

DATE IN <u>11/12/09</u>	SUSPENSE <u>RECEIVED</u>	ENGINEER <u>[Signature]</u>	LOGGED IN <u>11-12-09</u>	TYPE <u>DHC</u>	PTG W <u>4220</u>	APP NO. <u>0931628919</u>
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## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



Marbob

CTA State Com #2

### ADMINISTRATIVE APPLICATION CHECKLIST

30-015-37119

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

#### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

#### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

- [D] Other: Specify \_\_\_\_\_

#### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
[B] ☐ Offset Operators, Leaseholders or Surface Owner  
[C] ☐ Application is One Which Requires Published Legal Notice  
[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or.  
[F] ☐ Waivers are Attached

#### [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

George H Freeman  
Print of Type Name

George H Freeman  
Signature

Engineer  
Title

11/11/09  
Date

engineering@marbob.com  
e-mail Address

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised May 15, 2000

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

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

RECEIVED  
2009 OCT 27 PM 12 20

APPLICATION FOR DOWNHOLE COMMINGLING

MARBOB ENERGY CORPORATION  
Operator

P O BOX 227  
Address

DAC-4220  
ARTESIA, NM 88210

CTA STATE COM  
Lease

2  
Well No.

L - 32 - T18S - R30E  
Unit Letter-Section-Township-Range

EDDY  
County

OGRID No. 14049 Property Code 34898 API No. 30-015-37119 Lease Type: ☐ Federal ☒ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	BENSON STRAWN		TURKEY TRACK; MORROW, NM
Pool Code	97414		86500
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	10510-10518' PERFS		11650-11656' PERFS
Method of Production (Flowing or Artificial Lift)	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)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	58° API		58° API
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: N/A Rates: N/A	Date: Rates:	Date: 10/15/09 Rates: 11/916/3
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 82 %	Oil % Gas %	Oil 3 % Gas 18 %

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 George H Freeman TITLE SENIOR ENGINEER DATE 10/19/09

TYPE OR PRINT NAME GEORGE H. FREEMAN TELEPHONE NO. ( 575 ) 748-3303

E-MAIL ADDRESS engineering@marbob.com

District I

1625 N. French Dr., Hobbs, NM 88240

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-102  
 Permit 97491

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-015-37119	2. Pool Code 97414	3. Pool Name BENSON STRAWN
4. Property Code 34898	5. Property Name CTA STATE COM	6. Well No. 002
7. OGRID No. 14049	8. Operator Name MARBOB ENERGY CORP	9. Elevation 3405

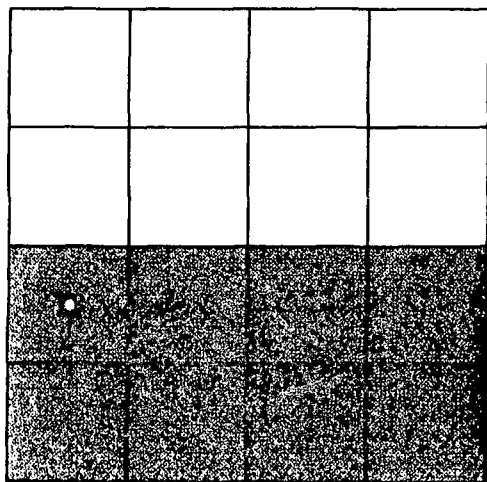
**10. Surface Location**

UL - Lot L	Section 32	Township 18S	Range 30E	Lot Idn	Feet From 1980	N/S Line S	Feet From 660	E/W Line W	County EDDY
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**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 320.00		13. Joint or Infill		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**

**OPERATOR CERTIFICATION**

*I hereby certify that the information contained 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(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

