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**Marathon
Oil Company**

P.O. Box 2409
Hobbs, NM 88241-2409
Telephone 505/393-7106

June 20, 1994

State of New Mexico
Oil Conservation Division
Energy and Mineral Department
Mr. David Catanach
PO Box 2088
Santa Fe, NM 87501

RE: REQUEST FOR EXCEPTION TO RULE 303-A
DOWNHOLE COMMINGLING
LOJ WORTHAN WELL NO. 11
UNIT F, 1905' FNL AND 2055' FWL
SECTION 11, T-22-S, R-37-E
TUBB AND DRINKARD FORMATIONS
DRINKARD FIELD
LEA COUNTY, NEW MEXICO

Dear Mr. Catanach:

Marathon Oil Company respectfully requests administrative approval for an exception to Rule 303-A to permit the downhole commingling of the Tubb and Drinkard formations in the above mentioned well.

Currently, the well is a Tubb producer that is artificially lifted by plunger lift. The plunger lift is efficient as the well produces 2 BOPD and 158 MCFD. The Drinkard is isolated beneath a CIBP. In December of 1990 a workover was conducted to add pay to the Tubb and Drinkard with both zones being stimulated. During the workover two fishing jobs occurred, a packer drill out, three acid jobs and one fracture treatment resulted in a total load of 2960 BW. An estimated 480+ BW was placed on the Drinkard itself. Due to the loading, the Drinkard was isolated under a CIBP and the well converted to a Tubb single producer.

The proposed downhole commingling and rod-up will allow the continued production of the Tubb while de-watering the Drinkard. The rod pumping will prevent cross flow and is expected to return the Drinkard to ± 150 MCFD. By rod pumping both zones, the Tubb will be produced to a lower abandonment pressure while recovering additional reserves from the Drinkard thus preventing waste.

Enclosed is the pertinent data supporting this application as outlined in Rule 303-A. If additional information is necessary, please contact Rick Gaddis at (505) 393-7106.

Sincerely,

A handwritten signature in cursive script, appearing to read 'T.A. Deines'.

T.A. Deines
Northwest Operations
Production Superintendent

RDG:TAD/9480/kc
Attachments

REQUEST FOR EXCEPTION TO RULE 303-A

LOU WORTHAN WELL NO. 11 DRINKARD FIELD

- (A) Marathon Oil Company
PO Box 2409
Hobbs, NM 88240
- (B) Lou Worthan Well No. 11
Unit F, 1905' FNL & 2055' FWL
Section 11, T-22-S, R-37-E
Lea County, New Mexico
Commingling Zones: Tubb
Drinkard
- (C) A plat of the area is attached showing the lease and offset operations. Also attached is a C-102 for each formation.
- (D) The Form C-116 for each of the formations is attached. The allocated production for the Tubb will be based upon the current rate and the rate for the Drinkard will be based upon the pre-workover rates along with the historical production declines.
- (E) Production curves for both the Tubb and Drinkard are attached.
- (F) Estimated bottomhole pressure for each zone:
- | | |
|----------|----------|
| Tubb | 450 psia |
| Drinkard | 400 psia |
- (G) Marathon is commingling the fluids at the surface and has not encountered incompatibility problems.
- (H) If the downhole commingling is approved, the lost production and reserves of the Tubb will be recovered while maximizing recoveries from the Blinbry, preventing waste.

(I) Production from the latest GOR test as follows:

<u>FORMATION</u>	<u>OIL (bpd)</u>	<u>GAS (mcfd)</u>	<u>WATER (bpd)</u>
Tubb	2.0	158	0.5
Drinkard*	<u>0.0</u>	<u>150</u>	<u>1.0</u>
TOTAL	<u>2.0</u>	<u>308</u>	<u>1.5</u>

