

**KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST**

FORM G-2
(Rev.8/98)

TYPE TEST:

☒ Open Flow
☐ Deliverability

TEST DATE: 2/13/2001

API No. 15-135-24072

Company American Warrior		Lease Bott		Well Number 1-23	
County Ness	Location 200' N OF c se	Section 23	TWP 18S	RNG(E/W) 21	Acres Attributed 160
Field	Reservoir Chase	Gas Gathering Connection Kimber Morgan			
Completion Date 11-12-1999	Plug Back Total Depth	Packer Set at			
Casing Size 5.500	Weight 14.400	Internal Diameter 5.012	Set at 4196	Perforations 2206	To 2243
Tubing Size 1.500	Weight 2.400	Internal Diameter 1.380	Set at 2550	Perforations	To
Type Completion (Describe) perforated	Type Fluid Production water	Pump Unit or Traveling Plunger? pumping unit			
Producing Thru (Annulus/Tubing) annulus	% Carbon Dioxide	% Nitrogen	Gas Gravity- Gg .750		
Vertical Depth (ft) 2224	Pressure Taps flange	Meter Run Size 2.067			
Pressure Buildup: Shut in	2/10/2001 @ 10:00	TAKEN	2/13/2001 @ 1500		
Well on Line: Started	2/13/2001 @ 1500	TAKEN	2/14/2001 @ 1430		

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H ₂ O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P _w) (P _t) (P _c)		Tubing WellHead Press. (P _w) (P _t) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						505	519			77.0	
Flow	.875	64.0	44.00	20		279	293			23.5	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _b) Mcf/d	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcf/d	GOR	G _m
3.740	78.4	58.73	1.1547	1.0408	1.0125	267		.750

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P _c) ² = 269.8		(P _w) ² = 86.1		Pd =		%		(P _c - 14.4) + 14.4 =		(P _a) ² = 0.207	
(P _c) ² - (P _a) ²		(P _c) ² - (P _w) ²		$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$ or $\frac{(P_c)^2 - (P_d)^2}{(P_c)^2 - (P_w)^2}$		LOG		Backpressure Curve Slope "n" or Assigned Standard Slope		n x LOG	
269.57		183.68		1.468		.1666		.519		.0865	
										1.220	
										326	

OPEN FLOW 326 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 14.65 psia

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 15 day of Feb 2001.

Witness (if any)

For Commission

For Company

Checked by

**KANSAS CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST**

FORM G-1
8-7-58

TYPE TEST: ☒ Initial ☐ Annual ☐ Special		TEST DATE: 1/25/2001	
COMPANY American Warrior		LEASE Bott	
		WELL NO. 1-23	
COUNTY Ness	LOCATION 200' NW of C SE	SECTION 23 18S 21W	ACRES 160
FIELD Chase		PIPELINE CONNECTION	
COMPLETION DATE 11-12-99		PLUG BACK DEPTH TOTAL DEPTH	PACKER SET AT 4606
CASING SIZE 5.500	WT. 14.400	ID 5.012	TO 2243
TUBING SIZE 1.500	WT. 2.400	ID 1.380	TO 2550
TYPE COMPLETION (Describe) Perforated		TYPE FLUID PRODUCTION water	
PRODUCING THRU (Annulus/Tubing) annulus		RESERVOIR TEMPERATURE F 90	BAR PRESS - Pa 14.4 psia
GAS GRAVITY - Gg .756	% CARBON DIOXIDE .165	% NITROGEN 48.571	API GRAVITY OF LIQUID
VERTICAL DEPTH (H) 2224		TYPE METER CONN.	PROVER SIZE 2"
REMARKS well is dual completed as deep disposal well			

OBSERVED SURFACE DATA

RATE NO.	ORIFICE SIZE in.	(PROVER) 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						610	624				
1.	.375	99.00		36		589	603			.50	
2.	.500	87.00		34		557	571			.50	
3.	.500	116.00		36		519	533			.50	
4.	.500	125.00		36		484	498			.50	

FLOW STREAM ATTRIBUTES

RATE NO.	COEFFICIENT (F _p) Mcfd	(PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW Q Mcfd	GOR	G _m
1.	2.440	113.4	113.40	1.1501	1.0239	1.0066	327		.756
2.	4.390	101.4	101.40	1.1501	1.0260	1.0060	528		.756
3.	4.390	130.4	130.40	1.1501	1.0239	1.0076	679		.756
4.	4.388	139.4	139.40	1.1501	1.0239	1.0081	726		.756

