it 3 Copies To Appropriate District
ce
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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

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

Form C-103
Revised March 25, 1999

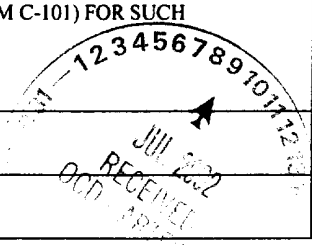
15F

WELL API NO. 30-015-32071	
5. Indicate Type of Lease STATE [X] FEE [ ]	
6. State Oil & Gas Lease No. F-05461	

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.)

7. Lease Name or Unit Agreement Name: M J STATE

1. Type of Well: Oil Well [X] Gas Well [ ] Other



2. Name of Operator: MARBOB ENERGY CORPORATION

8. Well No. 1

3. Address of Operator: P O BOX 227, ARTESIA, NM 88211-0227

9. Pool name or Wildcat: RED LAKE GLORIETA YESO NE

4. Well Location

Unit Letter LOT 4 : 330 feet from the NORTH line and 330 feet from the WEST line

Section 2 Township 18S Range 27E NMPM EDDY County

10. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3606' GR

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	MULTIPLE COMPLETION [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER: DOWNHOLE COMMINGLING [X]		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 recompilation.

SEE ATTACHED C-107 DOWNHOLE COMMINGLING APPLICATION

DIVISION ORDER# R-11363 PRE-APPROVED POOL

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

SIGNATURE [signature] TITLE ENGINEER DATE 9 July 02

Type or print name BRIAN COLLINS Telephone No. 505-748-3303

(This space for State use)

APPPROVED BY ORIGINAL SIGNED BY TIM W. GUM DISTRICT II SUPERVISOR TITLE DATE JUL 10 2002

Conditions of approval, if any:

District I
1625 N. French Drive, Hobbs, NM 88240
District II
811 South First Street, Artesia, NM 88210
District III
1000 Rio Brazos Road, 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-107A
Revised May 15, 2000

APPLICATION TYPE
X Single Well
___Establish Pre-Approved Pools
EXISTING WELLBORE
X Yes ___No

APPLICATION FOR DOWNHOLE COMMINGLING

MARBOB ENERGY CORPORATION / P O BOX 227 ARTESIA, NM 88211-0227
Operator Address

MJ STATE 1 LOT 4-2-18S-27E EDDY
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 014049 Property Code 28986 API No. 30-015-32071 Lease Type: ___Federal X State ___Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	RED LAKE Q-GB-SA		RED LAKE GLORIETA YESO NE
Pool Code	51300		96836
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	EST. 1969'-2899'		3137'-3670' ACTUAL
Method of Production (Flowing or Artificial Lift)	ARTIFICIAL LIFT		ARTIFICIAL LIFT
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	EST. 50 PSI PRODUCING BHP		EST. 100 PSI PRODUCTING BHP
Oil Gravity or Gas BTU (Degree API or Gas BTU)	38.5°		41.8°
Producing, Shut-In or New Zone	NEW ZONE		PRODUCING
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: JUNE 2002 Rates: 30BOPD 95MCFD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 71 % Gas 68 %	Oil % Gas %	Oil 29 % Gas 32 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X No
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ___ No ___

Are all produced fluids from all commingled zones compatible with each other? Yes X No ___

Will commingling decrease the value of production? Yes ___ No X

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes X No ___

NMOCD Reference Case No. applicable to this well: ___

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 working, royalty and overriding royalty interests for uncommon interest cases.
Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

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

SIGNATURE Kristi Collins TITLE ENGINEER DATE 25 June 02

PRINT NAME BRIAN COLLINS TELEPHONE NO. (505) 748-3303

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102
Revised February 10, 1994
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
		RED LAKE; GLORIETA YESO, NORTHEAST

Property Code	Property Name	Well Number
	MJ STATE	1

OGRID No.	Operator Name	Elevation
14049	MARBOB ENERGY CORPORATION	3606'

