

C-122 MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 12/15/80									
Company Tenneco Oil Company		Connection Llano, Inc.									
Pool Catclaw Draw		Formation Morrow									
Completion Date 11/29/80		Total Depth 10872'									
Plug Back TD 10750'		Elevation 3433GL+20									
Casing Size 5 1/2"		Well No. 15									
Well Size 2 3/8"		Unit L									
Set At 10750'		Sec. 25									
Perforations: From 10706' To 10714'		Twp. 21s									
Perforations: Open Ended		Hgt. 25e									
Type Well - Single - Brodenhead - G.C. or C.O. Multiple Single		Packer Set At 10675'									
Producing Thru Tubing		County Eddy									
Reservoir Temp. °F 167 @ 10675'		State New Mexico									
Mean Annual Temp. °F 60		Base Press. - P _c 13.2									
L 10710		H -									
Cg 0.5957		% CO ₂ 1.020									
% N ₂ 0.440		% H ₂ S -									
Prover		Meter Run 3"X 0.750									
Taper F											
FLOW DATA											
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	TUBING DATA Press. p.s.i.g. DWT	Temp. °F	CASING DATA Press. p.s.i.g.	Temp. °F	Duration of Flow
SI											
1.	3		0.750	485	5	73	1965		PACKER		72.0 hrs
2.	3		0.750	480	11	75	1665	62			1.0 hr
3.	3		0.750	490	22	72	1538	63			1.0 hr
4.	3		0.750	490	35	70	1408	62			1.0 hr
5.							1230	62			1.0 hr
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor F _{sp}	Rate of Flow Q, Mscf/d				
1	2.672	49.91	498.2	0.9877	1.298	1.036	177.13				
2	2.672	73.66	493.2	0.9859	1.298	1.035	260.69				
3	2.672	105.22	503.2	0.9887	1.298	1.036	373.80				
4	2.672	132.71	503.2	0.9905	1.298	1.038	473.22				
5											
NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Dry Gas _____ Mcf/bbl.						
1	0.73	533	1.53	0.932	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2	0.73	535	1.54	0.933	Specific Gravity Separator Gas _____ 0.5957 _____ XXXXXXXXXX						
3	0.74	532	1.53	0.931	Specific Gravity Flowing Fluid _____ XXXXXX						
4	0.74	530	1.52	0.929	Critical Pressure _____ 672 _____ P.S.I.A. _____						
5					Critical Temperature _____ 354 _____ R _____						
F _c 2565.2 P _c ² 6580.3											
NO.	P _t ²	P _w *	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.004$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.88$						
1		2177.2	4740.2	1840.1	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 751$						
2		2095.2	4389.9	2190.4							
3		1841.2	3390.0	3190.3							
4		1633.2	2667.3	3913.0							
5											
Absolute Open Flow 751 Mcf @ 15.025 Angle of Slope 46° 6' Slope, n 0.962											
Remarks: * BOTTOM HOLE PRESSURE @ (-7277) 10710' USED FOR PRESSURE CALCULATIONS											
Approved By Division _____ Conducted By: JARREL SERVICES, INC. Calculated By: Joe A. Coleman Checked By: Joe A. Coleman											