

DATE IN <u>11/6/9</u>	SUSPENSE	ENGINEER <u>Will</u>	LOGGED IN <u>11/6/9</u>	TYPE <u>DHC</u> <u>4232</u>	APP NO. <u>0931048816</u>
-----------------------	----------	----------------------	-------------------------	--------------------------------	---------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



Apache

ADMINISTRATIVE APPLICATION CHECKLIST

OWEN B #10

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

30-025-35638

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

2009 NOV - 6 P 12:52

RECEIVED OOD

[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.

Amber Cooke

Print or Type Name

Signature

Amber Cooke

Engineering Tech

Title

11/03/2009

Date

amber.cooke@apachecorp.com
 e-mail Address



November 3, 2009

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

Re: Application for Downhole Commingle
Owen B #10
Unit M, Sec 34, T-21S, R-37E
Penrose Skelly; Grayburg and Blinebry Oil and Gas
Lea County, New Mexico

RECEIVED OCD
2009 NOV - 6 P 12:58

Dear Mr. Ezeanyim,

Enclosed please find an administrative application form (C-107A) and attachments for downhole commingling the Grayburg and Blinebry in the Owen B #10. Apache intends to produce both zones together with an expected rate of 25 BOPD, 135 BWPD, and 199 MCFPD. The ownership (WI, NRI and ORRI) of these pools are identical in this wellbore. Downhole commingling in this manner will offer an economic method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. This is a Private well.

This well is currently completed in the Blinebry. Apache proposes to complete and downhole commingle the Grayburg zone with the existing Blinebry production. Allocation is based on actual tests for the Blinebry and offset well data for the Grayburg.

If you need additional information or have any questions, please give me a call at (918) 491-4968.

Sincerely,

A handwritten signature in black ink that reads "Amber Cooke".

Amber Cooke
Engineering Technician

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

DAC 4232

Apache Corporation 6120 S Yale Ave, Suite 1500 Tulsa, OK 74136
Operator Address
Owen B 10 M 34 21S 37E Lea
Lease Well No. Unit Letter-Section-Township-Range County
OGRID No. 873 Property Code 22879 API No. 30-025-35638 Lease Type: ____ Federal ____ State ☒ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Penrose Skelly; Grayburg		Blinbry Oil & Gas (Oil)
Pool Code	50350		6660 72480
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3650'-3950' (Est Perf)		5606'-5853' (Perf)
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)	1370 psig		1695 psig
Oil Gravity or Gas BTU (Degree API or Gas BTU)	37.8 API		36.6 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: Rates: 25 BOPD 100 BWPD 120 MCFPD	Date: Rates:	Date: 10/1/2009 Rates: 0 BOPD 0 BWPD 79 MCFPD
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 100 % 60 %	Oil Gas % %	Oil Gas 0 % 40 %

*See MSP-1823-C
(40 acre spacing)*

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 *Amber Cooke* TITLE Engineering Tech DATE 11/3/2009

TYPE OR PRINT NAME Amber Cooke TELEPHONE NO. (918) 491.4968

E-MAIL ADDRESS amber.cooke@apachecorp.com

<p>16</p>				<p>17 OPERATOR CERTIFICATION</p> <p><i>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 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.</i></p> <p><i>Amber Cooke</i> 11/03/2009</p> <p>Signature Date</p> <p>Amber Cooke</p> <p>Printed Name</p>
<p>706' • Bottom hole</p> <p>2222'</p> <p>495' •</p> <p>1137'</p> <p>ce</p>				<p>18 SURVEYOR CERTIFICATION</p> <p><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></p> <p>Date of Survey</p> <p>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 October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-35638		² Pool Code 6680	³ Pool Name Blinebry Oil & Gas (Oil) <i>Grey</i>
⁴ Property Code 22879	⁵ Property Name Owen B		⁶ Well Number 10
⁷ OGRID No. 873	⁸ Operator Name Apache Corporation		⁹ Elevation 3444'

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
M	34	21S	37E		1137	South	495	West	Lea

