

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-16-91	
Company SEAY EXPLORATION				Connection VENTED	
Pool <i>Wildcat Y-5R</i>				Formation YATES SEVEN RIVERS	
Completion Date		Total Depth 7710		Plug Back TD 3460	
				Elevation 3582 KB	
Form or Lease Name CORRIGAN					
Csg. Size 5 1/2		No. 17#		Set At 4,892	
Perforations From 2844 To 3108		Well No. 1			
Tbg. Size 2 7/8		Wt. 6.5		Set At 2827	
Perforations From OPEN To ENDED		Unit H		Sec. 14	
				Twp. 20	
				Rge. 38	
Type Well - Single - Bronson - G.C. or G.O. Multiple SINGLE				Packer Set At NONE	
Producing thru TBG				County LEA	
Reservoir Temp. °F 86 @ 2876		Mean Annual Temp. °F 60		State NEW MEXICO	
L * 2976		H * 2976		Cg .817	
				% CO ₂ 0.20	
				% N ₂ 38.19	
				% H ₂ S -0-	
				Prover 3.068	
				Meter Run FLG	
FLOW DATA TUBING DATA CASING DATA Duration of Flow					
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. In. Hg
SI					
1.	3 X 1.250		42	10.00	76
2.	3 X 1.250		42	42.00	70
3.	3 X 2.000		40	12.00	57
4.	3 X 2.000		40	19.00	67
5.					
RATE OF FLOW CALCULATIONS					
NO.	Coefficient (24 Hour)	$\sqrt{P/P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg
1	7.577	7.43	55.2	.9850	1.106
2	7.577	48.15	55.2	.9905	1.106
3	21.32	25.27	53.2	1.003	1.106
4	21.32	31.79	53.2	.9933	1.106
5					
NO.	R _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio
1	.09	536	1.60	.994	DRY GAS
2	.09	530	1.59	.994	DRY
3	.08	517	1.55	.991	A.P.L. Gravity of Liquid Hydrocarbons
4	.08	527	1.58	.991	Specific Gravity Separator Gas
5					Specific Gravity Flowing Fluid
					Critical Pressure ** 606
					Critical Temperature ** 333
					Super Compress. Factor, F _{sp}
					Rate of Flow Q, Mscf
					Mc/ bbl.
					Dec.
					P.S.I.A.
					P.S.I.A.
					R
					R
$R_{**} 1396.0 \quad P_2^2 1948.8$					
NO.	P ₁ ²	P ₂ ²	P ₃ ²	P ₄ ²	P ₅ ² - R ₂ ²
1	1332.2	1774.8			174.0
2	1202.0	1444.8			504.0
3	1024.0	1048.6			900.2
4	731.8	535.5			1413.3
5					
$(1) \frac{P_c^2}{P_2^2 - R_2^2} = 1.379$ $(2) \left[\frac{P_2^2}{P_2^2 - R_2^2} \right]^n = 1.213$					
$AOF = Q \left[\frac{P_2^2}{P_2^2 - R_2^2} \right]^n = .907$					
Absolute Open Flow <u>907</u> Mcf @ 15.023 Angle of Slope θ <u>59</u> Slope, n <u>602</u>					
Remarks: * = BHP INSTRUMENT SET AT THIS DEPTH ** = CORRECTED TO 38.19 % N ₂					
NO FLUID PRODUCED DURING TEST - *** CAL. BACK TO SURFACE					
Approved By Division		Conducted By		Checked By	
		JOHN WEST ENGINEERING		BM	
				BM	