Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-122
Revised 4-1-1991

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator					Lease or Unit Name	
David H Arrington Oil & Gas					Bill's Hopper	
Test Type: ☒ Initial ☐ Annual ☐ Special					Test Date: 01/07/2003	Well No.: 1
Completion Date: 12-07-01	Total Depth: 13215		Plug Back TD: 13092		Elevation: 4025'	Unit Ltr - Sec - TWP - Rge.: P 18 15S 35E
Csg. Size: 5.500	Wt.: 20.000	d: 4.778	Set At: 13,206	Perforation: From 12,396 To 12,413'		County: Lea
Tbg. Size: 2.875	Wt.: 6.500	d: 2.441	Set At: 12292	Perforation: From 12396 To 12413		Pool: North Lovington
Type Well-Single-Bradenhead-G.G. oG.O. Multiple: Single					Packer Set At: 12284	Formation: Atoka
Producing Thru: tubing	Reservoir Temp.F: 200		Mean Annual Temp.F: 60		Baro. Pressure: 13.20	Connection: AGAVE

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
12404	12404	.689	.60	1.98				flange

	Flow Data				Tubing Data		Casing Data		
No.	(Prover) Line Size x Orifice Size	Press. PSIG	Diff. h_w	Temp. F	Press. PSIG	Temp. F	Press. PSIG	Temp. F	SIP/Flow Duration (HRS.)
Shut-in Pressure					2050	120			24
1.	3.07 x .09	341.00	6.40	72	1825	95			2
2.	3.07 x .13	348.00	12.90	70	1675	94			1
3.	3.07 x .19	354.00	25.80	70	1540	94			1
4.	3.07 x .22	358.00	33.80	61	1380	94			1

RATE OF FLOW CALCULATIONS

No.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. FACTOR F_t	Gravity FACTOR F_g	Super Compress. FACTOR F_{pv}	Rate of Flow (Q) MCFD
1.	10.033	47.612	354.2	.9887	1.2047	1.0344	588.5
2.	10.033	68.260	361.2	.9905	1.2047	1.0356	846.3
3.	10.033	97.333	367.2	.9905	1.2047	1.0362	1207.5
4.	10.033	112.011	371.2	.9990	1.2047	1.0390	1405.3

No.	P_r	TEMP.	T_r	Z
1.	.531	532	1.403	.9346
2.	.542	530	1.398	.9324
3.	.551	530	1.398	.9313
4.	.557	521	1.374	.9264

Gas-Liquid Hydrocarbon Ratio	40.3		Mcf/bbl
API Gravity of Liquid Hydrocarbons	58.7		Deg.
Specific Gravity Separator Gas	.689		
Specific Gravity Flowing Fluid		.759	
Critical Pressure	666 PSIA	663	PSIA
Critical Temperature	379 R	401	R

P_C = 2063.2 P_C^2 = 4256.8

No.	Pw	Pw^2	$Pc^2 - Pw^2$
1.	1840.3	3386	870.249
2.	1692.7	2865	1391.667
3.	1562.9	2442	1814.238
4.	1407.9	1982	2274.708

(1) $\frac{P_C^2}{P_C^2 - P_W^2} = 1.871$ (2) $\left[\frac{P_C^2}{P_C^2 - P_W^2}\right]^n = 1.811$

$AOF = Q\left[\frac{P_C^2}{P_C^2 - P_W^2}\right]^n = 2545$

Absolute Open Flow	2545 Mcfd @ 15.025	Angle of Slope - 46.5	Slope, n .948
Remarks			

Approved By Division:	Conducted By:	Calculated By:	Checked By:
	Well Testing	BPT System	