

DATE IN 2-21-2005	SUSPENSE 3-14-2005	ENGINEER MES	LOGGED IN ms	TYPE NSL	P.M.E.S.O. APP NO. 508146018
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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

## 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 \_\_\_\_\_

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 FEB 21 2005  
 Oil Conservation Division  
 1220 S. St. Francis Drive  
 Santa Fe, NM 87505

- [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		Attorney for Applicant	2/20/05
Print or Type Name	Signature	Title	Date
		jamesbruc@aol.com	
		e-mail Address	

**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

February 21, 2005

Hand Delivered

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

Re: Request to Amend Division Administrative Order NSL-5024(SD) to include the San Andres formation

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 was originally drilled to and completed in the Grayburg formation (Penrose Skelly (Grayburg) Pool). The Grayburg unorthodox location was approved by NSL-5024(SD).

The well is in the Undesignated East Hare-San Andres (Oil) Pool,<sup>1</sup> which is developed on statewide rules, with 40 acre spacing and wells to be located no closer than 330 feet to a quarter-quarter section line.

The application is based on several reasons: (1) the well was drilled to the Grayburg, with a "tail" in the San Andres formation, and thus testing the San Andres will be very economical; and (2) applicant's other San Andres wells in this township indicate that

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<sup>1</sup> See Division Order No. R-12190. The pool includes the S $\frac{1}{2}$  §9 and the NW $\frac{1}{4}$  §16.

there are San Andres reserves underlying this lease. A complete discussion, with appropriate exhibits, is attached as Exhibit A. Applicant has an ongoing program to drill infill Grayburg (and other) wells in this township, and the San Andres, which lies immediately below the Grayburg, can be accessed at a low cost. In some cases it may not be economically feasible to drill a stand alone San Andres well, and completing the wells in both zones makes the wells more economical and extends their lives, thus preventing waste and protecting correlative rights.

Attached as Exhibit B is a land plat, highlighting the 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 (Hawk B-1 Lease)

Apache Corporation  
Chevron Texaco Inc.  
BP America Production Company

U.S. Lease LC 032096-A (Lockhart A-17 Lease)

Apache Corporation  
Chevron Texaco Inc.

State Lease B-1557-1 (State C Tract 12 Lease)

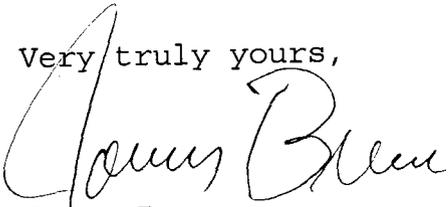
Apache Corporation

To allocate well costs and production equitably between the two leases, the operating rights owners have entered into a Cooperative Well Agreement, which was submitted with the original application. The Cooperative Well Agreement has now been amended to include the San Andres formation, as shown on Exhibit C. Please note that the distribution of proceeds of production from the San Andres formation will be the same as that in the Grayburg formation.

All interest owners, including the Bureau of Land Management, have approved the Amendment to Cooperative Well Agreement. In addition, for purposes of allocation of production, the Commissioner of Public Lands previously approved a communitization agreement covering the SE $\frac{1}{4}$ SE $\frac{1}{4}$  §8, SW $\frac{1}{4}$ SW $\frac{1}{4}$  §9, NW $\frac{1}{4}$ NW $\frac{1}{4}$  §16, and NE $\frac{1}{4}$ NE $\frac{1}{4}$  §17, which was submitted with the original application. The communitization agreement has now been amended to include the San Andres formation, as shown on 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. Because all interest owners have approved this application, notice has not be given to anyone.

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

Very truly yours,

A handwritten signature in cursive script that reads "James Bruce". The signature is written in black ink and is positioned above the typed name.

