

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11-16-89		DEC - 1 '89	
Company BRANEX RESOURCES INC.				Connection AIR		O. C. D. ARTESIA, OFFICE	
Pool <i>P. M. M. M. M.</i>				Formation ABO		Unit	
Completion Date 11-12-89		Total Depth 4250		Plug Back TD 4129		Elevation 3697	
Farm or Lease Name UNION "33" COM FED				Well No. 2			
Ceq. Size 4-1/2		Wt. d		Set At TD		Perforations: From 3954 To 3994	
Thq. Size 2-3/8		Wt. d		Set At 4005		Perforations: From OPEN To ENDED	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F #		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State NEW MEXICO		L H		Cg .64		% CO ₂ % N ₂ % H ₂ S	
Prover 2"		Meter Run		Taps			

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							875		880		
1.	2	x	3/32	860		64	860		875		1 Hr.
2.	2	X	1/8	848		64	848		860		"
3.	2	X	7/32	800		64	800		815		"
4.	2	X	3/8	615		64	615		640		"
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	.1410		873.2	.9962	1.25	1.087	167
2	.6082		833.2	.9962	1.25	1.083	683
3	.8393		813.2	.9962	1.25	1.081	919
4	2.3780		628.2	.9962	1.25	1.061	1974
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 967.2 P _c ² 935				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1		951.2	905	31
2		910	828	106
3		891.2	793	142
4		722.2	521	414
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.26$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3491$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.77$

Absolute Open Flow	3491	Mcfd @ 15.025	Angle of Slope Θ	55	Slope, n	.7
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Remarks: _____

Approved By Division	Conducted By: KELTIC SERVICES	Calculated By: MIKE KELLY	Checked By:
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