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R-122

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
SEP 17 1975
O. C. C.
ARTESIA, OFFICE

R-5131

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 8-29-75		
Company: CITIES SERVICE OIL COMPANY		Connection: To Air			
Pool: Little Box Canyon Morrow Gas Wildcat		Formation: morrow		Unit:	
Completion Date: 8-19-75	Total Depth: 8350'		Plug Back TD: 8272'	Elevation: 4399 gr.	Farm or Lease Name: little box canyon unit
Csg. Size: 5 1/2" / Wt.: 17# / d: / Set At: 8314'			Perforations: From 7986' To 8142'		Well No.: 1
Tbg. Size: 2 7/8" / Wt.: 6.5# n-80 / d: / Set At: 7900'			Perforations: From open To ended		Unit: J / Sec.: 7 / Twp.: 21S / Rge.: 22E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 7900'		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 164° @ 8064'	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
8064	8064	0.6014	0.364	1.109	-----	------	4"	Flange

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					2345.0		Choke	Pkr.	
1.	4" X 1.125"	450.0	5.0	98	2203.0	86	6/64		60 Min.
2.	4" X 1.125"	430.0	15.0	98	2055.0	84	8/64		60 Min.
3.	4" X 1.125"	450.0	23.0	102	1918.0	82	10/64		60 Min.
4.	4" X 1.125"	425.0	51.0	58	1701.0	80	12/64		60 Min.
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	6.031	48.12	463.2	.9653	1.290	1.030	372
2.	6.031	81.54	443.2	.9653	1.290	1.029	630
3.	6.031	103.22	463.2	.9619	1.290	1.030	796
4.	6.031	149.49	438.2	1.002	1.290	1.038	1210
5.							

NO.	P_t	Temp. °R	T_r	Z
1	0.69	558	1.57	.942
2.	0.66	558	1.57	.944
3.	0.69	562	1.58	.943
4.	0.65	518	1.46	.928
5.				

Gas Liquid Hydrocarbon Ratio: TSTM Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: ____ Deg.
Specific Gravity Separator Gas: ____ XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX ____
Critical Pressure: 670 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 355 R ____ R

P_f 2971.2 P_f^2 8828

NO	P_t^2	P_c	P_c^2	$P_f^2 - P_c^2$
1		2827.2	7993	835
2		2685.2	7210	1618
3		2539.2	6448	2380
4		2276.2	5181	3647
5				

(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 2.4206$ (2) $\left[\frac{P_f^2}{P_f^2 - P_s^2}\right]^n = 2.005$

AOF = $Q\left[\frac{P_f^2}{P_f^2 - P_s^2}\right]^n = 2426$

Absolute Open Flow: 2426 Mcfd @ 15.025 Angle of Slope θ: 51.8° Slope, n: 0.787

Remarks: Bottom hole pressures measured with kuster gauge @ 8064
Good point alignment, Good test

Approved by Commission:	Conducted By:	Calculated By:	Checked By:
	Don Tyson	Roy West	J.W.W.