

DATE IN 9/11/06	SUSPENSE	ENGINEER <i>Brooks</i>	LOGGED IN 9/11/06	TYPE NSL	APP NO. PTD50625453655
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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



Hawk # 31

8-215-31E

Fed → Fed

5496

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

9/11/06

2006 SEP 11 AM 11 29

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

September 11, 2006

Hand Delivered

Mark E. Fesmire, P.E.
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Fesmire:

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 Name:</u>	Hawk A Well No. 31
<u>Well Location:</u>	2630 feet FNL & 1330 feet FEL
<u>Well Unit:</u>	SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 8, Township 21 South, Range 37 East, N.M.P.M., Lea County, New Mexico

The well will test the Blinebry, Tubb, and Drinkard formations (North Eunice Blinebry-Tubb-Drinkard Pool).

The application is based on geological and engineering reasons. A complete discussion, with exhibits, is attached as Exhibit A. The well is located in the approximate center of Blinebry, Tubb, and Drinkard wells, and the proposed location will drain additional undrained reserves.

30-025-21621
Unit G will be simultaneously dedicated to the proposed well and the existing Hawk A Well No. 6, and applicant requests simultaneous dedication approval.

Exhibit B is a land plat. The location encroaches on the Hawk B-1 Lease, which covers (among other lands) the SE $\frac{1}{4}$ of Section 8. The working interest owners have entered into the Cooperative Well Agreement attached as Exhibit C. Production from the proposed well will be allocated between the three leases as set forth in Exhibit C (47.55% to the Hawk A Lease and

52.45% to Hawk B-1 Lease). Because the interest owners have agreed to the allocation of production, no interest owner has been notified of this application.

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

Very truly yours,

A handwritten signature in cursive script, appearing to read "James Bruce".

James Bruce

Attorney for Apache Corporation

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

40 acres – 2630 FNL & 1330' FEL
Section 8, Township 21 South, Range 37 East, NMPM
Lea County, New Mexico

PRIMARY OBJECTIVES: Blinebry, Tubb, and Drinkard

In support:

1. Apache Corporation (Apache) is the operator of the proposed **Hawk A #31** well (**Exhibit 1**).
2. The proposed unorthodox location encroaches toward the following wells which are, or have been, productive from various combinations of the Blinebry, Tubb, and Drinkard (**Exhibit 2**). **Exhibit 2** displays only those wells with a total depth equal to, or greater than, 5500', sufficient to penetrate at least part of the Blinebry, Tubb, and Drinkard interval. Production from the three reservoirs is assigned to individual Blinebry Oil and Gas, Tubb Oil and Gas, and Drinkard Pools, but downhole commingling is pre-approved pending submission of allocations to the Hobbs District Office.

API	Op.	Well	Loc	Pool	Cum O/G/W	Daily O/G/W
30-025-						
21621	Apache	Hawk A #06	8-G	Blinebry (06660)	32/232/17	2/7/1
21621	Apache	Hawk A #06	8-G	Drinkard (19190)	111/1557/20	2/18/2
06432	Apache	Hawk A #02	8-H	Blinebry (06660)	30/426/15	1/9/0
06432	Apache	Hawk A #02	8-H	Tubb (60240)	3/36/5	1/14/1
06432	Apache	Hawk A #02	8-H	Drinkard (19190)	128/794/9	0/0/0
36339	Apache	Hawk A #19	8-H	Blinebry (06660)	0/2/0	0/20/0
36339	Apache	Hawk A #19	8-H	Tubb (60240)	0/2/0	0/21/0
36339	Apache	Hawk A #19	8-H	Drinkard (19190)	14/69/10	5/22/2
22859	Apache	Hawk B-1 #14	8-J	Blinebry (06660)	79/1295/102	0/0/0
22859	Apache	Hawk B-1 #14	8-J	Drinkard (19190)	23/387/2	0/0/0
06434	Apache	Hawk B-1 #11	8-I	Blinebry (06660)	12/430/4	0.12/5/0
06434	Apache	Hawk B-1 #11	8-I	Drinkard (19190)	214/1390/7	1/17/2

MBO
MMCFG
MBW
BOPD
MCFGPD
BWPD

3. Apache expects the proposed **Hawk A #31** to test as an oil well in each of the three reservoirs. Should any reservoir test gas, Apache will either gain the appropriate approvals from the OCD to produce or abandon the reservoir.

- a) Apparent gas well producing characteristics of Hawk A #19 appears to be a math error in multiplying reported production by allocation factors (**Exhibit 3**). There is sufficient oil production for all three reservoirs to show oil production.

