

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

NOV - 6 1973

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 9-28-73			
Company <u>Exxon Corp., U.S.A.</u>				Connection <u>None</u>		O. C. C. ARTESIA, OFFICE		
Pool <u>Wildcat Strawn</u> South Carlsbad				Formation <u>Strawn</u>		Unit		
Completion Date 9-28-73		Total Depth 11,881'		Plug Back TD 11,784'		Elevation 3307 KB		Farm or Lease Name S. Carlsbad Gas Com. ⁷²⁰ 42
Csq. Size 5-1/2	Wt. 23	d 4.670	Set At 11,867	Perforations: From 10,304 To 10,382		Well No. 1		
Thq. Size 2-7/8	Wt. 6.4	d 2.441	Set At 11,318	Perforations: From Open To Ended		Unit Soc. Twp. Rye. J 27 23S 26E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G. G. Dual					Packer Set At 11,318		County Eddy	
Producing Thru Casing		Reservoir Temp. °F 165 @ 11,340		Mean Annual Temp. °F 60		Baro. Press. - P _a 15.0		State New Mexico
L 10,340	H 10,340	Cq 0.610	% CO ₂ 0.68	% N ₂ 0.65	% H ₂ S 0.00	Prover -	Meter Run 4.026	Taps F

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							3783	70	4454	70	45 Hrs
1.	4		2.00	720	32	87	3783	79	3813	79	1.
2.	4		2.00	720	38	88	3786	81	3506	81	
3.	4		2.00	720	50	86	3789	83	3138	83	
4.	4		2.00	720	64	84	3799	85	2682	85	
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	20210.82	153.36	735	0.9750	1.2804	1.056	4150
2	20210.82	167.12	735	0.9741	1.2804	1.056	4517
3	20210.82	191.70	735	0.9759	1.2804	1.057	5194
4	20210.82	216.89	735	0.9777	1.2804	1.057	5891
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>157</u> Mcf/bbl.
1	1.10	547	1.50	0.897	A.P.I. Gravity of Liquid Hydrocarbons <u>53.0°</u> Deg.
2	1.10	548	1.50	0.897	Specific Gravity Separator Gas <u>0.610</u> XXXXXXXXX
3	1.10	546	1.50	0.895	Specific Gravity Flowing Fluid <u>XXXXX</u> 0.626
4	1.10	544	1.49	0.895	Critical Pressure <u>671</u> P.S.I.A. 670 P.S.I.A.
5					Critical Temperature <u>362</u> R 365 R

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.599$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.288$
1	5560	4781	22854	8064		
2		4410	19446	11472		
3		3962	15697	15220		
4		3403	11578	19340		
5						

Absolute Open Flow <u>7590</u> Mcfd @ 15.025				Angle of Slope <u>62° 28'</u>		Slope, n <u>0.521</u>	
Remarks: <u>Surface pressures corrected to BHP @ midperf (10,340) used for calculations</u>							
<i>Calculated by J.G. Perser</i>							
Approved By Commission:		Conducted By: Exxon Company, U.S.A.		Calculated By: J.G. Perser		Checked By: K.W. Bolt, Jr.	