

DATE IN

11/21/97

SUSPENSE

12/11/97

ENGINEER

DC

LOGGED BY

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TYPE

DHC

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

NOV 21 1997

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

Signature

Robin S. McCarley

Tech. Admn.

Title

11/19/97

Date



## Arch Petroleum Inc.

November 19, 1997

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

Re: Manda Lease, Well #1  
Unit N, Section 21-T22S, R37E  
Lea County, New Mexico

Gentlemen:

Your administrative approval is requested for an exception to Rule 303-C to permit down-hole commingling of the Blinebry and Drinkard 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 Administrator

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 87505-6429

Form C-107-A  
New 3-12-96

APPROVAL PROCESS:

\_\_\_ Administrative \_\_\_ Hearing

EXISTING WELLBORE

X YES \_\_\_ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Arch Petroleum Inc. 10 Desta Dr. Suite 420E, Midland, Texas 79705  
Operator Address  
Manda 1 N, 21, 22S, 37E Lea County, NM  
Lease Well No. Unit Ltr. - Sec - Twp - Rge County  
OGRID NO. 000962 Property Code 15930 API NO. 30-025-25438 Spacing Unit Lease Types: (check 1 or more)  
Federal \_\_\_ State \_\_\_ (and/or) Fee X

The following facts are submitted in support of downhole commingling	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	(06660) Blinebry		(19190) Drinkard
2. Top and Bottom of Pay Section (Perforations)	5471-5889		6435-6568
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) 800 b. (Original)	a.  b.	a. 1000 b.
6. Oil Gravity (°API) or Gas BTU Content	37.6		35.2
7. Producing or Shut-In?	Producing		Shut-in
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	Date: Rates:	Date: Rates:	Date: 07/28/97 Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 09/26/97 Rates: 7 BO 59 MCF 52BW	Date: Rates:	Date: Rates: 8 BO 74 MCF 55BW
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 54 % Gas: 44 %	Oil: % Gas: %	Oil: 46 % Gas: 56 %

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? X Yes \_\_\_ No  
If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes \_\_\_ No  
Have all offset operators been given written notice of the proposed downhole commingling? X Yes \_\_\_ No

11. Will cross-flow occur? \_\_\_ Yes X 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? X Yes \_\_\_ No

13. Will the value of production be decreased by commingling? \_\_\_ Yes X 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. X Yes \_\_\_ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). DHC-677

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 Robin S. McCarley TITLE Tech. Admn. DATE 11/19/97

TYPE OR PRINT NAME Robin S. McCarley TELEPHONE NO. ( 915 ) 685-1961

ARCH PETROLEUM INC.  
Manda Lease, Well #1  
Blinebry & Drinkard  
Lea County, New Mexico

Approval is requested for an exception to Rule 303-C to permit down-hole commingling of the Blinebry and Drinkard production in the subject well.

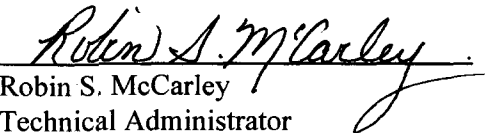
These zones are currently being down-hole commingled in our Lea ACL State #1 under Administrative Order DHC-677.

Currently, production from the Blinebry is being pumped into a tank and a Retrievable Bridge Plug is set at 6200'.

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 without damaging either reservoir.

Offset operators have been notified of the intent to down-hole commingle the subject well by letter dated November 19, 1997.

