

DATE IN <u>11/12/97</u>	SUSPENSE <u>12/2/97</u>	ENGINEER <u>DC</u>	LOGGED BY <u>MV</u>	TYPE <u>DHC</u>
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

### ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

#### Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
 [DD-Directional Drilling] [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 - Directional Drilling

☐ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] and [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

#### [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] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Robin S. McCarley  
 Print or Type Name

Robin S. McCarley  
 Signature

Technical Assistant  
 Title

11/07/97  
 Date



## Arch Petroleum Inc.

November 7, 1997

State of New Mexico  
Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, NM 87505-6429

Re: C. D. Woolworth Lease, Well #9  
Unit N, Section 30-T24S, R37E  
Lea County, New Mexico

Gentlemen:

Your administrative approval is requested for an exception to Rule 303-C to permit down-hole commingling of Jalmat Yates Seven Rivers and Langlie Mattix Seven Rivers Queen production in the subject well.

Please find enclosed all pertinent data regarding this application as outlined in Rule No. 303-C.

Sincerely,

Robin S. McCarley  
Technical Assistant

Enclosures

cc: State of New Mexico  
Oil Conservation Division  
P. O. Box 1980  
Hobbs, New Mexico 88240-1980

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

## DISTRICT II

811 South First St., Artesia, NM 88210-2835

## DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico  
Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429Form C-107-A  
New 3-12-96

## APPROVAL PROCESS:

☐ Administrative ☐ Hearing

## EXISTING WELLBORE

☒ YES ☐ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

Operator Arch Petroleum Inc. Address 10 Desta Drive, Suite 420E Midland, Texas 79705Lease C. D. Woolworth Well No. 9 Unit Ltr. - Sec - Twp - Rge N 30 23S 37E County LeaOGRID NO. 000962 Property Code 014899 API NO. 30-025-32863 Spacing Unit Lease Types: (check 1 or more) ☒ Federal ☐ State ☐ (and/or) Fee ☒

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	(33820) Jalmat Tansill		(37240) Langlie Mattix
2. Top and Bottom of Pay Section (Perforations)	3161-3371		3575-3655
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 1410 b. (Original)	a.  b.	a. 1450 b.
6. Oil Gravity (° API) or Gas BTU Content	35.6		26.5
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data * If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates: 11/04/97 2 BO 56 MCF 36 BW	Date: Rates:  	Date: Rates: 09/25/97 14 BO 38 MCF 66 BW
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 12 % Gas: 60 %	Oil: % Gas: %	Oil: 88 % Gas: 40 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No  
If not, have all working, overriding, and royalty interests been notified by certified mail? ☐ Yes ☐ No  
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). DHC-1480

## 16. ATTACHMENTS:

- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- \* Production curve for each zone for at least one year. (If not available, attach explanation.)
- \* For zones with no production history, estimated production rates and supporting data.
- \* Data to support allocation method or formula.
- \* Notification list of all offset operators.
- \* Notification list of working, overriding, and royalty interests for uncommon interest cases.
- \* Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Robert A. McCarley TITLE Tech. Asst. DATE 11/07/97

TYPE OR PRINT NAME \_\_\_\_\_ TELEPHONE NO. ( \_\_\_\_\_ ) \_\_\_\_\_

**ARCH PETROLEUM INC.**

**C. D. WOOLWORTH #9**

Approval is requested for an exception to Rule 303-C to permit down-hole commingling of the Jalmat Yates Seven Rivers and Langlie Mattix Seven Rivers Queen production in the subject well.

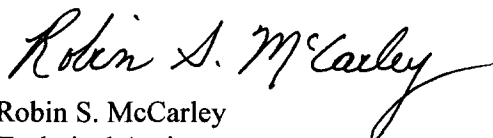
The C. D. Woolworth lease has permission to surface commingle other production from the Jalmat and Langlie Mattix zones as well as permission to down-hole commingle production from these zones in our C. D. Woolworth #5 well under Administrative Order DHC-1480.

This Langlie Mattix is currently being pumped into a tank.

The fluids show no evidence of incompatibility; therefore, down-hole commingling is not expected to result in reservoir damage. Ownership in the two pools is common and correlative rights will not be violated.

Should secondary recovery operations become practical in the future, the two zones could be separated at such time without damaging either reservoir.

Offset operators have been notified of the intent to down-hole commingle the subject well by letter dated October 2, 1997.