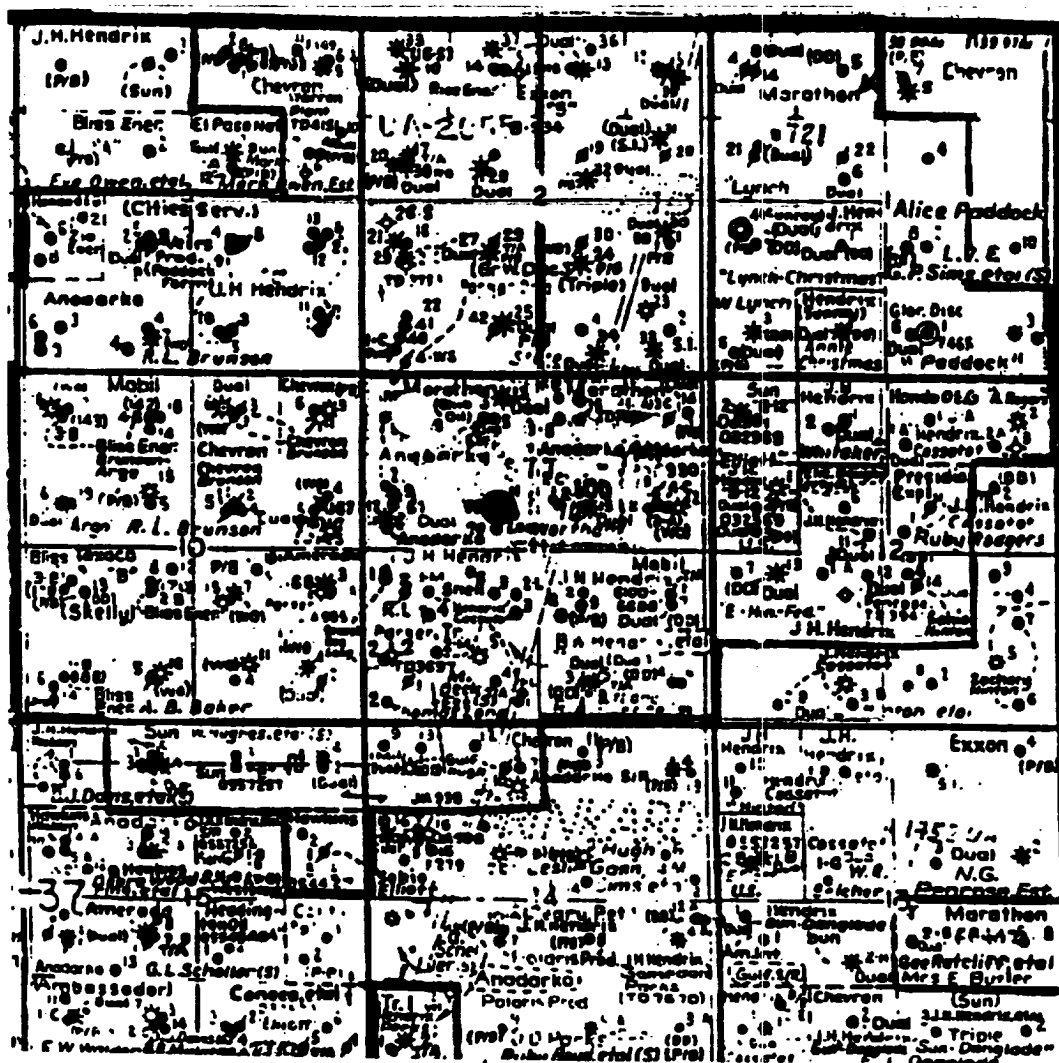
* Zone is currently TA. Rates are based upon production prior to a workover and estimated from offset production.

Allocated Percentages should be:

<u>FORMATION</u>	<u>OIL (%)</u>	<u>GAS (%)</u>	<u>WATER (%)</u>
Tubb	100.0	51.3	33.7
Drinkard	<u>0.0</u>	<u>48.7</u>	<u>66.3</u>
TOTAL	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

(J) Ownership of the two pools to be commingled are in common and correlative rights will not be violated.

(K) By copy of this letter, we are notifying all offset operators of the proposed commingling.



District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-1
Revised February 10, 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 30-025-10220		2 Pool Code		3 Pool Name Tubb	
4 Property Code		5 Property Name Lou Worthan			6 Well Number 11
7 OGRID No. 14021		8 Operator Name Marathon Oil Company			9 Elevation 3359' GR

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	11	22-S	37-E		1905	North	2055	West	Lea

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	13 Joint or Infill N	14 Consolidation Code	15 Order No.
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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 Rick D. Gaddis Printed Name Production Engineer Title June 20, 1994 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 Surveyor:	
	Certificate Number	

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-1
Revised February 10, 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 30-025-10220		2 Pool Code		3 Pool Name Drinkard	
4 Property Code		5 Property Name Lou Worthan			6 Well Number 11
7 OGRID No. 14021		8 Operator Name Marathon Oil Company			9 Elevation 3359' GR

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	11	22-S	37-E		1905	North	2055	West	Lea

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	13 Joint or Infill N	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