Exhibit A

*Now in North
Gunité-B-T-D
Pool
R-12538*

4. The proposed **Hawk A #31** location of 2630' from north line and 1330' from east line is based upon drainage considerations.

a. Geology

The Blinebry, Tubb, and Drinkard Formations are members of the Yeso Group, Permian Leonardian in age. Fluid contacts, specifically Blinebry GOC at -2255' and Drinkard OWC at -3225', employed by Shell in the unitization hearing for the NorthEast Drinkard Unit, just to the east, were used in the petrophysical evaluation of the reservoirs.

All three formations are shallow marine carbonates, consisting primarily of dolomite. The Tubb has appreciable clastic content and the Drinkard can become limey toward its base. Anhydrite can occur throughout the interval. Pay zones are thin, erratically distributed, and separated by thick impermeable intervals. Porosity and permeability are low. Wells are not generally capable of draining a full 40 Acre spacing unit. In fact, Apache's calculations indicate drainage area usually approximates 20 Acres.

Apache routinely fracture stimulates perforations in each of the three formations then produces them commingled and allocates production based upon well tests. At this stage in the history of all three pools, economics will not permit development of individual reservoirs. Thus, pay from all three reservoirs must be considered for well proposals. A combined Blinebry, Tubb, Drinkard map extracted from a larger area map is, therefore, presented (**Exhibit 4**).

The reservoir was analyzed by mapping hydrocarbon pore volume (SoPhiH) (**Exhibit 4**) of the entire Blinebry, Tubb, and Drinkard interval. SoPhiH is the product of feet of net pay (H) times average porosity (PhiA) times oil saturation (So). The values were obtained as follows:

1. Net Pay was read from modern neutron-density logs which have contractor calculated cross-plotted porosity (XPhi) using a minimum of 5% and a maximum of 20%. Additionally, gamma ray (40 APIU in the Blinebry and Drinkard and 50 APIU in the Tubb) and water saturation (10% - 50%, using a standard equation with $a=1$ and $m=n=2$) cutoffs were also employed.
2. Average Porosity was calculated for intervals meeting those criteria.
3. Oil Saturation is the additive inverse of water saturation.

This analysis requires modern neutron-density and resistivity logs. Water saturations can be adequately estimated from offsetting modern wells, however many wells had to be excluded from analysis because of the vintage or type of porosity logs. SoPhiH isopach lines were modeled after cumulative production of wells drilled prior to 1985 isopach lines where

new well control is lacking. This procedure has proved successful for Apache in recent drilling in the area.

b. Drainage

The following table provides drainage areas calculated from the SoPhiH map and reserves of the offsetting wells. SoPhiH values are either from modern logs, or estimated from the grid. Wells with values determined from modern logs will be in bold, others are estimates from the grid.

				SoPhiH	Area	EUR	EUR
Op.	Well	Loc	Reservoir	Ft	A	MBO	MMCFG
Apache	Hawk A #06	8-G	BTD	7.8	29	143	1792
Apache	Hawk A #02	8-H	BTD	6.2	40	161	1258
Apache	Hawk A #19	8-H	BTD	8.7	5	32	289
Apache	Hawk B-1 #14	8-J	BTD	12.7	12	102	1682
Apache	Hawk B-1 #11	8-I	BTD	11.0	32	227	1821

The proposed **Hawk A #31** was planned as a "true" 20 Acre infill location between existing Blinebry, Tubb, and Drinkard producers. The location was placed in the center of the vacant area between the existing wells, and then moved due to surface conditions and cultural obstructions.

Reserves for the proposed location were calculated by planimetry the undrained area of the SoPhiH 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:

				SoPhiH	Area	EUR	EUR
Op.	Well	Loc	Reservoir	Ft	A	MBO	MMCFG
Apache	Hawk A #31	8-G	BTD	8.7	18	100	800

4. Notice

Apache is the only operator of the Blinebry, Tubb, and Drinkard wells toward which the proposed well will encroach. Other working interest parties who need to be notified are:

BP America Production Company
501 Westlake Park Blvd
Houston, TX 77079
Attn: Land Department

Chevron U.S.A. Inc.
11111 S. Wilcrest
Houston, TX 77099
Attn: Land Department

Hawk A #31 is additionally a "lease line" location. The two leases involved, Hawk A and Hawk B-1, are both Federal Leases. Apache will enter into an appropriate Lease Line Agreement before the well is spudded.

5. Approval of this application will afford the interest owners in these spacing units an opportunity to recover oil and gas which would not otherwise be recovered and to do so without violating correlative rights.

DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

Form C-102

Revised JUNE 10, 2003

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 HAWK A	Well Number 31
OGRID No.	Operator Name APACHE CORPORATION	Elevation 3523'

Surface Location

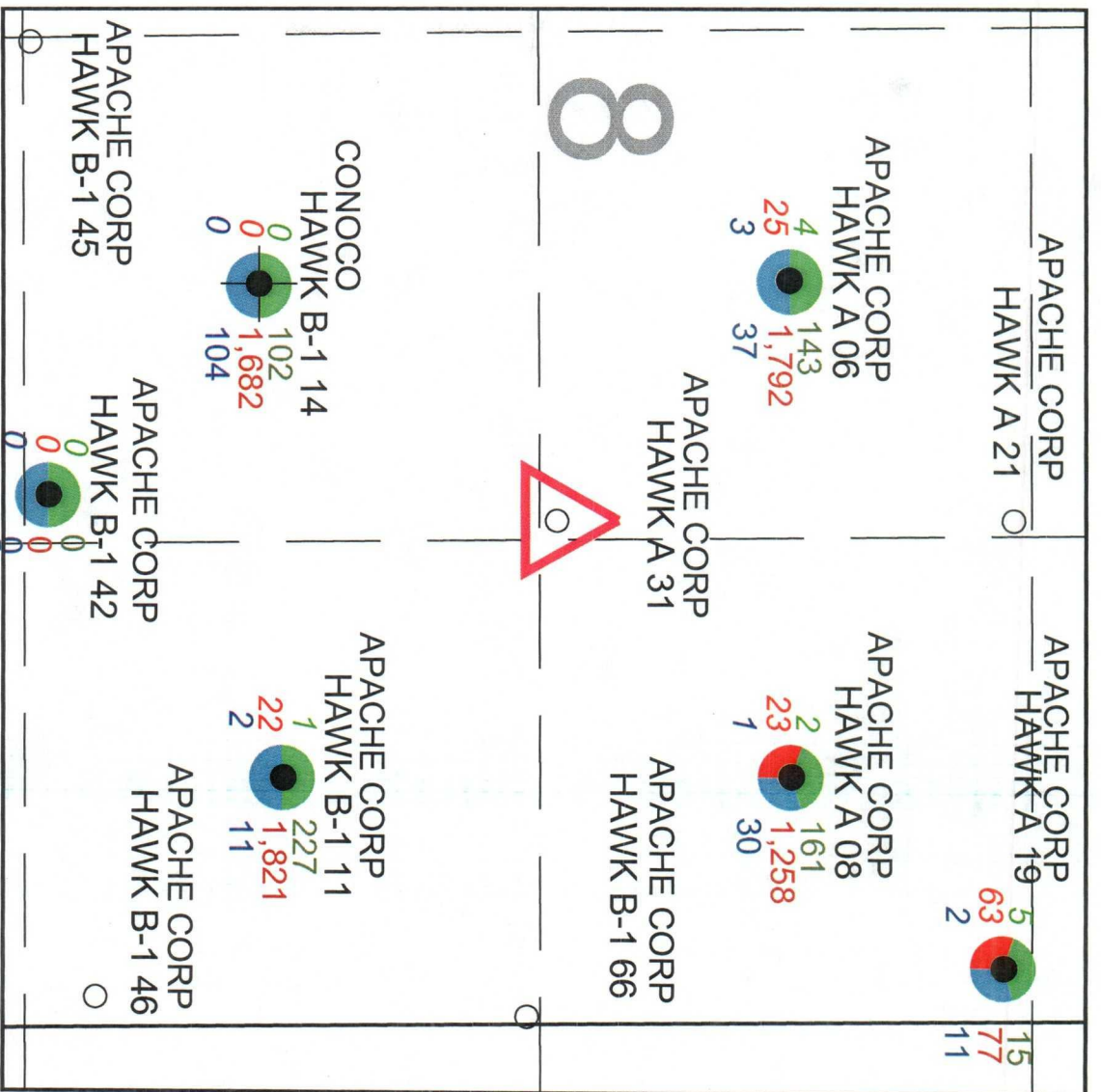
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	8	21-S	37-E		2630	NORTH	1330	EAST	LEA

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

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature _____ Printed Name _____ Title _____ Date _____
	SURVEYOR CERTIFICATION 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. JANUARY 18, 2006 Date Surveyed _____ JR Signature & Seal of Professional Surveyor _____
	Certificate No. GARY E. EDSON 12641
	GEODETTIC COORDINATES NAD 27 NME Y=545116.6 N X=855480.4 E LAT.=32°29'36.07" N LONG.=103°10'49.51" W



