

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11/26/82	
Company C & K Petroleum Inc. ✓				Connection None	
Pool White City Penn				Formation Morrow	
Completion Date 11/26/82		Total Depth 11654' 11,700		Plug Back TD 11654' 11,560	
Elevation 3434' GL		Farm or Lease Name Exxon Federal Comm			
Cas. Size 5 1/2"	Wt. 17.0	d 4.892	Set At 11700 11654'	Perforations: From 11192' To 11581'	
Tub. Size 2 7/8"	Wt. 6.5	d 2.441	Set At 11003'	Perforations: From Open To Ended	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 11003'	
Producing Thru Tubing		Reservoir Temp. °F 188° @ 11400'		Mean Annual Temp. °F 60°	
Baro. Press. - P _a 13.2		State New Mexico			
L 11400'	H -	G _g 0.576	% CO ₂ 1.164	% N ₂ 0.259	% H ₂ S -
Prover -		Meter Run 2.900		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							2237	60	PACKER		142.5 hrs
1.	2.900		1.250	535	5	88	1992	60			1.0 hr
2.	2.900		1.250	525	10	76	1907	60			1.0 hr
3.	2.900		1.250	545	22	76	1770	60			1.0 hr
4.	2.900		1.250	500	34	88	1580	60			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	7.615	52.35	548.2	0.9741	1.318	1.032	528.18
2	7.615	73.36	538.2	0.9850	1.318	1.034	749.90
3	7.615	110.82	558.2	0.9850	1.318	1.035	1133.91
4	7.615	132.09	513.2	0.9741	1.318	1.030	1330.14
5							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1	0.81	548	1.61	0.939	A.P.I. Gravity of Liquid Hydrocarbons	-	Deg.
2	0.79	536	1.58	0.935	Specific Gravity Separator Gas	0.5757	XXXXXX
3	0.82	536	1.58	0.933	Specific Gravity Flowing Fluid	XXXXXX	
4	0.76	548	1.61	0.942	Critical Pressure	679 P.S.I.A.	- P.S.I.A.
5					Critical Temperature	340 °R	- °R

NO.	P ₁ ²	P _w ²	R ₁ ²	P _c ² - R _w ²	(1) $\frac{P_c^2}{P_c^2 - R_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - R_1^2} \right]^n =$
1	2882.2	2607.2	6797.5	1509.6	1.983	1.862
2	2463.2	2463.2	6067.4	2239.7		
3	2282.2	2282.2	5208.4	3098.7		
4	2029.2	2029.2	4117.7	4189.4		
5						

Absolute Open Flow 2477 Mcfd @ 15.025 Angle of Slope @ 47° 45' Slope, n 0.908

Remarks: * BOTTOM HOLE PRESSURES @ (-7966) 11400' USED FOR PRESSURE CALCULATIONS
 WELL PRODUCED NO FLUID DURING TEST

Approved By Division	Conducted By: JARREL WELL TESTING INC	Calculated By: D. Dickerson	Checked By: PE #2208 Joe A. Coleman
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