #9	09-M	Grayburg	13/45/38	22/94/58
Apache	State C Tr 12 #8	16-D	Grayburg	20/154/44	24/205/34
Apache	Lockhart A-17 #4	17-A	Grayburg	66/351/10	0/0/0

Oil in MBO                      BOPD  
Gas in MMCFG                MCFGPD  
Water in MBW                BWPD

3. The proposed unorthodox **Lockhart A-17 #9** Grayburg location of 110' from north line and 80' from east line is in a 40 unit that does not have a currently productive Grayburg well. Its location is additionally based upon considerations of the drainage of offset wells:

a) **Grayburg Reservoir**

The Grayburg is a series of alternating subtidal and supratidal dolomites, with the subtidal rock having porosity and hydrocarbons and the supratidal rock being tight. The Grayburg environments varied rapidly so that porous and tight intervals do not necessarily correlate well-to-well. Tight dolomite and/or anhydrite intervals within the Grayburg create vertical hydraulic barriers between different zones of porosity. Average porosity of the Grayburg is less than 10%, and average permeability is less than 1 millidarcy. Grayburg wells are thus not usually capable of draining the 40 Acre spacing unit.



The reservoir was analyzed by mapping Hydrocarbon Pore Volume (HCPV) (**Exhibit 3**). HCPV is the product of feet of pay (h) times average porosity (PhiA) times oil saturation (So). The map is the arithmetic product of grids interpreted from those values. The values were obtained as follows:

1. Net Pay was read either from modern neutron-density logs or estimated from a map developed from gross pay (clean dolomite) times net to gross ratio.
2. Average Porosity was calculated from modern well logs using a minimum of 6% crossplot porosity and a maximum of 20%.
3. Oil Saturation was calculated from a fractional flow curve using recent water cut values.

The following table provides drainage areas calculated from the HCPV map and reserves of the offsetting wells.

OPER	WELL	LOC	AREA A	EUR MBO	EUR MMCFG
Apache	Hawk B-1 #18	08-P	33	54	220
Apache	Hawk B-1 #9	09-M	40	65	435
Apache	State C Tr 12 #8	16-D	23	83	915
Apache	Lockhart A-17 #4	17-A	16	66	351

Reserves for the proposed location were calculated by planimetry the undrained area of the HCPV isopach which lies under a drainage circle (the size of which is the average of the direct offset drainage areas) centered on the proposed location. Any competitive drainage is shared between the proposed well and the existing offset wells. The results are as follows:

WELL	LOC	HCPV	AREA A	EUR MBO	EUR MMCFG
Lockhart A-17 #9	17-A	2.87	28	63	756

#### 4. Notice

- a. Apache is the operator of the Grayburg wells toward which the proposed well will encroach. All of the working interest owners in those wells have been notified, being:

1. Chevron/Texaco  
15 Smith Road  
Midland, Texas  
Attn: Mr. James Baca

2. BP America Production Co  
501 Westlake Park Blvd  
WL1- Room 6.199  
Houston, Texas 77079  
Attn: Mr. Tony Webb

5. Approval of this application will afford the interest owners in this spacing unit an opportunity to recover oil and gas which would not otherwise be recovered. Correlative rights of the offsetting units will be protected by a sharing agreement set forth in a letter agreement.

DISTRICT I  
P.O. Box 1080, Hobbs, NM 88241-1080

DISTRICT II  
P.O. Drawer DD, Arizola, NM 88211-0710

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. Box 2088, Santa Fe, N.M. 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name LOCKHART A-17	Well Number 9
OGRID No.	Operator Name APACHE CORPORATION	ELEVATION 3497'

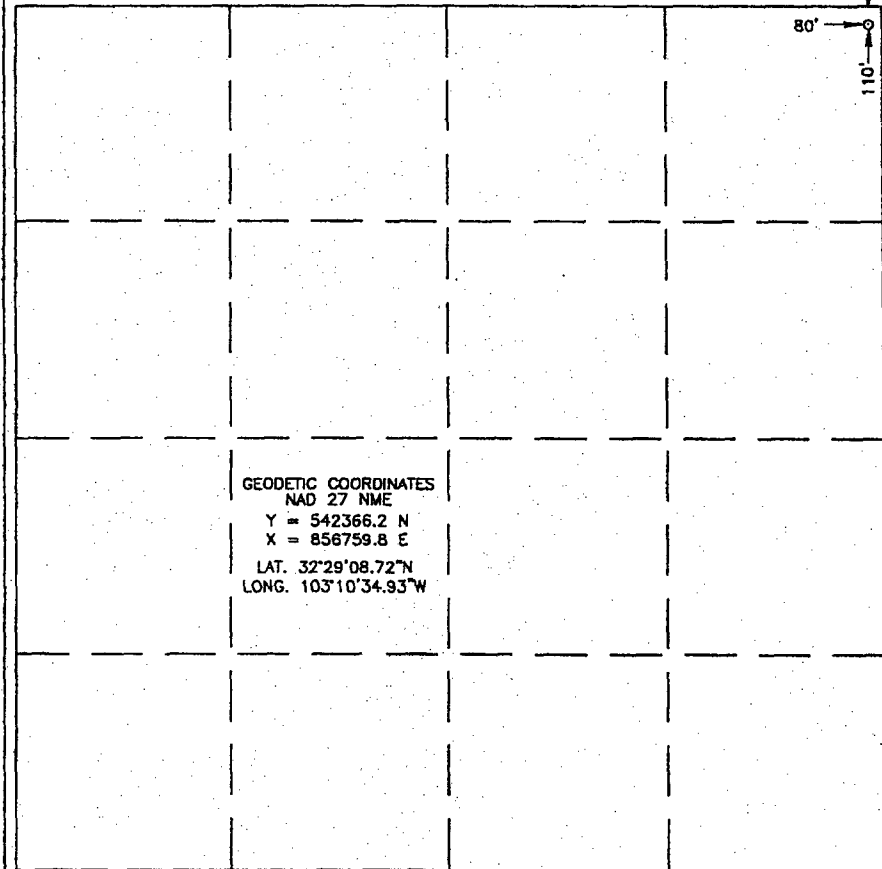
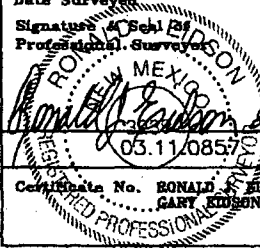
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	17	21-S	37-E		110'	NORTH	80'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>GEODETIC COORDINATES NAD 27 NME Y = 542366.2 N X = 856759.8 E LAT. 32°29'08.72"N LONG. 103°10'34.93"W</p>
	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</p> <p>August 06, 2003</p> <p>Date Surveyed _____ A.W.B.</p> <p>Signature of Seal of Professional Surveyor _____</p> <p></p> <p>Certificate No. RONALD S. EDSON 3239 GARY KIDSON 12641</p>





