

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

NOV 8 1982

Type Test ☐ Initial ☐ Annual ☒ Special		Test Date 10-27-82		NOV 8 1982	
Company ARCO Oil and Gas Company		Connection Cabot Corporation		O. C. D. ARTESIA, OFFICE	
Pool South Empire Morrow		Formation Morrow Gas		Unit	
Completion Date 6-12-82		Total Depth 10861		Plug Back TD 10769	
Elevation 3657.8 GR		Farm or Lease Name State BX		Well No. 1	
Cq. Size 5.5	Wt. 17	d 4.892	Set At 10861	Perforations: From 10590 To 10722	
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 10530	Perforations: From Open To Ended	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 10530	
Producing Thru Tbg.		Reservoir Temp. °F 161 @ 10656		Mean Annual Temp. °F 60	
Baro. Press. - P _g 13.2		State New Mexico		County Eddy	
L 10530	H 10530	Cq .644	% CO ₂ .63	% N ₂ .390	% H ₂ S -0-
Prover 3"		Meter Run 3"		Taps Flg.	

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							2468		Pkr.		44 Hrs.
1.	3 x 1.250			473	7.3	74	2240	66	Pkr.		1
2.	3 x 1.250			482	16.0	63	2064	68	Pkr.		1
3.	3 x 1.250			496	33.0	67	1870	70	Pkr.		1
4.	3 x 1.250			516	51.8	67	1622	71	Pkr.		1
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor Fpv	Rate of Flow Q, Mcfd
1	7.577	59.58	486.2	.9868	1.246	1.044	579
2	7.577	89.01	495.2	.9971	1.246	1.049	879
3	7.577	129.63	509.2	.9933	1.246	1.049	1275
4	7.577	165.57	529.2	.9933	1.246	1.052	1633
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.726	534	1.440	.917	38/1	59.7 @ 60°	.644	X X X X X	670	372
2	.739	523	1.410	.909				X X X X X		
3	.760	527	1.420	.908						
4	.790	527	1.420	.904						
5										

*P _r 3646.2 P _c 2 13294.8		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.809$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6123$	
NO.	P _r ²	* P _w	P _w ²	P _r ² - P _w ²	
1		3361.2	11298	1996.8	
2		3122.2	9748	3546.8	
3		2820.2	7954.5	5340.3	
4		2438.2	5944.8	7350.0	
5					

Absolute Open Flow 2632 Mcfd @ 15.025		Angle of Slope @ 51° 7'		Slope, n .806	
Remarks: *BHP measured @ mid perf. 10656.					
Approved By Division		Conducted By: Lon Briley		Calculated By: L. R. Sutton	
				Checked By: James Cogburn	