

MOBIL EXPLORATION & PRODUCING U.S.

LOVINGTON DEEP YATES STATE #1

DOWNHOLE COMMINGLING REQUIRED DATA

1. (a) Well involves a oil zone.
 1. Combined daily production from oil zones before commingling as determined in accordance with section D, paragraphs 4 and 5 of rule 303-C does not exceed 80 bbls/day limitation with the perforations of lowermost pool at greater than 10,000 ft.
 2. Artificial lift will be used to bring fluid from both zones.
 3. Neither zone produced more water than the combined oil limitation as determined in 1(a)1.
 4. Combining fluid from both zones does not result in the formation of precipitates at the formation.
 5. Value of the crude will not be reduced by commingling.
 6. Ownership is common.
 7. Commingling will not jeopardize efficiency of future secondary recovery operations.
2. (a) Mobil Exploration & Producing U.S.
12450 Greenspoint Dr.
Houston, Tx 77060-1991
- (b) Lovington Deep Yates State #1
Sec 36, T-16S, R-35E
Lea County, New Mexico
Upper Pennsylvanian and Wolfcamp zones.
- (c) Ownership plat (attached).
- (d) A current 24-hr test of the Wolfcamp is 8 BOPD and 1 BWPD. Production on the Upper Pennsylvanian immediately prior to recompletion to the Wolfcamp is 2 BOPD and 2 BWPD.

- (e) Production curves for both zones (attached).
- (f) Bottom hole pressures for each zone (attached).
- (g) Each zone is oil and there is no evidence of incompatibility.
- (h) Test the Wolfcamp prior to commingling, then test the commingled production. Allocate initial test production to the Wolfcamp. Allocated the differential of the commingled production and the Wolfcamp to the Upper Pennsylvanian.
- (i) Researched offset acreage, and Mobil is the only operator in this field.

B.P. PATERNOSTRO
 Multiphase Curve Analysis
 Rate vs Time
(c) 1989 SoftSearch, Inc

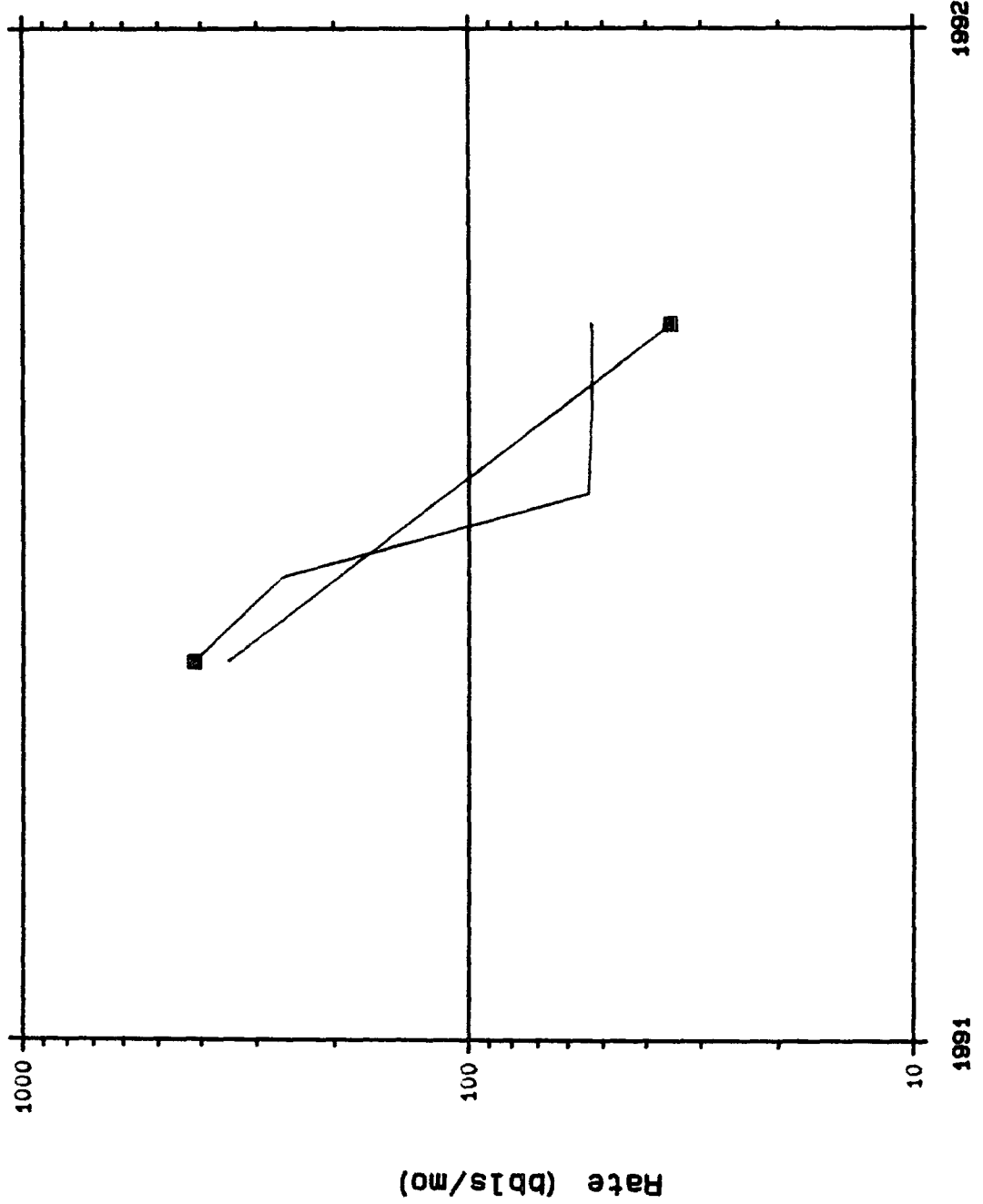
S. SHOEBAR FIELD
L.D. YATES #1
UPERR PENN PRODUCTION

