MEXICO OIL CONSERVATION COMM .ON

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [x] Initial [ ] Annual [ ] Special					Test Date: 07/09/74				
Company: Atlantic Richfield Company				Connection: Northern Natural Gas					
Pool: Eumont				Formation: Queen				Unit:	
Completion Date: 06/17/74		Total Depth: 3971		Plug Back TD: 3715		Elevation: 3584 DF		Farm or Lease Name: State H	
Csg. Size: 5.5	Wt.: 17	d: 4.892	Set At: 3796	Perforations: From 3410 To 3588				Well No.: 3	
Tbg. Size: 2.375	Wt.: 4.7	d: 1.995	Set At: 3620	Perforations: From Open Ended To				Unit: J Sec.: 5 Twp.: 21-S Rge.: 36-E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single				Packer Set At: None				County: Lea	
Producing Thru: Tbg.	Reservoir Temp. °F: 84 @ 3500		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2				State: New Mexico	
L: 3620	H: 3620	Gg: 0.680	% CO_2: ---	% N_2: ---	% 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	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							390	87	390	87	96 hr.
1.	4	x	1.75	6	3.1	91	287	84	386	84	1 hr.
2.	4	x	1.75	8	6.5	92	283	84	382	84	1 hr.
3.	4	x	1.75	11	11.8	94	277	84	376	84	1 hr.
4.	4	x	1.75	26	27.7	95	255	82	347	82	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	14.93	7.71	19.2	0.9715	1.213	1.002	135.92
2	14.93	11.73	21.2	0.9706	1.213	1.002	206.60
3	14.93	16.90	24.2	0.9688	1.213	1.002	297.10
4	14.93	32.95	39.2	0.9680	1.213	1.003	579.37
5							

NO.	P_r	Temp. °R	T_r	Z
1	.03	551	1.43	0.997
2	.03	552	1.43	0.996
3	.04	554	1.44	0.996
4	.06	555	1.44	0.994
5				

Gas Liquid Hydrocarbon Ratio -0- Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons -0- Deg.
Specific Gravity Separator Gas .680 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX .680
Critical Pressure 669.0 P.S.I.A. 669.0 P.S.I.A.
Critical Temperature 385.0 R 385.0 R

P_c 403.2 P_c^2 162.6

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		399.2	159.4	3.2
2		395.2	156.2	6.4
3		389.2	151.5	11.1
4		360.2	129.7	32.9
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 14.649$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5.411$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1608$

Absolute Open Flow 1608 Mcfd @ 15.025 Angle of Slope θ 58 Slope, n 0.629

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	J. Cogburn	J. Cogburn	L. C. Hudry