

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

Form O-100
 Revised 9-1-65

95F
 File

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 7-11-83	
Company V.H. Westbrook		Connection Air	
Pool South Carlsbad		Formation Wolfcamp	
Completion Date 7-11-83	Total Depth 12030	Plug back To 9700	Flow Line KB 3118
Casing Size 5 1/2	Wt. 17#	Set At 12030	Perforations From 9398 To 9624
Tubing Size 2 7/8	Wt. N/80	Set At 9216	Perforations From 9606 To 9624
Type Well - Single - Protenthead - G.G. or G.O. Multiple Single			Packer Set At 9216
Producing thru tbg		Reservoir Temp. °F 170 • 9572	Mean Annual Temp. °F 9216
Prover 9572		H 9572	G _g 0.6739
% CO ₂ 0.445		% N ₂ 0.881	% H ₂ S Prover
Water Run 4.026		Flg 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							4120		Pkr		48 hrs
1.	4 X 1.000			600	7.00	106	3540	75			1 hr
2.	4 X 1.000			640	11.00	112	2960	75			1 hr
3.	4 X 1.000			640	18.00	116	2540	75			1 hr
4.	4 X 1.000			650	44.00	112	1940	75			1 hr

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compens. Factor, F _{pv}	Rate of Flow O. Well
1	4.753	65.52	613.2	.9585	1.218	1.052	382
2	4.753	84.71	653.2	.9535	1.218	1.052	492
3	4.753	108.43	653.2	.9501	1.218	1.052	627
4	4.753	170.82	663.2	.9535	1.218	1.052	992

NO.	η	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	.92	566	1.48	.904						
2	.98	572	1.50	.903						
3	.98	576	1.50	.903						
4	.99	572	1.51	.904						

* $r_p = 4813.3$ $P_r^2 = 23,168.1$

NO.	BHP	P_w	P_w^2	$P_r^2 - P_w^2$
1	5300.2	4241.8	17993.1	5175.0
2	4734.2	3742.3	14005.0	9163.1
3	4176.2	3259.9	10626.9	12541.2
4	3586.2	2766.6	7654.3	15513.8
5	5930.2	SIP		

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.493$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.410$

(3) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.399$

Absolute Open Flow	1.399	Mold @ 15.025	Angle of Slope ϕ	49.5	Slope, n	.857
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Remarks: * Calculated from B.H.P. Pressures affected by fluid

Approved by Commission:	Conducted by:	Calculated by:	Checked by:
	Davis Services, Inc.	J.D. Davis	