

SF
file
+ C-122 file

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5/26/81		RECEIVED JUN 2 1981	
Company E.L. Latham Jr.				Connection Natural Gas Co. El Paso National					
Pool Happy Valley Morrow				Formation Morrow				Unit O.C.D.	
Completion Date 2/3/81		Total Depth 11600'		Plug Back TD 11559'		Elevation 3660' GL		Para. or Lens ARTESIA, OFFICE	
Casing Size 5 1/2"		WT 20.0		d 4.778		Set At 11600'		Perforations: From 11212' To 11228'	
Tubing Size 2 3/8"		WT 4.7		d 1.995		Set At 11167'		Perforations: From 11172' To 11174'	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 11167'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 186		Mean Annual Temp. °F 60		Base Press. - P _b 13.2		State New Mexico	
L 11220		H -		G _g 0.5745		% CO ₂ 0.462		% H ₂ S 0.047	
						Prover -		Meter Run 4.026	
								Taps F	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Fiber Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g. DWI	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							2675		PACKER		68.0 hrs
1.	4		1.750	476	2.5	90	2470	60			1.0 hr
2.	4		1.750	500	6.0	81	2311	60			1.0 hr
3.	4		1.750	518	12.0	77	2082	60			1.0 hr
4.	4		1.750	520	21.0	77	1692	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 _{spv}	Rate of Flow Q, MCF/D
1	14.93	34.97	489.2	0.9723	1.319	1.029	689.00
2	14.93	55.49	513.2	0.9804	1.319	1.033	1106.68
3	14.93	79.84	531.2	0.9840	1.319	1.035	1601.26
4	14.93	105.82	533.2	0.9840	1.319	1.035	2122.31
5							

Gas Liquid Hydrocarbon Ratio					Dry Gas		Mcf/bbl.
NO.	R _i	Temp. °R	T _r	Z	A.P.I. Gravity of Liquid Hydrocarbons	-	Deg.
1	0.72	550	1.61	0.945	Specific Gravity Separator Gas	0.5745	XXXXXX XXXX
2	0.76	541	1.58	0.938	Specific Gravity Flowing Fluid	XXXXXX	
3	0.79	537	1.57	0.934	Critical Pressure	675 P.S.I.A.	- P.S.I.A.
4	0.79	537	1.57	0.934	Critical Temperature	342 R	- R
5							

Absolute Open Flow				Angle of Slope		Slope, n	
NO.	P _c	P _w *	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$		
1	3535.2	12497.6		2.550	2.175		
2		3220.2	10369.7				
3		3046.2	9279.3				
4		2756.2	7596.6				
5		2347.2	5509.3				

Absolute Open Flow		3483		Mold @ 15.025		Angle of Slope A		50° 18'		Slope, n		0.830	
--------------------	--	------	--	---------------	--	------------------	--	---------	--	----------	--	-------	--

* BOTTOM HOLE PRESSURE @ (-7860') 11220' USED FOR PRESSURE CALCULATIONS

Remarks:

Approved By Division	Conducted By:	Calculated By:	Checked By:
JARREL SERVICES, INC.	Joe A. Coleman	Joe A. Coleman	PE #2208 Joe A. Coleman