¹¹ Bottom Hole Location If Different From Surface

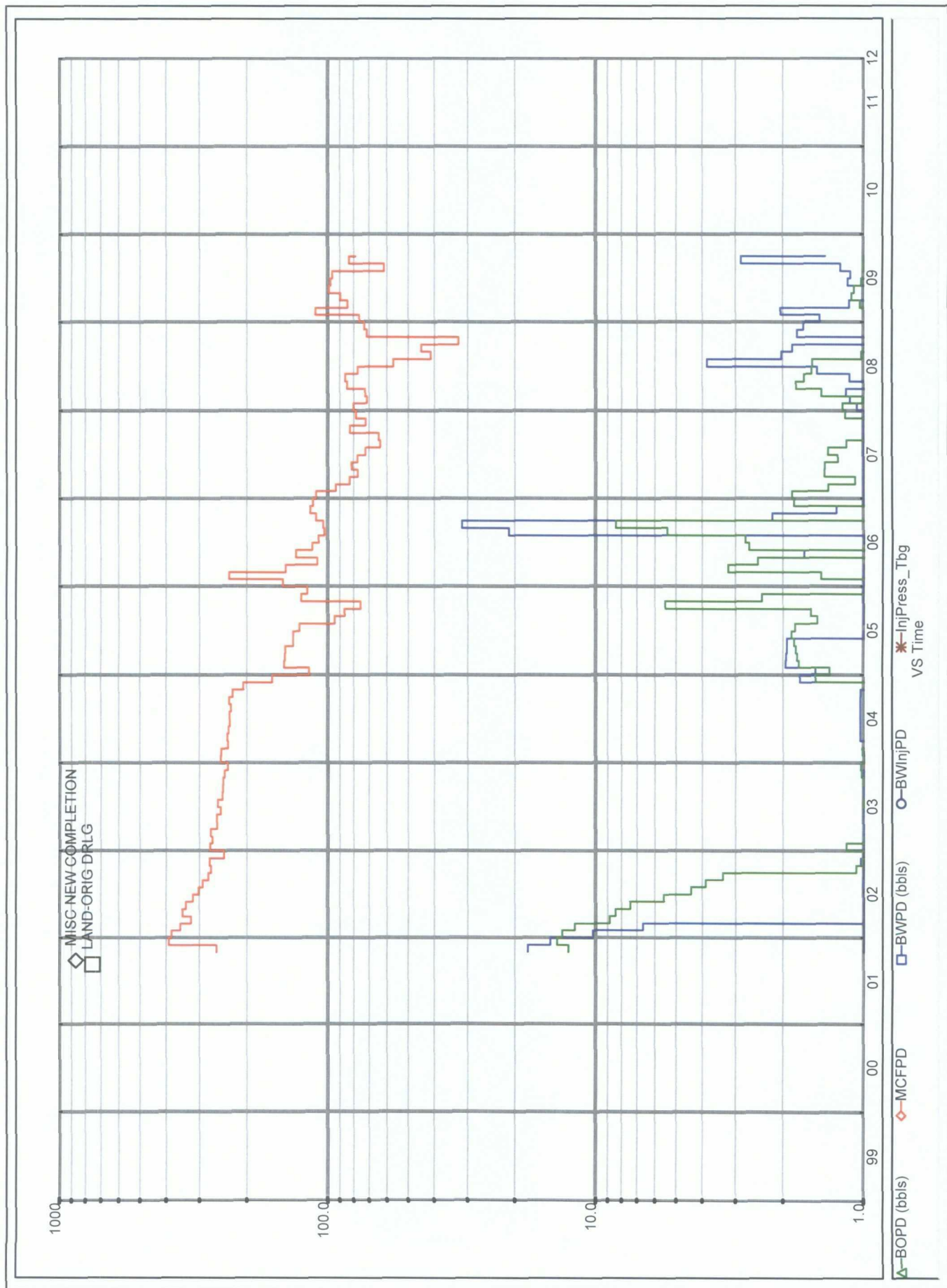
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	34	21S	37E		2222	South	706	West	Lea
¹² Dedicated Acres 40		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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.

<p>16</p> <p><i>706' Bottom hole</i></p> <p><i>2222'</i></p> <p><i>surface 495'</i></p> <p><i>1137'</i></p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p><i>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 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.</i></p> <p><i>Amber Cooke</i> 11/03/2009 Signature Date</p> <p>Amber Cooke Printed Name</p>			
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p><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></p> <p>Date of Survey Signature and Seal of Professional Surveyor:</p>			
	<p>Certificate Number</p>			

