

KANSAS CORPORATION COMMISSION  
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2  
(Rev.8/98)

TYPE TEST:

- Open Flow  
 Deliverability

TEST DATE: 2-1-01  
01-31-01 API No. 15075207370000

Company Horsehoe Operating Inc		Lease Lewis		Well Number 2	
County Hamilton	Location SE	Section 7-22S-41W	TWP	RNG(E/W)	Acres Attributed 160
Field Bradshaw	Reservoir Winfield	Gas Gathering Connection Oneok			
Completion Date 10/22/00	Plug Back Total Depth		Packer Set at		
Casing Size 4.500	Weight 10.500	Internal Diameter 4.000	Set at 2794	Perforations 2717	To 2755
Tubing Size 2.380	Weight 4.700	Internal Diameter 1.995	Set at 2695	Perforations	To
Type Completion (Describe) New Well - Gas	Type Fluid Production		Pump Unit or Traveling Plunger? Pumping Unit		
Producing Thru (Annulus/Tubing) Annulus	% Carbon Dioxide .063	% Nitrogen 29.573	Gas Gravity- Gg .772		
Vertical Depth (H) 2736	Pressure Taps Flange	Meter Run Size 3.068			
Pressure Buildup: Shut in	01-28-01 @ 8:00	TAKEN	01-31-01 @ 9:45		
Well on Line: Started	01-31-01 @ 9:45	TAKEN	02-01-01 @ 10:00		

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H <sub>2</sub> O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> )		Tubing WellHead Press. (P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> )		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						94	108				
Flow	1.000	45.0	2.00	37		84	98			24.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F <sub>b</sub> ) Mcf/d	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR F <sub>g</sub>	FLOWING TEMP FACTOR F <sub>t</sub>	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW R Mcf/d	GOR	G <sub>m</sub>
4.910	59.4	10.90	1.1381	1.0229	1.0054	62		.772

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = 11.8      (P<sub>w</sub>)<sup>2</sup> = 9.7      41.5      %      (P<sub>c</sub> - 14.4) + 14.4 =      (P<sub>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = 2.03

$(P_c)^2 - (P_a)^2$ 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
11.54	2.05	5.617	.7495	.706	.5289	3.380	211
9.73	2.05	4.733	.6751	.706	.4764	2.995	187

OPEN FLOW      211      Mcfd @ 14.65 psia      DELIVERABILITY      187      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 9 day of Feb, 2001

Witness (if any)

*Paul [Signature]*  
For Company

For Commission

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 Horsehoe Operating Inc 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 Lewis 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.