

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Form G-2
(Rev. 8/98)

Type Test

Open Flow
 Deliverability

(See Instructions of Reverse Side)

Test Date: **03/18/15**

API No. 15- **18720687-0000**

Company Anadarko E&P Onshore LLC / Kerr McGee		Lease Arnold		Well Number 12-1	
County Stanton	Location 4290' FSL & 1980' FEL	Section 12	TWP 29S	RNGE (E/W) 41W	Acres Attributed
Field Arroyo	Reservoir Morrow	Gas Gathering Connection DCP			
Completion Date 09/28/93	Plug Back Total Depth 5674	Tubing Anchor 5379			
Casing Size 5.5	Weight 14	Interenal Diameter 5.012	Set at 5674	Perforations 5446	To 5482
Tubing Size 2.875	Weight 6.5	Interenal Diameter 2.441	Set at 5500	Perforations NA	To NA
Type Completion (Describe) Morrow	Type Fluid Production Oil / Water	Pump Unit or Traveling Plunger? PUMPING UNIT	Yes / No PUMP		
Producing Thru (Annulus / Casing) CSG	% Carbon Dioxide 2.047	% Nitrogen 7.536	Gas Gravity - G _g 1.182		
Vertical Depth (H) 5464	Pressure Taps Flange	(Meter Run) X	(PROVER)	Size 2.067	
Pressure Buildup: Well on Line:	Shut in <u>03/17/15</u> Started _____	9:00 AM (AM)(PM)	Taken <u>03/18/15</u> Taken _____	9:00 AM (AM)(PM)	(AM)(PM) (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 _j) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _j) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						4.35	18.75	PUMP		24	0
Flow	0.750	NA	NA	NA	NA	NA	0	PUMP		NA	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (F _p) Mcfd	Circle One: Meter or Prover Pressure psia	Pressure Extension Sqrt ((P _m)(H _w))	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{pv}	Metered Flow R (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
2.779	14.4	0	0.920	1.063	1.000	0	0	0.000

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 0.352 (P_w)² = 0 P_d = _____ % (P_c-14.4)+14.4 = _____ (P_w)² = 0.207
(P_d)² = _____

(P _c) ² - (P _d) ² or (P _c) ² - (P _w) 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
0.145	0.352	0.412	-0.385	0.850	-0.327	0.471	0

Open Flow

0 Mcfd @ 14.65 psia

Deliverability

Mcf/d @ 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 18 th day of March 2015

Witness (if any)

For Commission

Received
KANSAS CORPORATION COMMISSION

APR 07 2015
CONSERVATION DIVISION
WICHITA, KS

Thomas L. Walsh
For Company

Checked by

KCC WICHITA
MAY 11 2015
RECEIVED

5-11-15

I declare under penalty or perjury under the laws of the state of Kansas that I am authorized to file for an exempt status under Rule K.A.R. 82-3-304 on behalf of the operator KERR MCGEE OIL & GAS ONSHORE LP 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 herein named.

I hereby request a permanent exemption from open flow testing for the ARNOLD 12-1 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 vacuum at the present time; KCC approval Docket No. _____
- is incapable of producing at a daily rate in excess of 150 mcf/D

Date: 4/1/15

Signature: Madeline [Signature]

Title: PRODUCTION ENGINEER

Instructions All active gas wells must have at least one 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 yearly 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.