

MULTIPHASE ANALYSIS - PLUG BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Special		Test Date 4/2/85	
Company Amoco Production Co.		Production El Paso Natural Gas Co.	
Pool Basin		Formation Dakota	
Completion Date 3/22/85		Total Depth 6230	Plug Back TD 6185
		Elevation 5843 GL	Farm or Lease Name Gallegos Canyon Unit
Csg. Size 7.000	Wt. 23	Set At 6.366	Set At 6230
Perforations: From 6002 To 6090		Well No. 137E	
Tub. Size 2.375	Wt. 4.7	Set At 1.995	Set At 6097
Perforations: From open To ended		Unit Sec. Twp. Rye. M 36 28 13	
Type Well - Single - Brodenhead - G.C. or G.O. Multiple Single		Packer Set At none	
Producing Thru tubing		Baro. Press. - P _a New Mexico	
L	H	G _g	% CO ₂ % N ₂ % H ₂ S
Prover		Meter Run Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI	10 days						842		858	
1.	2875	.750					118		363	
2.										
3.										
4.										
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, F _{pv}	Rate of Flow Q, Mc/d
1	12.365		130	1.000	.9258	1.015	1510
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons	Deq.
2.					Specific Gravity Separator Gas	X X X X X X X X
3.					Specific Gravity Flowing Fluid	X X X X X
4.					Critical Pressure	P.S.I.A.
5.					Critical Temperature	R

NO.	P _r	P _w	P _r ²	P _w ²	P _r ² - P _w ²
1	870	375	756900	140625	616275
2.					
3.					
4.					
5.					

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.2282$

$AOI = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1762$

$\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.1667$

Absolute Open Flow	1762	Mcf/d @ 15.025	Angle of Slope	75
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Remarks: Lite H2O, Lite condensate, not flared

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Dean Services	J. T. Barnett	

RECEIVED

OCT 22 1985

OIL CON. DIV.
DIST. 3