

**KANSAS CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST**

FORM G-1
8-7-58

TYPE TEST: ☒ Initial ☐ Annual ☐ Special		TEST DATE: 8/27/01	
COMPANY Horsehoe Operating Inc		LEASE Virginia	
COUNTY Hamilton		WELL NO. 1	
LOCATION SE	SECTION 6-21s-40w	TWP RNG	ACRES 480
FIELD Bradshaw	RESERVOIR Winfield	PIPELINE CONNECTION Duke	
COMPLETION DATE 5-1-1	PLUG BACK DEPTH 2827	PACKER SET AT	
	TOTAL DEPTH 2831		
CASING SIZE 4.500	WT. 10.500	ID 4.090	SET AT 2831
		PERF. 2791	TO 2796
TUBING SIZE 2.375	WT.	ID	SET AT
		PERF.	TO
TYPE COMPLETION (Describe) New well gas		TYPE FLUID PRODUCTION water	
PRODUCING THRU (Annulus/Tubing) casing		RESERVOIR TEMPERATURE F 90	BAR PRESS - Pa 14.4 psia
GAS GRAVITY - Gg .760	% CARBON DIOXIDE .006	% NITROGEN 26.864	API GRAVITY OF LIQUID
VERTICAL DEPTH (H) 2793	TYPE METER CONN. flange		METER RUN SIZE 2.067
REMARKS			

OBSERVED SURFACE DATA

RATE NO.	ORIFICE SIZE in.	(METER) PRESSURE psig	DIFF. (h _w) (h _t)	FLOWING TEMP. t.	WELLHEAD TEMP. t.	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w) (P _t) (P _c) psia	psig	(P _w) (P _t) (P _c) psia		
SHUT-IN						146	160			72.00	
1.	1.000	139.00	2.02	89		139	153			.50	
2.	1.000	131.00	5.09	86		131	145			.50	
3.	1.000	125.00	7.23	84		125	139			.50	
4.	1.000	115.00	13.35	81		115	129			.50	

FLOW STREAM ATTRIBUTES

RATE NO.	COEFFICIENT (F _b) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW Q Mcfd	GOR	G _m
1.	5.073	153.4	17.60	1.1471	.9732	1.0102	100		.760
2.	5.073	145.4	27.20	1.1471	.9759	1.0099	156		.760
3.	5.073	139.4	31.75	1.1471	.9777	1.0096	182		.760
4.	5.073	129.4	41.56	1.1471	.9804	1.0091	239		.760

PRESSURE CALCULATION

RATE NO.	Pt psia	Pc psia	Pw psia	(Pc) ² Thousands	(Pw) ² Thousands	PLOTING POINTS		% SHUT-IN 100 $\left[\frac{P_w - P_a}{P_c - P_a} \right]$
						(P _c) ² - (P _w) ² Thousands	Q Mcfd	
1.	153.4	160.4	153.5	25.7	23.6	2.2	100.7	95.3
2.	145.4	160.4	145.6	25.7	21.2	4.5	156.0	89.9
3.	139.4	160.4	139.7	25.7	19.5	6.2	182.4	85.8
4.	129.4	160.4	129.9	25.7	16.9	8.9	239.3	79.1

INDICATED WELLHEAD OPEN FLOW

444

Mcfd @ 14.65 psia

"n" = .606

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated herein and that said report is true and correct. Executed this the 10 day of Sept, 20 01

Witness (if any)

