

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 2-9-82	
Company MEADCO, LTD.		Connection El Paso Natural Gas Company	
Pool Golden Lane <i>memorandum</i>		Formation Morrow	
Completion Date 9-8-81		Total Depth 12,796 12,800	
Plug Back TD 12,176		Elevation	
Farm or Lease Name Harris Fed		Well No. 2	
Csg. Size 5 1/2"	Wt. 17	d 4.892	Set At 12,800
Perforations: From 12,310 To 12,775		Well No. 2	
Tbg. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 10,403
Perforations: From Open To end		Unit N	
Type of Well - Single - Brdenhead - G.C. or G.O. Multiple Single		Packer Set At 10,370	
County Eddy		State New Mexcio	
Producing Thru Tbg.		Reservoir Temp. °F 199 @ 12,542.5	
Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
* L 12,542.5	H 12,542.5	G _g .605	% CO ₂ .90
% N ₂ .68	% H ₂ S .12 Gr.	Prover	Meter Run 4"
Taps Flg.			

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							3568				24 hr.
1.	4	x	1.00	149	5.06	52	3357				1 hr.
2.	4	x	1.00	192	9.0	60	3253				1 hr.
3.	4	x	1.00	223	23.04	66	3029				1 hr.
4.	4	x	1.00	234	57.76	64	2660				1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor FL	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	4.753	28.65	162.2	1.008	1.286	1.015	179
2	4.753	42.97	205.2	1.000	1.286	1.019	268
3	4.753	73.77	236.2	.9943	1.286	1.020	457
4	4.753	119.49	247.2	.9962	1.286	1.022	744
5							

NO.	$\bar{r}_w$	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	.24	512	1.43	.971	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	.31	520	1.45	.964	Specific Gravity Separator Gas .605
3	.35	526	1.47	.961	Specific Gravity Flowing Fluid X X X X X
4	.37	524	1.46	.958	Critical Pressure 671 P.S.I.A.
5					Critical Temperature 358 °R

P _c 3581.2 P _c ² 12825.0			
NO.	P _w	P _w ²	P _c ² - P _w ²
1	3370.4	11359.3	1465.7
2	3266.5	10670.3	2154.7
3	3043.2	9261.3	3563.7
4	2676.2	7162.3	5662.7
5			

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.265$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.685$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.265$$

Absolute Open Flow	1,685	Mcfd @ 15.025	Angle of Slope °	45	Slope, n	1.000
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Remarks: No fluid made during test.
 * Effective diameter is 2.066 calculated to mid-perfs. Friction factor is .016234.

Approved by Division	Conducted by: Bill Rea and Roy McGowen--EP Explor	Calculated by: Roy McGowen	Checked by:
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