  
Robin S. McCarley  
Technical Administrator

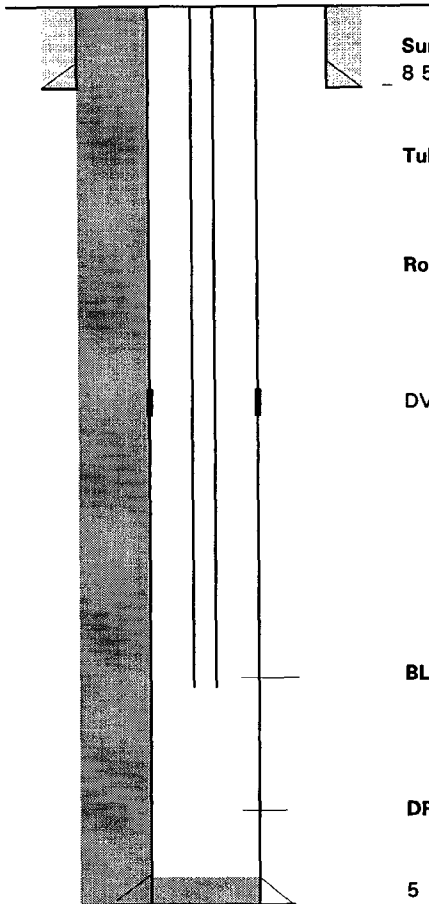
# WELLBORE DIAGRAM

WELL : MANDA # 1  
FIELD: BLINBRY & DRINKARD  
SPUDDER:  
COMPLETION DATE: 3-16-77  
API # :

LOCATION: SEC 21-22S-37E  
860' FSL & 1830' FWL OF SEC.  
LEA CO., NM  
PRODUCING ZONE : BLINBRY  
KB = 3764  
GL = 3748

DATA:

## PROPOSED COMPLETION



Surface Casing :  
8 5/8" @ 1168' RKB W/ 450 SX, CMT CIRC

Tubing String :  
2 3/8

Rods & Pump data :

DV TOOL @ 2620', CMT W/ 1200 SX

BLINBRY PERFS 5471-5889 OA

DRINKARD PERFS 6435-6568 OA

5 1/2" 15.5# K-55 @ 6700' RKB W/ 925 SX, CMT CIRC

PBD 6660  
TD = 6700'

PUMPING UNIT:

## CHRONO:

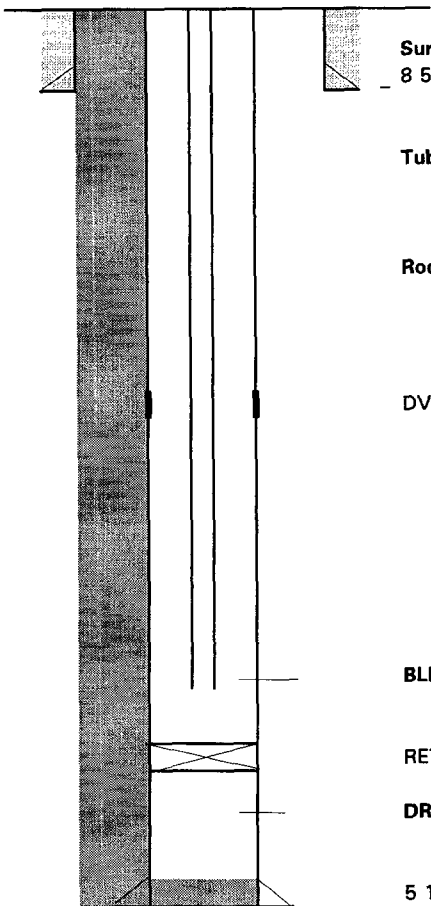
- 3-77 PERF DRINKARD 6566-68, 22-24, 6477-79, & 35-37 W/ 2JSPF. ACD W/ 1850 GLS 15% NE & BALLS  
FRAC W/ 28 M GALS W/ 30M # 20/40 SN. IPP 67 BOPD X 12 BWPD
- 5-94 DUMP 1000 GALS 15% NEFE
- 11-94 ACD W/ 10M GALS 65 Q CO2 15% HCL FOAM IN 4 STAGES W/ BALLS  
PRIOR: 5 X 10 X 0 AFTER: 10 X 40 X 23
- 1-97 SET RBP 2 6200'. PERF BLINBRY 5471, 83, 91, 5501, 18, 38, 61, 77, 5602, 09, 22, 29, 64, 76, 87,  
5699, 5717, 33, 46, 59, 70, 5807, 21, 28, 40, 62, 71, & 89 W/ 2JSPF (56 HOLES)  
ACD W/ PPI TOOL W/ 3000 GALS 15% NEFE. FRAC W/ 40 M GALS X 141 M # 16/30 SN @ 36BPM  
IPP 28 BOPD X 72 BWPD X 45 MCFD