E-Signed By: Diana Briggs

Title: Production Manager

Date: 6/16/2009

**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.*

Surveyed By: Ronald Eidson

Date of Survey: 6/8/2009

Certificate Number: 3239

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-102

Permit 97491

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-015-37119	2. Pool Code 86500	3. Pool Name TURKEY TRACK;MORROW, NORTH (GAS)
4. Property Code 34898	5. Property Name CTA STATE COM	6. Well No. 002
7. OGRID No. 14049	8. Operator Name MARBOB ENERGY CORP	9. Elevation 3405

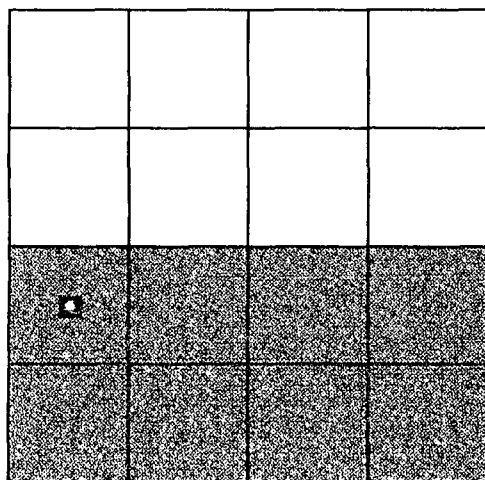
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**OPERATOR CERTIFICATION**

*I hereby certify that the information contained 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(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

E-Signed By: Diana Briggs

Title: Production Manager

Date: 6/16/2009

**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.*

Surveyed By: Ronald Eidson

Date of Survey: 6/8/2009

Certificate Number: 3239

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

**Marbob Energy Corporation**  
**CTA St Com #2 (Unit L-Sec. 32-T18S-R30E)**

Marbob Energy proposes to downhole commingle the Morrow (Turkey Track North Morrow) and Strawn (Benson Strawn) in the captioned well. The Morrow was acid treated and put on production with maximum rates of 47 bopd and 1452 mcf. The EUR's are estimated to be 1700 stbo and 186 mmscf by decline curve analysis. The Strawn has not been tested yet in this well, but is producing in the offset CTA St Com #1 well. The best engineering estimate is that the Strawn will produce 50% as much from the #2 as from the #1 based on the ratio of net hydrocarbon thickness. The CTA St Com #1 was acid treated and put on production with maximum rates of 262 bopd and 1481 mcf., and the EUR's are estimated to be 118,000 stbo and 1750 mmscf by decline curve analysis. The EUR's for the CTA St Com #2 are then 59,000 stbo and 875 mmscf. The oils have the same gravity and the same value. The gases are sold into the same pipeline system. The proposed zonal allocation is shown below.

