NMOCC

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 1973
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

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SEP 18 1973
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 9-10-73	
Company: Cities Service Oil Company	Connection: Waiting for connection			Unit
Pool: Undesignated Wildcat-Morrow	Formation: Morrow			
Completion Date: 9-11-73	Total Depth: 11,500'	Plug Back TD: 11,439'	Elevation: 3,260 KB	Farm or Lease Name: Government "R"
Csg. Size: 5 1/2 / Wt.: 17#&20# / d: / Set At: 11,500	Perforations: From 11,331 To 11,349			Well No.: 1
Tbg. Size: 2 7/8 / Wt.: 6.4 / d: / Set At: 11,070	Perforations: From To			Unit: K / Sec.: 14 / Twp.: 20S / Rge.: 28E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 11,070			County: Eddy
Producing Thru: Tbg.	Reservoir Temp. °F: 180@ 11,439	Mean Annual Temp. °F:	Baro. Press. – P_a:	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11,070	15	.6172	.28	.78				Flange

	FLOW DATA					TUBING DATA		CASING DATA		
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	Duration of Flow
SI						3630				
1.	6	3	760	4	58	3263	74			1 hr.
2.	6	3	780	9	64	2940	74			1 hr.
3.	6	3	780	14.5	64	2524	74			1 hr.
4.	6	3	765	25	76	1974	74			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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	44.51	55.14	760	1.002	1.2729	1.092	3418
2.	44.51	83.79	780	.9962	1.2729	1.078	5098
3.	44.51	106.35	780	.9962	1.2729	1.078	6471
4.	44.51	138.29	765	.9850	1.2729	1.069	8250
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	1.132	518	1.42	.838
2.	1.162	524	1.44	.860
3.	1.162	524	1.44	.860
4.	1.140	536	1.47	.875
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons None Deg.
Specific Gravity Separator Gas .6172 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 671 P.S.I.A. _____ P.S.I.A.
Critical Temperature 365 R _____ R

P_c 4615 P_c^2 21298x10³

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		4251	18071	3227
2		3901	15218	6080
3		3460	11972	9326
4		2893	8369	12929
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.6473$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3596$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 11,217$

Absolute Open Flow 11,217 Mcfd @ 15.025 | Angle of Slope θ 31.6 | Slope, n .6155

Remarks: Bottom hole pressure bomb used to obtain sandface pressures.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Ed Lowrey	Ed Lowrey	George Davis