- WELL SYMBOLS**
- Location Only
 - Oil Well
 - ☀ Gas Well
 - ☐ Dry

POSTED WELL DATA

OPERATOR
WELL LABEL
CURRENT BOPD
CURRENT MCFD
CURRENT BWPD

<p>TWO WARREN PLACE, SUITE 1500 6120 SOUTH YALE TULSA, OKLAHOMA 74136-4224</p>	
CENTRAL REGION	
HAWK A 31	
SEG B-T21S-R37E	
LEA COUNTY, NEW MEXICO	
EXHIBIT 2	
WELL INFORMATION	
DATE: 2/1/06	DWG: CURTIS/BDT NSLWELL (EX2)

Submit 3 Copies to Appropriate District
Office

State of New Mexico
Energy, Minerals and Natural Resources

FORM C-103
Revised March 25, 1999

DISTRICT I

1625 N. French Dr., Hobbs, NM 88240

DISTRICT II

811 South First, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

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

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

WELL API NO.	30-025-36339
5. Indicate Type of Lease	<input type="checkbox"/> STATE <input type="checkbox"/> FEE
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	Hawk A
8. Well No.	19
9. Pool name or Wildcat	Blinebry O&G, Tubb O&G, Drinkard

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

☒ OIL WELL ☐ GAS WELL ☐ OTHER

2. Name of Operator

Apache Corporation

3. Address of Operator

6120 South Yale, Suite 1500 Tulsa, Oklahoma 74136-4224

4. Well Location

Unit Letter H : 1420 Feet From The North Line and 150 Feet From The East Line
Section 8 Township 21S Range 37E NMPM Lea County

10. Elevation (Show whether DP, RKB, RT, GR, etc.)

3509' GR

11.

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

- ☐ Perform Remedial Work ☐ Plug and Abandon
☐ Temporarily Abandon ☐ Change Plans
☐ Pull or Alter Casing
☒ Other Downhole Commingle

SUBSEQUENT REPORT OF:

- ☐ Remedial Work ☐ Altering Casing
☐ Commence Drilling Operations ☐ Plug and Abandonment
☐ Casing Test and Cement Job
☐ Other

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Per Order R-11363, Apache Corporation respectfully requests authorization to downhole commingle the designated pools.

	Perforations:
Blinebry 6660	5675-6122
Drinkard 19190	6556-6735
Tubb 60240	6231-6476

The allocation method will be as follows:

	Oil	Alloc. %	Test: Gas	48 x 92 x 40 Alloc. %	Water	Alloc. %
Blinebry	10	20%	0	0%	0	0%
Drinkard	20	42%	49	53%	24	59%
Tubb	18	38%	43	47%	16	41%
	48		92		40	

Downhole commingling will not reduce the value of these pools.

Ownership is the same for each of these pools.

The Bureau of Land Management has been notified of this request.

DHC Order No. HOB-0076

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Kara Coday

TITLE

Sr. Engineering Technician

DATE

2/3/2004

TYPE OR PRINT NAME

Kara Coday

TELEPHONE NO.

918-491-4957

(This space for State Use)