## WELLBORE DIAGRAM

WELL : MANDA # 1  
FIELD: BLINBRY & DRINKARD  
SPUDDER:  
COMPLETION DATE: 3-16-77  
API # :

LOCATION: SEC 21-22S-37E  
860' FSL & 1830' FWL OF SEC.  
LEA CO., NM  
PRODUCING ZONE : BLINBRY  
KB = 3764  
GL = 3748

DATA:



### Surface Casing :

8 5/8" @ 1168' RKB W/ 450 SX, CMT CIRC

**Tubing String :**

2 3/8

**Rods & Pump data :**

DV TOOL @ 2620', CMT W/ 1200 SX

BLINBRY PERFS 5471-5889 OA

RET BP @ 6200'

**DRINKARD PERFS 6435-6568 OA**

5 1/2" 15.5# K-55 @ 6700' RKB W/ 925 SX, CMT CIRC

PBTD 6660  
TD = 6700'

**PUMPING UNIT:**

**CHRONO:**

3-77 PERF DRINKARD 6566-68, 22-24, 6477-79, & 35-37 W/ 2JSF. ACD W/ 1850 GLS 15% NE & BALLS  
FRAC W/ 28 M GALS W/ 30M # 20/40 SN. **IPP 67 BOPD X 12 BWPD**

5-94 DUMP 1000 GALS 15% NEFE

11-94 ACD W/ 10M GALS 65 Q CO2 15% HCL FOAM IN 4 STAGES W/ BALLS  
PRIOR: 5 X 10 X 0 AFTER: 10 X 40 X 23

1-97 SET RBP 2 6200'. PERF BLINBRY 5471, 83, 91, 5501, 18, 38, 61, 77, 5602, 09, 22, 29, 64, 76, 87,  
5699, 5717, 33, 46, 59, 70, 5807, 21, 28, 40, 62, 71, & 89 W/ 2JSF (56 HOLES)  
ACD W/ PPI TOOL W/ 3000 GALS 15% NEFE. FRAC W/ 40 M GALS X 141 M # 16/30 SN @ 36BPM  
**IPP 28 BOPD X 72 BWPD X 45 MCFD**

16					17	<b>OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>
					<u>Robin S. McCarley</u> Signature Robin S. McCarley Printed Name Technical Administrator Title 11-18-97 Date	
					18	<b>SURVEYOR CERTIFICATION</b> <i>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.</i>
					  Date of Survey Signature and Seal of Professional Surveyer:   Certificate Number	

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

<sup>1</sup> API Number 30-025-25438	<sup>2</sup> Pool Code 06660	<sup>3</sup> Pool Name Blinebry
<sup>4</sup> Property Code 15930	<sup>5</sup> Property Name Manda	<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 000962	<sup>8</sup> Operator Name Arch Petroleum Inc.	<sup>9</sup> Elevation 3347

<sup>10</sup>Surface Location

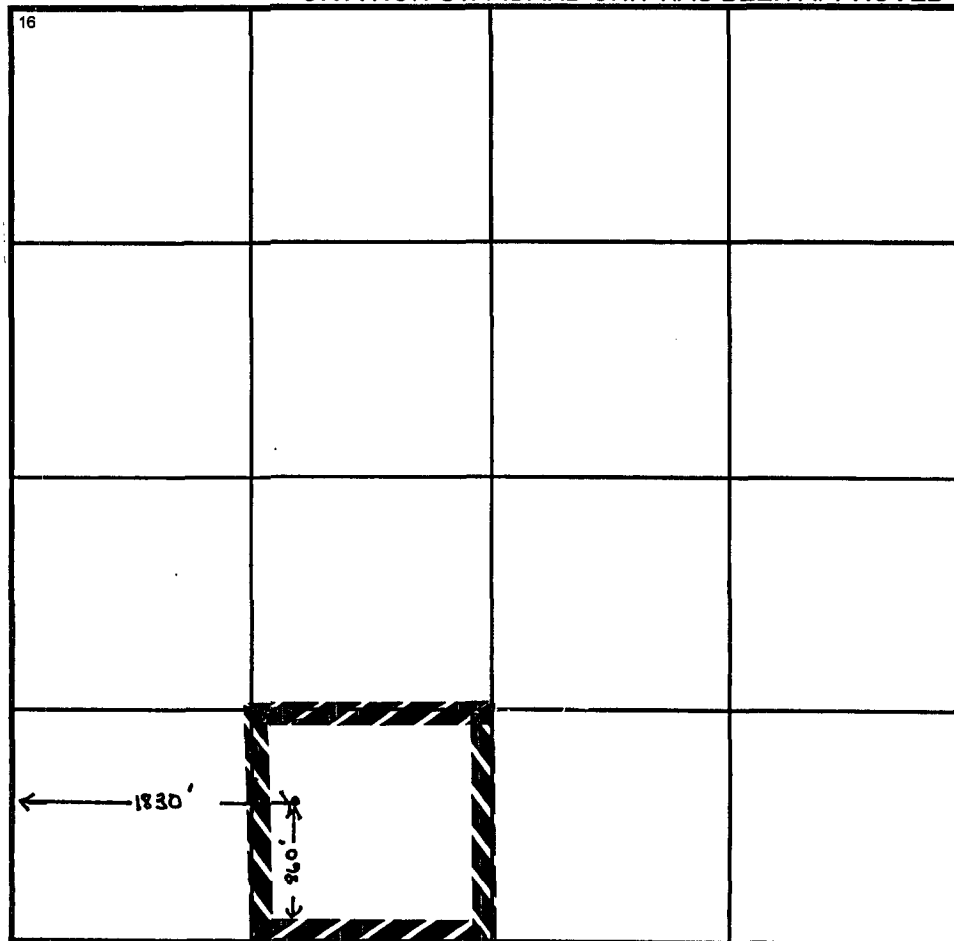
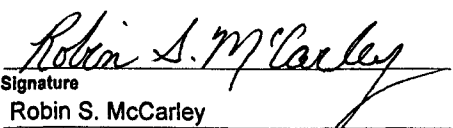
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County
N	21	22S	37E		860	South	1830	West	Lea