DISTRICT I  
P.O. Box 1880, Hobbs, NM 88241-1880

DISTRICT II  
P.O. Drawer 88, Artesia, NM 88211-0718

DISTRICT III  
1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV  
P.O. Box 2088, Santa Fe, N.M. 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name LOCKHART A-17	Well Number 9
OCRID No.	Operator Name APACHE CORPORATION	ELEVATION 3497'

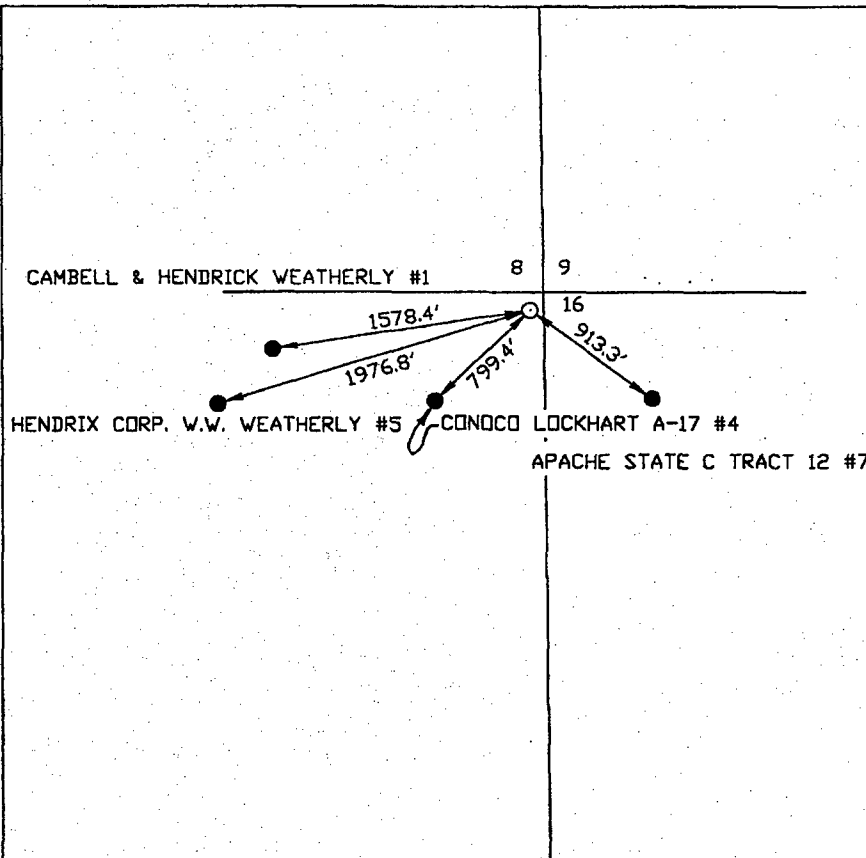
Surface Location

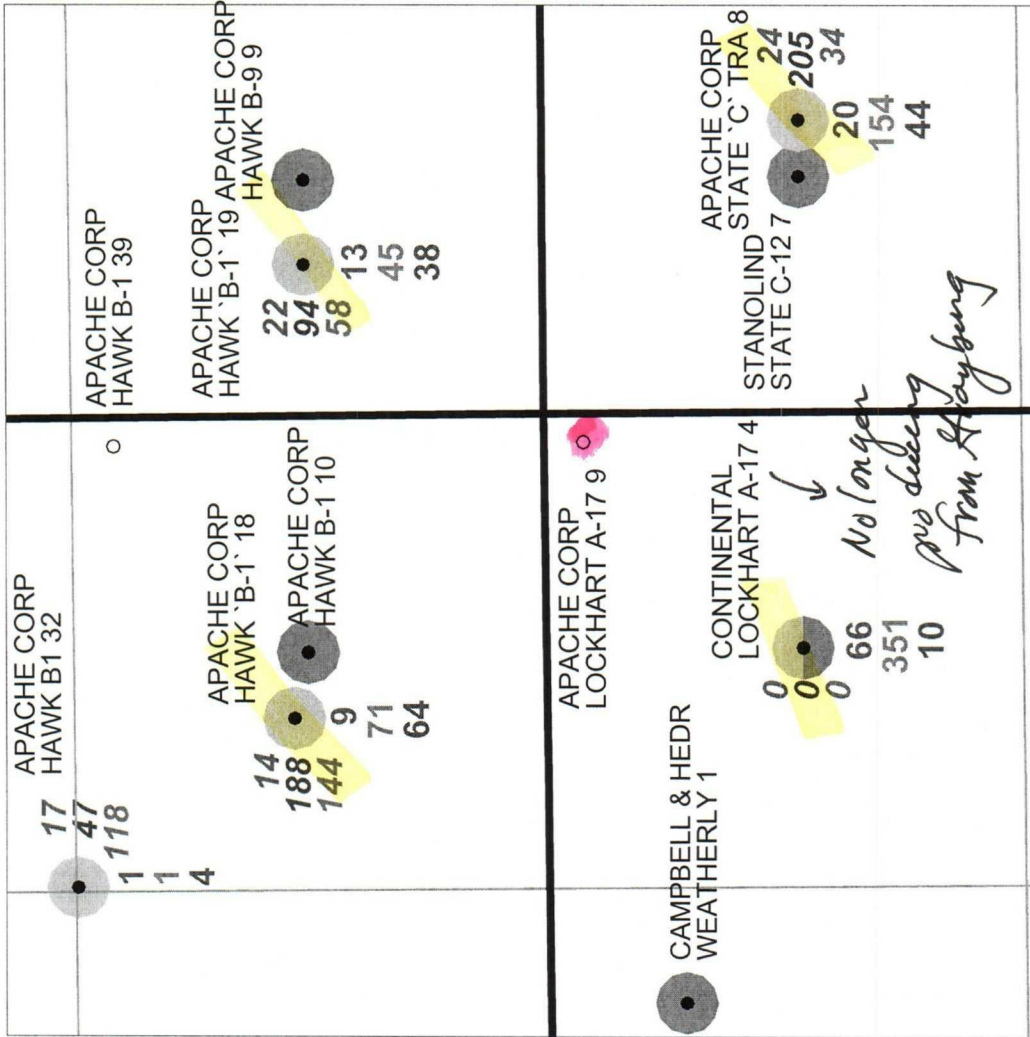
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	17	21-S	37-E		110'	NORTH	80'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>August 06, 2003</p> <p>Date Surveyed _____ A.W.B.</p> <p>Signature &amp; Seal of Professional Surveyor _____</p> <p>03.11.0857</p> <p>Certificate No. RONALD J. KIDSON 3239 GARY KIDSON 12641</p>



