

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow
 Deliverability

(See Instructions on Reverse Side)

Test Date:
7-29-11

API No. 15
15-081-20351-0000
20,364

Company CIMAREX ENERGY		Lease HOFFMAN			Well Number A-2	
County HASKELL	Location NW NW SESE	Section 5	TWP 30S	RNG (E/W) 33W	Acres Attributed	
Field HUGOTON		Reservoir CHASE		Gas Gathering Connection DCP MIDSTREAM		
Completion Date RECOMP. 6-11		Plug Back Total Depth 2854		Packer Set at NONE		
Casing Size 4.5	Weight 11.6	Internal Diameter 4.000	Set at 2883	Perforations 2628	To 2779	
Tubing Size 2.375	Weight 4.7	Internal Diameter 1.995	Set at 2753	Perforations	To	
Type Completion (Describe) SINGLE GAS		Type Fluid Production WATER		Pump Unit or Traveling Plunger? Yes / No YES-PUMP		
Producing Thru (Annulus / Tubing) ANNULUS		% Carbon Dioxide		% Nitrogen		Gas Gravity - G _g .700
Vertical Depth(H) 2704		Pressure Taps FLANGE			(Meter Run) (Prover) Size 3.068"	
Pressure Buildup: Shut in 7-25-11 20 at 0800 (AM) (PM) Taken 7-28-11 20 at 0800 (AM) (PM)						
Well on Line: Started 7-28-11 20 at 0800 (AM) (PM) Taken 7-29-11 20 at 0800 (AM) (PM)						

RECEIVED
JUL 10 2011
KCC WICHITA

OBSERVED SURFACE DATA

Duration of Shut-in **72.0** Hours

Static / Dynamic Property	Orifice Size (Inches)	Circle one: Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H ₂ O	Flowing Temperature I	Well Head Temperature I	Casing Wellhead Pressure (P _w) or (P _c) or (P _e)		Tubing Wellhead Pressure (P _w) or (P _c) or (P _e)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						71.5	85.9			72.0	
Flow	.750	4.2	79.5	95	75	43.6	58.0			24.0	23.5

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _p) (F _o) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension P _m x h	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{dv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/Barrel)	Flowing Fluid Gravity G _m
2.7402	18.60	38.45	1.1952	0.9680	1.0017	122.1	NONE	0.700

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P₁)² = 7.3 ; (P_w)² = 3.4 ; P₁ = 67.8 % ; (P_e - 14.4) + 14.4 = 85.9 ; (P₂)² = 0.207 ; (P_g)² = _____

(P ₁) ² - (P ₂) ² or (P ₁) ² - (P _w) ²	(P ₁) ² - (P _w) ²	Choose formula 1 or 2: 1. P ₁ ² - P ₂ ² 2. P ₁ ² - P _w ² divided by: P ₂ ² - P _w ²	LOG of formula 1, or 2, and divide by: P ₁ ² - P _w ²	Backpressure Curve Slope = "n" Assigned Standard Slope	n x LOG []	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
7.17	3.98	1.801	0.2555	0.850	0.2171	1.6487	201.31

Open Flow **201** 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 therein, and that said report is true and correct. Executed this the 29 day of JULY, 20 11.

Copy to KCC Wichita
Witness (if any)
Copy to KCC DeSoto City
For Commission

Precision Wire Line & Testing
For Company
Mark of Brock
Checked by