

1/23/06

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District I
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107A
Revised June 10, 2003

District II
1301 W. Grand Avenue, Artesia, NM 88210

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

APPLICATION TYPE
 Single Well
 Establish Pre-Approved Pools
EXISTING WELLBORE
 Yes No

District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

APPLICATION FOR DOWNHOLE COMMINGLING

MARBOB ENERGY CORPORATION P O BOX 227 ARTESIA, NM 88211-0027
Operator Address

RUTHIE FEE #1 M-10-22S-27E EDDY COUNTY, NM
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 14049 Property Code 33875 API No. 30-015-33403 Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	UNDERS TANSILL DAM ATOKA G02		CARLSBAD SOUTH MORROW
Pool Code	85900		73960
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	10924-11060'		11224-11587'
Method of Production (Flowing or Artificial Lift)	FLOWING		FLOWING
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 500 PSI PRODUCING BHP		EST 500 PSI PRODUCING BHP
Oil Gravity or Gas BTU (Degree API or Gas BTU)	N/A		N/A
Producing, Shut-In or New Zone	PRODUCING		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: JAN 18, 2006 Rates: EST 1400 MCFD	Date: Rates:	Date: JAN 16, 2006 Rates: EST 15 MCFD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 97 % Gas 97 %	Oil % Gas %	Oil 3 % Gas 3 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes 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 No
 Will commingling decrease the value of production? Yes No
 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 No
 NMOCD Reference Case No. applicable to this well: R-11363 PRE-APPROVED POOL

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 Brian Collins TITLE ENGINEER DATE 01/19/06

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

E-MAIL ADDRESS engineering@marbob.com

Engineering Summary
Form C-107A
Application for Downhole Commingling
Marbob Energy Corporation
Ruthie Fee No. (M-10-22S-27E)

Marbob Energy proposes to downhole commingle the Morrow and Atoka zones. No crossflow will occur because this well will be produced into a low pressure pipeline at maximum drawdown and because each zone is separated by a composite frac plug, which acts as a check valve by preventing downward flow.

The Morrow and Atoka reserves are calculated as follows:

Morrow: The best engineering estimate is that the Morrow will decline at an exponential decline of 50%/yr.

$$\begin{aligned} Q_i &= 15 \text{ MCFD} \\ Q_{el} &= 5 \text{ MCFD} \\ d &= 50\%/yr. \end{aligned}$$

$$RUR = \frac{-365 (Q_i - Q_{el})}{\ln (1-d)} = \frac{-365 (15-5)}{\ln (1-.5)} = 5266 \text{ MCF}$$

Atoka: The best engineering estimate is that Atoka will decline at 95%/yr the first year and 75%/yr thereafter.

$$\begin{aligned} Q_i &= 1400 \text{ MCFD} \\ Q_{1yr} &= 70 \text{ MCFD} \\ Q_{el} &= 5 \text{ MCFD} \end{aligned}$$

$$\begin{aligned} RUR &= \frac{-365 (1400-70)}{\ln (1-.95)} + \frac{-365 (70-5)}{\ln (1-.75)} = 162,047 \text{ MCF} + 17,114 \text{ MCF} \\ &= 179,161 \text{ MCF} \end{aligned}$$

The proposed allocation follows. These zones don't produce oil/condensate, therefore the allocation for oil will be the same as the gas allocation.

$$\text{Morrow Gas/Oil} \quad \frac{5266 \text{ MMCF}}{5266 + 179161 \text{ MCF}} = 2.86\%, \text{ say } 3\%$$

$$\text{Atoka Gas/Oil} \quad 100-3 = 97\%$$

Submit 3 Copies To Appropriate District Office
 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

Form C-103
 May 27, 2004

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

WELL API NO. 30-015-33403
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 RUTHIE FEE
8. Well Number 1
9. OGRID Number 14049
10. Pool name or Wildcat CARLSBAD; MORROW, SOUTH
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3080' GR
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>
Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____
Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

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 **MARBOB ENERGY CORPORATION**

3. Address of Operator **P O BOX 228
 ARTESIA, NM 88211-0228**

4. Well Location
 Unit Letter **M** : **1026** feet from the **SOUTH** line and **660** feet from the **WEST** line
 Section **10** Township **22S** Range **27E** NMPM **EDDY** County **NM**

12. 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"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: DOWNHOLE COMMINGLING <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. 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.

SEE ATTACHED C-107A APPLICATION FOR DOWNHOLE COMMINGLING

THE PROPOSED ALLOCATION IS: CARLSBAD SOUTH MORROW 73960 - OIL 3% - GAS 3%
 TANSILL DAM ATOKA 85900 - OIL 97% - GAS 97%

NEW ALLOCATIONS WILL BE SUBMITTED IF ACTUAL WELL PRODUCTION IS SIGNIFICANTLY DIFFERENT THAN THAT ABOVE.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit or an (attached) alternative OCD-approved plan .

SIGNATURE *Brian Collins* TITLE ENGINEER DATE 01/19/06

Type or print name BRIAN COLLINS E-mail address: engineering@marbob.com Telephone No. 505-748-3303
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
 Conditions of Approval (if any): _____