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: SAN ANDRES

In support:

1. Apache Corporation (Apache) is the operator of the **Lockhart A-17 #9** well. The total depth drilled is 4350' in the San Andres formation. The well is currently perforated in and productive from the Grayburg.
2. The well was drilled in the Penrose Skelly; Grayburg Oil Pool with a "tail" into the San Andres Formation. Administrative Order NSL-5024 was issued for the Grayburg reservoir. Order R-12190 now extends the East Hare San Andres Oil Pool to within 80 feet of this location. As to the San Andres reservoir, the location encroaches toward the following well (**Exhibit 1**):

OPER	WELL	LOC	RESERVOIR	CUM O/G/W	DAILY O/G/W
Apache	Hawk B-1 #40	09-M	San Andres	1/13/13	17/510/256

MBO            BOPD  
 MMCFG        MCFGPD  
 MBW            BWPD

3. The unorthodox **Lockhart A-17 #9** San Andres location of 110' from north line and 80' from east line is based upon wellbore availability.
  - a. **Exhibit 2** (San Andres Net Pay) illustrates that sufficient reservoir is present to contain and produce commercial amounts of hydrocarbons.
  - b. Oil production from the San Andres is newly established in the immediate area. Drilling a separate well for these reserves is not economically prudent.
  - c. The following table provides drainage areas calculated from the net pay map and reserves of the offsetting San Andres well.

OPER	WELL	LOC	AREA A	EUR MBO	EUR MMCFG
Apache	Hawk B-1 #40	09-M	40	33	1200



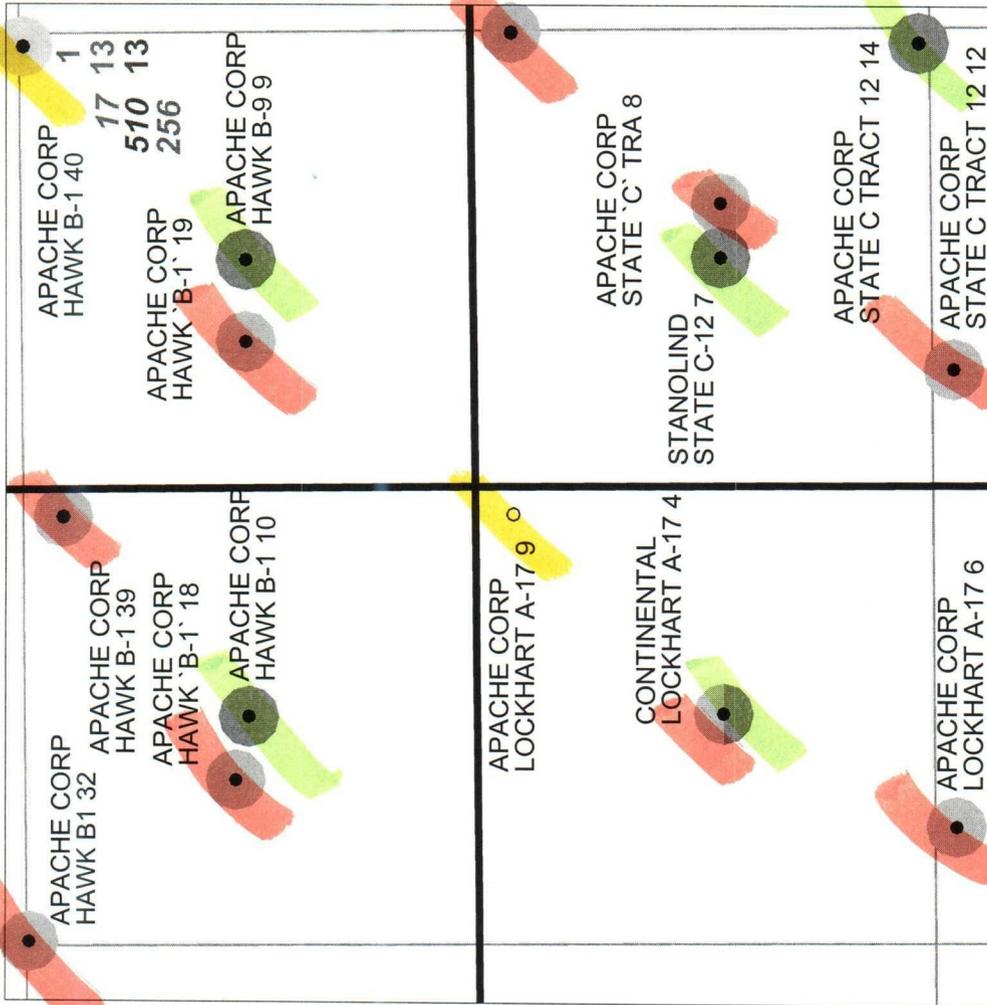
d. Volumetrics and reserves for the **Lockhart A-17 #9** are:

<b>WELL</b>	<b>LOC</b>	<b>AREA A</b>	<b>EUR MBO</b>	<b>EUR MMCFG</b>
Lockhart A-17 #9	17-A	40	11	528

4. Notice

a. Apache will be the operator of all San Andres wells toward which the **Lockhart A-17 #9** would encroach. The Lockhart A-17, Hawk Federal Lease, and State C Tract 12 Leases cover among other lands the SE/4 Section 8, E/2NE/4 Section 17 and NW/4 Section 16. Interest ownership being Apache Corp, ChevronTexaco, and BP America Production Co. in the San Andres formation is common in the lease. Therefore, there are no adversely affected parties, and no one was notified of this application.

