

6/19/06 DATE IN	SUSPENSE	Will Jones ENGINEER	6/20/06 LOGGED IN	DHC TYPE	PTDS0617137921 APP NO.
--------------------	----------	------------------------	----------------------	-------------	---------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

3733

NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

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-Off-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.

Charles E. Kendrick Charles E. Kendrick Regulatory Compliance Rep 6/13/06
 Print or Type Name Signature Title Date
 cekendrix@morthernoil.com
 e-mail Address

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

Operator Marathon Oil Company P.O. Box 3487 Houston, Texas 77253-3487 **DHC-3733**

Lease Marshall B 4 "L" Sec 27 T-21-S R-37-E Lea County

OGRID No. 14021 Property Code 6428 API No. 30-025-06821 Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	<u>Paddock</u> ^{oil}	<u>Blinebry</u> ^{oil & Gas}	<u>Drinkard</u> ^{oil}
Pool Code	<u>49210</u> ✓	<u>6660</u> 38480	<u>19190</u> ✓
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	<u>5060' - 5335'</u>	<u>5510' - 5570'</u>	<u>6352' - 6492'</u>
Method of Production (Flowing or Artificial Lift)	<u>Pump</u>	<u>Pump</u>	<u>Pump</u>
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)	<u>0.711</u>	<u>0.740</u>	<u>0.702</u>
Producing, Shut-In or New Zone	<u>Producing</u>	<u>Shut In</u>	<u>Shut In</u>
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: <u>Apr 2006</u> Rates: <u>6 oil 51 mcf</u>	Date: <u>March 1987</u> Rates: <u>8 oil 51 mcf</u>	Date: <u>May 1987</u> Rates: <u>8 oil 70 mcf</u>
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil <u>100 %</u> Gas <u>30 %</u>	Oil <u>0 %</u> Gas <u>30 %</u>	Oil <u>0 %</u> Gas <u>40 %</u>

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? N/A 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 Charles E. Kendrick TITLE Regulatory Compliance Rep DATE 6/15/06

TYPE OR PRINT NAME Charles E. Kendrick TELEPHONE NO. (713) 296-2096

E-MAIL ADDRESS cekendrix@marathonoil.com



Southern Business Unit

P. O. Box 3487
Houston, TX 77253-3487

5555 San Felipe Road
Houston, TX 77056-2799

Telephone: (713) 296-2096
FAX: (713) 499-6750

June 16, 2006

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

RE: W.S. Marshall B No. 4 Downhole Commingle

TO: Mr. Will Jones

Dear Mr. Jones,

This application is for a downhole commingle permit for the W.S. Marshall B No. 4 well (API # 30-025-06821). Marathon wishes to downhole commingle production from the Paddock, Blinebry, and Drinkard formations. The Paddock is currently the producing formation with the Drinkard and Blinebry being shut in below a CIBP.

I have provided a one year plot for the Paddock production, but I do not have access to a program to plot the last year of production for the Drinkard and Blinebry formations (both completions last produced in 1987) due to changes Marathon has made in our software systems. I was able to pull the last six months of production from our accounting system for the two completions. I have used this information to derive a downhole commingle allocation basis for the formations, please see attached spreadsheet for this information.

One other outstanding issue exists for the Blinebry completion. This completion was classed as a gas well in the Blinebry. It was produced under NSP 1460, which was a set as a 120 acre non-standard proration unit. Since that time, Marathon has completed two Blinebry oil wells on two of the quarter quarter sections in that unit. I have sent an application to Mr. Michael Stogner in the NMOCD Santa Fe office for a 40 acre non-standard gas proration unit in order to be able to produce this well. I do not anticipate that there will be any problems obtaining this NSP permit, but Marathon will not proceed with the DHC work until this permit is approved. I have filed a new C-102 plat with the Hobbs office indicating the Blinebry formation will be designated as 40 acres. I also filed a new C-102 for the Drinkard, since I could not find one on the NMOCD website for this well. I have included copies of these two new plats and the existing plat for the Paddock formation with this application.