	17 OPERATOR CERTIFICATION	
	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
	Signature: <u>Rick D. Gaddis</u> Printed Name: Rick D. Gaddis Title: Production Engineer Date: June 20, 1994	
	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 Surveyor: _____	
	Certificate Number: _____	

Oil Conservation Division

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

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Tubb		County Lea										
Address PO Box 2409 Hobbs, New Mexico 88240		TYPE OF TEST - (X) <input checked="" type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/> L		Completion <input type="checkbox"/> Scheduled <input checked="" type="checkbox"/> Special										
LEASE NAME Lou Worthan * Well on plunger lift.	WELL NO. 11	LOCATION			DATE OF TEST 6/14/94	CHOKE SIZE NA	TBG. PRESS. 100*	DAILY ALLOW-ABLE --	LENGTH OF TEST HOURS 24	PROD. DURING TEST			GAS - OIL RATIO CU.FT./	
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.
		F	11	22S	37E					0	40	2	158	79,000

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

Rick D. Gaddis

Signature

Rick D. Gaddis, Production Engineer

Printed name and title

June 20, 1994 (505) 393-7106

Date

Telephone No.

Instructions:

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F.

Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

(See Rule 301, Rule 1116 & appropriate pool rules.)

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-1116
Revised 1/1/89


OIL CONSERVATION DIVISION

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

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Drinkard		County Lea										
Address PO Box 2409 Hobbs, NM 88240		TYPE OF TEST - (X)	Scheduled <input type="checkbox"/>	Completion <input type="checkbox"/>	Special <input checked="" type="checkbox"/>									
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU FT/B.	
		U	S	T						R	WATER BBL.S.	GRAV. OIL		OIL BBL.S.
Lou Worthan	11	F	11	22S	37E	12/10/90	R	NA	24	1.0	NA	0.0	150	--

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


Signature
Rick D. Gaddis, Production Engineer
Printed name and title
June 20, 1994 (505) 393-7106
Date Telephone No.

Instructions:

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

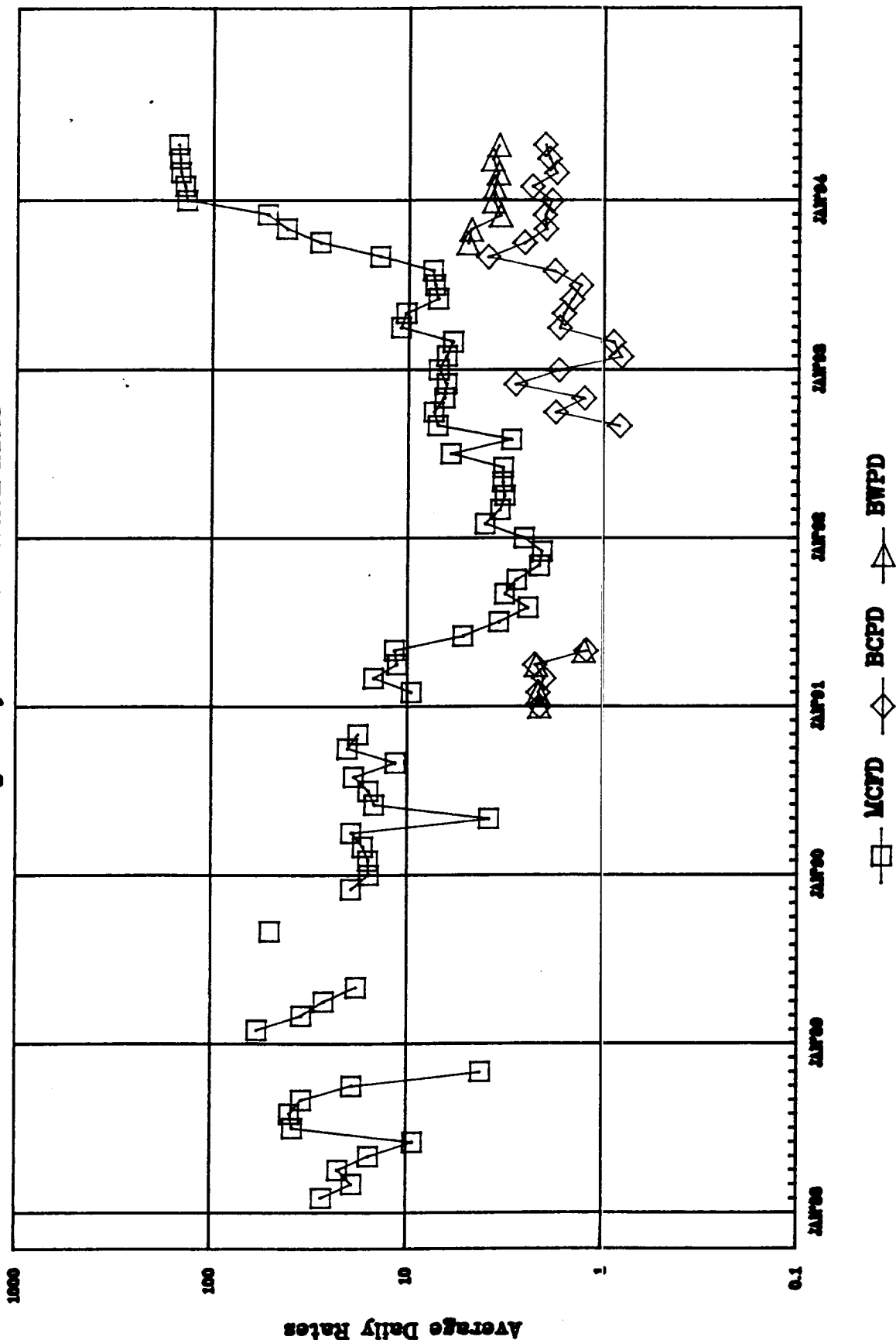
Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

