

457
File

RECEIVED BY

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test JUL 31 1985 ☒ Initial ☐ Annual ☐ Special		Test Date 7/9/85	
Company O. C. D. EXXON CO. U.S.A.		Connection NONE	
Artesia Office <i>S. Empire Morrow</i>		Formation MORROW	
Completion Date 6/7/85		Total Depth 10,765 10,850	
Plug Back TD Elevation 3637.6		Farm or Lease Name N.M. State F.O. <i>E. S. Morrow</i>	
Csg. Size 5 1/2	Wt. 15 1/2	d 4.653	Set At 10,842
Perforations: From 10,604 To 10,660		Well No. 1	
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 10,493
Perforations: From OPEN To END		Unit Sec. Twp. Rye. E 20 17S 29E	
Type Well - Single - Brdhead - G.G. or G.O. Multiple Single		Packer Set At 10,493	
Producing Thru Tbg.		Reservoir Temp. °F 179 @ 10,493	
Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico			
L 10,493	H 10,493	G _g .676	% CO ₂ 1.860
% N ₂ .807	% H ₂ S Prover	Meter Run 2.900	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.	
SI							2775			
1.	2.900 X 1.250			300	5	84	2635			60 min.
2.	2.900 X 1.250			300	11	76	2480			60 min.
3.	2.900 X 1.250			300	18	78	2355			60 min.
4.	2.900 X 1.250			300	35	80	2197			60 min.
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	7.615	39.57	313.2	.9777	1.216	1.028	368
2.	7.615	58.70	313.2	.9850	1.216	1.029	551
3.	7.615	75.08	313.2	.9831	1.216	1.029	703
4.	7.615	104.70	313.2	.9813	1.216	1.028	978
5.							

NO.	P _t	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.	.46	544	1.45	.947	108.333	55.3 @ 60	.676	X X X X X X X X	676	376
2.	.46	536	1.43	.945				X X X X X		
3.	.46	538	1.43	.945						
4.	.46	540	1.44	.946						
5.										

NO.	P _c	P _w	P _c ²	P _w ²	P _c ² - P _w ²
1.	2788.2	2648.3	7774.1	7013.5	760.6
2.		2483.5		6217.5	1556.6
3.		2369.1		5612.6	2161.5
4.		2215.3		4907.6	2866.5
5.					

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.712$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.481$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.537$

Absolute Open Flow 2,481 Mcfd @ 15.025	Angle of Slope 47	Slope, n .933
---	----------------------	------------------

Remarks: 1 BBL OF CONDENSATE MADE DURING TEST

Approved By Division Conducted By: DUKE SERVICES, INC.	Calculated By: R. RESTON	Checked By:
--	-----------------------------	-------------

