Wildcat

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
MAY 1 1975
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 4-24-75

Company: Yates Petroleum Corp. ✓ — Connection: Yates Petroleum Corporation — Unit:

Pool: ~~Wildcat~~ Collins Ranch — Formation: ~~Abo~~ WC

Completion Date	Total Depth	Plug Back TD	Elevation	Farm or Lease Name
3-6-75	8269'	6520'	3734' KB	State "DF"

Csg. Size	Wt.	d	Set At	Perforations	Well No.
4½"	10.5	4.052	8191'	From 4926 To 4971	1

Tbg. Size	Wt.	d	Set At	Perforations	Unit	Sec.	Twp.	Rge.
2-3/8"	4.7	1.995	4888	From To	D	35	17S	24E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single — Packer Set At: 4888 — County: Eddy

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
Tubing	@ 105	62	13.2	New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
4950	4950	0.655	0.11	1.07	Nil		2"	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	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							1580	45	1843	105	
1.	2		1.000	15	36	58	1498	82			2 hrs
2.	2		1.000	15	86	64	1420	84			1 "
3.	2		1.375	16	49	66	1283	87			1 "
4.	2		1.375	17	92	67	1081	85			1 "
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	4.881	31.86	28.2	1.002	1.226	1.003	191
2.	4.881	50.11	28.2	0.9962	1.226	1.003	300
3.	10.20	37.83	29.2	0.9943	1.226	1.003	472
4.	10.20	52.71	30.2	0.9933	1.226	1.003	657
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.042	542	1.449	.9954
2.	.042	544	1.455	.9954
3.	.044	547	1.463	.9951
4.	.045	545	1.457	.9950
5.				

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: 0.655 — xxxxxxxxx
Specific Gravity Flowing Fluid: xxxxx
Critical Pressure: 669 P.S.I.A. — P.S.I.A.
Critical Temperature: 374 R — R

P_c 1856.2 P_c^2 3445.5

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			3024.3	421.2
2			2713.2	732.3
3			2212.2	1233.3
4			1573.7	1871.8
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.705$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.696$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1109 MCFPD

Absolute Open Flow: 1109 Mcfd @ 15.025 — Angle of Slope θ: — Slope, n: 0.843

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Don Weaver	Eddie Mahfood	