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.



**WELL SYMBOLS**

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

**POSTED WELL DATA**

- OPERATOR WELL LABEL
- CURRENT BOPD
- CURRENT MCFD
- CURRENT BWPD
- MBO
- MMCFG
- MBW

**Apache**  
CORPORATION  
CENTRAL REGION

**LOCKHART A-17 #9**

SEC 17-T21S-R37E  
LEA COUNTY, NEW MEXICO

**EXHIBIT 1**  
WELL INFORMATION

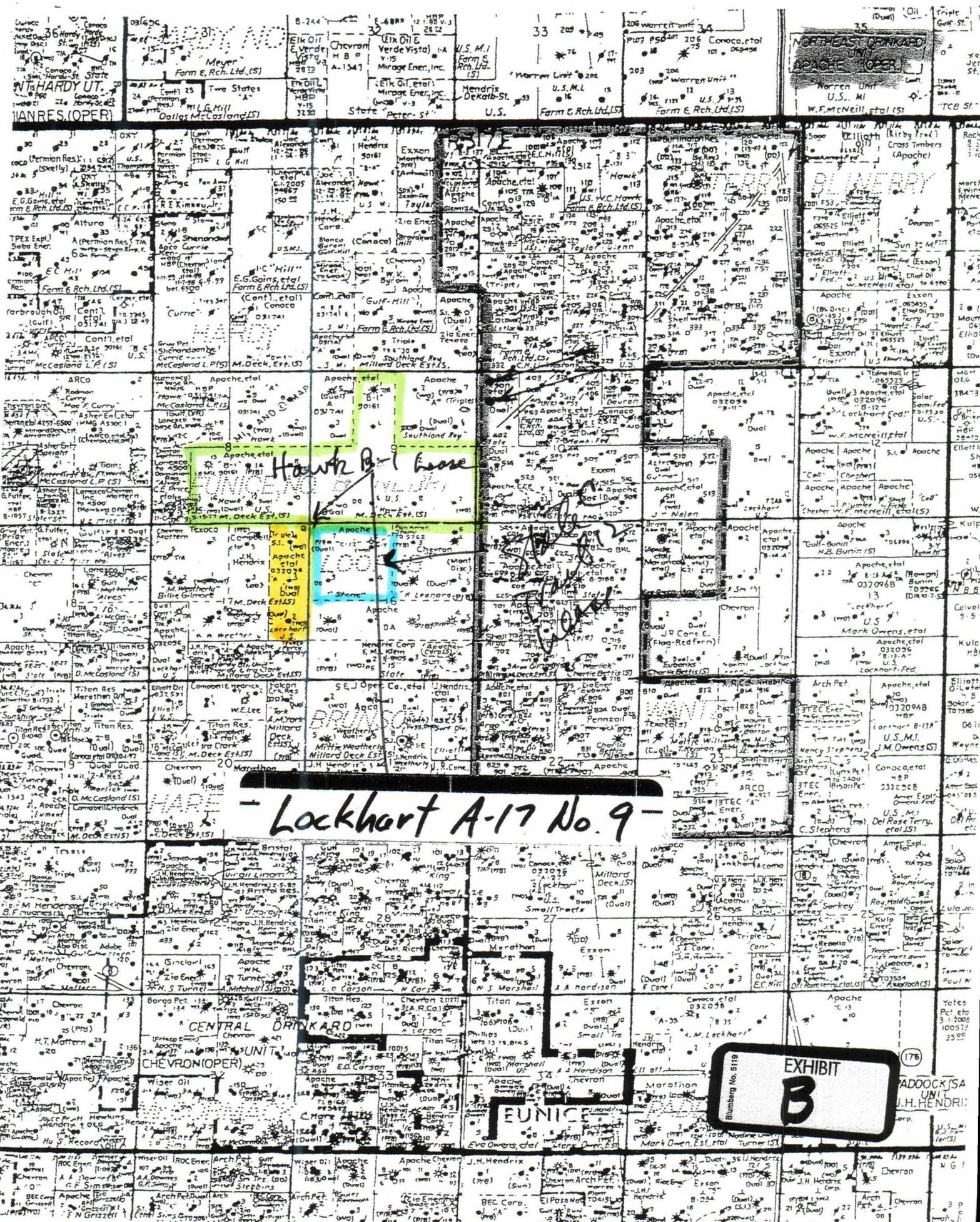
DATE: 5/26/04 DWG: PROD (CURTIS/OCD-NM2004 SAN ANDRES)