# WELL SYMBOLS

- Location Only
- Oil Well
- ☼ Gas Well
- ☼ Dry

## POSTED WELL DATA

CURRENT BOPD  
CURRENT MCFD  
CURRENT BHPD

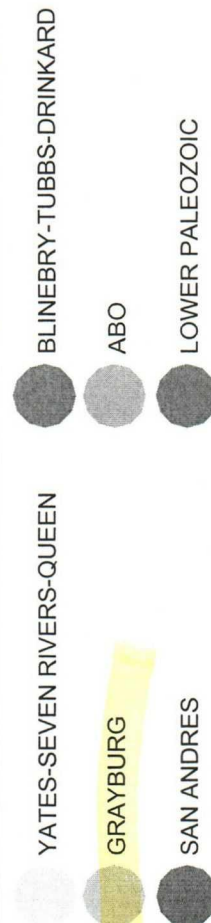
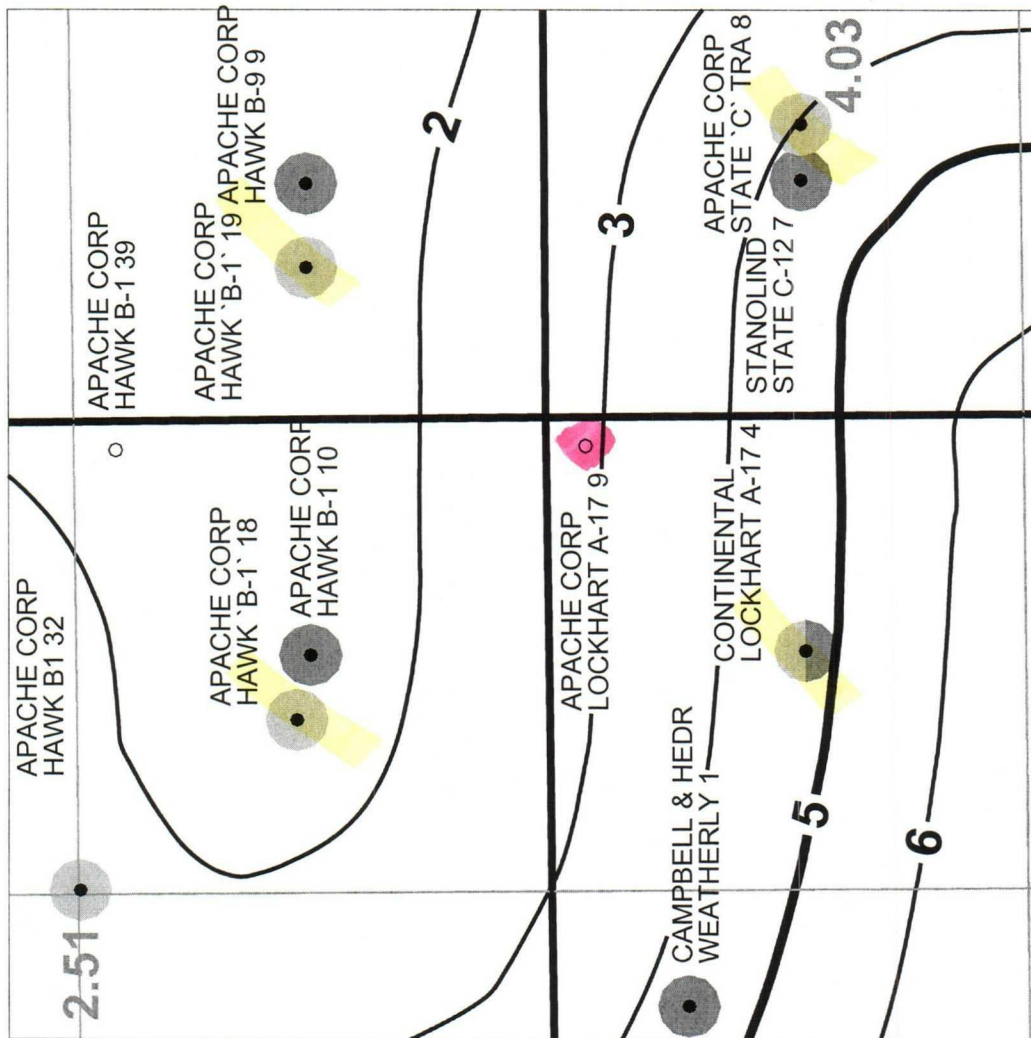
● OPERATOR  
WELL LABEL