4/17/1993

Project: YATES#1 PENN

Production Curves

OIL: ■ OIL DATA
 0 History 5/91 - 9/91
 1 Const Percent 5/91 - 9/91
 G1 : 463.522 BBL/M
 D1 : 99.896 %
 Ge : 26.460 BBL/H
 Np : 0.753 MBBL



Time (years)

Rate (bbls/mo)

B.P. PATERNOSTRO
 Multiphase Curve Analysis
 Rate vs Time
(c) 1988 Software, Inc

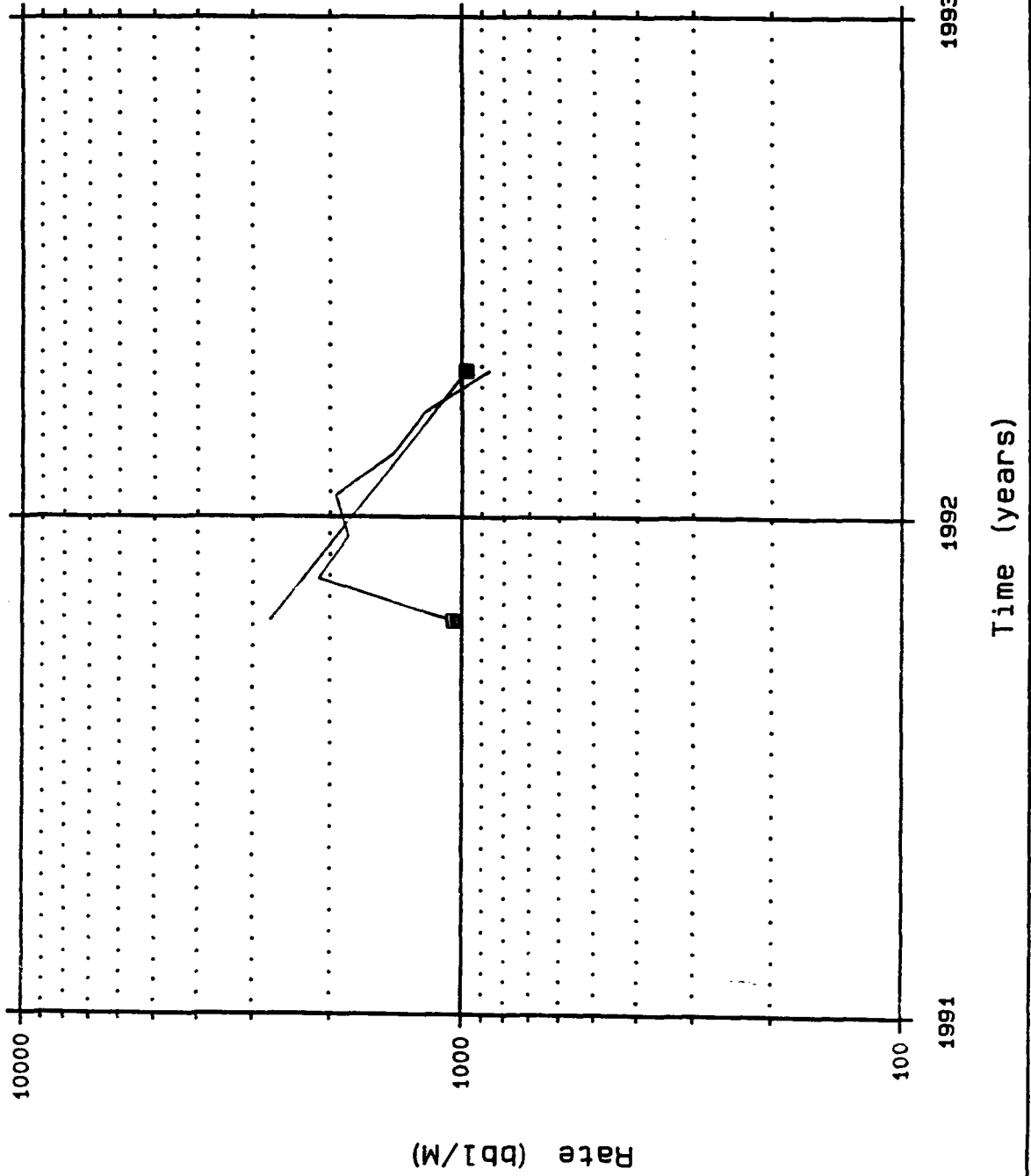
LD YATES #1
 UPPER WOLFCAMP SAND
 PRODUCTION DECLINE FIT

6/04/1992

Project: LD YATES#2-WOL

Production Curves

OIL: * OIL DATA
 0 History 10/91 - 4/92
 1 Const Percent 10/91 - 4/92
 Q1 : 2988.550 BBL/M
 D1 : 87.239 %
 Qe : 899.283 BBL/M
 Np : 12.163 MBBL



EXAMPLE

MOBIL/BUCKEYE

ID:6903

MAY 04 '93

9:27 No.001 P.03

LOVINGTON DEEP WATERS STATE #1 (WOLF CAMP)

YATES ST. #1 MOBIL LARRY 05-04-1993		Production 3.0 BOPD 5.0 BWPD 3 MCF/D		Casing dp/dt %-1277.0 psi 4.5 mins		Casing(Psig)= 92.5	
WELL DATA 40.0 API Oil 1.05 Water SG Gas SG:0.83 Velocity= 1172 Ft/Sec		VOGEL IPR ANALYSIS PBHP/SBHP=0.42 Efficiency=77% Max Producing Rate 3.9 BOPD 6.5 BWPD		Gas/Liq PSIG= 130		Annular Gas Flow (MCF/D)= 0.0	
Temperature: 70 F Surface 130 F Bottom 2.375 Tubing 5.500 Casing		Reservoir Pressure 500 psia Test Method= EST 0 day Shut-In Test date:02-17-91		Liquid @ 10522 ft		100% Liquid	
Total Liquid above Pump= 196 Ft Gas-Free Liquid above Pump= 196 Ft				Datum @10718		SBHP(Psia) = 500	
				PBHP(Psia) = 211.5			

Fluid Level Above
The Pump

Csg Pressure

5-3-93

0'

29#

4 Hours

35'

45#

24 Hours

196'

93#