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O. C. C.
ARTESIA, OFFICE

1-27 File C-122

NEW MEXICO OIL CONSERVATION COMMSSION
MULTI-POINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 8-9-78	Spud Date: 5-17-78
Company: Flag-Redfern Oil Company		Connection: None		
Pool: Angell Ranch Wolfcamp		Formation: Morrow		Unit: K
Completion Date: 8-9-78	Total Depth: 11150	Plug Back TD: 11091	Elevation: 3463 GL	Farm or Lease Name: Lakewood St. Com
Csg. Size: 4½ / Wt.: 11.6 / d: 4.0000 / Set At: 11150		Perforations: From 10791 To 10907		Well No.: 1
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: 1.995 / Set At: 10646		Perforations: From open To ended		Unit: K / Sec.: 25 / Twp.: 19 / Rge.: 27
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 10646		County: Eddy
Producing Thru: Tbg.	Reservoir Temp. °F: 169 @ 11150	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico
L: 10646	H: 10646	Gg: .605	% CO_2:	% N_2: / % H_2S: / Prover: 6" Positive Chokes / Meter Run: / Taps:

FLOW DATA

NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI	6" Positive Cks.					3400		Pkr.		72 hrs.
1.	3/16		1960		74	1960		Pkr.		1 hr.
2.	7/32		1277		74	1277		Pkr.		1 hr.
3.	1/4		910		76	910		Pkr.		1 hr.
4.	5/16		490		76	490		Pkr.		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	.6101		1978.2	.9868	1.286	1.134	1,732
2.	.8419		1290.2	.9868	1.286	1.098	1,514
3.	1.112		923.2	.9850	1.286	1.072	1,394
4.	1.771		503.2	.9850	1.286	1.040	1,174
5.							

NO.	P_t	Temp. °R	T_t	Z
1.	2.94	534	1.49	.778
2.	1.92	534	1.49	.829
3.	1.38	536	1.50	.870
4.	.75	536	1.50	.925
5.				

Gas Liquid Hydrocarbon Ratio: None Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Dry Gas Deg.
Specific Gravity Separator Gas: .605 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 671 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 358 R ____ R

P_c 3413.2 P_c^2 11649.9

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			3983.3	7666.6
2			1736.7	9913.2
3			916.2	10733.7
4			301.6	11348.3
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.027$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.013$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.190$

Absolute Open Flow: 1,190 Mcfd @ 15.025 | Angle of Slope θ: 63.5 | Slope, n: .500

Remarks: Excessive draw down on wellhead pressure, therefore slope plotted backward. A 63.5 slope was drawn through low rate of flow.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Reston & Pagan	J. B Murray	