MBO  
MMCFG  
MBW

<p>APACHE CORPORATION CENTRAL REGION</p>		<p>TWO WARREN PLACE, SUITE 1500 6120 SOUTH YALE TULSA, OKLAHOMA 74136-4224</p>	
<p><b>LOCKHART A-17 # 9</b></p>			
<p>SEC 17-T21S-R37E LEA COUNTY, NEW MEXICO</p>			
<p><b>EXHIBIT 2</b> WELL INFORMATION</p>			
<p>DATE: 10-8-03</p>		<p>DWG: PROD (CURTIS)OCD-NM/2004 GRYBRG</p>	

- YATES-SEVEN RIVERS-QUEEN
- GRAYBURG
- SAN ANDRES
- BLINEBRY-TUBBS-DRINKARD
- ABO
- LOWER PALEOZOIC





FEET

### WELL SYMBOLS

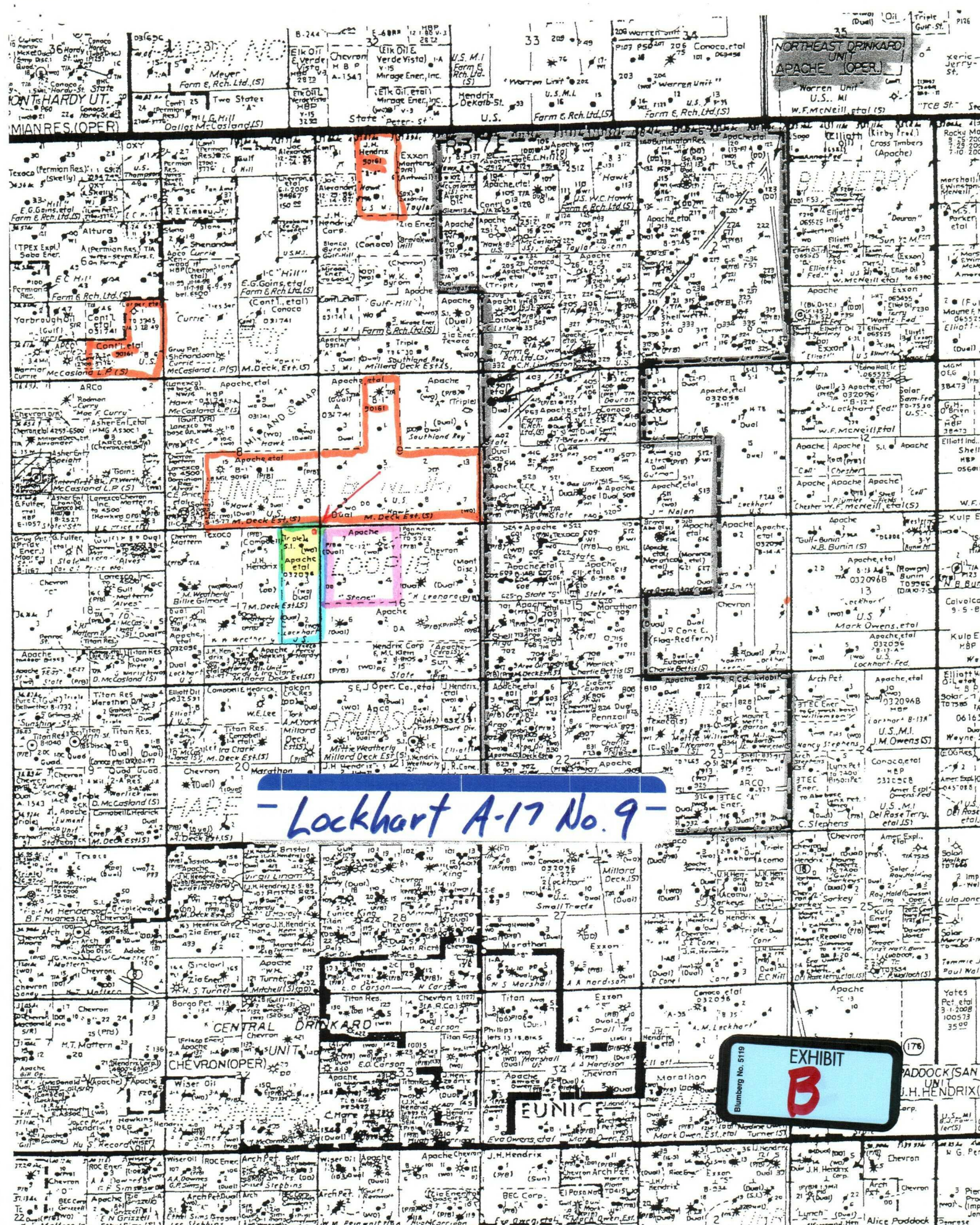
- Location Only
- Oil Well
- ☀ Gas Well
- ⊖ Dry

### POSTED WELL DATA

GRAYBURG HCPV • OPERATOR WELL LABEL

 TWO WARREN PLACE, SUITE 1500 6120 SOUTH YALE TULSA, OKLAHOMA 74136-4224 CENTRAL REGION		
LOCKHART A-17 #9		
SEC 17-T21S-R37E LEA COUNTY, NEW MEXICO		
<b>EXHIBIT 3</b> GRAYBURG HCPV		
DATE: 10-8-03	DWG: PROD (CURTIS\OCD-NM\2004 GRYBRG)	





NORTHEAST DRINKARD  
APACHE UNIT

Warren Unit  
U.S. M.L.  
W.K. McNeill et al (S)

Warren Unit  
U.S. M.L.  
W.K. McNeill et al (S)

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Warren Unit  
U.S. M.L.  
W.K. McNeill et al (S)





# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Roswell Field Office  
2909 West Second Street  
Roswell, New Mexico 88201-2019



In reply refer to:  
NMNM111014  
3105.1 (06300)

JAN 16 2004

Re: Cooperative Well Agreement  
Lockhart A-17 #9 Well  
Sec.17 - 21S-37E NMPM  
Lea County, New Mexico

RECEIVED

JAN 20 2004

TULSA  
LAND DEPT.

