NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TES. FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [x] Initial [ ] Annual [ ] Special			Test Date: 2-28-74	
Company: Cities Service Oil Company	Connection: None			
Pool: ~~South Carlsbad~~	Formation: Morrow		Unit	
Completion Date: 2-28-74	Total Depth: ~~6442~~ 11634	Plug Back TD: 11593	Elevation: 3089 G.L.	Farm or Lease Name: Paslay A Com.
Csg. Size: 7 5/8 & 5½	Wt.: 30 & 20	d: 6.875 / 4.778	Set At: 11634	Perforations: From 11123 To 11557 — Well No.: 1
Tbg. Size: 2 7/8	Wt.: 6.5	d: 2.441	Set At: 11311	Perforations: From To — Unit: K, Sec.: 8, Twp.: 22, Rge.: 27
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Gas - Gas - Dual		Packer Set At: 11,072'		County: Eddy
Producing Thru: Tubg.	Reservoir Temp. °F: 180 @ 11,500 Est.	Mean Annual Temp. °F	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
*10365	* 10365	.581	.79	.75	.06 Gr.		4"	Flg.

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI									3391	74	72 hr.
1.	4	x	2.000	780	6.50	92			3047	61	1 hr.
2.	4	x	2.000	780	22.00	82			2847	65	1 hr.
3.	4	x	2.000	785	40.00	75			2620	71	1 hr.
4.	4	x	2.000	700	74.00	62			2281	72	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	19.81	71.80	793.2	.9706	1.312	1.048	1,898
2	19.81	132.10	793.2	.9995	1.312	1.048	3,596
3	19.81	178.68	798.2	.9859	1.312	1.063	4,867
4	19.81	229.73	713.2	.9981	1.312	1.064	6,341
5							

NO.	P_r	Temp. °R	T_r	Z
1.	1.18	552	1.58	.911
2.	1.18	542	1.55	.911
3.	1.19	535	1.53	.885
4	1.06	512	1.46	.884
5				

Gas Liquid Hydrocarbon Ratio 186.8 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 51.2 @ 60° Deg.
Specific Gravity Separator Gas .581 — XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX — G Mix .598
Critical Pressure 672 P.S.I.A. — 672 P.S.I.A.
Critical Temperature 350 R — 354 R

P_c 3404.2 P_c^2 11588.6

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3060.2	9364.8	2223.8
2		2861.2	8186.5	3402.1
3		2635.2	6944.3	4644.3
4		2297.2	5277.1	6311.5
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.836$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.765$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 11.192$

Absolute Open Flow 11.192 Mcfd @ 15.025 — Angle of Slope θ 47.0 — Slope, n .935

Remarks: Made 2.5 Bbls. 51.2 API Condensate on last (2) Rates of flow test.
* Equiv. length convert to 6 5/8 30# and 2 7/8 6.5 length = 10,365

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John West Engineering Co.	Joe B. Murray (EPNG)	

* 1.0. 6 5/8 = 6.154 O. D. 2 7/8 Fr = .0017941