  
Robin S. McCarley  
Technical Assistant

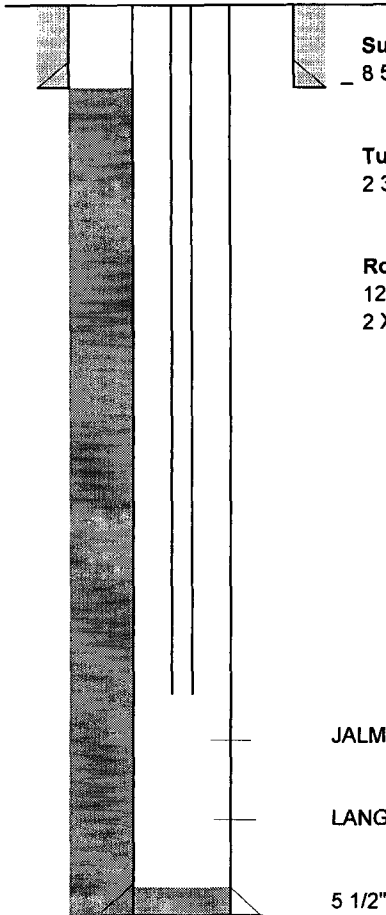
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## WELLBORE DIAGRAM

WELL : C. D. WOOLWORTH # 9  
FIELD: LANGLE MATTIX & JALMAT OIL  
SPUDDED:  
COMPLETION DATE: #  
API #: 30-025-32863

LOCATION: SEC 30, 24S-37E  
660' FSL & 1980' FWL OF SEC.  
LEA CO., NM  
PRODUCING ZONE LANGLE MATTIX & JALMAT OIL  
KB = 3263.2  
GL = 3253

DATA:



### Surface Casing :

8 5/8" 24# K-55 @ 460' RKB W/ 270 SX, CMT CIRC

### Tubing String :

2 3/8" 4.7# J-55 EUE @ 3313 W/ SN @ 3246

### Rods & Pump data :

127 3/4'S

2 X 1 1/4

JALMAT PERFS 3175, 83, 3205, 44, 59, 88, 96, 3312, 23, 36, 47, & 58 (24 HOLES)

LANGLE MATTIX PERFS 3475, 3535, 39, 49, 60, 75, 80, 94, 3641, & 55 (40 HOLES)

5 1/2" 15.5# K-55 @ 3800' RKB W/ 700 SX, DID NOT CIRC

PBTD 3758  
TD = 3800'

PUMPING UNIT:

### CHRONO:

5-95 PERF LANGLE MATTIX, ACD W/ 2100 GALS 15% NEFE, FRAC W/ 54M GALS & 161M # 12/20 SN @ 35BPM  
SCREEN OUT @ 8 #/GAL

8-2-97 18 BO X 58 BW X 29 MCFG

9-97 SET CIBP @ 3400, PERF JALMAT, ACD W/ 2500 GALS 15 % NEFE, FRAC W/ 40M GALS & 136M# 12/20SN  
TRIED TO SCREEN OUT @ 6 #/GAL, CLN OUT W/ AIR

District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
811 South First, Artesia, NM 88210

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

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-32863	2 Pool Code 37240/33820	3 Pool Name Langlie Mattix/Jalmat Oil
4 Property Code 014899	5 Property Name C. D. Woolworth	6 Well Number 9
7 OGRID No. 000962	8 Operator Name Arch Petroleum, Inc.	9 Elevation 3253

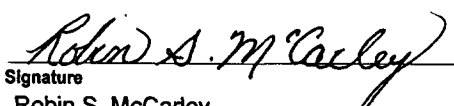
10 Surface Location

UL or lot no. N	Section 30	Township 24S	Range 37E	Lot Idn	Feet from the 660	North/South line South	Feet from the 1980	East/West Line West	County Lea
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11 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
12 Dedicated Acres 40.00	13 Joint or Infill	14 Consolidation Code	15 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

16					17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief   Signature Robin S. McCarley Printed Name Technical Assistant Title 09-23-97 Date
					18 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.  Date of Survey Signature and Seal of Professional Surveyer:
					Certificate Number

