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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

O.L CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 1/18/83

Company: Exxon Company USA	Connection: None		
Pool: Many Gates	Formation: Morrow		Unit
Completion Date: 1/13/83	Total Depth: 10000'	Plug Back TD: 9800'	Elevation: 4044'GL
Farm or Lease Name: Isler Federal			
Csg. Size: 5½" / Wt.: 17.0 / d: 4.892 / Set At: 9999'	Perforations: From 8924' To 9410'		Well No.: 4
Tbg. Size: 2 7/8" / Wt.: 6.5 / d: 2.441 / Set At: 8860'	Perforations: From Open Ended To		Unit: P / Sec.: 30 / Twp.: 9s / Rge.: 30e
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 8860'		County: Chaves
Producing Thru: Tubing	Reservoir Temp. °F: 170° @ 8871'	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2
State: New Mexico			

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
9167'	–	0.6743	0.904	1.520	–	–	2.900	F

	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. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI						2063	61	PACKER		26.0 hrs
1.	2.90	4/64 0.750	510	5	76	1880	58			1.0 hr
2.	2.90	5/64 0.750	520	8	79	1750	58			1.0 hr
3.	2.90	5.5/64 0.750	510	13	79	1595	59			1.0 hr
4.	2.90	6/64 0.750	525	19	78	1395	59			1.0 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	2.675	51.15	523.2	0.9850	1.218	1.049	172.20
2.	2.675	65.31	533.2	0.9822	1.218	1.049	219.24
3	2.675	82.47	523.2	0.9822	1.218	1.048	276.58
4.	2.675	101.12	538.2	0.9831	1.218	1.051	340.41
5							

NO.	P_t	Temp. °R	T_z	Z
1	0.78	536	1.43	0.908
2.	0.80	539	1.44	0.908
3.	0.78	539	1.44	0.910
4.	0.80	538	1.43	0.906
5				

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: – Deg.
Specific Gravity Separator Gas: 0.6743 (XXXXXXXXX)
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 670 P.S.I.A. (–) P.S.I.A.
Critical Temperature: 375 R (–) R

P_c 2802.2 P_c^2 7852.3

NO	P_t^2	P_w *	P_w^2	$P_c^2 - P_w^2$
1		2569.2	6600.8	1251.5
2		2416.2	5838.0	2014.3
3		2222.2	4938.2	2914.1
4		2001.2	4004.8	3847.5
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.90$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.52$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 552.48$

Absolute Open Flow: 552 Mcfd @ 15.025
Angle of Slope θ: 55° 47'
Slope, n: 0.680

Remarks: * BOTTOM HOLE PRESSURE @ (-5123)9167' USED FOR PRESSURE CALCULATIONS

Joe A. Coleman

Approved By Division	Conducted By:	Calculated By:	Checked By:
	JARREL WELL TESTING, INC	Joe A. Coleman	#PE 2208 Joe A. Coleman