(See Rule 301 Rule 1116 & appropriate pool rules.)

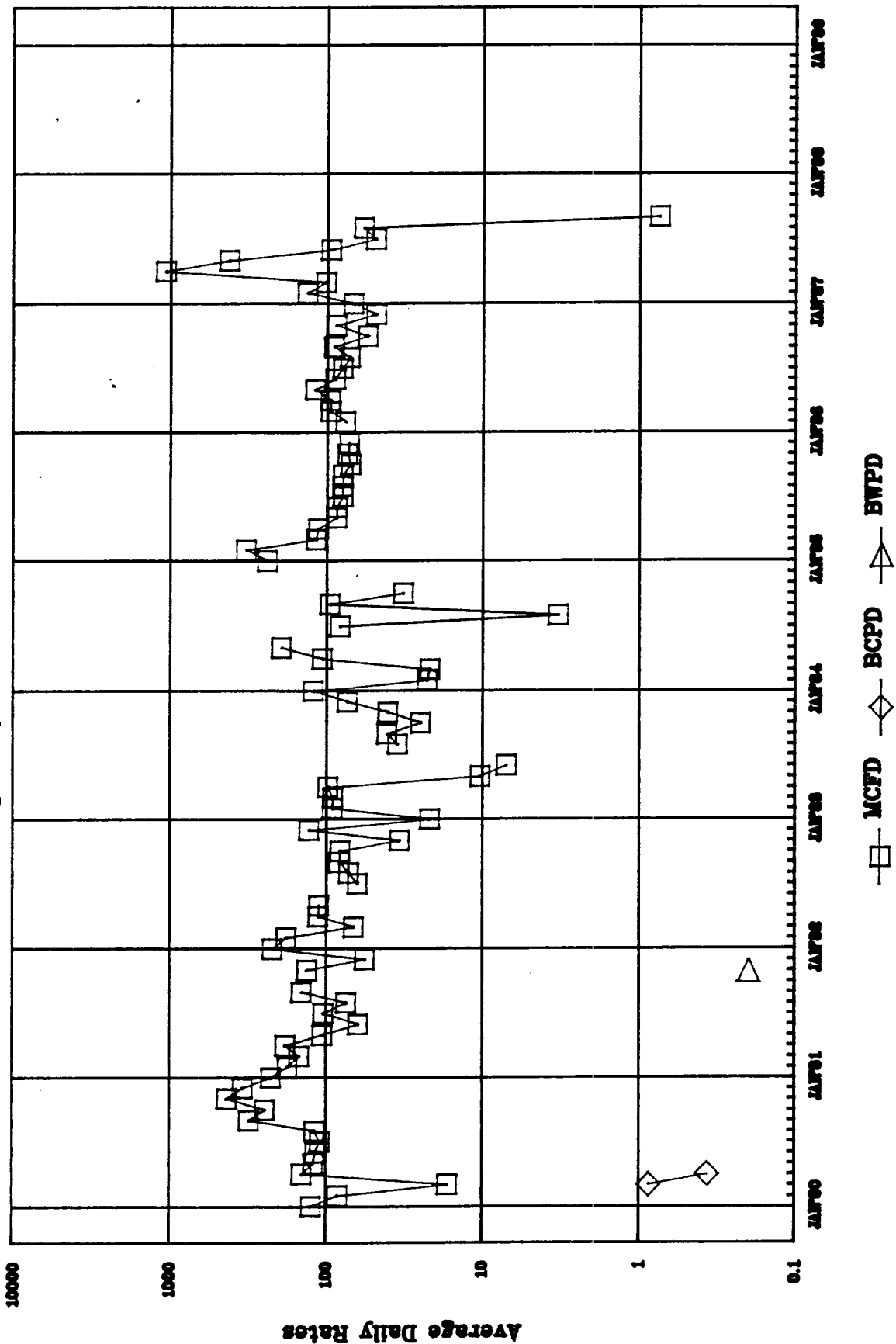
LOU WORTHAN WELL NO. 11

Average Daily Tubb Production Rates



LOU WORTHAN WELL NO. 11

Average Daily Drinkard Production Rates



OFFSET OPERATORS

LOU WORTHAN LEASE
Section 11, T-22-S, R-37-E
Lea County, New Mexico

Exxon Company USA
PO Box 1600
Midland, TX 79702-1600
Attn: Land Department

Shell Western E&P
PO Box 576
Houston, TX 77001-0576
Attn: Land Department

Oxy USA Inc.
PO Box 50250
Midland, TX 79705-0250
Attn: Land Department

Southwest Royalties, Inc.
PO Drawer 11390
Midland, TX 79702-1390
Attn: Jon M. Tate

John H. Hendrix
223 West Wall, Suite 525
Midland, TX 79701

Chevron USA Inc.
PO Box 1150
Midland, TX 79702-1150
Attn: Land Department

American Exploration Co.
1331 Lamar, Suite 900
Houston, TX 77010-3086

Amerada Hess Corporation
1201 Louisiana, Suite 700
Houston, TX 77002
Attn: Randy Pharr

Mobile Expl. & Prod. US Inc.
PO Box 633
Midland, TX 79702-0633
Attn: Larry Coppedge

Texaco Expl. & Prod.
PO Box 3109
Midland, TX 79702-3109
Attn: Land Department

Shell Oil Company
PO Box 2463
Houston, TX 77252-2463
Attn: Land Department

June 20, 1994

Offset Operators
Lou Worthan Well No. 11
(mailing list attached)

RE: REQUEST FOR EXCEPTION TO RULE 303-A
DOWNHOLE COMMINGLING
MARATHON OIL COMPANY
LOU WORTHAN WELL NO. 11
UNIT F, 1905' FNL & 2055' FWL
SECTION 11, T-22-S, R-37-E
TUBB AND DRINKARD FORMATIONS
DRINKARD FIELD
LEA COUNTY, NEW MEXICO

Gentlemen:

Marathon Oil Company has filed an application with the New Mexico Oil Conservation Division to downhole commingle the above captioned well. Enclosed, please find a copy of the application as outlined in Rule 303-A.

If you are in agreement and waive all objections to the downhole commingling, please sign below and return one copy to Marathon at the above address.