<sup>11</sup>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

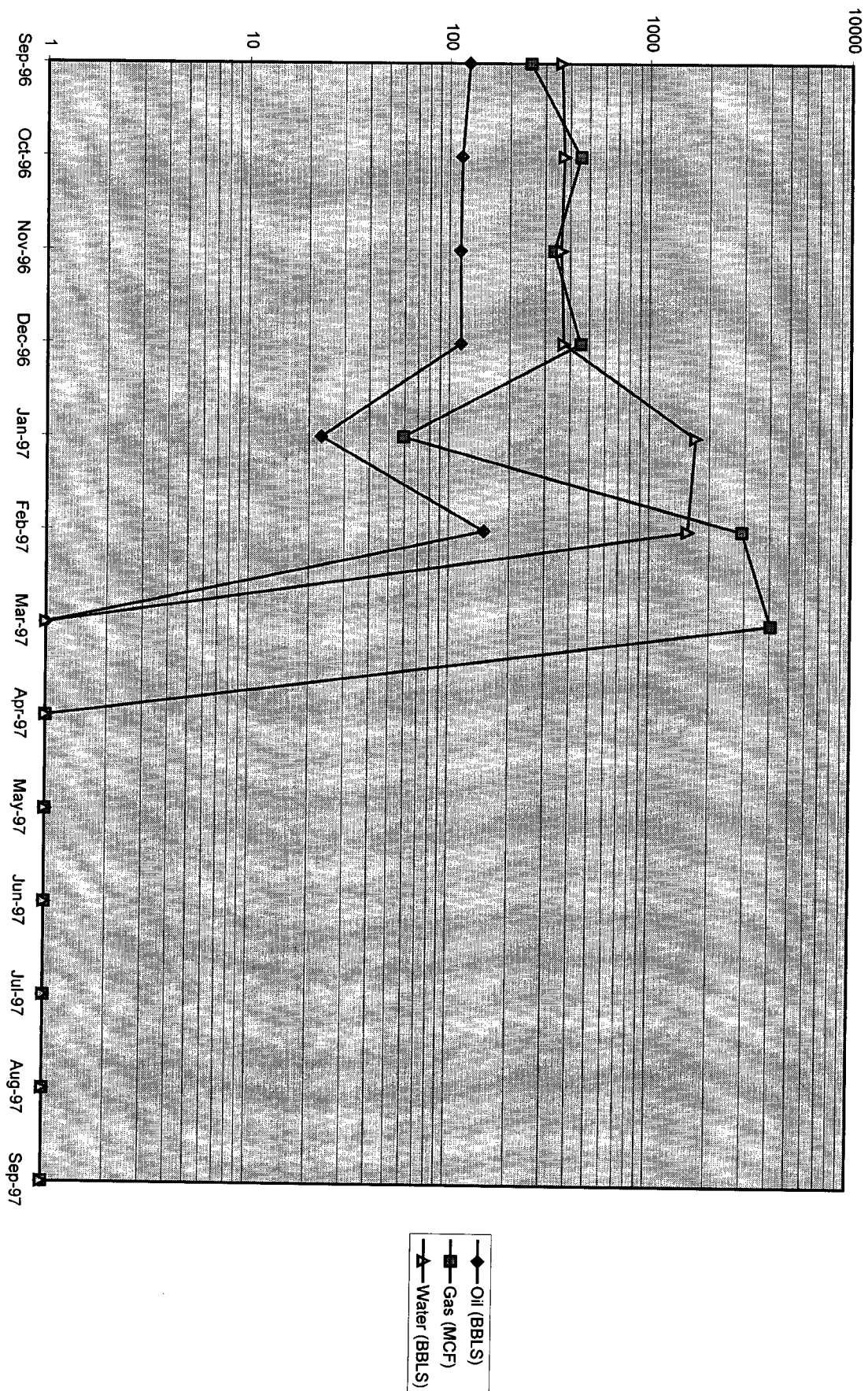
<sup>12</sup> Dedicated Acres 40.00	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.

