COPY TO O. C. C.

NM-4312

NEW MEXICO OIL CONSERVATION COMMISSION

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: 2/16/80			
Company: Chama Petroleum Co.			Connection: El Paso Natural Gas Co.				
Pool: Undesignated North Quail ridge			Formation: Morrow			Unit	
Completion Date: Jan. 9, 1980	Total Depth: 13400'		Plug Back TD: 13357'	Elevation: 3794'KB		Farm or Lease Name: Pennzoil Federal	
Csg. Size: 5½"	Wt.: 17.0	d: 4.892	Set At: 13400'	Perforations: From 13317 To 13327		Well No.: 2	
Tbg. Size: 2 7/8"	Wt.: 6.5	d: 2.441	Set At: 13276	Perforations: From Open Ended To		Unit: H	Sec.: 12	Twp.: 19s	Rge.: 33e
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single				Packer Set At: 13276		County: Lea	
Producing Thru: Tubing	Reservoir Temp. °F: 206 @ 13200		Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2		State: New Mexico	
L: 13322	H: –	Gg: 0.7026	% CO_2: 0.64	% N_2: 1.56	% H_2S: –	Prover:	Meter Run: X	Taps: F

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							4025 DWT		PACKER		73.5
1.	4		7/64	1.750	534	6	68	3955			1.0
2.	4		11/64	1.750	549	26	74	3910			1.0
3.	4		13/64	1.750	564	48	74	3850			1.0
4.	4		15/64	1.750	564	85	75	3790			1.0
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	57.31	547.2	0.9924	1.193	1.062	1075.83
2	14.93	120.92	562.2	0.9868	1.193	1.060	2252.86
3	14.93	165.77	577.2	0.9868	1.193	1.061	3091.37
4	14.93	220.98	577.2	0.9859	1.193	1.061	4117.20
5							

NO.	P_t	Temp. °R	T_f	Z
1	0.82	528	1.37	0.887
2	0.84	534	1.39	0.891
3	0.86	534	1.39	0.889
4	0.86	535	1.39	0.889
5				

Gas Liquid Hydrocarbon Ratio: 10.667 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 52.0 Deg.
Specific Gravity Separator Gas: 0.7026 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 669 P.S.I.A. – P.S.I.A.
Critical Temperature: 385 R – R

P_c 6170.2 P_c^2 38071.4

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		6106.2	37285.7	785.7
2		6032.2	36387.4	1684.0
3		5982.2	35786.7	2284.7
4		5910.2	34930.5	3140.9
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 48.467$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 40.70$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 43787$

Absolute Open Flow: 43787 Mcfd @ 15.025 Angle of Slope θ: 46° 20' Slope, n: 0.955

Remarks: * BOTTOM HOLE PRESSURE @ (-9528) 13322' USED FOR PRESSURE CALCULATIONS

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
Orig. Signed by Jerry Sexton Dist 1, Supv.	JARREL SERVICES, INC.	Joe A. Coleman	Joe A. Coleman