NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JUN 4 1981
O. C. D.
ARTESIA, OFFICE

Type Test: X Initial				Test Date: 5-26-81	
Company: Cities Service Company		To Air			
Pool: Ext. for Flat Morrow		Morrow			
Completion Date: 5-20-81	Total Depth: 11,725'		11,686	Elevation: 3113 Gr.	Lease Name: Tracy "C" Com
Csg. Size: 5½"	Wt.: 20#	d: 4.778"	Set At: 11,725'	Perforations: From 11,299' To 11,377'	Well No.: 1
Tbg. Size: 2 7/8"	Wt.: 6.5#	d: 2.441"	Set At: 11,198'	Perforations: From Open Ended	Unit: H Sec.: 32 Twp.: 21S Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 11,190'		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 198 @ 11,338'	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2		State: New Mexico
L: 11338	H: 11338	Gg: .5791	% CO_2: .853	% N_2: .355	% H_2S: -0-
Prover:	Meter Run: 3"	Taps: Flange			

NO.	FLOW DATA: Prover Line Size	x	Orifice Size	Press. p.s.i.g.	Diff.	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							2542	60	Pkr	Choke	97 Hrs
1.	3"	x	1.25"	490	6"	94	2377	60		6/64	1 Hr
2.	3"	x	1.25"	510	10"	87	2145	60		8/64	1 Hr
3.	3"	x	1.25"	525	20"	79	1745	60		10/64	1 Hr
4.	3"	x	1.25"	530	32"	87	1212	60		13/64	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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.577	54.95	503.2	.9688	1.314	1.040	551
2.	7.577	72.33	523.2	.9750	1.314	1.044	733
3.	7.577	103.75	538.2	.9822	1.314	1.043	1058
4.	7.577	131.84	543.2	.9750	1.314	1.043	1335
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.746	520	1.50	.925
2.	.775	520	1.50	.918
3.	.797	520	1.50	.920
4.	.805	520	1.50	.919
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons Dry Gas Deg.
Specific Gravity Separator Gas .5791 XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 675 P.S.I.A. _____ P.S.I.A.
Critical Temperature 347 R _____ R

*P_c 2555.2 P_c^2 6529.05

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1875.8	3518.6	3010.5
2		1696.1	2876.8	3652.3
3		1387.0	1923.8	4605.3
4		973.3	947.3	5581.8
5				

$\frac{P_c^2}{P_c^2 - P_w^2} = 1.1697$ $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1697$

$\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.601$

Absolute Open Flow 1,601 Mcfd @ 15.025 Angle of Slope θ 45 Slope, n 1.000

Remarks: *Calculated from known Bottom Hole Pressures. Pressures measured with Amerada pressure gauge @ 11,338'. Plot was slightly flat, used 45° thru high rate of flow.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	W.S.	M.K.	M.K.