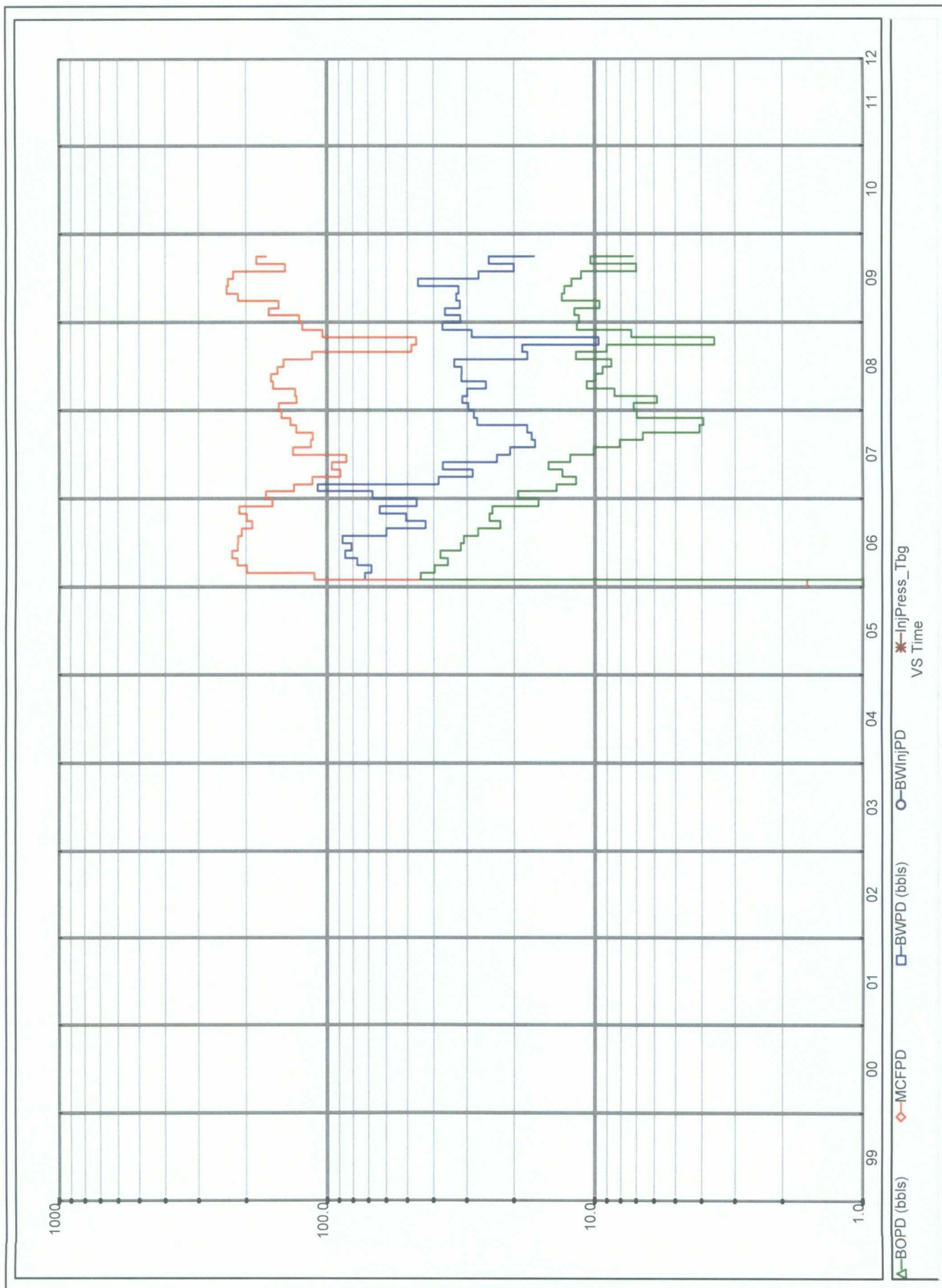
Name: OWEN /B/ #10, Well Type: po-p

Blinebry



Name: OWEN /B/ #11, Well Type: po-p

Grayburg



Owen B #10 Production Allocation Calculation

Analogous Wells	Producing Formation	Grayburg Initial Production		
		BOPD	MCFPD	BWPD
Owen B 07	SA/GB	50	200	95
Owen B 08	SA/GB	30	90	77
Owen B 09	SA/GB	30	90	80
Owen B 11	GB	45	200	70
	average	38.75	145	80.5
Owen B #10	Expected Grayburg	25	120	135
	(lower end average)			
	Current Blinebry	0	79	0

	Oil	Gas	Water
Grayburg	100%	60%	100%
Blinebry	0%	40%	0%

Owen B #10 Bottom Hole Pressure Calculation

Analogous Wells			Top Perf	Bottom Perf	Fluid Level	Water Gradient	Tubing Pressure	Bottom Hole Pressure	
<u>Name</u>	<u>Tested Formation</u>		<u>ft</u>	<u>ft</u>	<u>ft from surf</u>	<u>psi/ft</u>	<u>psia</u>	<u>Grayburg</u>	<u>Blinebry</u>
Owen B 8	GB		3688	3763	400	0.44	0	1479.72	
Owen B 9	GB		3598	3772	1700	0.44	350	1261.68	
Owen B 10	BL		5606	5853	2000	0.44	0		1695.32
							<i>average</i>	1370.7	1695.32

BHP=(bot. perf-fl lev) * .44+tubing pressure

Data Source

Owen B 8
Swab report after acid job in the Grayburg on 01/13/2000
Sec 34, T21S, R37E
Lea County, NM

Owen B 9
Swab report after acid job in the Grayburg on 01/14/2000
Sec 34, T21S, R37E
Lea County, NM

Owen B 10
Swab report after acid job in the Blinebry on 10/01/2001
This is assumed to be the current reservoir pressure
Sec 34, T21S, R37E
Lea County, NM

Bottom Hole Pressure			Grayburg	Blinebry
			<i>expected</i>	<i>current</i>
			1370 psig	1695 psig