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RECEIVED CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

JUN 8 1977

RECEIVED
JUN 03 1977
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 5-23-77

Company: Cities Service Oil Co. — Connection: To Air

Pool: ~~UN~~ N. Buster-Flats Wolfcamp ~~Penn.~~ — Unit: Wolfcamp

Completion Date	Total Depth	P.B. T.D.	Elevation	Farm or Lease Name
5-23-77	11,290	10,905	3283 Gr.	Government "AB"

Csg. Size	Wt.	d	Set At	Perforations	Well No.
5½	17#	4.892"	11,290	From 9003 To 9344	4

Tbg. Size	Wt.	d	Set At	Perforations	Unit	Sec.	Twp.	Rge.
2-7/8"	6.5#	2.441	9,225'	From Open To Ended	L	9	20S	28E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple	Packer Set At	County
Single	8868'	Eddy

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
Tubing	@	60	13.2	New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
9174	9174	0.7122	0.150	1.288	-0-		4"	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					1969.0		Packer	Choke	69.25 Hrs
1.	4" x 1.00"	400.0	1.0	28	1490.0	28		10/64"	60 Min.
2.	4" x 1.00"	420.0	6.0	25	1495.0	25		12/64"	60 Min.
3.	4" x 1.00"	450.0	20.0	24	1120.0	22		14/64"	60 Min.
4.	4" x 1.00"	450.0	27.0	22	900.0	68		16/64"	60 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	4.753	20.33	413.2	.9831	1.185	1.046	112.7
2	4.753	52.98	433.2	.9859	1.185	1.050	297.2
3	4.753	93.08	433.2	.9868	1.185	1.050	543.2
4	4.753	111.83	463.2	.9905	1.185	1.055	658.2
5							

NO.	P_t	Temp. °R	T_r	Z
1	0.62	538	1.37	.914
2	0.65	535	1.36	.907
3	0.65	534	1.36	.907
4	0.69	530	1.35	.899
5				

Gas Liquid Hydrocarbon Ratio 0.002 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons ____ Deg.
Specific Gravity Separator Gas 0.7122 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 662 P.S.I.A. ____ P.S.I.A.
Critical Temperature 392 R ____ R

P_f 4560.2 P_f^2 20795

NO	P_t^2	P_s	P_s^2	$P_f^2 - P_s^2$
1		3618.2	13091	7704
2		3358.2	11278	9517
3		2674.2	7151	13644
4		2072.2	4294	16501
5				

(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 1.2602$ (2) $\left[\frac{P_f^2}{P_f^2 - P_s^2}\right]^n = 1.2602$

$\left[\frac{P_f^2}{P_f^2 - P_s^2}\right]^n = 829$

Absolute Open Flow 829 Mcfd @ 15.025 Angle of Slope θ 45.0 Limited Slope, n 1.000 Lim

Remarks: Bottom hole pressure measured with Amerada gage at 9450'. No point alignment. Drewf 1.000 Limited slope through high rate of flow to calculate potential. Produced 42 Bbls of condensate in 4 hour test.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	G.J.P.	R.L.W.	J.W.W.