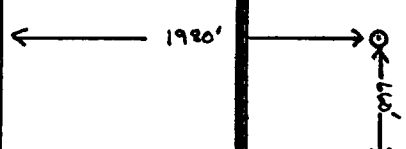


EXHIBIT 1

OFFSET OPERATORS

DHC - C. D. Woolworth #9  
Unit N, Sec. 30, T24S, R37E  
Lea County, New Mexico



Conoco, Inc.  
P. O. Box 2197  
Houston, TX 77079-1175



Doyle Hartman  
500 North Main  
Midland, Texas 79701



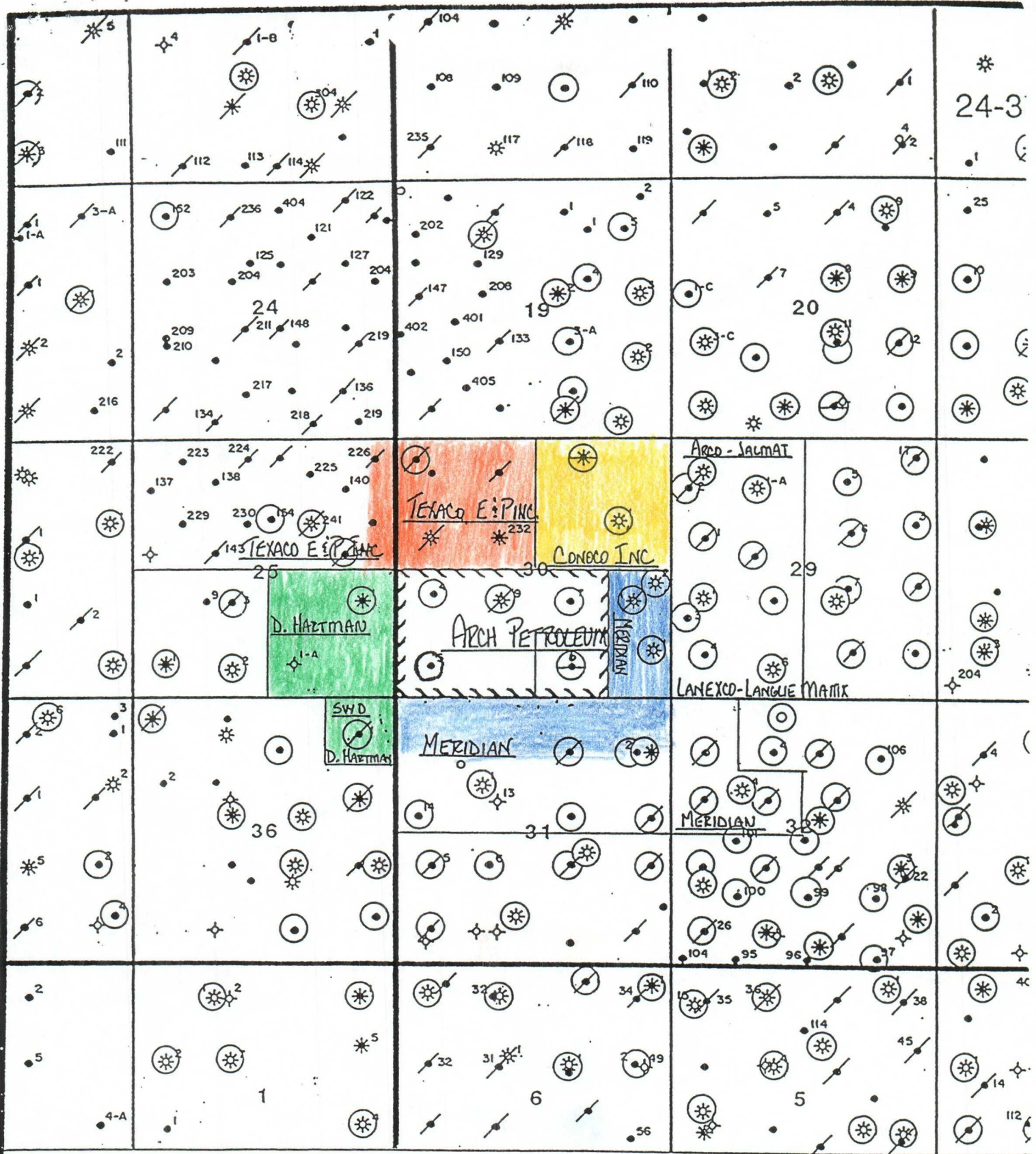
Burlington Resources  
P. O. Box 4239  
Midland, Texas 77210-4239



Texaco E & P Inc.  
4601 DTC Boulevard  
Denver, CO 80237-2549

October 2, 1997









## Arch Petroleum Inc.

November 6, 1997

Re: DHC - C. D. Woolworth #9  
Unit N, Sec. 30, T23S, R37E  
Lea County, New Mexico

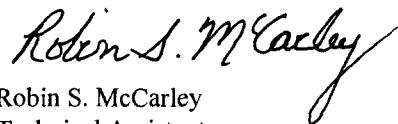
To: All Offset Operators

We are enclosing our application to down-hole commingle the production from the Langlie Mattix and Jalmat zones in the above well.

We have previously obtained permission to down-hole commingle these same zones in our C. D. Woolworth #5 and #6.

If you have any questions, please call me at (915) 685-1961.

Sincerely,



Robin S. McCarley  
Technical Assistant

Enclosures



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

DHC-1264

11/19/97

GOVERNOR

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88241-1980  
(505) 393-6161

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC	_____
DHC	_____X_____
NSL	_____
NSP	_____
SWD	_____
WFX	_____
PMX	_____

Gentlemen:

I have examined the application for the:

Arch Petroleum Inc CD Woolworth #9-N-3D-24-37  
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

None

Yours very truly,

*Chris Williams*

Chris Williams  
Supervisor, District 1

/ed