Apache Corporation  
Attn: Cindy McGee  
Two Warren Place - Suite 1500  
6120 South Yale  
Tulsa, OK 74136-4224

Dear Ms. McGee:

Enclosed is an approved copy of the Cooperative Well Agreement for the Lockhart A-17 #9 well located 110' FNL & 80' FEL, Sec.17, T. 21 S., R. 37 E., Lea County, NM. The Cooperative Well Agreement has been assigned contract No. NMNM111014.

Production and royalties from the referenced well shall be allocated and reported to the Minerals Management Service (MMS) as following:

Lease NMNM 90161	23.73%
State Lease	33.10%
Lease NMLC-032096-A	43.17%

Please furnish all interested principals with appropriate evidence of this approval.

If you have any questions please call Mary Lou Ormseth at (505) 627-0258 or Armando Lopez at (505) 627-0248.

Sincerely Yours,

Larry D. Bray  
Assistant Field Manager,  
Lands and Minerals

Enclosure:  
1 - Cooperative Well Agreement



N/V/V/V/V/V/111014

**COOPERATIVE WELL AGREEMENT**  
**(for the Lockhart A-17 # 9 Well)**

This Cooperative Well Agreement ("Agreement"), is entered into and is effective as of the 1st day of December, 2003, between **BP AMERICA PRODUCTION COMPANY**, whose address is 501 Westlake Park Blvd., Houston, TX 77079 ("BP"), **CHEVRON U.S.A. INC.**, whose address is 15 Smith Road, Midland TX 79705 ("Chevron") and **APACHE CORPORATION**, whose address is Two Warren Place, Suite 1500, 6120 South Yale Avenue, Tulsa, Oklahoma 74136 ("Apache"). BP, Chevron, and Apache are sometimes hereafter referred to individually as "Party" and collectively as "Parties".

**WITNESSETH:**

**WHEREAS**, Apache is Operator of the following oil and gas leases in Lea County, New Mexico (hereinafter sometimes collectively referred to as the "Properties"):

1. **Hawk B-1 Lease** –  
Lessor: The United States of America NM 90161  
Lessee: Estate of Wilbur C. Hawk  
Date: March 1, 1958  
Description: Insofar and only insofar as same covers the following-described land in Lea County, New Mexico:  
**Township 21 South, Range 37 East, N.M.P.M.**  
Section 9: SW/4SW/4  
Section 8: SE/4SE/4  
23.73<sup>96</sup>
2. **State C Tract 12 Lease** –  
Lessor: State of New Mexico NM B-01557-1  
Lessee: Stanolind Oil & Gas Company  
Date: December 29, 1932  
Description: Insofar and only insofar as same covers the following-described land in Lea County, New Mexico:  
**Township 21 South, Range 37 East, N.M.P.M.**  
Section 16: NW/4NW/4  
33.107
3. **Lockhart A-17 Lease** –  
Lessor: United States of America LC- 032096-A  
Lessee: A. M. Lockhart  
Date: October 1, 1957  
Description: Insofar and only insofar as same covers the following-described land in Lea County, New Mexico:  
**Township 21 South, Range 37 East, N.M.P.M.**  
Section 17: NE/4NE/4  
43.1770

**WHEREAS**, Apache has 100% of the operating rights in and to the State C Tract 12 Lease, and

**WHEREAS**, the Parties each own undivided operating rights in and to the Hawk B-1 Lease, and Apache and Chevron each own undivided operating rights in and to the Lockhart A-17 Lease; and

**WHEREAS**, the Parties desire to drill and complete the **Lockhart A-17 # 9 Well** ("Cooperative Well") for the production of oil, gas and related hydrocarbons at a non-standard location encroaching on the lease line between Sections 8, 9, 16 and 17 as described below; and

**WHEREAS**, the Parties desire to provide for the sharing of production from and the costs of drilling, completing and operating said **Lockhart A-17 # 9 Well** as described hereinbelow.

NOW THEREFORE, the Parties hereby agree as follows:

1. **DESIGNATION AND RESPONSIBILITIES OF OPERATOR**

A. Apache is designated as operator ("Operator") of the **Lockhart A-17 # 9 Well** for the purposes of this Agreement.

B. Operator shall drill, complete and operate the Cooperative Well for oil and/or gas production from horizons encountered from the surface of the earth down to and including the base of the Grayburg Formation as follows:

**Lockhart A-17 # 9 Well:**

SURFACE LOCATION:	110' FNL & 80' FEL, Sec. 17, T21S-R37E,
Lea County, New Mexico,	
Planned Total Depth:	4,150 feet, but in no event below the base of The Grayburg Formation plus one hundred (100) feet for operational purposes only.

Except as otherwise provided in this Agreement, the Parties agree that all operations, and the rights and obligations of the Parties, with respect to the Cooperative Well shall be governed by the terms and conditions of that certain NMFU Operating Agreement dated September 1, 1989, as amended to date (hereinafter referred to as the "NMFU Operating Agreement"). Solely for purposes of drilling and operating the **Lockhart A-17 # 9 Well**, Exhibit A-1 to the NMFU Operating Agreement is amended to cover the **Lockhart A-17 # 9 Well** as provided herein. As between the Parties there is and shall be no cross-assignment or other transfer to title to any interests of the Parties in the Properties as a result of this Agreement. This Agreement is merely a contractual arrangement among the Parties to drill, equip, test, operate and produce the Cooperative Well. BP and Chevron shall, at their sole cost and risk, have access to the Cooperative Well location at all reasonable times to inspect or observe operations and to information pertaining to the development and operation of the Cooperative Well. BP and Chevron shall also have the right to audit Operator's books and records relating thereto in accordance with the applicable provisions of Exhibit "C" - Accounting Procedure, attached to the NMFU Operating Agreement. Operator, upon request, shall furnish BP and Chevron copies of all forms or reports filed with governmental agencies, well logs, tank tables, daily gauge and run tickets and reports of stock on hand at the first of each month, and shall make available to BP and Chevron samples of any cores or cuttings taken from the Cooperative Well. The cost of gathering and furnishing information to BP and Chevron, other than that specified above, shall be charged to BP and Chevron.