Sincerely,



T.A. Deines
Northwest Operations
Production Superintendent

RDG:TAD/9482/kc
Attachments

Agreed and accepted this _____ day of _____,
1994 by _____, as representative of
_____.

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

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

WELL API NO. 30-025-10220
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Lou Worthan
8. Well No. 11
9. Pool name or Wildcat Tubb

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 <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER	2. Name of Operator Marathon Oil Company	3. Address of Operator PO Box 2409 Hobbs, NM 88240
4. Well Location Unit Letter F : 1905 Feet From The North Line and 2055 Feet From The West Line Section 11 Township 22-S Range 37-E NMPM Lea County		
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3359' GR		

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
OTHER: Downhole commingling <input checked="" type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: <input type="checkbox"/>

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.

Marathon Oil Company proposes the downhole commingling of the Tubb and Drinkard formations of the Lou Worthan Well No. 11. The Tubb currently produces 2 BOPD and 158 MCF. By drilling out a CIBP at 6180' (PBTD of 6157') and rod pumping both zones the Drinkard is expected to produce 150 MCFD with a combined rate of 2 BO, 308 MCFD and +/- 2 BWPD. This project will commence upon NMOC approval of the downhole commingling request.

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

SIGNATURE Rick D. Gaddis TITLE Production Engineer DATE 6/20/94
(505)
TYPE OR PRINT NAME Rick D. Gaddis TELEPHONE NO. 393-710

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY: