

**KANSAS CORPORATION COMMISSION  
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST**

FORM G-2  
(Rev.8/98)

TYPE TEST:

- Open Flow  
 Deliverability

TEST DATE: 9-28-10 API No. **15**-057-20588-0000

Company Ritchie Exploration		Lease Lamb-Lance		Well Number 1	
County Ford	Location W/2 NW NE	Section 8	TWP 28s	RNG(E/W) 22w	Acres Attributed 640
Field Lamb	Reservoir Mississippian	Gas Gathering Connection Superior Pipeline			
Completion Date 7-6-10	Plug Back Total Depth 5272	Packer Set at			
Casing Size 4.500	Weight 10.500	Internal Diameter 4.052	Set at 5302	Perforations 5024	To 5029
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at 5015	Perforations	To
Type Completion (Describe) New Well	Type Fluid Production none	Pump Unit or Traveling Plunger? NO			
Producing Thru(Annulus/Tubing) Tubing	% Carbon Dioxide 0.087	% Nitrogen 9.531	Gas Gravity- Gg 0.662		
Vertical Depth (H) 5026	Pressure Taps Flange	Meter Run Size 3.067			
Pressure Buildup: Shut in	9-24-10	TAKEN	8:00		
Well on Line: Started	9-27-10	TAKEN	9:00		

**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						1262	1276	1260	1274	73.0	
Flow	1.250	53.0	41.70	70		1060	1074	981	995	29.0	

**FLOW STREAM ATTRIBUTES**

COEFFICIENT (F <sub>b</sub> ) Mcf/d	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW R Mcf/d	GOR	G <sub>m</sub>
7.771	67.4	53.01	1.2291	0.9905	1.0052	504		0.662

**(OPEN FLOW)(DELIVERABILITY) CALCULATIONS**

(P<sub>c</sub>)<sup>2</sup> = 1629.2      (P<sub>w</sub>)<sup>2</sup> = 1154.3      P<sub>d</sub> = 1.8      % (P<sub>c</sub> - 14.4) + 14.4 =      (P<sub>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = 0.51

$(P_c)^2 - (P_a)^2$ 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
1628.99	474.86	3.430	0.5354	0.803	0.4297	2.690	1355
1628.69	474.86	3.430	0.5353	0.803	0.4296	2.689	1355

OPEN FLOW      1355      Mcfd @ 14.65 psia      DELIVERABILITY      1355      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 \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_

Witness (if any)

For Commission

For Company

Checked by

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KCC WICHITA

# Field Measurements

**Company:** Ritchie Exploration  
**Well / Lease Name:** Lamb-Lance 1  
**Unique Well ID:** 8-28s-22w Ford Co. Ks.  
**Test Type:** Initial 1 point & 4 point

**Job Number:**  
**Formation:**  
**Field:**  
**Pool:**

			Wellhead		Gas Orifice Meter 1					
	Date	Time	Tubing Press	Casing Press	Static Press	Meter Temp	Differential Press	Plate Size	Gas Rate (Inst)	Gas Cum
	YYYY/MM/DD	HH:mm:ss	psi(g)	psi(g)	psi(g)	°F	in of H <sub>2</sub> O	in	Mscfd	MMscf
1	2010/10/27	09:00:00	1260.0	1262.0	0.0	0.0	0.0	0.000	0.000	0.000
2		09:15:00	1253.0	1256.0	14.7	50.0	30.6	1.250	286.236	0.003
3		09:30:00	1242.0	1245.0	14.7	54.0	33.2		296.851	0.006
4		09:45:00	1225.0	1228.0	15.0	56.0	38.8		322.193	0.009
5		10:00:00	1220.0	1221.0	14.8	62.0	32.8		293.414	0.012
6			1st point							
7	2010/10/27	10:15:00	1204.0	1205.0	16.4	58.0	72.4		453.117	0.016
8		10:30:00	1193.0	1194.0	16.9	58.0	83.1		490.021	0.021
9		10:45:00	1180.0	1181.0	17.3	57.0	96.3		533.074	0.027
10		11:00:00	1161.0	1162.0	17.3	57.0	97.6		537.140	0.032
11		11:00:00	2nd point							
12		11:15:00	1157.0	1138.0	20.4	54.0	175.2		766.847	0.039
13		11:45:00	1116.0	1121.0	20.3	57.0	170.8		753.327	0.055
14		12:00:00	1109.0	1113.0	20.5	58.0	174.7		763.050	0.063
15			3rd point							
16	2010/10/27	12:15:00	1077.0	1092.0	22.7	55.0	228.2		909.903	0.071
17		12:30:00	1068.0	1083.0	22.3	56.0	224.3		895.440	0.081
18		12:45:00	1058.0	1076.0	23.1	57.0	239.1		935.528	0.090
19		13:00:00	1049.0	1064.0	22.6	56.0	230.2		912.036	0.100
20			4th point							
21	2010/10/28	13:00:00	981.0	1060.0	53.0	70.0	41.6		502.152	0.807

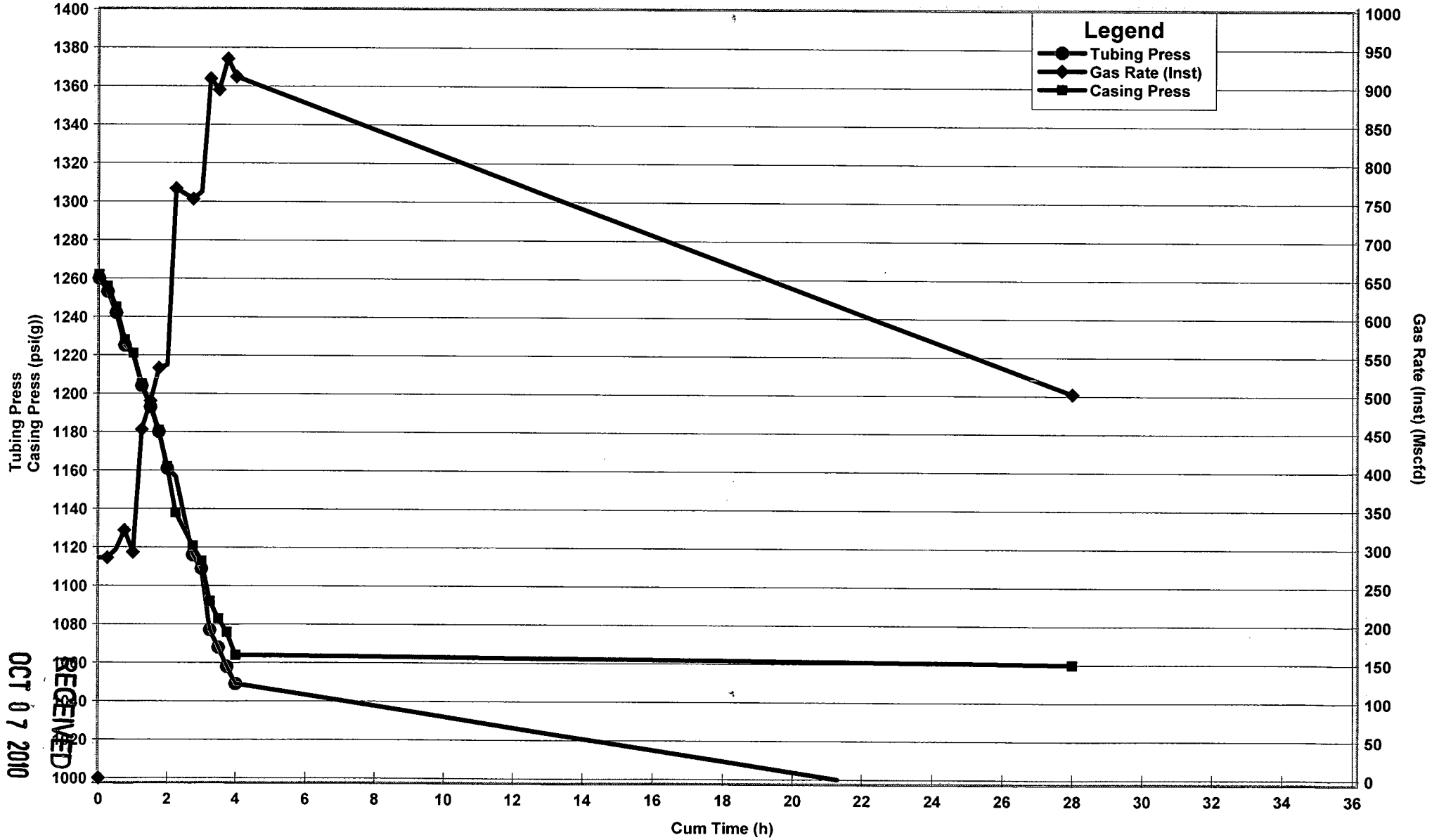
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**From** 2010/10/27 09:00:00 **To** 2010/10/28 06:00:00  
**Gas Cum** 0.601 MMscf **Gas Cum** 0.601 MMscf  
**Oil Cum** bbl **Oil Cum** bbl  
**Water Cum** bbl **Water Cum** bbl  
**Cond Cum** bbl **Cond Cum** bbl

# Plot 1

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