If you need any further information please contact me at ph # 713-296-2096 or through email at cekendrix@marathonoil.com.

Sincerely,

A handwritten signature in black ink that reads 'Charles E. Kendrix'.

Charles E. Kendrix
Regulatory Compliance Representative
Marathon Oil Company

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

Form C-102
Revised June 10, 2003

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

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-06821		² Pool Code 60240		³ Pool Name Blinebry	
⁴ Property Code 006428		⁵ Property Name W.S. Marshall B			⁶ Well Number 4
⁷ OGRID No. 14021		⁸ Operator Name Marathon Oil Company			⁹ Elevation 3415'

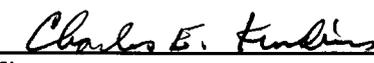
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	27	21-S	37-E		1980	South	660	West	Lea

¹¹ 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
¹² Dedicated Acres 40		¹³ Joint or Infill N		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

¹⁶ 	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature Charles E. Kendrix Printed Name Regulatory Compliance Rep cekendrix@marathonoil.com Title and E-mail Address 06/13/2006 Date			
	¹⁸ SURVEYOR CERTIFICATION <i>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.</i> Date of Survey Signature and Seal of Professional Surveyer: Certificate Number			

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
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

¹ API Number 30-025-06821		² Pool Code 19190		³ Pool Name Drinkard	
⁴ Property Code 006428		⁵ Property Name W.S. Marshall B			⁶ Well Number 4
⁷ OGRID No. 14021		⁸ Operator Name Marathon Oil Company			⁹ Elevation 3415'

¹⁰ Surface Location

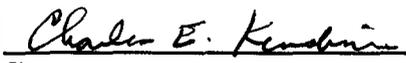
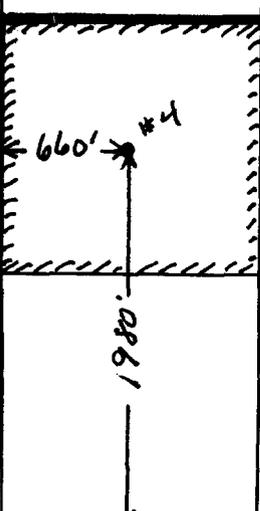
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	27	21-S	37-E		1980	South	660	West	Lea

¹¹ 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

¹² Dedicated Acres 40	¹³ Joint or Infill N	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

16				¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature Charles E. Kendrix Printed Name Regulatory Compliance Rep cekendrix@marathonoil.com Title and E-mail Address 06/13/2006 Date
				¹⁸ SURVEYOR CERTIFICATION <i>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.</i> Date of Survey Signature and Seal of Professional Surveyer: Certificate Number

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-102
Revised 10-1-

All distances must be from the outer boundaries of the Section.

