

Form 6-6
Rev. 088

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- ☐ Open Flow
☐ Deliverability

Test Date:

API No. 15 -135-24071

Company American Warrior, Inc.		Lease Young		Well Number 1-13	
County Ness	Location C NE	Section 13	TWP 18 S	Range (E/W) 21 W	Acres Adjudicated 160
Field		Reservoir Chase		Gas Gathering Connection	
Completion Date June 16, 1999		Plug Back Total Depth 2389		Packer Set at	
Casing Size 4 1/2	Weight 9.5	Internal Diameter 4.090	Set at 2466	Perforations 2176-86, 2230-34	To
Tubing Size 2 3/8	Weight 4.7	Internal Diameter 1.995	Set at 2300	Perforations	To
Type Completion (Describe) Perforated		Type Fluid Production		Pump Unit or Traveling Pumper? Yes / No Pump Unit	
Producing thru (Annulus / Tubing)		% Carbon Dioxide		% Nitrogen	Gas Gravity - G _s
Vertical Depth(ft)		Pressure Type		(Meter Run) (Prover) Size	
Pressure Buildup: Shut in _____ 19 _____ at _____ (AM) (PM) Taken _____ 19 _____ at _____ (AM) (PM)					
Well on Line: Started _____ 19 _____ at _____ (AM) (PM) Taken _____ 19 _____ at _____ (AM) (PM)					

OBSERVED SURFACE DATA										Duration of Shut-In	Hours
Static / Dynamic Property	Orifice Size Inches	Orifice Meter or Prover Pressure psig	Pressure Differential in (ft) Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _{ws}) = (P ₁) = (P ₂)		Tubing Wellhead Pressure (P _{ts}) = (P ₁) = (P ₂)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psig	psig	psig		
Shut-In											
Flow											

FLOW STREAM ATTRIBUTES									
Plate Coefficient (F ₁) (F ₂) Molds	Orifice Meter or Prover Pressure psig	Pressure Differential in (ft) inches H ₂ O	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _z	Metered Flow R (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _u	

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_1)^2 =$ _____	$(P_2)^2 =$ _____	$P_{ws} =$ _____ %	$(P_{ws} - 14.7) + 14.7 =$ _____	$(P_1)^2 =$ 0.207	$(P_2)^2 =$ _____		
$\frac{(P_1)^2 - (P_2)^2}{(P_{ws})^2 - (P_2)^2}$	$\frac{(P_1)^2 - (P_2)^2}{(P_{ws})^2 - (P_2)^2}$	Choose Formula 1 or 2: 1. $P_1^2 - P_2^2$ 2. $P_1^2 - P_2^2$ meter by $P_1^2 - P_2^2$	LOG of Formula 1, 2, and divide by $P_{ws} - P_2$ or: $\left[\frac{P_1^2 - P_2^2}{P_{ws} - P_2} \right]$	Backpressure Curve Slope = "n" ***** gP ***** Assigned Standard Slope	$n \times \text{LOG} \left[\right]$	Arithmetic	Open Flow Deliverability Slope R x Arithmetic Molds

Open Flow Molds @ 14.85 psia Deliverability Molds @ 14.85 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 therein, and that said report is true and correct. Executed this the _____ day of _____, 19 _____.

Witness (if any) _____ For Company _____
 For Completion _____ Checked by _____

STATE OF KANSAS - CORPORATION COMMISSION

FORM CG-1 Rev.

MULTI-POINT BACK PRESSURE TEST

TYPE TEST:		Initial	Actual	Special	TEST DATE:
COMPANY		LEASE		WELL NO.	
American Warrior, Inc.		Young		1-13	
COUNTY	LOCATION	SECTION	TWP	R&D (SW)	ACRES
Ness	CNE	13	18 S	21 W	160
API WELL NUMBER		RESERVOIR		PERFORATION CONNECTION	
18-133-24071		Chase			
COMPLETION DATE		FLAG BACK		PACKER SET AT	
June 16, 1999		TOTAL DEPTH 2389			
CASING SIZE	WT	ID	SET AT	FROM	TO
4 1/2	9.5	4.090	2446	2176-86, 2230-	34
TUBING SIZE	WT	ID	SET AT	FROM	TO
2 3/8	4.7	1.995	2300		
TYPE COMPLETION (Initial)		TYPE FLOID PRODUCTION			
Perforated					
PRODUCING THRU		RESERVOIR TEMPERATURE °F		BAR PRESS. P.	
				144 P.S.I.	
GAS GRAVITY - G _g		G CARBON DIOXIDE		WATERGAS	
				AIR GRAVITY OF LIQUID	
VERTICAL DEPTH (ft)		TYPE METER CONNECTION		METER RUN (GROSS) SIZE	

REMARKS

OBSERVED DATA							DURATION OF SHUT-IN		EL
RATE NO.	CORRECTION SIZE in	OMETER (GROSS) PRESSURE P _{gs}	DNV. (Q ₁) (Q ₂)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CRO WELL-HEAD PRESS. P _{gs} (P ₁)(P ₂)(P ₃)	TEN WELL-HEAD PRESS. P _{gs} (P ₁)(P ₂)(P ₃)	FLOW DURATION (HOURS)	LIQUID PROD. Mbbl
1									
2									
3									
4									
5									

LAW OF FLOW CALCULATION

RATE NO.	CORRECTION (Q ₁)(Q ₂) Mbbl	OMETER (GROSS) PRESSURE P _{gs}	PRESS. EXTENSION $\sqrt{P_2 - P_1}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _d	RATE OF FLOW Q Mcf	GOR (G/Mcf)	G _L
1									
2									
3									
4									
5									

PRESSURE CALCULATION

RATE NO.	P ₁ P _{gs}	P ₂ P _{gs}	P ₃ P _{gs}	Q ₁ ² THOUSANDS	Q ₂ ² THOUSANDS	FLOWING TEMPERATURE (Q ₁ ² - Q ₂ ²) THOUSANDS	Q Mcf	% SHUT-IN $100 \frac{(P_2 - P_1)}{(P_2 - P_1)}$
1								
2								
3								
4								
5								

SIGNATURE WELL-HEAD OVER FLOW

MAY 9 14 01 PM

T.C.

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 _____ day of _____, 19____.

Witness (if any)

For Company

For Commission

Checked By (Rev. 10/98)