APPROVED BY

Paul F. Kautz

TITLE

ORIGINAL SIGNED BY

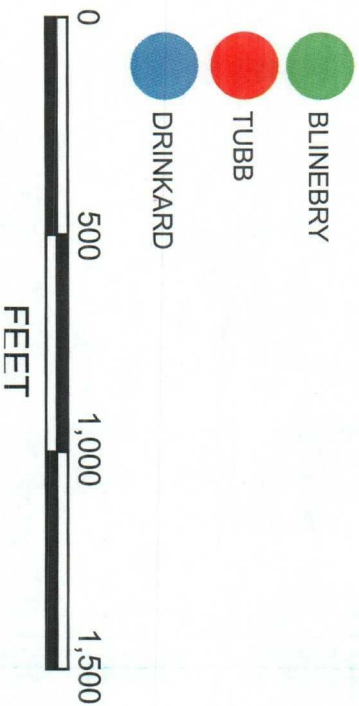
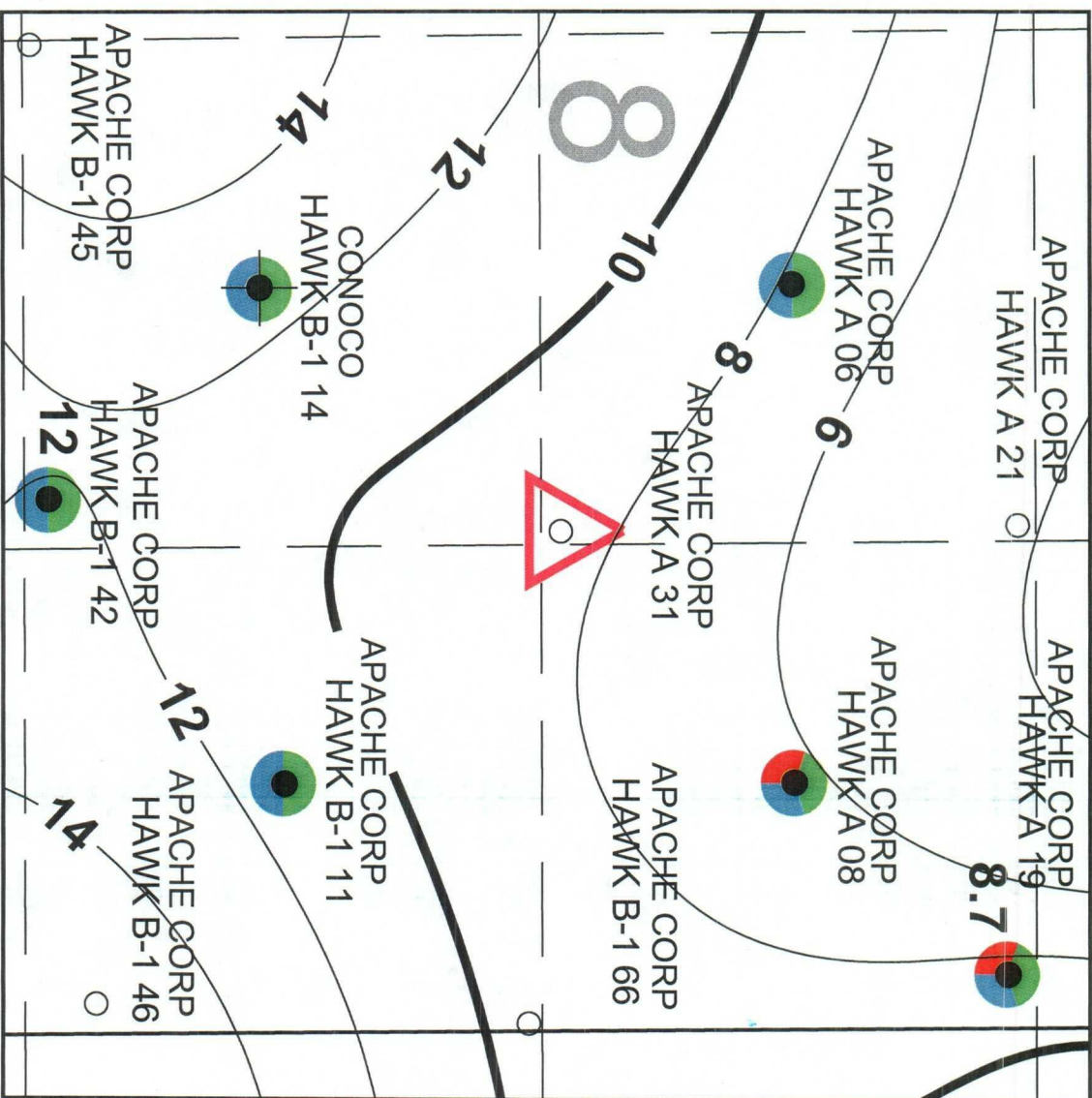
PAUL F. KAUTZ

DATE

FEB 12 2004

CONDITIONS OF APPROVAL, IF ANY:


PETROLEUM ENGINEER



WELL SYMBOLS

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

POSTED WELL DATA
 OPERATOR
 WELL LABEL
BTD SOPHIH ●

 APACHE CORPORATION CENTRAL REGION		TWO WARREN PLACE, SUITE 1500 6120 SOUTH YALE TULSA, OKLAHOMA 74136-4224
HAWK A 31		
SEC B-T215-R37E LEA COUNTY, NEW MEXICO		
EXHIBIT 4		
BTD SOPHIH		
DATE: 2/1/06	DWG: CURTISBTD NSLWELL (EX3)	

