

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

District II  
1301 W. Grand Avenue, 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

Form C-107A  
Revised June 10, 2003

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

APPLICATION FOR DOWNHOLE COMMINGLING

Marbob Energy Corporation P. O. Box 227 Artesia, NM 88211-0227  
Operator Address  
Oxy Pistachio RSG Federal #1 A-17-T17S-R31E Eddy  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 14049 Property Code 31052 API No. 30-015-32580 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Undesignated Wolfcamp		Fren Cisco Canyon Oil
Pool Code	---		87126
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	9215-9373' Perfed		10341-10345' Perfed
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)	4000 psi est (.43 psi/ft)		4400 psi est (.43 psi/ft)
Oil Gravity or Gas BTU (Degree API or Gas BTU)	40° API est		42° API
Producing, Shut-In or New Zone	New		New
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: 10 Sept 04 Rates: Appx 144 bopd swab rate to test tank	Date: Rates:	Date: 8 Sept 04 Rates: 72 bopd to test tank, gas not measured yet
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 66.7% Gas 66.7%	Oil % Gas %	Oil 33.3% Gas 33.3%

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: \_\_\_\_\_

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 01/14/04  
TYPE OR PRINT NAME Brian Collins TELEPHONE NO. (505) 748-3303  
E-MAIL ADDRESS engineer@marbob.com

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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 & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003  
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 30-015-32580	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name Undesignated Wolfcamp
<sup>4</sup> Property Code 31052	<sup>5</sup> Property Name Oxy Pistachio RSG Federal	
<sup>7</sup> OGRID No. 14049	<sup>6</sup> Operator Name Marbob Energy Corporation	<sup>8</sup> Well Number 1
		<sup>9</sup> Elevation 3764'

<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
A	17	17S	31E		660	North	660	East	Eddy

<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									
<sup>13</sup> Joint or Infill N		<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

16		<p><sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Brian Collins</i> Signature</p> <p>Brian Collins Printed Name Engineer Title and E-mail Address 01/14/04 Date</p>
		<p><sup>18</sup> 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.</p>
		<p>Date of Survey Signature and Seal of Professional Surveyor:</p>
		<p>Certificate Number</p>

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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 & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-32580		Pool Code 97126	Pool Name Fren Cisco Canyon Oil
Property Code 31052	Property Name Oxy Pistachio RSG Federal		Well Number 1
OGRID No. 14049	Operator Name Marbob Energy Corporation		Elevation 3764'

<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
A	17	17S	31E		660	North	660	East	Eddy

<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	<sup>13</sup> Joint or Infill N	<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

16		<p><sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Brian Collins</i> Signature</p> <p>Brian Collins Printed Name Engineer Title and E-mail Address</p> <p>01/14/04 Date</p>
		<p><sup>18</sup> 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.</p> <p>Date of Survey Signature and Seal of Professional Surveyor:</p> <p>Certificate Number</p>

**Engineering Summary**  
**Form C-107A**  
**Application for Downhole Commingling**

**Marbob Energy Corporation**  
**Oxy Pistachio RSG Federal No. 1**  
**Unit A-17-T17S-R31E**

Marbob Energy proposes to downhole commingle the Cisco Canyon and Wolfcamp zones in order to extend the economic life of these zones and maximize the economic benefit to New Mexico and the federal government. The estimated bottom hole pressures are within 10% of each other and the well will be beam pumped in a pumped down condition, therefore no crossflow will occur. There are no incompatibility problems with the oil and the value of the oil will not be affected by commingling.

Based on swab testing, the Cisco Canyon is initially expected to produce 72 bopd followed by a rapid decline. The best engineering estimate of reserves is 5,500 BO/11,400 MCF based on the Cisco Canyon production history of the nearby Oxy Butter Pecan Federal #1 (production plot attached).

Based on swab testing, the Wolfcamp, which is notorious for having limited reservoirs, is expected to produce 144 bopd followed by a rapid decline. The best engineering estimate is that the Wolfcamp will behave like the Oxy Butter Pecan Federal #1 did in the Cisco Canyon, except with a higher initial production rate. The Wolfcamp reserves are estimated to be 11,000 BO/22,800 MCF. It is expected that the GOR for each zone will be essentially the same.

