

District I  
1625 N. French Drive, Hobbs, NM 88240District II  
1301 W. Grand Avenue, Artesia, NM 88210District III  
1000 Rio Brazos Road, Aztec, NM 87410District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505State of New Mexico  
Energy, Minerals and Natural Resources DepartmentOil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505Form C-107A  
Revised June 10, 2003APPLICATION TYPE  
☒ Single Well  
\_\_\_\_ Establish Pre-Approved Pools  
EXISTING WELLBORE  
☒ Yes \_\_\_\_ No

## APPLICATION FOR DOWNHOLE COMMINGLING

MARBOB ENERGY CORPORATION P O BOX 227 ARTESIA, NM 88211-0027  
Operator Address  
HACKBERRY 33 FEDERAL COM #1 E-33-T21S-R26E EDDY COUNTY  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 14049 Property Code 35782 API No. 30-015-34937 Lease Type: ☒ Federal \_\_\_\_ State \_\_\_\_ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	HAPPY VALLEY STRAWN	HAPPY VALLEY ATOKA	HAPPY VALLEY MORROW
Pool Code	78075	78055	78060
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	9832-10013 PERF'D	10319-10586 PERF'D	10932-11040 PERF'D
Method of Production (Flowing or Artificial Lift)	FLOW	FLOW	FLOW
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 FLOWING BHP	EST 500 PSI FLOWING BHP	EST 500 PSI FLOWING BHP
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1050	1050	1050
Producing, Shut-In or New Zone	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: N/A Rates:	Date: N/A Rates:	Date: 03/25/07 Rates: 50 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 Gas 50 % 50 %	Oil Gas 25 % 25 %	Oil Gas 25 % 25 %

## 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: \_\_\_\_\_

## 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 04/12/07

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**  
**Hackberry 33 Federal Com No. 1 (Unit E, Sec. 33-T21S-R26E)**

Marbob Energy proposes to downhole commingle the Morrow (Happy Valley Morrow 78060), Atoka (Happy Valley Atoka 78055) and Strawn (Happy Valley Strawn 78075) in the captioned well. The Morrow was fracture treated and currently produces approximately 50 MCFD to sales. The best engineering estimate is that the Atoka will produce 50 MCFD and the Strawn will produce 100 MCFD and that all zones will decline at the same rate. The proposed zonal allocation is shown below.

Morrow      Best engineering estimate is that zonal reserves will approximate the best engineering estimate of individual zone flow rates and that any condensate produced will be proportional to gas production.

$$\frac{50 \text{ MCFD}}{50+100+50 \text{ MCFD}} = 25\%$$

Atoka       $\frac{50 \text{ MCFD}}{50+100+50 \text{ MCFD}} = 25\%$

Strawn       $\frac{100 \text{ MCFD}}{50+100+50 \text{ MCFD}} = 50\%$

New allocations will be submitted if actual well production is significantly different than that above.

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DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources Department

Month - Year  
APR 16 2007  
OCD - ARTESIA, NM

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102  
Revised October 12, 2006  
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 78060	Pool Name HAPPY VALLEY; Morrow
Property Code	Property Name HACKBERRY 33 FEDERAL COM.	Well Number 1
OGRID No. 14049	Operator Name MARBOB ENERGY CORPORATION	Elevation 3249'

Surface Location

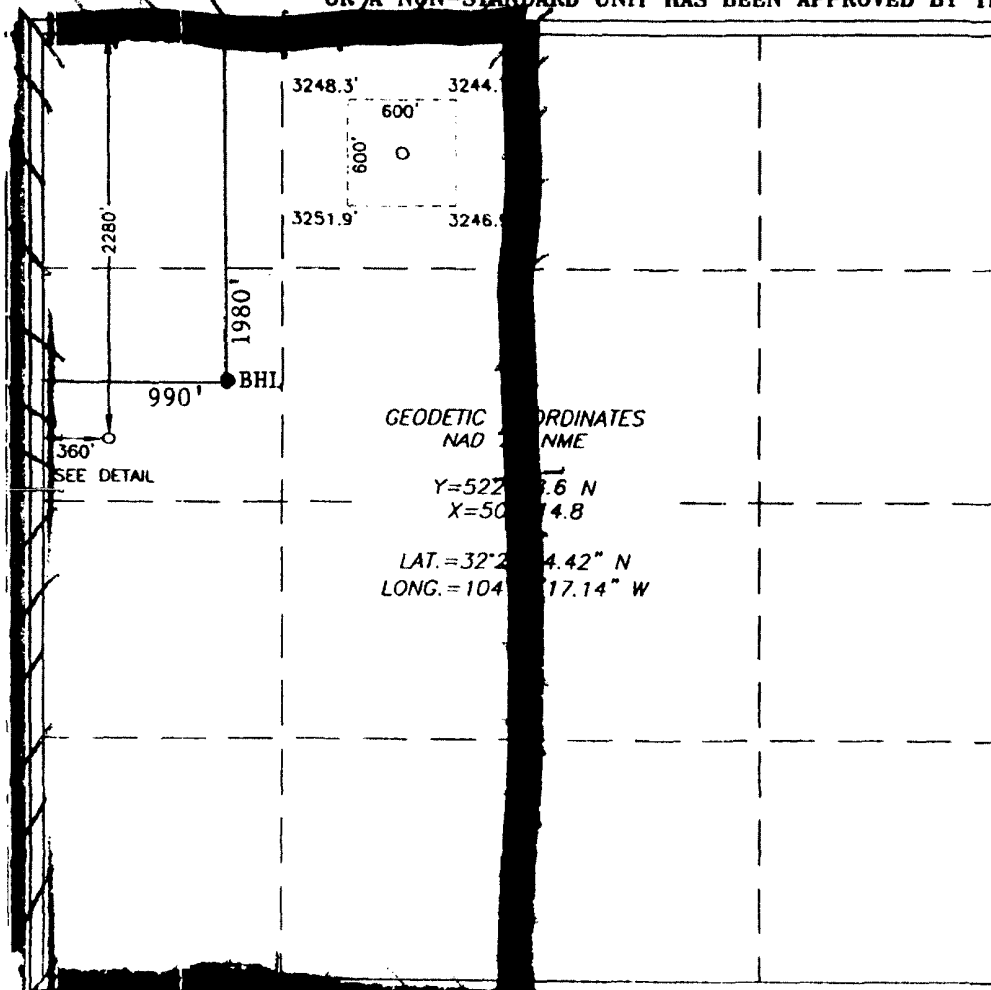
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	33	21-S	26-E		2280	NORTH	360	WEST	EDDY

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
E	33	21-S	26-E		1980	North	990	West	Eddy

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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 that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Nancy T. Bratcher* 1/13/06  
Signature Date

Nancy T. Bratcher  
Printed Name

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.

MARCH 21, 2006

Date Surveyed DSR  
Signature & Seal of  
Professional Surveyor

*Gary Edson* 4/6/06  
06.11.0525

Certificate No. GARY EDSON 12641