

cl 5.1e
F. file

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		RECEIVED 9-24-90	
Company Oxy U S A ✓		Connection NOV 2 '90	
Pool E. Hess Morrow		Formation Morrow	
Completion Date 9-11-90	Total Depth 10,300	Plug Back TD 10,231	Elevation 4336.2 G.L.
Farm or Lease Name Federal AK		Well No. 1	
Csq. Size 5 1/2	Wt. 17	Set At 10,300	Perforations: From 9978 To 10,008
Tbg. Size 23/8	Wt. 4.7	Set At 9875	Perforations: From open To end
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 9875	County Eddy
Producing Thru Tbg	Reservoir Temp. °F 184 @ 9993	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2
State New Mexico			
L *9993	H 9993	G _g .583	% CO ₂ 1.36
% N ₂ .41		% H ₂ S n/a	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							3024		Pkr.		72 hrs.
1.	3x1.750			110	4.00	74	2998		"		30 min.
2.	3x1.750			110	15.00	74	2964		"		30 min.
3.	3x1.750			470	35.00	60	2680		"		30 min.
4.	3x1.750			780	76.00	61	2104		"		45 min.
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.	15.61	22.20	123.2	.9868	1.310	1.008	452
2.	15.61	42.99	123.2	.9868	1.310	1.008	874
3.	15.61	130.05	483.2	1.000	1.310	1.043	2,774
4.	15.61	245.53	793.2	.9990	1.310	1.071	5,372
5.							

NO.	P _r	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 **676	Critical Temperature **349
1.	.18	534	1.53	.985	Dry Gas	Dry	.583	X X X X X X X X		
2.	.18	534	1.53	.985				X X X X X		
3.	.71	520	1.48	.920					P.S.I.A.	P.S.I.A.
4.	1.17	521	1.49	.872					R	R
5.										

NO.	P _i ²	P _w ²	P _w ²	P _e ² - P _w ²
1		3020.6	9124.0	161.4
2		2978.8	8873.2	412.2
3		2756.0	7595.5	1689.9
4		2395.0	5736.0	3549.4
5				

(1) $\frac{P_e^2}{P_e^2 - P_w^2} = 2.616$

AOF = Q $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 12.764$

(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 2.376$

Absolute Open Flow	12,764	Mcfd @ 15.025	Angle of Slope θ	48	Slope, n	900
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Remarks: *=BHP instrument set @ this depth
** = pcr & tcr corrected to 1.36% Co²

No fluid produced during test.

Approved By Division	Conducted By: Pro-Welltesters	Calculated By: BM	Checked By: BM
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