

COPY 42
6172
Form C-122
Revised 9-1-65

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

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11-9-74	
Company CITIES SERVICE OIL COMPANY		Connection G.C.C. ARTEZIA, OFFICE	
Pool BURTON REAT		Formation WOLFCAMP	
Completion Date 11-4-74		Total Depth 11533'	
Plug Back TD 11483'		Elevation	
Farm or Lease Name GOVERNMENT "AA"		Well No. 1	
Csg. Size 5 1/2"	Wt. 17# 20#	Set At 11533'	Perforations: From To
Thg. Size 2 7/8	Wt.	Set At 9008'	Perforations: From 9205' To 9263'
Type Well - Single - Bradenhead - G.G. or G.O. Multiple GAS - GAS		Packer Set At 9318 B.P.	
Producing Thru TUBING		Reservoir Temp. °F 153 @ 9275'	
Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L	H	G _g 0.6784	% CO ₂ 1.47
		% N ₂ 1.05	% H ₂ S -0-
Prover ---		Meter Run 6"	
Taps FLANGE		County EDDY	
State NEW MEXICO			

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							2355.0				
1.	6"	x	1.75"	630.0	52.0	45	1603.0	52			24/64"
2.	6"	x	1.75"	260.0	26.0	46	1555.0	52			20/64"
3.	6"	x	1.75"	610.0	14.0	50	1530.0	53			17/64"
4.	6"	x	1.75"	610.0	7.0	50	1571.0	55			14/64"
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	14.61	182.88	643.2	1.015	1.214	1.080	3556
2	14.61	128.31	633.2	1.014	1.214	1.078	2488
3	14.61	93.41	623.2	1.010	1.214	1.075	1799
4	14.61	66.05	623.2	1.010	1.214	1.075	1272
5							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio <u>3652</u> Mcf/bbl. A.P.I. Gravity of Liquid Hydrocarbons <u>49.7</u> Deg. Specific Gravity Separator Gas <u>0.6784</u> X X X X X X X X Specific Gravity Flowing Fluid <u>X X X X X</u> Critical Pressure <u>672</u> P.S.I.A. P.S.I.A. Critical Temperature <u>378</u> R R
1.	0.96	505	1.34	.858	
2.	0.94	506	1.34	.860	
3.	0.93	510	1.35	.866	
4.	0.93	510	1.35	.866	
5.					

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.5598$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.1354$ AOF = $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2716$
1	2612	3272.2	10707	2749	
2	2459	3202.2	10254	3202	
3	2381	3205.2	10273	3183	
4	2510	3241.2	10505	2951	
5					

Absolute Open Flow <u>2716</u> Mcfd @ 15.025		Angle of Slope <u>63.5°</u>		Slope, n <u>0.500 LIMITED</u>	
Remarks: <u>BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 9275'.</u>					
<u>PRESSURES CONTINUED TO DECREASE EVEN WHEN FLOW RATES RUN IN DECREASING SEQUENCE.</u>					
<u>THEREFORE, 0.500 LIMITED SLOPE DRAWN THROUGH LOW RATE OF FLOW.</u>					
Approved By Commission:		Conducted By: D. TYSON		Checked By: R. WEST	