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O. C. D.
ARTESIA, OFFICE

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4-27-83	
Company Harper Oil Company ✓				Connection N G P L of America	
Pool Strawn				Formation Strawn	
Completion Date 5-27-83		Total Depth 7455'		Elevation 4197.2 GL.	
Casing Size 5 1/2"		Well No. 1		Farm or Lease Name Denton Fed.	
Tubing Size 2 3/8"		Well No. 1		Unit M 24 5S 27E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				County Chaves	
Producing Thru Tubing 6963		Reservoir Temp. °F 144° @ 6963'		State New Mexico	
Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		Prover 3"	
G _g .6987		% CO ₂ 1.852		% H ₂ S 7.416	
H 6963		Meter Run 3"		Taps Flange	

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							1874		PKR.	CHOKE	3 Months
1.	3	x	1.00	1219	10.13	104°	1490			6/64	1 Hr.
2.	3	x	1.00	1219	10.13	95	689			9/64	1 Hr.
3.	3	x	1.00	1478	27.4	102	520			23/64	1 Hr.
4.	3	x	1.00	1263	21.8	99	265			36/64	1 Hr.
5.											

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 Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	4.789	48.50	232.2	.9602	1.196	1.016	271
2	4.789	48.50	232.2	.9680	1.196	1.017	273
3	4.789	116.01	491.2	.9619	1.196	1.035	662
4	4.789	77.60	276.2	.9645	1.196	1.021	437
5							

NO.	R _f	Temp. °R	T _f	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	.35	564	1.55	.968			.699	XXXXXXX	665	365
2	.35	555	1.52	.966				XXXXX		
3	.74	562	1.54	.933						
4	.42	559	1.53	.960						
5										

NO.	P _i ²	P _w ²	P _w ²	P _e ² - P _w ²
1	1905.6	3631.3		
1		1803.3	3251.9	379.4
2		1449.5	2101.1	1530.2
3		948.5	899.7	2731.6
4		535.7	287.0	3344.3
5				

(1) $\frac{P_e^2}{P_e^2 - P_w^2} = 9.571$		(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 3.094$	
AND $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = .838$			

Absolute Open Flow	838	Mcfd @ 15.025	Angle of Slope @	63.5	Slope, n	500
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Remarks: Bottom Hole Pressures were measured with Kuster Gauge BHP 2303 @ 6963'

* Calculated from known Bottom Hole Pressures.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	B.T.	RER	RR