May-03-2004 02:41 pm

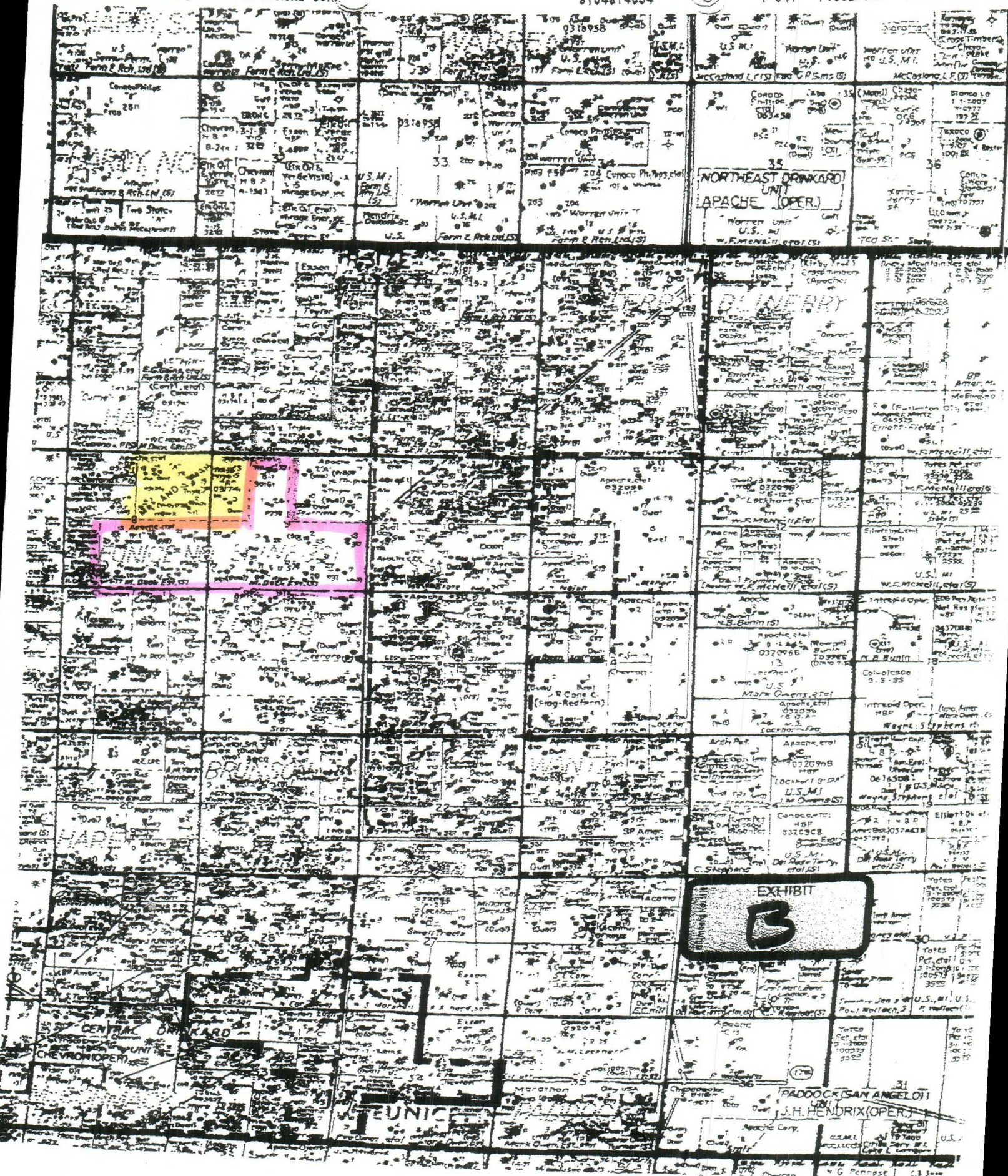
FROM-APACHE CORE

9184914854

T-641

P.002/002

F-640



COOPERATIVE WELL AGREEMENT
(for the Hawk A #31 Well)

This Cooperative Well Agreement ("Agreement"), is entered into and is effective as of May 1, 2006, between **BP AMERICA PRODUCTION COMPANY**, whose address is 501 Westlake Park Blvd., Houston, TX 77079 ("BP"), **CHEVRON U.S.A. INC.**, whose address is 11111 S. Wilcrest, Houston, TX 77099 ("Chevron") and **APACHE CORPORATION**, whose address is 6120 South Yale Avenue, Suite 1500, 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 8: NE/4NW/4SE/4, NW/4NE/4SE/4

2. Hawk A Lease -

Lessor: The United State of America LC 031741 (a)

Lessee: Estate of Wilbur C. Hawk

Date: January 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 8: SE/4SW/4NE/4, SW/4SE/4NE/4

WHEREAS, the Parties each own undivided operating rights in and to the Hawk B-1 Lease, and the Hawk A Lease; and

WHEREAS, the Parties desire to drill and complete the **Hawk A #31 Well** ("Cooperative Well") for the production of oil, gas and related hydrocarbons, insofar as it covers the Blinebry, Tubb and Drinkard formations, at a non-standard location encroaching on the lease line between the Hawk B-1 Lease and Hawk A Lease in Section 8 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 **Hawk A #31 Well** as described herein below.