TWO WARREN PLACE, SUITE 1500  
6120 SOUTH YALE  
TULSA, OKLAHOMA 74136-4224

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







**NORTHEAST DRINKARD  
APACHE OPER.**

**Hawk B-1 lease**

**Lockhart A-17 No. 9**

**CENTRAL DRINKARD  
UNIT**

**EUNIC**

**EXHIBIT  
B**

**ADOCK(SA)  
UNIT**

**J.H. HENDRIX**

**Corporation**

**Yates**

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

THIS AGREEMENT, made and entered into this 25<sup>th</sup> day of October, 2004, by and between the undersigned parties hereto:

**WITNESSETH, THAT**

WHEREAS, parties hereto or their predecessors in interest have heretofore entered into a certain Cooperative Well Agreement described as follows:

Cooperative Well Agreement dated 1<sup>st</sup> day of December, 2003 between Apache Corporation, as Operator, and BP America Production Company and Chevron U.S.A. INC, Non-Operators covering the SW/4 SW/4 in Section 9, and SE/4 SE/4 in Section 8, Township 21 South, Range 37 East, N.M.P.M. (Hawk B-1 Lease); NW/4 NW/4 in Section 16, Township 21 South, Range 37 East, N.M.P.M. (State C TR 12 Lease); NE/4 NE/4 in Section 17, Township 21 South, Range 37 East, N.M.P.M. (Lockhart A-17 Lease), Lea County, New Mexico

and,

WHEREAS, the undersigned Parties each own undivided operating rights in and to the Hawk B-1 Lease, the State C Tract 12 Lease, the Lockhart A-17 Lease and the oil and gas leasehold estate in the lands affected thereby, and do hereby desire to amend said agreement so as to provide for development of Grayburg and San Andres production as hereinafter provided.

NOW, THEREFORE, in consideration of the premises and the mutual advantages to the parties hereto, it is mutually covenanted and agreed that the Cooperative Well Agreement referred to above and any amendments thereof or supplemental agreements pertaining thereto, are hereby amended by deleting therefrom the following, to wit:

**1. DESIGNATION AND RESPONSIBILITY OF OPERATOR**

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 <b>Grayburg</b> Formation plus one hundred (100) feet for operational purposes only.

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.

and substituting therefore the following provisions:

1. DESIGNATION AND RESPONSIBILITY OF OPERATOR

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 **San Andres** 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:	4,350 feet, but in no event below the base of The <b>San Andres</b> Formation plus one hundred (100) feet for operational purposes only.

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 **San Andres** 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.

Notwithstanding anything to the contrary contained elsewhere in this Agreement, Operator shall not commence actual completion and/or commingling 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.

**Except** as herein provided, the Cooperative Well Agreement referred to above shall remain in full force and effect in accordance with its terms and provisions.

THIS AGREEMENT shall be effective as of the date of Grayburg and San Andres first production from the Cooperative Well, and shall be binding as to each party executing the same, its successors or assigns, and it may be executed in separate counterparts with like effect as if all parties had executed the same instrument, 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 effective date first above written

APACHE CORPORATION

By: [Signature]  
Rob Johnston  
Vice President  
Central Region

Mk

BP AMERICA PRODUCTION COMPANY

By: [Signature]  
Printed Name: Edmund M. Sierra  
Title: Attorney-in-Fact

mes  
AZS

CHEVRON U.S.A. INC.

