30-015 - 30566

Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: MARATHON OIL CO.						Lease or Unit Name: ASA WALKER '33' STATE		
Type Test: [X] Initial [ ] Annual [ ] Special						Test Date: 5/1/99	Well No.: 1	
Completion Date: 4/20/99	Total Depth: 11,050		Plug Back TD: 10,888'			Elevation: 3544 GL	Unit Ltr. - Sec. - TWP - Rge.: 33 18S 28E	
Csg. Size: 7"	Wt.: 26#	d: 6.276	Set At: 10,888'	Perforations: From: 10782	To: 10824		County: EDDY	
Tbg. Size: 2-7/8	Wt.: 6.5#	d: 2.441	Set At: 10,681'	Perforations: From:	To:		Pool: N Turkey Track Mor	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: SINGLE				Packer Set At: 10,648			Formation: MORROW	
Producing Thru: TBG	Reservoir Temp. °F: 174.1	Mean Annual Temp. °F: 60°		Baro. Press - P_a: 13.2			Connection: AIR	
L: 10681	H: 10681	Gg: .623	% CO_2: .374	% N_2: .296	% H_2S: -0-	Prover: -0-	Meter Run: 4.026	Taps: FLG

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					3124		PKR		
1.	4.026 X 1.750	100	7"	94°	3100	72°			60 min
2.	4.026 X 1.750	110	28"	92°	3018	74°			60 min
3.	4.026 X 1.750	140	58"	82°	2900	76°			60 min
4.	4.026 X 1.750	190	74"	82°	2758	76°			60 min
5.									

RATE OF FLOW CALCULATIONS

NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor F_t	Gravity Factor F_g	Super Compress. Factor, F_{pv}	Rate of Flow Q, Mcfd
1.	14.93	28.1	113.2	.9688	1.267	1.041	536
2.	14.93	58.7	123.2	.9706	1.267	1.041	1121
3.	14.93	94.2	153.2	.9795	1.267	1.043	1820
4.	14.93	122.6	203.2	.9795	1.267	1.043	2369
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.82	554	1.53	.923
2.	.81	552	1.52	.922
3.	.80	542	1.50	.920
4.	.80	542	1.50	.920
5.				

Gas Liquid Hydrocarbon Ratio: N/a Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: N/A Deg.
Specific Gravity Separator Gas: .623 XXXXXXXXX
Specific Gravity Flowing Fluid: N/A XXXXX
Critical Pressure: 674 P.S.I.A. P.S.I.A.
Critical Temperature: 361 R R

P_c 3267.1 P_c^2 10673.9

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		3184.4	10140.4	533.5
2.		3101.2	9617.4	756.5
3.		2973.6	8842.2	1831.7
4.		2886.3	8330.7	2343.2
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.55$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 4.17$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 9878.7$

Absolute Open Flow: 9878.7 Mcfd @ 15.025 | Angle of Slope θ: 46.62 | Slope, n: .944

Remarks: * CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES
* NO LIQUID MADE DURING TEST

Approved By Division	Conducted By:	Calculated By:	Checked By:
	PRO WELL TESTING	M.B.	B.M.