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C-122

NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
MAR 25 1974
O. C. C.
ARTESIA, OFFICE

Type Test: [xx] Initial [ ] Annual [ ] Special				Test Date: 3-15-74	
Company: Amoco Production Company		Connection: None			
Pool: Wildcat Wolfcamp		Formation: Wolfcamp		Unit	
Completion Date: 3-15-74	Total Depth: 9740'	Plug Back TD: 9700'	Elevation: 3520' RDB	Farm or Lease Name: Arco Fed. Gas COM	
Csg. Size: 5-1/2" / Wt.: 15.5-17# / d: 4892 / Set At: 9740		Perforations: From 6582 To 6756		Well No.: 1	
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 6550		Perforations: From To		Unit: L / Sec.: 26 / Twp.: 17 / Rge.: 27	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 6550		County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 118 @ 6740	Mean Annual Temp. °F: 65°	Baro. Press. – P_a: 13.2	State: New Mexico	
L: 6580' / H: 6580' / Gg: 0.7264 / % CO_2: – / % N_2: – / % H_2S: – / Prover: / Meter Run: 3" / Taps: Pipe					

	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							1953		Pkr	Pkr	24
1.	3"	x	1.25	430	9	68	1911	65	–	–	30 Min
2.	3"	x	1.25	440	18	74	1899	68	–	–	30 Min
3.	3"	x	1.25	445	38	68	1888	68	–	–	30 Min
4.	3"	x	1.25	480	76	60	1824	69	–	–	30 Min
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	8.551	63.15	443.2	0.9924	1.174	1.055	777
2.	8.551	90.29	453.2	0.9868	1.174	1.055	1.104
3	8.551	131.9	458.2	0.9924	1.174	1.057	1.625
4.	8.551	193.5	493.2	1.000	1.174	1.065	2.419
5.							

NO.	P_t	Temp. °R	T_r	Z
1	0.6635	528	1.327	0.899
2.	0.6784	534	1.342	0.898
3.	0.6859	528	1.327	0.895
4.	0.7383	520	1.307	0.882
5.				

Gas Liquid Hydrocarbon Ratio 18.0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 70° Deg.
Specific Gravity Separator Gas 0.7264 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.8618
Critical Pressure 668 P.S.I.A. 664 P.S.I.A.
Critical Temperature 398 R 444 R

P_c *2691.2 P_c^2 7242.6

NO	P_t^2	*P_w	P_w^2	$P_c^2 - P_w^2$
1		2678.2	7171.7	70.9
2		2671.2	7135.3	107.3
3		2656.2	7055.4	187.2
4		2638.2	6960.1	282.5
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{7242.6}{282.5}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 14.45$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 34,950$

Absolute Open Flow 34,950 Mcfd @ 15.025 Angle of Slope θ Slope, n 0.823

Remarks: * Pressures obtained with bottom hole pressure recorder. Higher flow rates could not be obtained due to limitations of surface test equipment.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	John West Engineering	J. E. York	