NOW THEREFORE, the Parties hereby agree as follows:

1. DESIGNATION AND RESPONSIBILITIES OF OPERATOR

A. Apache is designated as operator ("Operator") of the **Hawk A #31 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 Drinkard Formation as follows:

Hawk A #31 Well:

SURFACE LOCATION:	2630' FNL & 1330' FEL, Sec. 8, T21S-R37E,
Lea County, New Mexico,	
Planned Total Depth:	7,000 feet, but in no event below the base of The Drinkard 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"), specifically including, but not limited to, the insurance and indemnification provisions of that Agreement. Solely for purposes of drilling and operating the **Hawk A #31 Well**, Exhibit A-1 to the NMFU Operating Agreement is amended to cover the **Hawk A #31 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 Drinkard formation, by the below named Parties in the percentage shown opposite their name as follows:

Apache:	50.00%
BP	25.00%
Chevron	25.00%

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 1, 2007, 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 data 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 and/or the Hawk A 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 the written consent of 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, provided that the settlement limitations set forth in paragraph 5B shall apply, inclusive of costs and attorney fees incurred by Operator. 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	52.45%
Hawk A Lease	47.55%

Each Party shall account for and administer its share of the Existing Burdens attributable to the Hawk B-1 Lease and/or the Hawk A 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 and the Hawk A 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 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, and the operations contemplated hereunder, has been approved by the Authorized Officer of the Bureau of Land Management. Operator shall be solely responsible for obtaining such approvals. All costs, expenses and fees associated with obtaining such approvals shall be billed and accounted for pursuant to 1.C. of this Agreement.

12. No director, employee, or agent of either party will give to or receive from any director, employee, or agent of the other party any commission, fee, rebate, gift, or entertainment of significant cost or value in connection with this Agreement. During the term of this Agreement and for 2 years, thereafter, any mutually agreeable representatives authorized by either party may audit the applicable records of the other party solely for the purpose of determining whether there has been compliance with this paragraph. The provisions of this paragraph will survive termination of this Agreement.

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: John Swain
Printed Name: John Swain
Title: Attorney In Fact

MSW

BP AMERICA PRODUCTION COMPANY

By: E.M. Sierra
Printed Name: E.M. Sierra
Title: Attorney-in-Fact

EAB JB

CHEVRON U.S.A. INC.

By: _____
Printed Name: _____
Title: _____

BUREAU OF LAND MANAGEMENT

By: _____
Printed Name: _____
Title: _____

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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.

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APACHE CORPORATION

By: John Swain
Printed Name: John Swain
Title: Attorney In Fact

BP AMERICA PRODUCTION COMPANY

By: _____
Printed Name: _____
Title: _____

CHEVRON U.S.A. INC.

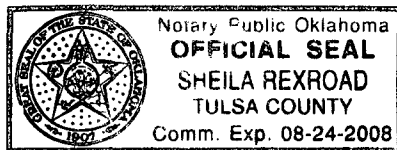
By: D.A. Brehl
Printed Name: D.A. Brehl
Title: Attorney-in-Fact

BUREAU OF LAND MANAGEMENT

By: _____
Printed Name: _____
Title: _____

STATE OF OKLAHOMA §
 §
COUNTY OF TULSA §

This instrument was acknowledged before me this 13th day of June, 2006, by John Swain, Attorney In Fact for 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 12th day of July, 2006, by E.M. Sierra, Attorney-In-Fact of BP America Production Company, a Delaware corporation, on behalf of said corporation.



Christie M. Smith
Notary Public, State of Texas

STATE OF TEXAS §
 §
COUNTY OF _____ §

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

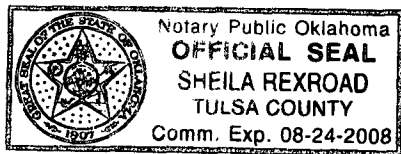
STATE OF NEW MEXICO §
 §
COUNTY OF LEA §

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

STATE OF OKLAHOMA §
 §
COUNTY OF TULSA §

This instrument was acknowledged before me this 13th day of June, 2006, by John Swain, Attorney In Fact for Apache Corporation, a Delaware corporation, on behalf of said corporation.



Sheila Rexroad
Notary Public, State of Oklahoma

STATE OF TEXAS §
 §
COUNTY OF _____ §

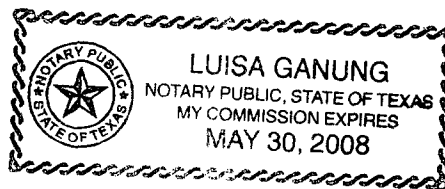
This instrument was acknowledged before me this ____ day of _____, 200__, by _____ of BP America Production Company, a Delaware corporation, on behalf of said corporation.

Notary Public, State of Texas

STATE OF TEXAS §
COUNTY OF Harris §

This instrument was acknowledged before me this 14th day of July, 2006, by D.A. Beelik, Attorney In Fact of Chevron U.S.A. Inc., a Pennsylvania corporation, on behalf of said corporation.