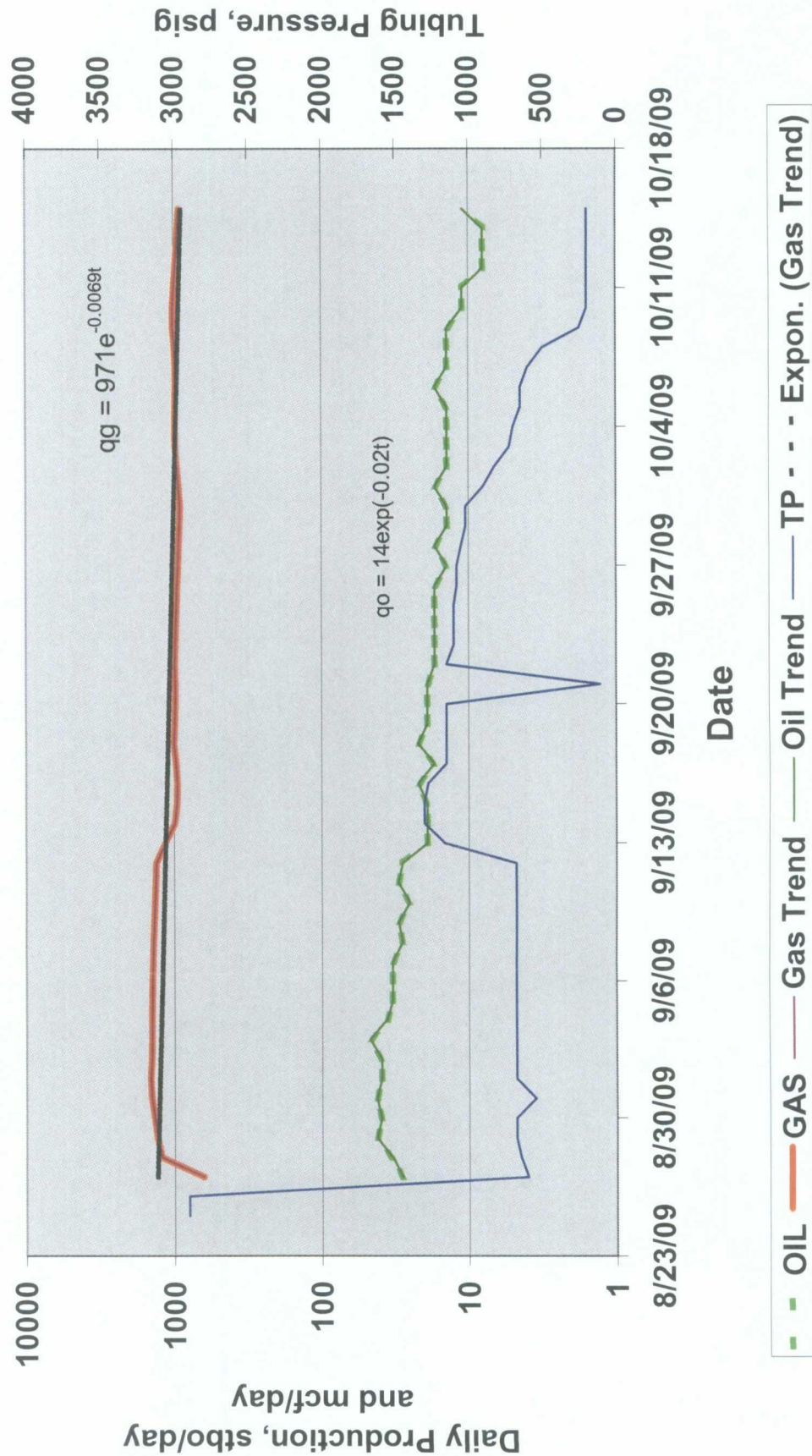
Morrow Best engineering estimate is that future production and reserves will follow exponential decline curves based on the current production from this well.

$\frac{186 \text{ mmscf}}{875+186 \text{ mmscf}}$	=17.5%	Say 18% Gas
$\frac{1700 \text{ stbo}}{59000+1700 \text{ stbo}}$	=2.8%	Say 3% Oil

Strawn Best engineering estimate is that future production and reserves will follow exponential decline curves based on half of the production from an offset well.

