

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 04-18-91			
Company Chevron U.S.A.				Connection					
Pool Eumant				Formation Eumant Queen				Unit	
Completion Date 03-05-91		Total Depth 3750		Plug Back TD 3735		Elevation		Form or Lease Name Houston Campbell Gas Co.	
Csg. Size 5 1/2	Wt. 17#	d	Set At 3750	Perforations From 3036 To 3707		Well No. 5			
Tub. Size 2 3/8	Wt. 4.7	d 1.995	Set At 3003	Perforations From OPEN To END		Unit Sec. Twp. Rge. P 7 21 36			
Type Well - Single - Borehead - G.C. or G.O. Multiple Single				Packer Set At 3003		County Lea			
Producing Thru Tubing		Reservoir Temp. °F 104 @ 3003		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 3003	H 3003	G .688	% CO ₂ 1.23	% N ₂ 2.40	% H ₂ S ----	Prover	Water Run 2.067	Taps Flange	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
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	
SI							167		PKR		5 days
1.	2	X	1.250	35	16.00	68	158		PKR		1 hr.
2.	2	X	1.250	35	41.00	69	150		PKR		1 hr.
3.	2	X	1.250	35	72.00	69	141		PKR		1 hr.
4.	2	X	1.250	35	94.00	69	133		PKR		1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_{p,m}}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf
1	8.120	27.77	48.2	.9924	1.206	1.006	272
2	8.120	44.45	48.2	.9915	1.206	1.006	434
3	8.120	58.91	48.2	.9915	1.206	1.006	575
4	8.120	67.31	48.2	.9915	1.206	1.006	658
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.07	528	1.39	.989	DRY GAS	DRY	.688	XXXXXX	*670	*378
2.	.07	529	1.39	.989				XXXXX		
3.	.07	529	1.39	.989						
4.	.07	529	1.39	.989						
5.										

NO.	P ₁ ²	P _w ²	P _r ²	P ₁ ² - P _r ²
1		173.9	30.2	2.2
2		170.2	29.0	3.5
3		167.0	27.9	4.6
4		163.6	26.8	5.7
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 5.702$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.356$

(2) $\left[\frac{P_c^2}{P_c^2 - P_r^2} \right]^n = 5.101$

Absolute Open Flow	3,356	Mscf @ 15.025	Angle of Slope θ	46.9	Slope, n	.936
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Remarks: *=corrected to 1.23% CO₂ & 2.40% N₂
NO FLUID PRODUCED DURING TEST

RECEIVED

APR 23 1991

U.S. DEPARTMENT OF
HOMELAND SECURITY