

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
(Rev.8/98)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 11/13/2001 API No. 15-009-24702

Company Grady Bolding Corp		Lease Leroy			Well Number 1	
County Barton	Location C e/2 SE		Section 20	TWP 19s	RNG(E/W) 1	Acres Attributed 160
Field Heizer SW	Reservoir Conglomerate		Gas Gathering Connection Lumen Energy			
Completion Date	Plug Back Total Depth 3580		Packer Set at n/a			
Casing Size 4.500	Weight 10.500	Internal Diameter 4.052	Set at 3574	Perforations 3497	To 3503	
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at 3506	Perforations	To	
Type Completion (Describe) Perforated	Type Fluid Production water		Pump Unit or Traveling Plunger? no			
Producing Thru(Annulus/Tubing)	% Carbon Dioxide .152		% Nitrogen 24.444		Gas Gravity- Gg .727	
Vertical Depth (H) 3500	Pressure Taps flange		Meter Run Size 2"			
Pressure Buildup: Shut in	11/9/2001 @ 1000		TAKEN	11/12/2001 @ 1000		
Well on Line: Started	11/12/2001 @ 1000		TAKEN	11/13/2001 @ 1715		

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						600	614	372	386		
Flow	.750	33.0	6.00	52		242	256	33	47		

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
2.770	47.4	16.86	1.1728	1.0078	1.0035	55		.727

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 149.3 (P_w)² = 2.2 P_d = 8.5 % (P_c - 14.4) + 14.4 = (P_a)² = 0.207
(P_d)² = 1.09

$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$	$(P_c)^2 - (P_w)^2$	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$ or $\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$	LOG	Backpressure Curve Slope "n" ---- or ---- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcf/d
149.10	147.06	1.014	.0060	.810	.0048	1.011	56
148.22	147.06	1.008	.0034	.810	.0028	1.006	55

OPEN FLOW 56 Mcfd @ 14.65 psia DELIVERABILITY 55 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 29 day of Nov, 2001

Witness (if any)

For Commission

For Company

Checked by

I declare under penalty or perjury under the laws of the state of Kansas that I am authorized to request exempt status under rule K.A.R. 82-3-304 on behalf of the operator Grady Bolding Corp 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 Leroy 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: _____

Signature: _____

Title: _____

Instructions:

All active gas wells must have at least an 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.