NEW MEXICO OIL CONSERVATION [illegible]MISSION

MULTIPL[illegible]T AND ONE POINT BACK PRESSURE [illegible]EST FOR GAS WELL

File v 122 Form C-122 Revised 6-1-65

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 7-16-79	
Company: W.W. BUCHANAN (Buchanan)		Connection: NATURAL GAS PIPELINE CO. OF AMERICA			
Pool: ~~WILDCAT~~ (Wolfcamp)		Formation: WOLFCAMP			Unit
Completion Date: 7-16-79	Total Depth: 9,640'	Plug Back TD: 9,227'	Elevation: 3582 GR.		Farm or Lease Name: O'SAGE COM
Csg. Size: 4½" / Wt.: 11.6# / d: 4.000" / Set At: 9,640'		Perforations: From 7,059' To 7,122'			Well No.: 1
Tbg. Size: 2 3/8" / Wt.: 4.6# / d: 1.995" / Set At: 7,015'		Perforations: From OPEN ENDED			Unit: J / Sec.: 18 / Twp.: 20S / Rge.: 25E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 7,015'			County: EDDY
Producing Thru: TUBING	Reservoir Temp. °F: 145 @ 7,090'	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2		State: NEW MEXICO
L: 7090	H: 7090	Gg: .691	% CO_2: .457	% N_2: 4.878	% H_2S:	Prover:	Meter Run: 3"	Taps: FLANGE

	FLOW DATA					TUBING DATA		CASING DATA		
NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI						1955	82	PACKER	CHOKE	72 HRS
1.	3"	x 1.000"	492	0.85	86	1846	82		6/64	1 HR
2.	3"	x 1.000"	600	2.90	82	1742	83		9/64	1 HR
3.	3"	x 1.000"	530	9.25	84	1562	82		12/64	1 HR
4.	3"	x 1.000"	570	14.10	74	1355	82		16/64	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	4.789	20.72	505.2	.9759	1.203	1.051	122
2.	4.789	42.17	613.2	.9795	1.203	1.063	253
3.	4.789	70.88	543.2	.9777	1.203	1.055	421
4.	4.789	90.68	583.2	.9808	1.203	1.064	549
5.							

RECEIVED
OIL CONSERVATION DIVISION
SANTA FE

NO.	P_r	Temp. °R	T_r	Z
1	.76	546	1.41	.906
2.	.92	542	1.40	.885
3.	.81	544	1.40	.898
4.	.87	534	1.38	.884
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .691 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 669 P.S.I.A. _____ P.S.I.A.
Critical Temperature 388 R _____ R

P_c 2089.5 P_c^2 4366.0

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2000.1	4000.4	365.6
2		1929.9	3724.5	641.5
3		1800.1	3240.4	1125.6
4		1605.9	2578.9	1787.1
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.443$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.443$

Absolute Open Flow $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.341$ Mcfd @ 15.025

Angle of Slope θ 45 Slope, n 1.000

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 7,090 FEET.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	M.C.T.	R.R.	J.W.W.