MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Revised 9-1-65

File

RECEIVED BY
APR 30 1984
O. C. D.
ARTESIA, OFFICE

Type Test: 4POINT ☒ Initial ☐ Annual ☐ Special				Test Date: 3-21-84	
Company: MCKAY OIL COMPANY			Connection: TO AIR		
Pool: South PECOS SLOPE Abo			Formation: ABO		
Completion Date: 3-24-84	Total Depth: 5172.		Plug Back T.D.: 4117.	Elevation: 3574	Farm or Lease Name: MCKAY HARVEY FEDERAL
Csg. Size: 4.500 / Wt.: 10.5 / d: 4.052 / Set At: 4149 4117.			Perforations: From 3784. To 3961.		Well No.: #1
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 3718.			Perforations: From 0 To 0		Unit: P / Sec.: 17 / Twp.: 9S / Rge.: 25E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE			Packer Set At: 0		County: CHAVES
Producing Thru: TUBING	Reservoir Temp. °F: 104 @ 3855.		Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2	State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
3855.	3855.	0.661	0.05	5.87	0	2.0	0	FLANGE

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	B.H.P. DATA: Press. p.s.i.g.	CHOKE	Duration of Flow
SI							1102.		216.0
1.	2.00 X 0.125	973.	0.	68.	973 0.	0.	1092.	64/64	1.0
2.	2.00 X 0.188	955.	0.	68.	955 0.	0.	1074.	64/64	1.0
3.	2.00 X 0.250	923.	0.	70.	923 0.	0.	1046.	64/64	1.0
4.	2.00 X 0.313	808.	0.	71.	808 0.	0.	1008.	64/64	1.0
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	0.26	0.	986.2	0.9924	1.2300	1.0877	346.
2	0.61	0.	968.2	0.9924	1.2300	1.0861	779.
3	1.08	0.	936.2	0.9905	1.2300	1.0819	1338.
4	1.67	0.	821.2	0.9896	1.2300	1.0713	1786.
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NO.	P_t	Temp. °R	T_r	Z
1	1.50	528.	1.46	0.845
2	1.47	528.	1.46	0.848
3	1.42	530.	1.47	0.854
4	1.25	531.	1.47	0.871
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Gas Liquid Hydrocarbon Ratio 0. Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 0. Deg.
Specific Gravity Separator Gas 0.661 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.661
Critical Pressure 660. P.S.I.A. 660. P.S.I.A.
Critical Temperature 362. R 362. R

P_c 1005.4 P_c^2 1011.

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	1221.	996.	993.	18.
2	1182.	981.	961	49
3	1122.	956.	913.	98.
4	1043.	922.	850.	161.
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 10.3163$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 6.3937$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 8554.7$

Post ID 2
7-20-84
bompt BK

Absolute Open Flow 8555. Mcfd @ 15.025 Angle of Slope θ 51.5 Slope, n 0.795

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission	Conducted By:	Calculated By:	Checked By:
	RICHARD TOWNLEY	BENNETT & CATHEY	

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