

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 6-3-90	
Company TEXACO INC.				Connection SALES		
Pool EUMONT YATES 7 RIVERS on (Pro Gas)				Formation PENROSE		Unit
Completion Date 5-31-90		Total Depth 3650'		Plug Back TD 3640'		Elevation GR-3696'
Farm or Lease Name AMERICAN NATIONAL KEOHANE GAS COM.						Well No. 2
Csg. Size 5.5	Wt. 15.5 #	d 4.950	Set At 3650'	Perforations: From 3486' To 3614'		Unit G
Thg. Size 2.375	Wt. 4.7 #	d 1.995	Set At 3461	Perforations: From To		Sec. 18
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE GG				Packer Set At None		Twp. 19-S
Producing Thru TUBING		Reservoir Temp. °F 105 @ 3650'		Mean Annual Temp. °F 60		Rge. 37-E
Baro. Press. - P _g 13.2		State NEW MEXICO		County LEA		
L 3461	H 3461	G _g .762	% CO ₂ 8.25	% N ₂ 2.58	% H ₂ S	Prover
Meter Run 2.067		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	2.067		1.250				140	70	140	70	SI 24 m.
1.	2.067		1.250	25	18	70	135	70	135	70	1.0 hr.
2.	2.067		1.250	25	44	75	122	72	122	70	1.0 hr.
3.	2.067		1.250	25	78	78	106	75	106	70	1.0 hr.
4.	2.067		1.250	25	74	82	79	76	79	70	1.0 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	8.12	26.22	38.2	.9905	1.146	1.014	245
2.	8.12	41.00	38.2	.9859	1.146	1.014	381
3.	8.12	54.59	38.2	.9831	1.146	1.014	506
4.	8.12	68.39	63.2	.9795	1.146	1.014	632
5.							

NO.	P	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio			Mcf/bbl.		
1.	.20	530	1.37	.974	N/A			N/A		
2.	.20	535	1.38	.974	A.P.I. Gravity of Liquid Hydrocarbons			N/A		
3.	.20	538	1.39	.974	Specific Gravity Separator Gas			.762		
4.	.20	542	1.40	.974	Specific Gravity Flowing Fluid			X X X X X		
5.					Critical Pressure			696		
					Critical Temperature			388		
								P.S.I.A.		
								R		

NO.	P _i ²	P _w	P _w ²	P _i ² - P _w ²
1	20.831	148.3	22.0	1.5
2	16.800	135.3	18.3	5.2
3	10.502	119.2	14.2	9.3
4	4.352	92.1	8.5	15.0
5				

(1) $\frac{P_i^2}{P_i^2 - P_w^2} = \frac{23500}{15000}$

AOF = Q $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 795$

(2) $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 1.2573$

Absolute Open Flow	795	Mcf/d @ 15.025	Angle of Slope	63°	Slope, n	.510
Remarks:						

Approved By Division	Conducted By: J. E. Bryant / rmm	Calculated By: T. M. Morgan	Checked By:
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