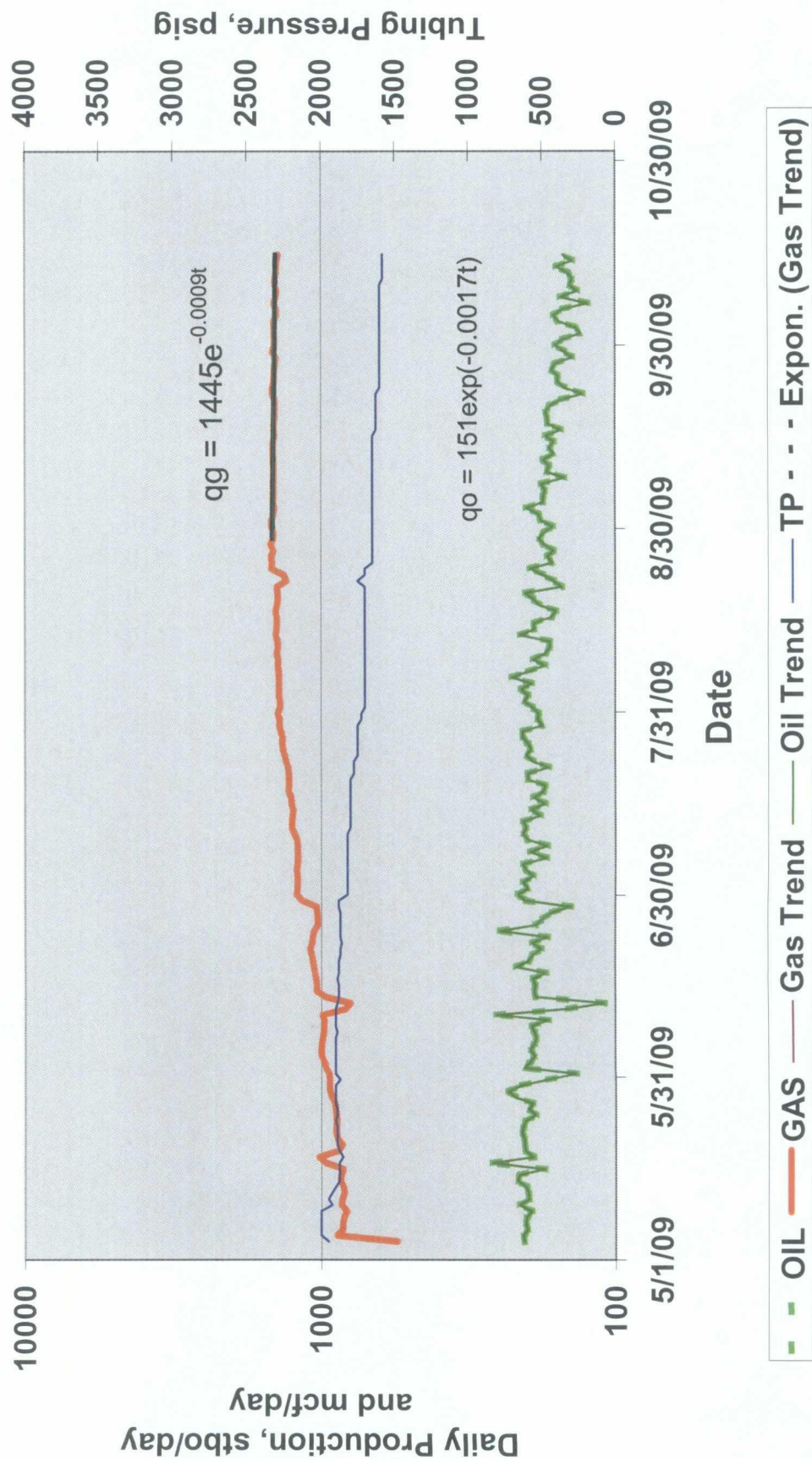
1 - .18	=82%	Say 82% Gas
1 - .03	=97%	Say 97% Oil

# CTA St Com #2 Daily Production Morrow Formation





# CTA St Com #1 Daily Production Strawn Formation





**marbob**  
energy corporation

October 19, 2009

New Mexico State Land Office  
Oil, Gas & Minerals Division  
P. O. Box 1148  
Santa Fe, NM 87504-1148

Re: C-107A Downhole Commingling Application  
CTA State Com #2  
Township 18 South, Range 30 East, NMPM  
Section 32, Unit L  
Eddy County, New Mexico

Dear Ms. Bailey:

Enclosed is the \$30.00 application fee and copy of the Form C-107A Application for Downhole Commingling that we submitted to the NMOCD for the referenced well located in Lea County.

We are seeking approval to downhole commingle the Morrow and Strawn zones to extend the economic life of the well and maximize the financial benefit to the State of New Mexico.

If you have any questions, please call me at 575-748-3303.

Sincerely,

George H. Freeman  
Senior Engineer

GHF/dlw  
enclosures