

RECEIVED BY CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501
NOV 21 1986
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL
O. C. D.
ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11/14/86	
Company HNG OIL COMPANY		Connection El Paso Natural Gas	
Pool Owen Mesa <i>Atoka</i>		Formation Atoka	
Completion Date 5/21/86	Total Depth 13090	Plug Back TD 13040	Elevation 3080 GR
Coq. Size 4 1/2	WI. 13.5	d 3.920	Set AI 13090
Perforations: From 12690 To 12695	Well No. 1		
Thq. Size 2 3/8	WI. 4.7	d 1.995	Set AI 10,911
Perforations: From Open To End	Unit Sec. Twp. Rge. L 25 24S 29E		
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single		Packer Set AI 10,911	
Producing Thru Tbg.	Reservoir Temp. °F 187 • 12693	Mean Annual Temp. °F 60	Baro. Press. - P _g 13.2
County Eddy		State New Mexico	
L 12693	H 12693	G _g .593	% CO ₂ .453
% N ₂ .411	% H ₂ S --	Prover --	Meter Run 3.068
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							5035	60	2050	60	72 hr.
1.	3.068 X 1.500			565	4	76	4525	60	1050	60	165 min.
2.	3.068 X 1.500			565	9	76	4107	60	2050	60	75 min.
3.	3.068 X 1.500			570	15	76	3795	60	2050	60	90 min.
4.	3.068 X 1.500			570	23	76	3248	60	2050	60	120 min.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow O, Mcd
1	11.13	48.09	578.2	.9850	1.299	1.014	694
2	11.13	68.01	578.2	.9850	1.299	1.014	982
3	11.13	93.53	583.2	.9850	1.299	1.014	1334
4	11.13	115.82	583.2	.9850	1.299	1.014	1672
5.							

NO.	R ₁	Temp. °R	T ₁	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	.85	536	1.53	.973	Dry				675	350
2.	.85	536	1.53	.973						
3.	.86	536	1.53	.972						
4.	.86	536	1.53	.972						
5.										

NO.	P ₁	P _S	P ₂	P ₂ - P ₁
1	5972.2	35667.2	9078.2	
2	5530.2	30583.1	14162.3	
3	5133.2	26349.7	18395.7	
4	4419.2	19529.3	25216.1	
5.				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.15$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.64$$

$$AOF = O \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2592$$

Absolute Open Flow 2592 Mcd @ 15.025 Angle of Slope 49.75 Slope, n .847

Remarks: Calculated from Known bottom hole pressure set @ 12693'; Well made no fluid during test

Approved By Division	Conducted By: Duke Services, Inc.	Calculated By: B.R. Duke	Checked By:
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