C. Operator shall establish and maintain a Joint Account for the performance hereof, and shall advance all costs incurred in connection with operating the Cooperative Well and shall charge the Joint Account for all such costs on the basis provided in Exhibit "C" - Accounting Procedure, NMFU Operating Agreement. All charges and credits to the Joint Account for the Cooperative Well shall be borne, and production therefrom will be shared, including but not limited to charges, credits and production associated with recompletions of the Cooperative Well to horizons shallower than the Grayburg formation, by the below named Parties in the percentage shown opposite their name as follows:

Apache: .....	77.3425%
BP .....	5.9325%
Chevron .....	16.7250%

All other operations conducted or wells drilled on the lands described above not related to the Cooperative Well, will not be affected by this Agreement.

If any provision of Exhibit "C" - Accounting Procedure is inconsistent with any provision in this Agreement, the provisions of this Agreement shall prevail.

2. **TERM OF AGREEMENT**

This Agreement shall remain in full force and effect so long as such Cooperative Well continues to produce oil or gas or both, and for an additional period of ninety (90) days from cessation of all production; provided, however, if, prior to the expiration of such additional period, the Parties are engaged in drilling or reworking operations to restore production from the Cooperative Well hereunder, this Agreement shall continue in force until such operations have been completed, with no cessation of more than sixty (60) consecutive days, and if production results there from, this Agreement shall continue in force as provided herein. Upon cessation of the production of oil or gas or both, Operator shall plug and abandon the Cooperative Well in accordance with all rules and regulations of all governmental agencies having jurisdiction over the premises at the cost, risk, and expense of the Parties, and shall salvage all equipment in and on the well for the account of the Party(ies) that initially paid for said equipment. The termination of this Agreement shall not relieve any of the parties from any liability which has accrued hereunder prior to the date of such termination.

Notwithstanding anything to the contrary contained elsewhere in this Agreement, if the actual drilling operations for the Cooperative Well are not commenced on or before June 30, 2004, then this Agreement shall immediately terminate and shall have no further force and effect.

3. **NON-PARTNERSHIP ELECTION**

A. Under no circumstances shall this Agreement be construed as creating a partnership, mining partnership or an association for profit between or among the Parties hereto. The liability of the Parties shall be several and not joint or collective. Each Party shall be liable only for the costs incurred and the risks assumed by each respective Party in connection with the performance of this Agreement.

B. Notwithstanding any provisions herein that the right and liabilities of the Parties hereunder are several and not joint or collective or that this Agreement and the operations hereunder shall not constitute a partnership, if for Federal income tax purposes this Agreement and the operations hereunder are regarded as a partnership, then each of the parties hereto hereby elects to be excluded from the application of all the provisions of Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1986, as permitted and authorized by Section 761 of said Code and the regulation promulgated thereunder. Operator is authorized and directed to execute on behalf of each of the Parties hereto such evidence of this election as may be required by the Secretary of the Treasury of the United State or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the date required by Federal Regulations 1.761-2. Should there be any requirement that each party hereto further evidence this election, each Party hereto agrees to execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. Each Party hereto further agrees not to give any notices or take any other action inconsistent with election made hereby. If any present or future income tax laws of the state or states in which the property covered by this Agreement is located, or any future income tax law of the United States, contain, or shall hereafter contain, provisions similar to those contained in Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1986, under which an election similar to that provided by Section 761 of Subchapter K is permitted, each of the parties hereby makes such election or agrees to make such election as may be permitted by such laws. In making this election, each of the Parties hereto hereby states that the income derived by it from the operations under this Agreement can be adequately determined without the computation of the partnership taxable income.

4. **TRANSFER OF INTEREST**

If any instrument purporting to effectuate the sale, assignment, or transfer of any interest of a Party in or to the Hawk B-1 Lease, Lockhart A-17 and/or the State C Tract 12 Lease does not



expressly provide that such sale, assignment or transfer is made and accepted subject to this Agreement, the purported sale, assignment or transfer of any such interest shall be void.

5. **CLAIMS AND LAWSUITS**

A. If any Party is sued on an alleged cause of action arising out of operations covered by this Agreement, it shall give prompt written notice of the suit to the other party.

B. Operator may settle any single damage claim or suit arising from operations hereunder for any settlement amount not exceeding Thirty-Five Thousand Dollars (\$35,000), provided such payment is in complete settlement of such claim or suit.

C. If the amount required for settlement exceeds the amount hereinabove set out, Operator shall give notice to BP and Chevron of its intent to settle for such higher amount, and if BP and Chevron agree to such higher amount, Operator may settle such claim or suit for such higher amount.

D. If, in Operator's opinion, such claim or suit is not amenable to or susceptible of settlement, Operator may upon delegation of such authority by the Parties hereto supervise the administration of said claim or suit employing Operator's staff attorneys or other attorneys as it may see fit to do so. The fees and expenses of settlement and handling such claim or suit shall be charged to the Joint Account, provided no charge shall be made for services performed by the staff attorneys for either Party.

6. **TAKING PRODUCTION IN KIND**

Each Party shall take in kind or separately dispose of its proportionate share of all oil and gas produced from the Cooperative Well, exclusive of production which may be used in development and producing operations and in preparing and treating oil and gas for marketing purposes and production unavoidably lost. Any extra expenditure incurred in the taking in kind or separate disposition by any Party of its proportionate share of the production shall be borne by such Party. Any Party taking its share of production in kind shall be required to pay only for its proportionate share of such part of Operator's surface facilities which it uses. In the event one or more Parties' separate disposition of its share of the gas causes split-stream deliveries to separate pipelines which on a day-to-day basis for any reason are not exactly equal to a Party's respective proportionate share of total gas sales to be allocated to it, the balancing or accounting between the respective accounts of the Parties shall be in accordance with the Gas Balancing Agreement attached to the NMFU Operating Agreement.

