

C-122

WEST TEXAS CONSULTING SERVICE, INC.
MULTI-POINT BACK PRESSURE TEST FOR GAS

RECEIVED

OCT 22 1975

☒ Annual ☐ Annual ☐ Special 10-14-75

Monsanto Company		Connection: None		O. C. C. ARTESIA, OFFICE	
Well Name: <i>Quaton Morrow</i> Undesignated		Formation: Morrow		B	
Test Date: 10-14-75	Total Depth: 10710	Plug Back TD: 10551	Elevation: 3213 Gr.	Wagner Federal	
From: 12.00	To: 14.892"	Perforation: 10551	To: 10545	1	
From: 6.50	To: 8.451"	Perforation: 10379	To: 10379	B 31 208	
Packer Set At: 10379				County: Eddy	

Single Completion		10379		State: New Mexico	
Reservoir Temp. °F: 162	Mean Annual Temp. °F: 60	Baro. Press. - P _a : 13.2	Prover: X		
CO ₂ : 0.00	N ₂ : 0.00	Prover: 0.00	X		

FLOW DATA							TUBING DATA		CASING DATA		Surf. Wt.
NO.	Prover Data Size	X	Orifice Size	Press. psia	Diff. in.	Temp. °F	Press. psia	Temp. °F	Press. psia	Temp. °F	G. Flow
1	3.00	1.00	190	18.00"	83	2145	71				1.00
2	3.00	1.00	210	38.00"	84	1671	74				1.00
3	3.00	1.00	240	73.00"	83	1256	74				1.00
4	3.00	1.00	360	48.00"	85	612	74				1.00

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (in Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Compens. Factor, F _{sc}	Rate of Flow Q, Mscf
1	4.73	60.478	203.20	0.9786	1.2986	1.0150	374
2	4.73	92.086	223.20	0.9777	1.2986	1.0150	548
3	4.73	133.954	253.20	0.9786	1.2986	1.0190	840
4	4.73	133.842	373.20	0.9768	1.2986	1.0270	835

NO.	P _a	Temp. °F	Q	Z	Gas Liquid Hydrocarbon Ratio: None Produced
1	6.00	543	1.53	0.969	A.P.I. Gravity of Liquid Hydrocarbon: _____
2	0.93	544	1.54	0.966	Specific Gravity Separator Gas: _____
3	0.93	543	1.53	0.961	Specific Gravity Flowing Fluid: _____
4	0.93	545	1.54	0.943	Critical Pressure: 672
					Critical Temp. (°F): 354

2573.2	P _w	5521	F _g ² - P _w ²	(1) $\frac{F_g^2}{F_g^2 - P_w^2} = 1.3234$	(2) $\left[\frac{F_g^2}{F_g^2 - P_w^2} \right]^n = 1.2705$
1	2154.0	4540	1982	ACF = Q $\left[\frac{F_g^2}{F_g^2 - P_w^2} \right]^n = 1075$	
2	1335.0	2003	3782		
3	1272.3	18.3	5033		
4	633.7	402	8220		

ACF = 1075	Angle of Dip: 49°	Is. No. 1.530
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