Surface Location

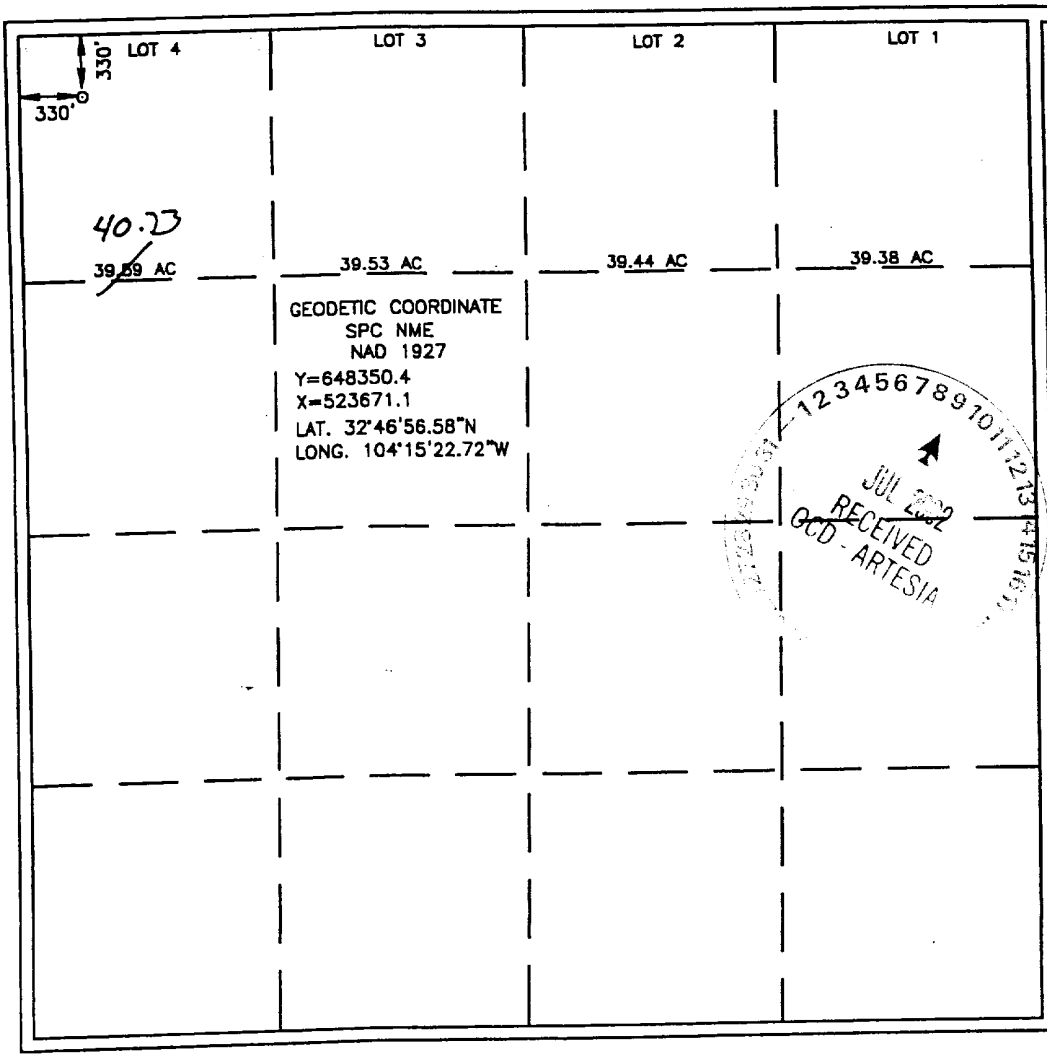
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	2	18-S	27-E		330	NORTH	330	WEST	EDDY

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.
40.73			

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

DIANA J. CANNON
Printed Name

PRODUCTION ANALYST
Title

OCTOBER 24, 2001
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 supervison, and that the same is true and correct to the best of my belief.

OCTOBER 15, 2001
Date Surveyed AWB

Signature & Seal of Professional Surveyor

NEW MEXICO RONALD J. EIDSON 3239 REGISTERED PROFESSIONAL SURVEYOR

10/17/01

01.11.1133

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641

Engineering Summary
Form C-107 A
Application for Downhole Commingling

Marbob Energy Corporation

MJ State No. 1 (Lot 4-Sec. 2-T18S-R27E)
MJ State No. 2 (Unit D-Sec. 2-T18S-R27E)
SB State No. 1 (Unit E-Sec. 2-T18S-R27E)

Marbob Energy proposes to downhole commingle the San Andres (Red L ake Q-GB-SA 51300) and the Yeso (Red Lake Glorieta Yeso, NE 96836) in the captioned wells. This proposal is identical to the downhole comminglings that Devon Energy has done offsetting the captioned wells (Orders R-11363, DHC-2390, DHC-2685, DHC-2701).