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

7. **PRODUCTION ALLOCATION AND BURDENS ADMINISTRATION**

All royalties, overriding royalty interests, production payments, or similar lease burdens encumbering the Properties which are created and existing as of the effective date hereof are defined as the Existing Burdens. Solely for the payment of such Existing Burdens, all oil, gas and related hydrocarbons produced from or allocated to the Cooperative Well shall be allocated to the Properties as follows:

Hawk B-1 Lease .....	23.73%
State C Tract 12 Lease .....	33.10%
Lockhart A-17Lease.....	43.17%

Each Party shall account for and administer its share of the Existing Burdens attributable to the Hawk B-1 Lease, Lockhart A-17 Lease and/or the State C Tract 12 Lease based on such Party's operating rights in said lease(s) insofar and only insofar as to the formation(s) being produced from the Cooperative Well. Further, each Party shall indemnify and hold harmless each other Parties for the payment of its share of such Existing Burdens.

Acceptance of the payment of such Existing Burdens by the owners thereof shall never be construed as approval or ratification of a pooling, unitization, or communitization of the Hawk B-1 Lease, Lockhart A-17 Lease and the State C Tract 12 Lease.

8. **MEASUREMENT**

Subject to the provisions of Paragraph 6, all oil produced from the Cooperative Well will be measured in accordance with the standard metering practice accepted by the State of New Mexico and the Bureau of Land Management. The method used shall be checked for accuracy at least once every month. All gas separated from such oil shall be metered or determined from well test before delivery to the gas purchaser.

9. **TITLE**

This Agreement is not intended as a conveyance of any interest whatsoever in real property owned or controlled by the Parties, but is merely a contractual arrangement between the Parties to operate the Cooperative Well and share the production and costs thereof.

10. **NOTICES**

A. All notices authorized or required by this Agreement, unless otherwise specifically provided, shall be deemed to have been given when it is received by the Party to whom addressed if it is given in writing by Certified Mail, Return Receipt Requested, or telegram, postage or charges prepaid, and addressed to the parties to whom the notice is given at the addresses listed above.

B. Each Party shall have the right to change its address at any time and from time to time by giving written notice thereof to the other Parties.

11. **PRE-COMMENCEMENT APPROVALS**

Notwithstanding anything to the contrary contained elsewhere in this Agreement, Operator shall not commence actual drilling operations for the Cooperative Well until this Agreement has been approved by the Authorized Officer of the Bureau of Land Management, and a Communitization Agreement covering production from the Cooperative Well has been approved by the Commissioner of Public Lands of the State of New Mexico.

This Agreement is freely assignable and shall extend to and be binding on the successors and assigns of the Parties hereto.

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

IN WITNESS WHEREOF, the parties have caused the execution of this instrument to be effective on the date first above written

APACHE CORPORATION

By: [Signature]  
Printed Name: Rob Johnston  
Title: Central Region Vice President,  
Exploration & Development

BP AMERICA PRODUCTION COMPANY

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

CHEVRON U.S.A. INC.

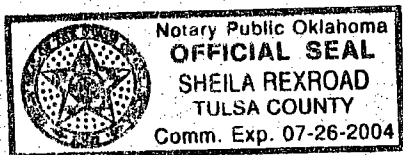
By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BUREAU OF LAND MANAGEMENT

By: [Signature]  
Printed Name: LARRY D. GRAY  
Title: ASSISTANT FIELD MANAGER LANDS AND MINERALS

STATE OF OKLAHOMA   §  
                                  §  
COUNTY OF TULSA    §

This instrument was acknowledged before me this 16th day of December, 2003, by Rob Johnston, Vice President, Exploration, Central Region, of Apache Corporation, a Delaware corporation, on behalf of said corporation.



[Signature]  
Notary Public, State of Oklahoma

STATE OF TEXAS       §  
                             §  
COUNTY OF HARRIS   §

This instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_ of BP America Production Company, a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public, State of Texas

STATE OF TEXAS       §  
                                  §  
COUNTY OF MIDLAND   §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_, by  
\_\_\_\_\_, \_\_\_\_\_ of Chevron U.S.A. Inc., a  
Pennsylvania corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public, State of Texas

STATE OF NEW MEXICO §  
                                  §  
COUNTY OF LEA       §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_,  
by \_\_\_\_\_, Authorized Officer of the Bureau of Land Management on  
behalf of the Bureau of Land Management.

\_\_\_\_\_  
Notary Public, State of New Mexico

IN WITNESS WHEREOF, the parties have caused the execution of this instrument to be effective on the date first above written

APACHE CORPORATION

By: [Signature]  
Printed Name: Rob Johnston  
Title: Central Region Vice President,  
Exploration & Development

BP AMERICA PRODUCTION COMPANY

By: [Signature]  
Printed Name: Robert C. Hygens  
Title: Attorney - IN - FACT

CHEVRON U.S.A. INC.

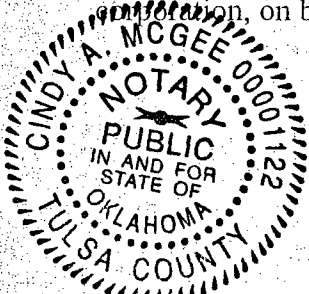
By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

BUREAU OF LAND MANAGEMENT

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

STATE OF OKLAHOMA §  
§  
COUNTY OF TULSA §

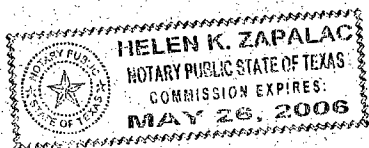
This instrument was acknowledged before me this 16<sup>th</sup> day of December, 2003, by Rob Johnston, Vice President, Exploration, Central Region, of Apache Corporation, a Delaware corporation, on behalf of said corporation.



[Signature]  
Notary Public, State of Oklahoma

STATE OF TEXAS §  
§  
COUNTY OF HARRIS §

This instrument was acknowledged before me this 8<sup>th</sup> day of JANUARY, 2004, by Robert C. Hygens, Attorney - IN - FACT of BP America Production Company, a Delaware corporation, on behalf of said corporation.



