

MAY 10 1991

Form C-122
Revised 10-1-78

clsf
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 04-26-91			
Company Harvey E. Yates						Connection			
Pool S. Carlisle Morrow						Formation Morrow			
Completion Date 04-26-91		Total Ceph 12,300		Plug Back TO 12,000		Elevation		Farm or Lease Name Mobil 21 State	
Csq. Size 5 1/2	WI. 17 & 20#	d	Set At 12,300	Perforations From 11920 To 11923		Well No. C 1		Unit	
Thq. Size 2 7/8	WI. 6,5	d	Set At 11860	Perforations From OPEN To END		Unit Sec. 21 Twp. 23-S Rge. 27-E			
Type Well - Single - Dragshead - G.G. or G.O. Multiple Single						Packer Set At 11860		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 192 # 11752		Mean Annual Temp. °F 60		Baro. Press. - P _u 13.2		State New Mexico	
L *11752	H 11752	G ₁ .579	% CO ₂ 1.16	% H ₂ .18	% H ₂ S	Prover	Meter Run 3.068	Taps Flange	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							2865		PKR		72 hrs.
1.	3	X	2.000	320	2.00	98	2010		PKR		1 hr.
2.	3	X	2.000	325	2.50	98	1580		PKR		1 hr.
3.	3	X	2.000	300	5.00	98	1945		PKR		1 hr.
4.	3	X	2.000	360	14.00	98	1758		PKR		1 hr.
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 _{sp}	Rate of Flow Q, Mhd
1	21.32	25.81	333.2	.9653	1.314	1.020	712
2	21.32	29.08	338.2	.9653	1.314	1.021	803
3	21.32	39.57	313.2	.9653	1.314	1.019	1,090
4	21.32	72.28	373.2	.9653	1.314	1.023	2,000
5							

NO.	P _t	Temp. °R	T _g	Z	Gas Density ρ _g Mhd/bbl.	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure P.S.I.A.	Critical Temperature °R
1.	.49	558	1.61	.961			.579	X X X X X X X X		
2.	.50	558	1.61	.960				X X X X X		
3.	.46	558	1.61	.963					**676	
4.	.55	558	1.61	.956					**345	
5.										

NO.	P ₁	P ₂	P ₁ ²	P ₂ ²	P ₁ ² - P ₂ ²	(1) $\frac{P_1^2}{P_2^2 - P_1^2} = 1.605$	(2) $\left[\frac{P_1^2}{P_2^2 - P_1^2} \right]^n = 1.605$
1		2786.4	7764.0	3276.3			
2		2679.8	7181.3	3859.0			
3		2492.6	6213.1	4827.2			
4		2039.8	4160.8	6879.5			
5							

Absolute Open Flow 3,210		Held @ 15.025		Angle of Slope θ 45		Slope, n 1.000	
Remarks: **=BIP Instrument @ this depth							
***=corrected to 1.16% CO ₂							
WELL MADE 17.7 BBL/S H ₂ O							
Approved By Division		Conducted By		Calculated By		Checked By	