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MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL
O. C. D.
ARTESIA, OFFICE

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 11/15/85	
Company H.N.G. Oil Company		Connection None	
Pool Ind. <i>Malaga Atoka</i>		Formation Atoka	
Completion Date 9/28/85		Total Depth 13,058	Plug Back TD 12,995
Elevation 2955.8' GR		Farm or Lease Name Fort 18 Com	
Csq. Size 7	Wi. 23	d 6.366	Set At 10,650'
Perforations: From 12027 To 12038		Well No. 1	
Tbg. Size 2 3/8	Wi. 4.7	d 1.995	Set At 10,331'
Perforations: From Open To End		Unit Sec. Twp. Rge. E 18 24S 29E	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At 10,306	County Eddy
Producing Thru Tbg.	Reservoir Temp. °F 194 @ 12033	Mean Annual Temp. °F 60	Baro. Press. - P _g 13.2
State New Mexico		Meter Run 3"	Taps Flg
L 12033	H 12033	G _g .577	% CO ₂ .594
% N ₂ .608	% H ₂ S	Prover	

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
							Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							4505				
1.	3.068 X 1.00			600	8	80	3680				1 hr.
2.	3.068 X 1.00			600	15	95	2770				1 hr.
3.	3.068 X 1.00			600	26	84	1870				1 hr.
4.	3.068 X 1.00			530	32	83	980				1 hr.
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	4.789	70.04	613.2	.9813	1.316	1.041	451
2	4.789	95.91	613.2	.9680	1.316	1.037	607
3	4.789	126.27	613.2	.9777	1.316	1.040	809
4	4.789	131.84	543.2	.9786	1.316	1.036	842
5.							

NO.	R _g	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.91	540	1.56	.922	dry	
2.	.91	555	1.60	.930		
3.	.91	544	1.57	.924		
4.	.81	543	1.57	.932		
5.						

P_c = 4548.9 P_c² = 20692

NO.	P _i ²	P _w	R _w ²	P _c ² - R _w ²
1	3693.2	3718.3	13826	6866
2	2783.2	2823.4	7972	12720
3	1883.2	1936.4	3750	16942
4	993.2	1113.4	1240	19452
5				

(1) $\frac{P_c^2}{P_c^2 - R_w^2} = 1.064$

(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1.036$
 Post ID-2
 4-18-86
 Comp + BK

AOF = Q $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = .873$

Absolute Open Flow 873 Mcfd @ 15.025 Angle of Slope 60 Slope, n .577

Remarks: P_c and P_w were calculated from known B.H.P. Bomb set @ 12,033

Approved By Division _____ Conducted By: Duke Services, Inc. Calculated By: R. Reston Checked By: Betty Sildon

Handwritten signature and company name
 HNG oil company
 11/20/85