

N. MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

HNP-7-1-66 O.C.C.

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date MAR 10 08 AM '67	
Company United States Smelting, Refining & Mining Co.				Connection None			
Pool Los Puma				Formation Pennsylvanian		Unit H	
Completion Date 1-25-67		Total Depth 13275		Plug Back TD 13216		Elevation 3656 DF	
Csg. Size 4 1/2		Wt. 11.6 lb		Set At 13274		Perforations: From 12902 To 13024	
Tbg. Size 2 1/16		Wt. 3.25		Set At 12875		Perforations: From 08 To 	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 12875		Well No. 2	
Producing Thru Tubing		Reservoir Temp. °F 178 @ 12800		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 12875		H 12963		G _q		Prover I	
				% CO ₂ Nil		% N ₂ Nil	
				% H ₂ S		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. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI									66
1.	2 x 5/8			48		50	2600	70	1
2.	"			58		57	2090	70	1
3.	"			85		70	1541	70	1
4.	"			95		71	1080	70	1
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, Mcfd
1	6.473		61.2	1.010	1.240	1.007	499
2	"		71.2	1.003	1.240	1.008	578
3	"		98.2	.9905	1.240	1.011	790
4	"		108.2	.9896	1.240	1.011	868
5.							

NO.	P _t	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	.0913	510	1.360	.986	27.5	44	.650			
2	.1063	517	1.379	.984						
3	.1466	530	1.413	.979						
4	.1615	531	1.416	.979						
5.										

P_t = 3039.2 **P_g = 46,638**

NO.	P _t ²	P _g ²	P _t ² - P _g ²
1			
2	4257.2	18124	28514
3	1504.2	12279	14359
4	2914.2	8493	10145
5	3039.2	4158	42480

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{46,638}{46,638 - 4158}$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.098$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 953$

Absolute Open Flow 953 Mcfd @ 15.025	Angle of Slope θ 45°	Slope, n 1.000
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Remarks: **HNP Measured with Amerada RPC-3 Gauge**
Back Pressure Curve is P_t² - P_g²

Approved By Commission:	Conducted By: Tefteller, Inc.	Calculated By: P. Tefteller	Checked By:
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