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file

N . MEXICO OIL CONSERVATION COMM ION

Form C-122
Revised 9-1-65
C-122 file

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
MAY 14 1979
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 5/3/79

Company: J. C. Barnes Oil Company — Connection: El Paso Natural Gas Company — Unit: C

Pool: Dublin Ranch Morrow — Formation: Morrow

Completion Date: 1/26/79 — Total Depth: 12740 — Plug Back TD: 12665 — Elevation: 3088 gr — Farm or Lease Name: Big Chief

Csg. Size: 5½ — Wt.: 17 & 20 — d: — Set At: 12740 — Perforations: From 12160 To 12464 — Well No.: 2

Tbg. Size: 2 3/8 — Wt.: — d: — Set At: 12288 — Perforations: From 12160 To 12242 — Unit: N — Sec.: 22 — Twp.: 22 — Rge.: 28

Type well – Single – Bradenhead – G.G. or G.O. Multiple: Single — Packer Set At: 12021 Upper, 12288 Lower — County: Eddy

Producing Thru: Tbg. — Reservoir Temp. °F: 197 @ 12288 — Mean Annual Temp. °F: 60 — Baro. Press. – P_a: 13.2 — State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
12288	12288	.602					4"	Flg.

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI							1564				72 hrs.
1.	4	x	.750	396	3.61	66	1522				30 Min.
2.	4	x	.750	396	14.44	72	1452				1 hr.
3.	4	x	.750	403	30.24	81	1344				1 hr.
4.	4	x	.750	403	47.61	88	1117				1 hr.
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	2.661	38.43	409.2	.9943	1.289	1.035	136
2	2.661	76.87	409.2	.9887	1.289	1.034	270
3	2.661	112.21	416.2	.9804	1.289	1.033	390
4	2.661	140.77	416.2	.9741	1.289	1.031	485
5							

NO.	P_t	Temp. °R	T_r	Z
1	.61	526	1.47	.933
2	.61	532	1.49	.936
3	.62	541	1.51	.938
4	.62	548	1.53	.941
5				

Gas Liquid Hydrocarbon Ratio: Dry — Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: — Deg.
Specific Gravity Separator Gas: .609 — XXXXXXXX
Specific Gravity Flowing Fluid: XXXXXX —
Critical Pressure: 671 — P.S.I.A. — P.S.I.A.
Critical Temperature: 358 — R — R

P_c 1577.2 P_c^2 2487.6

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1535.4	2357.5	130.1
2		1466.1	2149.5	338.1
3		1359.3	1847.6	640.0
4		1134.1	1286.2	1201.4
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 10.121$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 4.373$

$AOF = Q\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 595$

Absolute Open Flow: 595 Mcfd @ 15.025 — Angle of Slope: 63.5° — Slope, n: .500

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Rick Pagan	Rick Pagan	