NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 8/25-8/29/69	
Company: Continental Oil Company		Connection: Continental Oil Company			
Pool: Anderson Ranch Morrow Gas		Formation: Morrow		Unit: Anderson Ranch Unit	
Completion Date: 3/69	Total Depth: 13,540	Plug Back TD: 13,010	Elevation: 4316' DF	Farm or Lease Name:	
Csg. Size: 5-1/2" / Wt.: 20# / d: 4.778 / Set At: 13,540		Perforations: From 12,148 To 12,207		Well No.: 3	
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 11,865		Perforations: From Open To Ended		Unit: A / Sec.: 11 / Twp.: 16-S / Rge.: ~~35~~ 38-E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 11,865		County: Lea	
Producing Thru: Tubing	Reservoir Temp. °F: 180 @ 12,148	Mean Annual Temp. °F: 60 degrees	Baro. Press. – P_a: 13.2	State: New Mexico	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
12,148	12,148	.736	.61	1.39	0		4"	Flange

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI					2888.2				74 Hrs
1.	4" x 3 "	16.0	2.3	65	2290	65	175	60	25 Hrs
2.	4" x 3"	25.2	6.3	58	1880	58	175	60	24 Hrs
3.	4" x 3 "	39.4	10.9	60	1479	60	175	60	25 Hrs
4.	4" x 3 "	57.4	19.4	60	790	60	175	60	21 Hrs
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, Fpv	Rate of Flow Q, Mcfd
1	59.212	8.10	29.2	.9952	1.166	1.006	563
2.	59.212	15.50	38.4	1.002	1.166	1.007	1078
3.	59.212	23.925	52.6	1.000	1.166	1.009	1667
4.	59.212	36.96	70.6	1.000	1.166	1.014	2587
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.044	525	1.067	.989
2.	.059	518	1.053	.986
3.	.080	520	1.057	.982
4.	.108	520	1.057	.973
5.				

Gas Liquid Hydrocarbon Ratio 9.23 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 52.4 API at 60 F Deg.
Specific Gravity Separator Gas .736 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 1.021
Critical Pressure 668 P.S.I.A. 656 P.S.I.A.
Critical Temperature 402 R 492 R

P_c 2888.2 P_c^2 8341.7

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2306.2	5318.6	3023.1
2		1906.8	3635.9	4705.8
3		1519.8	2309.8	6031.9
4		882.7	779.2	7562.5
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1030$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1030$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = \frac{2853}{(3183)}$ n=1.000 n=1.921

Absolute Open Flow 3,123 Mcfd Mcfd @ 15.025 Angle of Slope θ 45 degrees Slope, n 1.000

Remarks: L-10 chart was used to obtain Pm and Hw. Figures in parenthesis are for n = 1.921

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Ely Jacobs	R. D. Turner	

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