

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 07-15-90			
Company Bridge Oil Co. LP				Connection vented					
Pool Wildcat				Formation Missippian				Unit	
Completion Date 07-11-90		Total Depth 13,950		Plug Back TD 13,819		Elevation 3954.9 GL		Farm or Lease Name Julia Culp (Com)	
Cas. Size 5½	Wt. 17	Set At 13,950	Perforations: From 13,391 To 13,522		Well No. 2				
Thq. Size 2 7/8	Wt. 6.5	Set At 13,330	Perforations: From OPEN To END		Unit Sec. Twp. Rge. 34 15S 35E				
Type Well - Single - Brasshead - G.C. or G.O. Multiple Single						Packer Set At 13,330		County Lea	
Producing Thru Tbg		Reservoir Temp. °F 207 @ 13,330		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 13,330	H 13,330	G _g .627	% CO ₂ 1.09	% N ₂ .91	% H ₂ S ----	Prover	Meter Run 4.026	Taps Flg	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. In.	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							4204		PKR		48 hrs.
1.	4	X	2.500	480	6.00	100	3984		PKR		1 hr.
2.	4	X	2.500	480	12.50	86	3807		PKR		1 hr.
3.	4	X	2.500	490	25.00	76	3501		PKR		1 hr.
4.	4	X	2.500	525	47.00	65	3067		PKR		1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_d P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mscf
1	32.64	54.40	493.2	.9636	1.263	1.039	2,245
2	32.64	78.52	493.2	.9759	1.263	1.039	3,282
3	32.64	112.16	503.2	.9850	1.263	1.044	4,755
4	32.64	159.05	538.2	.9952	1.263	1.054	6,878
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.73	560	1.53	.927	22.8	63.2 @ 60°	.627	X X X X X X X X	*675	*364
2.	.73	546	1.50	.927				X X X X X		
3.	.74	536	1.47	.917					P.S.I.A.	P.S.I.A.
4.	.79	525	1.44	.900					R	R
5.										

NO.	P ₁ ²	P ₂ ²	P ₃ ²	P ₄ ²	P ₅ ²	P ₆ ²
1	4280.5	18322.7	1618.9			
2	4117.4	16953.0	2988.6			
3	3855.5	14864.9	5076.7			
4	3490.8	12185.7	7755.9			
5						

(1) $\frac{P_c^2}{P_c^2 - P_r^2} = 2.571$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_r^2} \right]^n = 14,189$

(2) $\left[\frac{P_c^2}{P_c^2 - P_r^2} \right]^n = 2.063$

Absolute Open Flow	14,189	Mscf @ 15.025	Angle of Slope →	52.5	Slope, n	.767
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Remarks: *=corrected to 1.09% col & .91% N₂
 ***= BHP Instr. set @ this depth
 well made 31.3 BBLs of 63.2 API GR. CONDENSATE & 0.8 BBLs H₂O

Approved By Division	Conducted By: ProWell Testing & Wireline	Calculated By: BM	Checked By: BM
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