Luis Ganung
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

Brooks, David K., EMNRD

From: Brooks, David K., EMNRD
Sent: Wednesday, November 08, 2006 11:41 AM
To: 'JamesBruc@aol.com'
Subject: Apache infill applications

Jim

In reviewing these applications, I find that the BLM and SLO consents or communitization agreements (as applicable) are not included in the packages. We will need to be furnished copies of these documents prior to final issuance of orders in these cases.

11/8/2006

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)

jamesbruce@aol.com

2006 NOV 13 PM 1 16

November 13, 2006

Hand Delivered

David K. Brooks
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Apache Corporation

Dear David:

This letter is in response to your e-mail of November 8th regarding notice and other issues:

1. My reference to "Lease Line Agreements" does mean the Cooperative Agreements signed by the working interest owners and the BLM. I apologize for the confusion.
2. As to notice to royalty owners and overriding royalty owners, our reasoning was as follows:
 - (a) As to the State and Federal leases, I view the Communitization Agreements and Cooperative Agreements as "modifying" the lease terms to allow the wells to be drilled and production accounted for under those agreements.
 - (b) There are no overriding royalty owners in the Hawk B lease and in all of the State leases. As to the Hawk A lease, the instrument creating the overriding royalty provides (as was common at that time) that it will be calculated and paid "the same as royalties payable to the government." Thus, I believe the BLM's approvals would cover those interests.

(c) In practical terms, the Division would never have allowed the wells to be drilled as close as they are to the lease lines without some type of sharing between leases, even if notice had been given to offsets. Mike Stogner stated to us that he would never have approved them. Therefore, approval of the locations does give everyone (working interest, royalty, and overriding royalty owners) production and revenue they never would otherwise receive.

(d) As to fee royalty owners and private overriding royalty owners, the working interest owners in the pertinent leases are ultimately accountable to them: Division approval does not shield an operator from the consequences of its actions. **Snyder Ranches, Inc. v. Oil Conservation Comm'n, 110 N.M. 637 (1990).**

(e) Under Division rules, when notice of an unorthodox location is required it is given to the offset working interest owners, who are presumed to look after their royalty and overriding royalty owners. In most instances (for wells which are not too severely unorthodox) the working interest owners often waive objection. In the Apache applications the working interest owners are actually securing additional revenues for the royalty and overriding royalty owners.

These are important questions which you have raised, and we have thought about them before. But, I believe that the working interest owners, in allocating production among the various leases, are protecting their royalty and overriding royalty owners (as well as themselves).

Very truly yours,



James Bruce

Attorney for Apache Corporation



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
NM-116410
3105.2 NM (513)

RECEIVED

JUL 05 2006

TULSA
LAND DEPT.

JUN 29 2006

Apache Corporation
Attn: Michelle Hanson
6120 S. Yale, Suite 1500
Tulsa, OK 74136-4224

Re: Cooperative Well Agreement
Hawk A #31
NE/4 of Section 8, T. 21 S., R. 37 E.
Lea County, New Mexico

Dear Ms Hanson,

Enclosed is an approved copy of the Cooperative Well Agreement for the Hawk A #31 well located at 2630' FNL, 1330' FEL, Section 8, T. 21 S., R. 37 E., NMPM, Lea County, New Mexico. This agreement includes all oil and/or gas production from horizons encountered from the surface of the earth down to and including the base of the Drinkard formation. This agreement has been assigned Contract No. NMNM-116410.

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

Lease NMNM 90161	52.45%
Lease NMLC 031741A	47.55%
Total	100.000%

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

If you have any questions, please contact Alexis C. Swoboda at (505) 627-0228 or the Division of Lands and Minerals at (505) 627-0272.

Sincerely,

Larry D. Bray
Assistant Field Manager
Lands and Minerals

1 Enclosure:
1 - Cooperative Well Agreement
Swoboda: 6/28/2006

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.

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12. No director, employee, or agent of either party will give to or receive from any director, employee, or agent of the other party any commission, fee, rebate, gift, or entertainment of significant cost or value in connection with this Agreement. During the term of this Agreement and for 2 years, thereafter, any mutually agreeable representatives authorized by either party may audit the applicable records of the other party solely for the purpose of determining whether there has been compliance with this paragraph. The provisions of this paragraph will survive termination of this Agreement.

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

APACHE CORPORATION

By: John Swain

Printed Name: John Swain

Title: Attorney In Fact

BP AMERICA PRODUCTION COMPANY

By: _____

Printed Name: _____

Title: _____

CHEVRON U.S.A. INC.

BUREAU OF LAND MANAGEMENT