

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Form G-2
(Rev. 8/98)

Type Test Open Flow
 Deliverability

Test Date: **3/5/14** API No. 15- 129 20645-0000

Company ANADARKO E&P ONSHORE		Lease RATZLAFF		Well Number C-1	
County MORTON	Location 2540 FNL & 1320 FEL	Section 1	TWP 33	RNGE (E/W) 41	Acres Attributed 0
Field PANOMA UNALLOCATED		Reservoir COUNCIL GROVE	Gas Gathering Connection ANADARKO GATHERING		
Completion Date 01/27/83		Plug Back Total Depth 2689	Packer Set at N/A		
Casing Size 4.5	Weight 10.5	Internal Diameter 4.052	Set at 2695	Perforations 2513	To 2610
Tubing Size 2.375	Weight 4.7	Internal Diameter 1.995	Set at 2660	Perforations NA	To NA
Type Completion (Describe) SINGLE GAS	Type Fluid Production WATER	Reservoir Temp 130	Pump Unit or Traveling Plunger? Pumping Unit	Yes / No Pmp	
Producing Thru (Annulus / Casing) Casing		% Carbon Dioxide 0.117	% Nitrogen 19.635	Gas Gravity - G _g 0.754	
Vertical Depth (H) 2562	Pressure Taps Flange		(Meter Run) X	(PROVER) 	Size 4
Pressure Buildup: Well on Line:	Shut in 3/4/14 Started N/A	at 12:00 pm at N/A	(AM)(PM) (AM)(PM)	Taken 3/5/14 Taken N/A	at 12:00 pm at N/A (AM)(PM)

OBSERVED SURFACE DATA

Duration of Shut-in **24 Hours**

Static / Dynamic Property	Orifice Size Inches	Circle One: Meter or Prover Pressure psig	Pressure Differential in (h) Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _t) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _t) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						10	24.4	Pmp		24	
Flow	0.875	N/A	N/A	N/A	60	N/A	0	Pmp		N/A	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (F _p) Mcfd	Circle One: Meter or Prover Pressure psia	Pressure Extension Sqrt ((Pm)(Hw))	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
3.723	14.4	0	1.151	1.063	1.000	0	0	0.000

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)²= 0.595 (P_w)²= 0 P_d= % (P_c-14.4)+14.4= (P_w)²=0.207
(P_d)²=

(P _c) ² -(P _a) ² or (P _c) ² -(P _d) ²	(P _c) ² -(P _w) ²	Choose formula 1 or 2: 1. P _c ² -P _a ² 2. P _c ² -P _d ² divided by P _c ² -P _w ²	LOG of formula 1. or 2. (P _c ² -P _w ²) and divide by:	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG ()	Antilog	Open Flow Deliverability Equals R x Antilog Mcfd
0.388	0.595	0.652	-0.186	0.656	-0.122	0.755	0

Open Flow

Deliverability

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 5th d. day of March 2014

Thomas L. Walsh

For Company

Witness (if any)

For Commission

KCC WICHITA

Checked by

APR 02 2014

RECEIVED

I declare under penalty or perjury under the laws of the state of Kansas that I am aut exempt status under Rule K.A.R. 82-3-304 on behalf of the operator Anadarko E&P Onshore and that the foregoing information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon gas production records and records of equipment installation and/or of type completion or upon use of the gas well herin named.

I hereby request a permanent exemption form open flow testing for the Ratzlaff C-1 gas well on the grounds that said well:

(Check One)

- is a coalbed methane producer
- is cycled on plunger lift due to water
- is a source of natural gas for injection into an oil reservoir undergoing ER
- is on vacuume at the present time; KCC approval Docket No. _____
- is incapable of producing at a daily rate in excess of 150 mcf/D

Date: 3/31/14

Signature: Madeleine BRAUN

Title: PRODUCTION ENGINEER

Instructions All active gas wells must have at least on original G-2 form on file with the conservation division. If a gas well meets the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may complete the statement provided above in order to obtain a testing exemption.

At some point during the succeeding calendar year, wellhead shut-in pressure shall be measured after a minimum of 24 hours shut-in/buildup time and shall be reported on the front side of this form under "observed surface data." Shut-in pressure shall thereafter be reported yearley in the same manner.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than thirty (30) days after the taking of the pressure reading. The form must be signed and dated on the front side as though it was a verified report of test results.

KCC WICHITA

APR 02 2014

RECEIVED