The proposed allocation is:

$$\text{Wolfcamp oil} = \frac{11,000 \text{ BO}}{11,000 + 5,500 \text{ BO}} = 66.7\%$$

$$\text{Wolfcamp gas} = \frac{22,800 \text{ MCF}}{22,800 + 11,400 \text{ MCF}} = 66.7\%$$

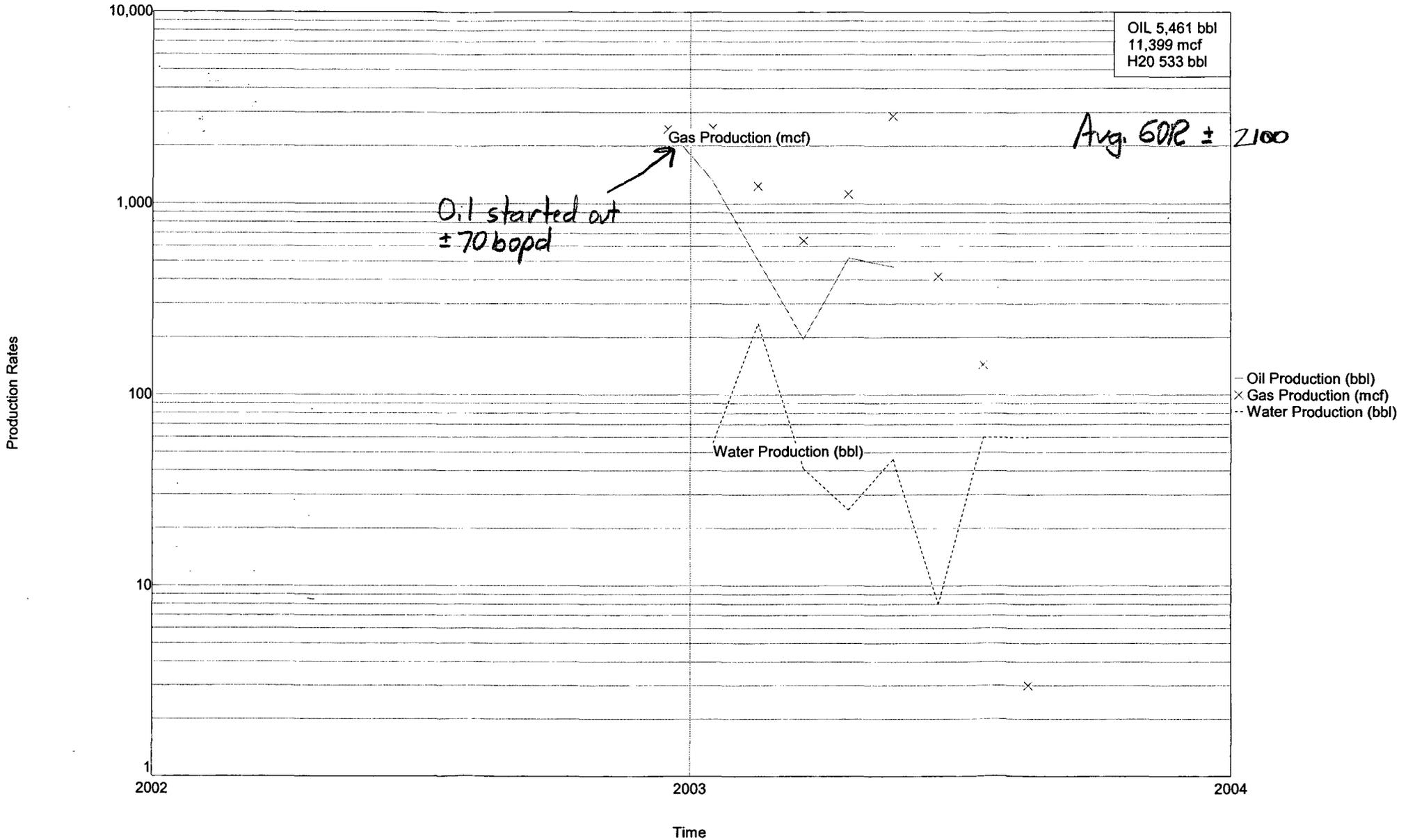
$$\text{Cisco Canyon oil} = \quad \quad \quad = 33.3\%$$

$$\text{Cisco Canyon gas} = \quad \quad \quad = 33.3\%$$

Analog Well  
 For Cisco Canyon  
 in Pistachio RSG Fed. 1

Lease Name: OXY BUTTER PECAN FEDERAL  
 County, State: EDDY, NM  
 Operator: OXY USA WTP LP  
 Field: FREN  
 Reservoir: CISCO CANYON  
 Location: 10 17S 31E E2 SW SW

OXY BUTTER PECAN FEDERAL - [ 1 CISCO CANYON





---

**marbob**  
energy corporation

---

January 14, 2004

Bureau of Land Management  
2909 W. 2<sup>nd</sup> St.  
Roswell, NM 88201

Attn: Mr. Armando Lopez

Re: Downhole Commingling Application  
Oxy Pistachio RSG Federal #1  
Unit A, Sec. 17-T17S-R31E  
Eddy County, New Mexico

Dear Mr. Lopez:

Enclosed is a copy of the downhole commingling application submitted to the NMOCD for the captioned well.

Please contact me at 505-748-3303 if you have any questions.

Sincerely,

Brian Collins  
Petroleum Engineer

BC/dlw  
enclosure