PRESSURE CALCULATION

RATE NO.	P _t psia	P _c psia	P _w psia	(P _c) ² Thousands	(P _w) 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.	603.4	624.4	603.4	389.9	364.1	25.8	328.0	96.6
2.	571.4	624.4	571.4	389.9	326.6	63.3	528.4	91.3
3.	533.4	624.4	533.5	389.9	284.6	105.3	679.2	85.1
4.	498.4	624.4	498.5	389.9	248.5	141.4	726.1	79.4

INDICATED WELLHEAD OPEN FLOW

1346

Mcfd @ 14.65 psia

"n" =

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 8 day of Feb, 2001

Witness (if any)

For Commission

For Company

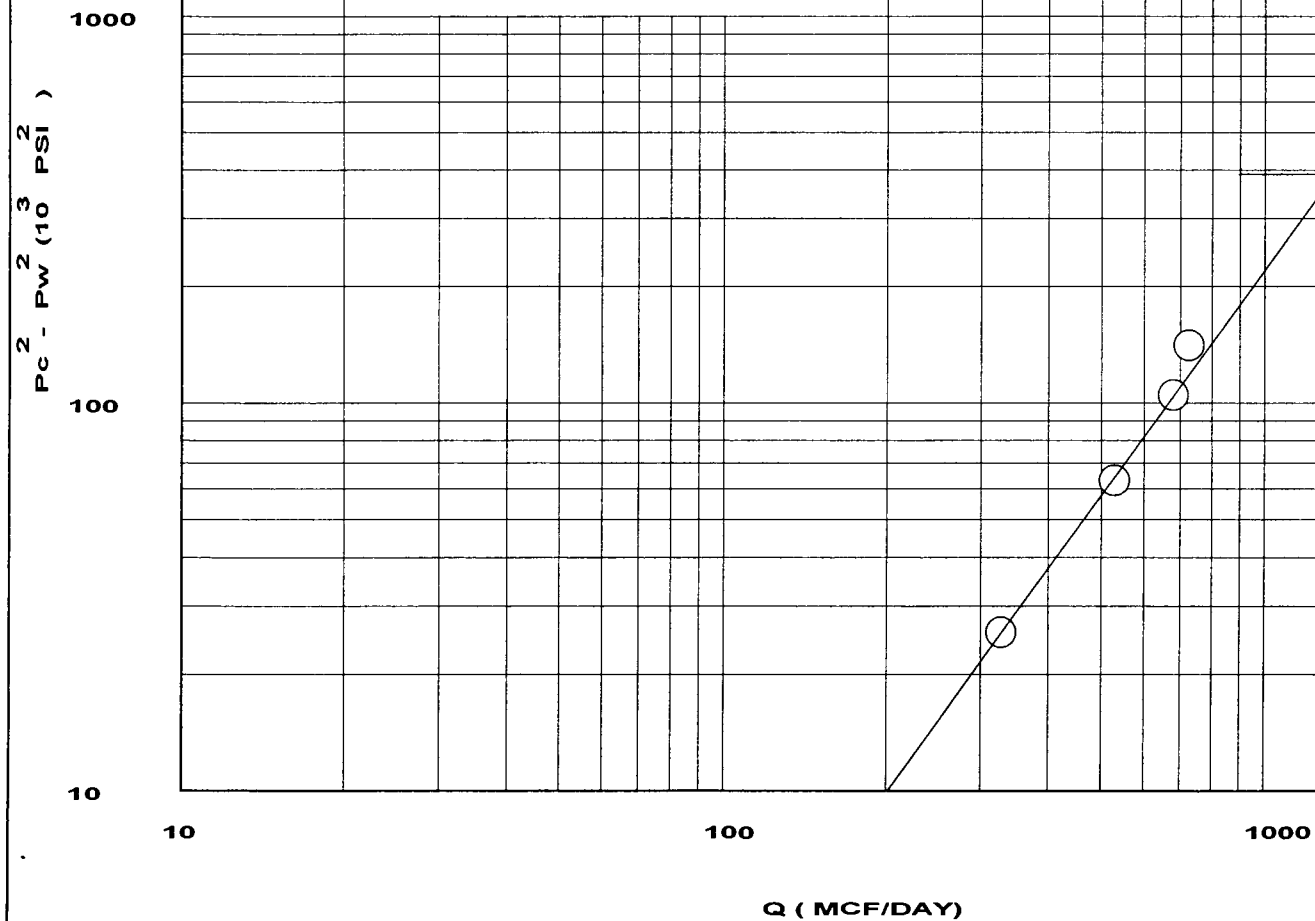
Checked by

GAS WELL BACK PRESSURE CURVE

WELL TESTER:

TEST DATE: 1/25/2001

American Warrior
Bott 1-23
23 18S 21W
Ness ,KS.
Exponent n: 0.5188
AOF: 1346.



Date	Miles	Name	Date	Miles	Name	Date	Miles	Name

[illegible]