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

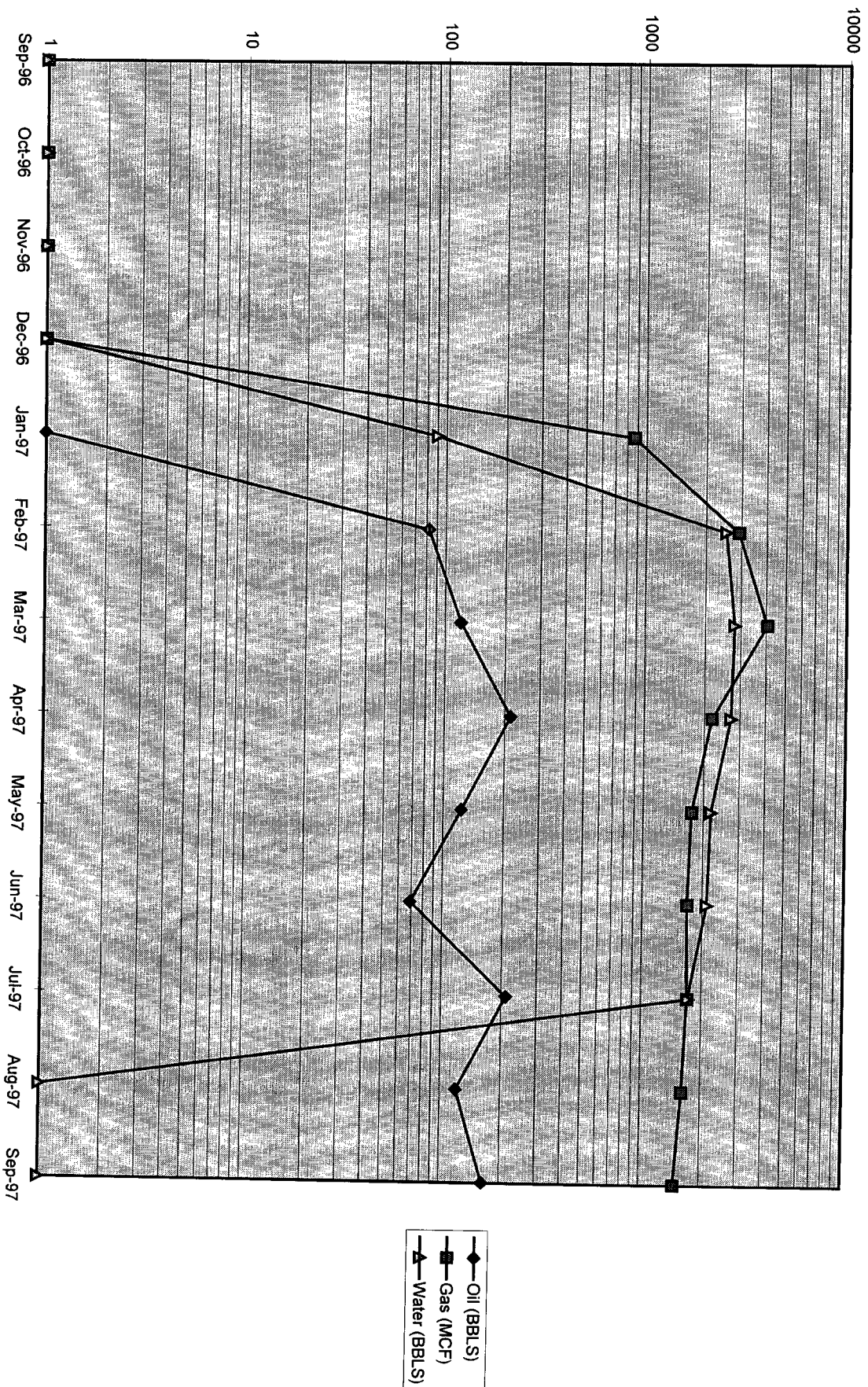
<sup>16</sup> 	<sup>17</sup> OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>	
	 Signature Robin S. McCarley	
	Printed Name Technical Administrator	
	Title 11-18-97 Date	
	<sup>18</sup> SURVEYOR CERTIFICATION <i>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.</i>	
	Date of Survey	
	Signature and Seal of Professional Surveyer:	
	Certificate Number	



# MANDA #1 - DRINKARD PRODUCTION



# MANDA #1 - BLINEBRY PRODUCTION



**Arch Petroleum Inc.**

**Manda Lease, Well #1  
Lea County, New Mexico**

**Offset Operators**



**Arch Petroleum**



**Anadarko Petroleum Corporation**  
P. O. Box 2497  
Midland, Texas 79702



[illegible]





## Arch Petroleum Inc.

November 19, 1997

Re: DHC - Manda #1  
Unit N, Sec. 21, T22S, R37E  
Lea County, New Mexico

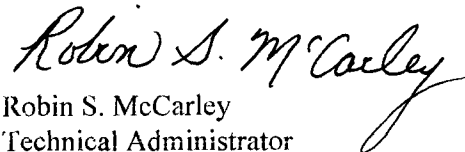
To: All Offset Operators

We are enclosing our application to down-hole commingle the production from the Blinebry and Drinkard zones in the above well.

We have previously obtained permission to down-hole commingle these same zones in our Lea ACL State #1 under DHC-677

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

Sincerely,

  
Robin S. McCarley  
Technical Administrator

Enclosures

DHC-1768



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

11/24/97

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 Manda #1-N-21-225-37e  
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Yours very truly,

*Chris Williams*

Chris Williams  
Supervisor, District 1

/ed