No crossflow will occur because these wells will be rod pumped in a pumped down condition. The MJ State No. 1 is currently completed in the Yeso and will be used as a "typical" Yeso well. The MJ State No. 2 is currently completed in the San Andres and will be used as a "typical" San Andres well. The proposed zonal allocation is described below.

Yeso: Production declines exponentially at 84%/yr. for one year, followed by 35%/yr. for oil and 32%/yr. for gas. (Best engineering estimate using the production history of nearby Devon wells.)

Qi = 90 bopd d=84%/yr.
Q1yr = 14 bopd d=35%/yr
Qel = 1.5 bopd assumed

$$EUR = \frac{-365\,(90-14)}{\ln(1-.84)} + \frac{-365\,(14-1.5)}{\ln(1-.35)} = 25.7 \text{ MBO}$$

Qi = 140 mcfd d=84%/yr.
Q1yr = 22 mcfd d=32%/yr.
Qel = 5 mcfd assumed

$$EUR = \frac{-365\,(140-22)}{\ln(1-.84)} + \frac{-365\,(22-5)}{\ln(1-.32)} = 39.6 \text{ MMCF}$$

San Andres: Production declines exponentially at 80%/yr. for one year, followed by 24%/yr. for oil and 20%/yr. for gas. (Best engineering estimate using the production history of nearby Devon wells.)

Qi = 145 bopd d=80%/yr.
Q1yr = 29 bopd d=24%/yr.
Qel = 1.5 bopd assumed

$$EUR = \frac{-365\,(145-29)}{\ln(1-.80)} + \frac{-365\,(29-1.5)}{\ln(1-.24)} = 62.9\ MBO$$

Qi = 180 mcfd d=80%/yr.
Q1yr = 36 mcfd d=20%/yr.
Qel = 5 mcfd assumed

$$EUR = \frac{-365\,(180-36)}{\ln(1-.80)} + \frac{-365\,(36-5)}{\ln(1-.20)} = 83.4\ MMCF$$

$$\text{Yeso Oil} = \frac{25.7\ MBO}{25.7 + 62.9} = .29 = 29\%$$

$$\text{San Andres Oil} = 1-.29 = .71 = 71\%$$

$$\text{Yeso Gas} = \frac{39.6\ MMCF}{39.6 + 83.4} = .32 = 32\%$$

$$\text{San Andres Gas} = 1-.32 = .68 = 68\%$$

IRE'S LEASES (June 2002) MONTH: Jan 2002

ARCO 26 A WTR	ELK HORN	GPM	MJ STATE TP	LP	Gas PREV	Gas EST	TOTAL	OIL	WTR	
302		124	—	24.9	94	92	17474	30	—	1
170		130	—	24.5	96	90	17570	30	—	2
220		126	—	24.1	95	90	17666	32	—	3
213		130	—	24.9	96	103	17771	32	—	4
357		130	—	23.1	95	94	17862	28	—	5
205		126	—	25	94	93	17952	28	—	6
193		126	—	25	94	92	18043	26	—	7
200		126		25.3	95	93	18150	32	—	8
220		124		24.2	151	115	18302	85	—	9
1115		124		25.1	189	203	18443	106	—	10
267		124		25.2	220	229	18614	140	—	11
178		120		25.9	233	234	18751	110	—	12
169		140		25.5	236	240	19193	98	—	13
210		124		24.5	238	249	19422	118	—	14
165		128		25.1	258	351	19681	129	—	15
309		130		24.1	266	264	19948	112	—	16
201		135		25.1	265	214	20224	182	—	17
235		135		26.0	264	265	20418	115	—	18
204		135		25.3	263	255	20752	117	—	19
192		135		21.0	251	229	20999	161	—	20
215		126		25.0	241	202	21236	114	—	21
300		135		25.5	250	241	21493	115	—	22
1116		130		26.0	276	213	21181	114	540	23
113		130		26.0	282	212	22053	113		24
										25
			MJ St. #2 San Andres IP ≈ 175 - 30 = 145 BOPD							26
							≈ 275 - 95 = 180 MCFD			27
										28
			MJ St. #1 Yeso IP ≈ 90 BOPD (January 2002)							29
							≈ 140 MCFD			30
										31

→ Yeso Only (MJ St. #1)

← Yeso (MJ-1) + S. Andres (MJ St. #2)