NEW MEXICO OIL CONSERVATION COMMISSION

MULTI INT AND ONE POINT BACK PRESSU TEST FOR GAS WELL

RECEIVED BY
FEB 8 1985
O. C. D.
ARTESIA, OFFICE

Type Test: 4 POINT [X] Initial [ ] Annual [ ] Special — Test Date: 1-21-85

Company: SOUTHLAND ROYAL TY — Connection: TO AIR

Pool: Turkey Track Morrow — Formation: MORROW — Unit: B

Completion Date: 1-11-84 — Total Depth: 11300. — Plug Back T.D.: ~~11262.~~ 10,958 — Elevation: 3375. — Farm or Lease Name: EAST MILLMAN "13" Fed. Com

Csg. Size	Wt.	d	Set At	Perforations	Well No.
5.500	17.0	4.892	11300.	From 11120. To 11180.	~~FED.~~ #1

Tbg. Size	Wt.	d	Set At	Perforations	Unit	Sec.	Twp.	Rge.
2.375	4.7	1.995	11004.	From 0. To 0.	B	13	19S	28E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE — Packer Set At: 11004. — County: EDDY

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
TUBING	214.8 11150.	60.0	13.2	NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11150.	11150.	0.607	0.64	0.23	0.	0.	4.0	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				99.	3120.		4437.		72.0
1.	4.03 X 1.500	315.	4.2	99.	2767.		4344.	5/64	1.0
2.	4.03 X 1.500	320.	6.2	96.	2582.		4310.	7/64	1.0
3.	4.03 X 1.500	323.	11.0	96.	2380.		4169.	9/64	1.0
4.	4.03 X 1.500	325.	29.0	94.	2425.		4028.	10/64	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	10.84	37.35	328.2	0.9645	1.2835	1.0225	513.
2	10.84	45.63	333.2	0.9671	1.2835	1.0233	628.
3	10.84	60.81	336.2	0.9671	1.2835	1.0235	838.
4	10.84	99.03	338.2	0.9688	1.2835	1.0240	1367.
5							

NO.	P_t	Temp. °R	T_r	Z
1	0.49	559.	1.56	0.956
2	0.49	556.	1.55	0.955
3	0.50	556.	1.55	0.955
4	0.50	554.	1.54	0.954
5				

Gas Liquid Hydrocarbon Ratio 62.4 Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons 52.0 Deg.

Specific Gravity Separator Gas	0.607	XXXXXXXXXX
Specific Gravity Flowing Fluid	XXXXX	0.652
Critical Pressure	675. P.S.I.A.	672. P.S.I.A.
Critical Temperature	359. R	373. R

P_c 3422.8 P_c^2 11716

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	18985.	3345.	11188.	528.
2	18690.	3316.	10999.	717.
3	17491.	3199.	10235.	1481.
4	16331.	3083.	9506.	2210.
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 5.2976$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.15947$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 4319.$

Post ID-2
1-14-86
Comp + BK

Absolute Open Flow 4319. Mcfd @ 15.025 — Angle of Slope θ 55.4 — Slope, n 0.690

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission	Conducted By:	Calculated By:	Checked By:
	RICHARD TOWNLEY	BENNETT AND CATHEY INC.	