For Commission

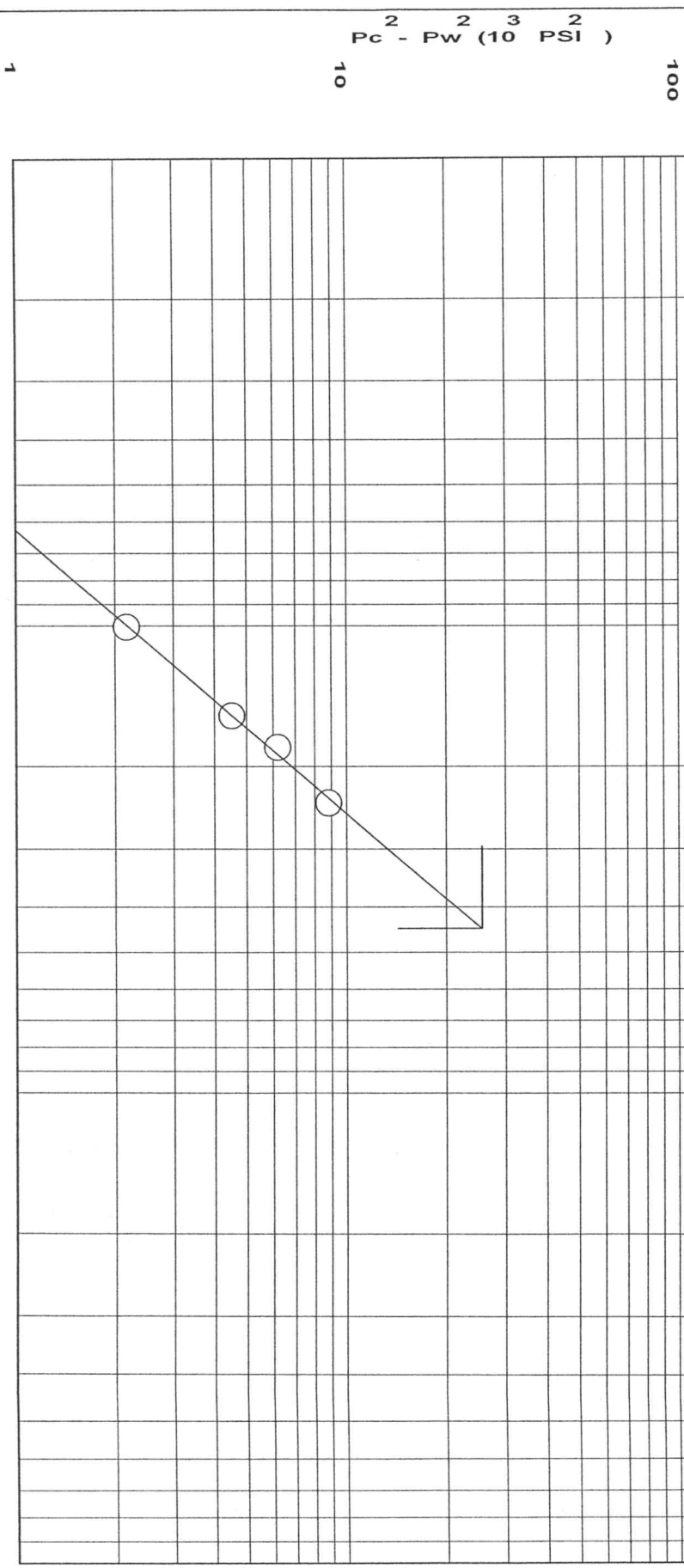
For Company

Checked by

GAS WELL BACK PRESSURE CURVE

WELL TESTER: Trilobite Testing
TEST DATE: 8/27/01

Horseshoe Operating Inc
Virginia 1
6-21s-40w
Hamilton
Exponent n: 0.6064 ,KS.
AOF: 444.



Q (MCF/DAY)

Company: Horseshoe Operating Inc.

Address: 500 w Texas Suite 1190 Midland, Tx 79701

Wellname: Virginia #1

Legal: Sec: 6 Twp: 21 Rge: 40

Formation: <i>Winfield</i>	Field/Pool: <i>Bradshaw</i>	County: <i>Hamilton</i>	St: <i>Ks</i>
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Casing size: $4\frac{1}{2}$	Feet of:	Wt:	Meter run size:	SI: $13\frac{1}{4}$
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Tubing Size: 2	Feet of:	Wt:	Orif (in): 1"	95% 138
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TD:	Plugged back depth:	Packer depth:	90% <i>131</i>
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Type Test: <i>4 point / 1 point</i>	Tap Type:	Gravity:	85% <i>124</i>
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Type Completion:	Producing through: <i>sg</i>	80% <i>116</i>
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[illegible]