

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Lea Pennsylvanian Formation Lea Pennsylvanian County Lea
Initial X Annual _____ Special _____ Date of Test 4-18 & 4-19, 1963
Company Marathon Oil Company Lease Lea Unit Well No. 3
Unit J Sec. 13 Twp. 20S Rge. 34E Purchaser Llano, Inc.
Casing 7" Wt. 29# I.D. 6.184 Set at 14,090 Perf. 12,902 To 12,918
Tubing 2 3/8" Wt. 4.7 I.D. 1.995 Set at 12,835 Perf. Open Ended To _____
Gas Pay: From 12902 To 12918 L 12835 xG .6744 -GL _____ Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 4-21-63 Packer 12835 Reservoir Temp. 188° F.

OBSERVED DATA

Tested Through (Prover) x (Choke) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						4719				69.5
1.	4"	1.000	800	12.75	32	3940	-	Pkr.	-	3
2.	4"	1.000	800	23.75	91	3625	-	Pkr.	-	3
3.	4"	1.000	800	59.50	94	2908	-	Pkr.	-	2
4.	4"	1.250	800	50.00	96	2062	-	Pkr.	-	2.5
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	6.135	100.84	813.2	.9795	.9422	1.081	617
2.	6.135	138.96	813.2	.9715	.9422	1.076	840
3.	6.135	219.95	813.2	.9688	.9422	1.076	1325
4.	9.643	201.64	813.2	.9671	.9422	1.072	1899
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 15,026 cf/bbl. Specific Gravity Separator Gas .6744
Gravity of Liquid Hydrocarbons 52.8 deg. Specific Gravity Flowing Fluid _____
P_c (1-e^{-S}) P_c _____

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.									
2.									
3.									
4.									
5.									

Absolute Potential: * 2445 MCFPD; n .97320COMPANY Marathon Oil CompanyADDRESS P.O. Box 2107, Hobbs, New MexicoAGENT and TITLE Robert H. McLean Pet. Engr.

WITNESSED _____

COMPANY _____

Pf & Ps	Pf ² & Ps ²	Pf ² - Ps ²	REMARKS
6704.2 (SI)	44,946		* Back pressure curve based on measured BHP's.
5824.2	33,921	11,025	
5465.2	29,868	15,078	
4582.2	20,997	23,949	
3415.2	11,664	33,282	