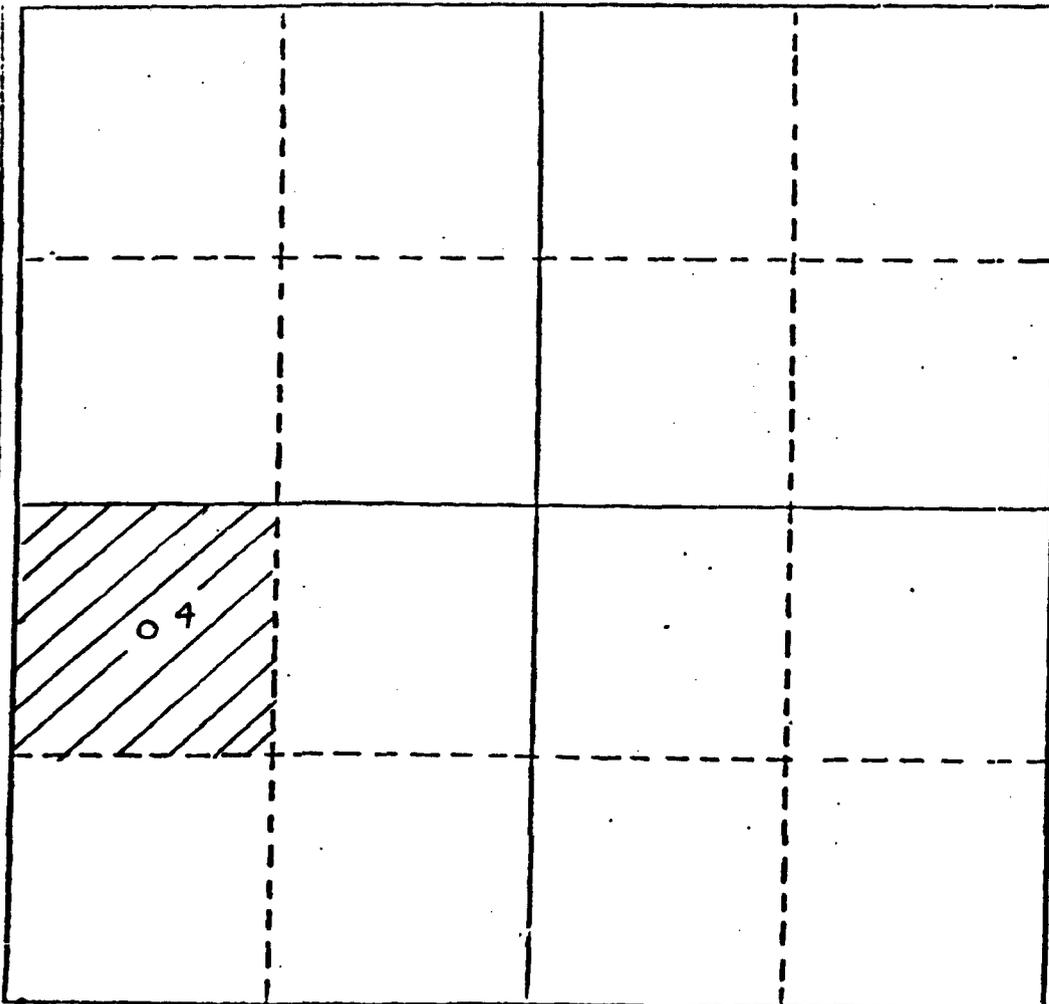
Operator Marathon Oil Company		Lease W. S. Marshall "B"		Well No. 4
Unit Letter L	Section 27	Township 21-S	Range 37-E	County Lea
Actual Footage Location of Well: 1980 feet from the South line and 660 feet from the West line				
Ground Level Elev. 3415'	Producing Formation Paddock	Pool Paddock	Dedicated Acreage 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division



CERTIFICATION

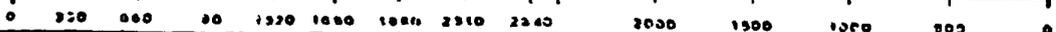
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name Eve M. Pungle
 Position Engineer
 Company Marathon Oil Company
 Date April 30, 1987