[Signature]  
Notary Public, State of Texas

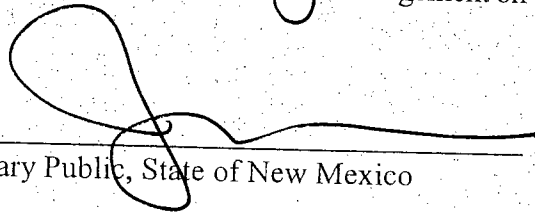
STATE OF TEXAS       §  
                                  §  
COUNTY OF MIDLAND   §

This instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_, by \_\_\_\_\_, \_\_\_\_\_ of Chevron U.S.A. Inc., a Pennsylvania corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public, State of Texas

STATE OF NEW MEXICO §  
                                  §  
COUNTY OF LEA *Chaves* §

This instrument was acknowledged before me this 16 day of Jan, 2004, by Larry D. Dray, Authorized Officer of the Bureau of Land Management on behalf of the Bureau of Land Management.

  
\_\_\_\_\_  
Notary Public, State of New Mexico

IN WITNESS WHEREOF, the parties have caused the execution of this instrument to be effective on the date first above written

APACHE CORPORATION

By: [Signature]  
Printed Name: Rob Johnston  
Title: Central Region Vice President, Exploration & Development

BP AMERICA PRODUCTION COMPANY

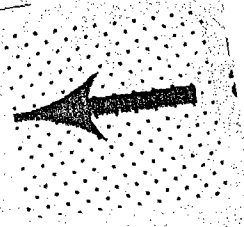
By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

CHEVRON U.S.A. INC.

By: Charles D. Friesen  
Printed Name: Charles D. Friesen  
Title: Attorney-in-Fact

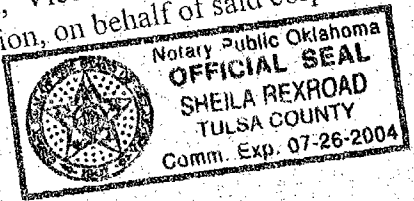
BUREAU OF LAND MANAGEMENT

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_



STATE OF OKLAHOMA §  
COUNTY OF TULSA §

This instrument was acknowledged before me this 14th day of December, 2003, by Rob Johnston, Vice President, Exploration, Central Region, of Apache Corporation, a Delaware corporation, on behalf of said corporation.



Sheila Rexroad  
Notary Public, State of Oklahoma

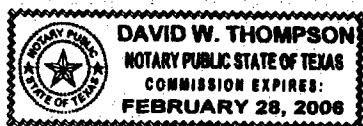
STATE OF TEXAS §  
COUNTY OF HARRIS §

This instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_ of BP America Production Company, a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public, State of Texas

STATE OF TEXAS       §  
                                 §  
COUNTY OF MIDLAND   §

This instrument was acknowledged before me this 5th day of January, 2004, by Charles A. Frisbie, Attorney-in-Fact of Chevron U.S.A. Inc., a Pennsylvania corporation, on behalf of said corporation.



David W. Thompson  
Notary Public, State of Texas

STATE OF NEW MEXICO §  
                                 §  
COUNTY OF LEA       §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_, by \_\_\_\_\_, Authorized Officer of the Bureau of Land Management on behalf of the Bureau of Land Management.

\_\_\_\_\_  
Notary Public, State of New Mexico





PATRICK H. LYONS  
COMMISSIONER

*State of New Mexico*  
*Commissioner of Public Lands*

310 OLD SANTA FE TRAIL  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

January 23, 2004

**RECEIVED**

**JAN 30 2004**

**TULSA  
LAND DEPT.**

Apache Corporation  
Two Warren Place, Suite 1500  
6120 South Yale  
Tulsa, Oklahoma 74136-4224

Attn: Cindy McGee

Re: Communitization Agreement Approval (Grayburg)  
Lockhart A 17 Well No. 9  
SE4SE4, Section 8, and SW4SW4, Section 9, and NW4NW4, Section 16, and NE4NE4,  
Section 17, Township 21 South, Range 37 East, Lea County, New Mexico

Dear Ms. McGee:

The Commissioner of Public Lands has this date approved the Lockhart A 17 Well No. 9 Communitization Agreement for the Grayburg formation for the SE4SE4, of Section 8, and the SW4SW4, of Section 9, and the NW4NW4, of Section 16, and the NE4NE4, of Section 17, Township 21 South, Range 37 East, Lea County, New Mexico.

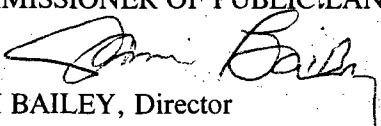
The effective date of this approval is December 5, 2003 and the term of the agreement is for two years, and so long thereafter as communitized substances are produced or can be produced from the communitized area in paying quantities. Enclosed are five Certificates of Approval.

If we may be of further service, please contact Jeff Albers at (505) 827-5759.

Sincerely,

PATRICK H. LYONS  
COMMISSIONER OF PUBLIC LANDS

BY:

  
JAMI BAILEY, Director  
Oil, Gas & Minerals Division  
(505) 827-5744  
PHL/JB/ja



# NEW MEXICO STATE LAND OFFICE

## CERTIFICATE OF APPROVAL

### COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

Apache Corporation  
Lockhart A 17 Well No. 9  
Lea County, New Mexico  
SE4SE4, Section 8, and SW4SW4, Section 9, and NW4NW4, Section 16, and NE4NE4 Section 17  
Township 21 South, Range 37 East  
Grayburg

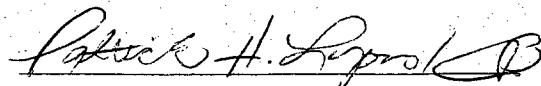
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There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, a Communitization Agreement for the development and operation of acreage which is described within the referenced agreement, dated **December 5, 2003** which has been executed, or is to be 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 19-10-45, 19-10-46, 19-10-47, New Mexico Statutes Annotated, 1978 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this **23rd day of January, 2004**.



COMMISSIONER OF PUBLIC LANDS

of the State of New Mexico