C/SF

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JAN 29 1981
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 1-9-81	
Company: Belco Petro. Corp. ✓			Connection: El Paso Natural Gas Company		
Pool: North Loving Morrow			Formation: Morrow		Unit
Completion Date: 12-5-80	Total Depth: 12,750		Plug Back TD: 12,465	Elevation: 3114.6	Farm or Lease Name: Cassidy Com.
Csg. Size: 5½ / Wt: 7# / d: 4.892	Set At: 9670'	Perforations: 9250-12750	From: 12,216	To: 12,330	Well No.: 1
Tbg. Size: 2 7/8 / Wt: 6.5# / d: 2.441	Set At: 12,085	Perforations: From	To		Unit: E / Sec.: 29 / Twp.: 23S / Rge.: ~~25~~ 30E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 12,085		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 202 @ 12,273	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2		State: New Mexico
L: 12085 / H: 12085	Gg: .5736	% CO_2: 1.259	% N_2: .271	% H_2S:	Prover: / Meter Run: 4" / Taps: Flg.

	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						2607		Pkr.	Choke	24 hr.
1.	4"	x 1.75	340	8.4	70	1880	47°		8.5/64	1 hr
2.	4"	x 1.75	345	12.56	66	1946	50°		10.5/64	45 min.
3.	4"	x 1.75	350	30.25	64	1794	59°		13/64	45 min.
4.	4"	x 1.75	355	43.56	63	1684	62°		16.5/64	45 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	14.93	54.47	353.2	.9905	1.321	1.025	1090.7
2.	14.93	68.13	358.2	.9943	1.321	1.027	1372.1
3.	14.93	104.82	363.2	.9962	1.321	1.028	2117.1
4.	14.93	126.64	368.2	.9971	1.321	1.028	2560.1
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.5217	530	1.5407	.951
2.	.5291	526	1.5291	.949
3.	.5365	524	1.5233	.947
4.	.5439	523	1.563	.947
5.				

Gas Liquid Hydrocarbon Ratio: TSTM Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: .5736 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 677 P.S.I.A. P.S.I.A.
Critical Temperature: 344 R R

* P_c 2620.2 P_c^2 6865.45

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1977	3909	2956
2		1973.5	3895	2970
3		1849.0	3419	3446
4		1761	3101	3764
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8329$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.8329$

AOF = $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 4,670$

Absolute Open Flow: 4,670 Mcfd @ 15.025 Angle of Slope θ: 45° Slope, n: 1

Remarks: Rate slope exponent was greater than 1 - use 45° line thru High Rate used to Bst. the line. * Calculated from known Bottom Hole Pressures

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