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

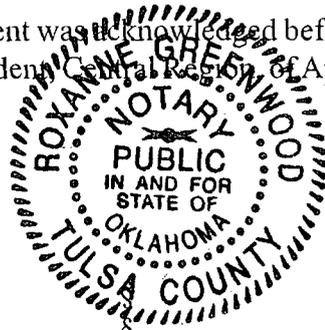
BUREAU OF LAND MANAGEMENT

By: [Signature]  
Printed Name: LARRY D. BRAY  
Title: AFM LANDS MINERALS

JAN 04  
JAN 04 2005

STATE OF OKLAHOMA §  
§  
COUNTY OF TULSA §

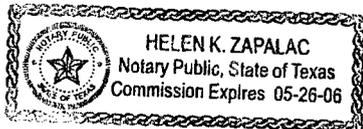
This instrument was acknowledged before me this 1st day of November, 2004, by Rob Johnston, Vice President, Central Region, of Apache Corporation, a Delaware corporation, on behalf of said corporation.



[Signature]  
Notary Public, State of Oklahoma  
00015619

STATE OF TEXAS §  
COUNTY OF HARRIS §

This instrument was acknowledged before me this 18 day of Nov, 2004, by Edmund M. Sierra, 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 §

This instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 2004, 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 \_\_\_\_\_, 2004, by \_\_\_\_\_, Authorized Officer of the Bureau of Land Management on behalf of the Bureau of Land Management.

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

APACHE CORPORATION

By: [Signature]  
Rob Johnston  
Vice President  
Central Region

*mk*

BP AMERICA PRODUCTION COMPANY

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

CHEVRON U.S.A. INC.

By: C. D. Frisbie  
Printed Name: C. D. Frisbie  
Title: Attorney-in-Fact

BUREAU OF LAND MANAGEMENT

By: [Signature]  
Printed Name: LARRY D. BRAY  
Title: AFM LANDS & MINERALS

JAN 04 2005

STATE OF OKLAHOMA §  
§  
COUNTY OF TULSA §

This instrument was acknowledged before me this 1st day of November, 2004, by Rob Johnston, Vice President of Apache Corporation, a Delaware corporation, on behalf of said corporation.



[Signature]  
Notary Public, State of Oklahoma  
00015619

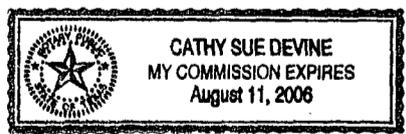
STATE OF TEXAS §  
§  
COUNTY OF HARRIS §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2004, by \_\_\_\_\_ of BP America Production Company, a Delaware corporation, on behalf of said corporation.

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

STATE OF TEXAS §  
§  
COUNTY OF HARRIS §

This instrument was acknowledged before me this 8th day of December, 2004, by C. D. Frisbie, Attorney-in-Fact of Chevron U.S.A. Inc., a Pennsylvania corporation, on behalf of said corporation.



[Signature]  
Notary Public, State of Texas

STATE OF NEW MEXICO §  
§  
COUNTY OF LEA §

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2004, by \_\_\_\_\_, Authorized Officer of the Bureau of Land Management on behalf of the Bureau of Land Management.

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



RECEIVED

NOV 12 2004

TULSA  
LAND DEPT.

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

November 8, 2004

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

Attn: Mario R. Moreno, Jr.

Re: Communitization Agreement Approval: Amendment  
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 Mr. Moreno:

The Commissioner of Public Lands approved the Lockhart A 17 Well No. 9 Communitization Agreement for the 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 on January 23, 2004, effective December 5, 2003.

You have requested by letter dated September 14, 2004, that the San Andres formation be added as a communitized interval to the existing Grayburg formation. You have included with your request the appropriate ratification(s) required to process this request.

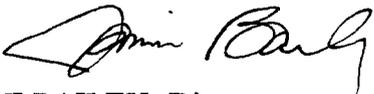
Therefore, the Communitization Agreement has been amended to reflect the change referenced above. The effective date of the agreement will remain unchanged from the referenced date in the original approval, December 5, 2003. Also enclosed you will find five amended Certificates of Approval reflecting the change noted above.



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 and San Andres (AMENDED)

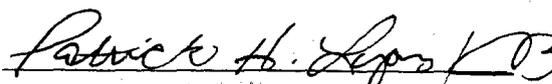
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There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, a Communitization Agreement for the development and operation of acreage which is described within the referenced agreement, dated **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 **8th day of November, 2004**.

  
COMMISSIONER OF PUBLIC LANDS  
of the State of New Mexico