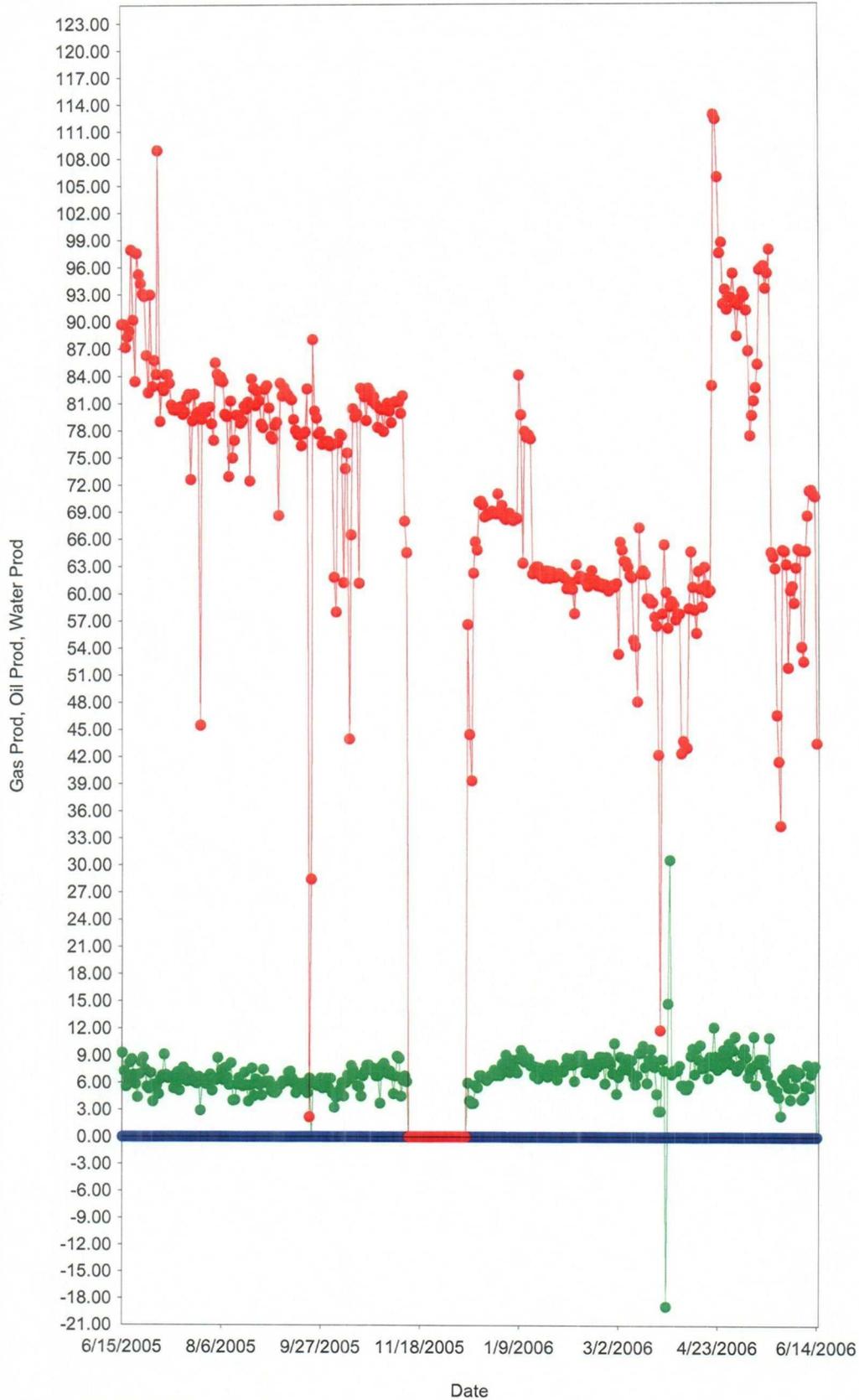
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed _____
 Registered Professional Engineer and/or Land Surveyor

Certificate No. _____



W S MARSHALL B NO 4
PADDOCK ONE YEAR PRODUCTION CURVE



Oil Prod

Water Prod

Gas Prod

W.S. Marshall B No. 4

Last Six Months of Production for Each Completion

	March 1987			August 1986			December 1985			October 1985			September 1985			August 1985			Totals		
	Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water
Blinebry	0	209	0	0	505	0	0	506	0	0	780	0	0	4973	0	0	2502	0	0	9475	0
	May 1987			April 1987			March 1987			April 1985			March 1985			February 1985			Totals		
Drinkard	0	2857	0	0	5820	0	0	358	0	0	678	0	0	921	0	0	2016	0	0	12650	0
	April 2006			March 2006			February 2006			January 2006			December 2005			November 2005			Totals		
Paddock	222.74	1701	707	233.26	1729	651	227.53	1638	700	238.2	1985	897	106.89	1113	429	99.74	1136	390	1128.4	9302	3774

Average Daily Production

Oil Gas Water

Blinebry 0 51 0

Drinkard 0 70 0

Paddock 6 51 21

Total Daily Avg 6 172 21

Proposed Allocation Percentage for Each Completion

Oil Gas Water

Blinebry 0% 30% 0%

Drinkard 0% 48% 0%

Paddock 100% 30% 100%

