

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED C-122
Revised 10-1-78

NOV 27 1991

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10-28-91		ARTESIA OFFICE	
Company Fortson Oil Co.				Connection Delaware					
Pool <i>E. Barton Flat Mar</i>				Formation Morrow				Unit Sylvite Fed.	
Completion Date		Total Depth		Plug Back TD		Elevation		Form or Lease Name	
Csq. Size	Wt.	d	Set At	Perforations: From 11658 To 11722		Well No. 1			
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 11600	Perforations: From To		Unit <i>E</i>	Sec. 6	Twp. 20	Rye. 30
Type Well - Single - Broadhead - G.C. or G.O. Multiple Single						Packer Set At 11600		County Eddy	
Producing Thru Tbg.		Reservoir Temp. °F 191 @ 11690		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L *11690	H 11690	G _g .652	% CO ₂ .82	% N ₂ .34	% H ₂ S	Prover	Meter Run 3.068	Taps Flg	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							1369		Pkr		24 Hrs.
1.	3 x 2.000			276	2.60	76	1015		"		1 Hr.
2.	3 x 2.000			254	4.00	80	900		"		1 Hr.
3.	3 x 2.000			218	6.30	69	720		"		1 Hr.
4.	3 x 2.000			198	9.00	63	575		"		1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{P/P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1.	21.32	27.42	289.2	.9850	1.238	1.029	734
2.	21.32	32.69	267.2	.9813	1.238	1.026	869
3.	21.32	38.16	231.2	.9915	1.238	1.022	1021
4.	21.32	43.60	211.2	.9971	1.238	1.023	1174
5.							

NO.	P _r	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio <u>Dry Gas</u> Mcf/bbl.	
					A.P.L. Gravity of Liquid Hydrocarbons <u>Dry</u> Deg.	
					Specific Gravity Separator Gas <u>652</u>	XXXXXXX
					Specific Gravity Flowing Fluid <u>XXXXXX</u>	
					Critical Pressure <u>670</u> P.S.I.A.	P.S.I.A.
					Critical Temperature <u>375</u> °R	°R
1.	.43	536	1.42	.945		
2.	.39	540	1.44	.950		
3.	.34	529	1.41	.957		
4.	.31	523	1.39	.955		
5.						

P _r **1388.6 P _r ² 1928.2					(1) $\frac{P_c^2}{P_r^2 - P_r^2} = 1.295$		(2) $\left[\frac{P_c^2}{P_r^2 - P_r^2} \right]^n = 1.269$	
NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²				
1	**	1033.8	1068.7	859.5				
2	**	930.1	865.1	1063.1				
3	**	776.1	602.3	1325.9				
4	**	662.9	439.4	1488.8				
5								

Absolute Open Flow <u>1,490</u> Mcfd @ 15.025		Angle of Slope θ <u>45.3</u>		Slope, n <u>.9216</u>	
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Remarks: * BHP INSTRUMENT SET @ THIS DEPTH.
NO FLUID PRODUCED DURING TEST. ** CAL. FROM KNOWN BHP'S

Approved By Division	Conducted By: WEST ENGINEERING	Calculated By: BM	Checked By: BM
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