

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

Type Test:

- Open Flow  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
10-16-2010

API No. 15  
-191-22518-0000

Company Bartelson oil		Lease Hemberger		Well Number #4	
County Sumner	Location n 1/2 ne 1/4 nw	Section 18	TWP 32s	RNG (E/W) 3 W	Acres Attributed 40
Field Love Three		Reservoir Elgin Sand	Gas Gathering Connection Atlas Pipeline		
Completion Date 10-19-2007		Plug Back Total Depth 2524	Packer Set at n/a		
Casing Size 4 1/2	Weight 10.5#	Internal Diameter 3.875	Set at 2524	Perforations 2468	To 2474
Tubing Size 2 3/8	Weight 4.6	Internal Diameter 2"	Set at 2480	Perforations n/a	To
Type Completion (Describe) <b>Single (Gas)</b>		Type Fluid Production Salt Water	Pump Unit or Traveling Plunger? Yes / No pump unit		
Producing Thru (Annulus / Tubing) tubing, casing		% Carbon Dioxide	% Nitrogen	Gas Gravity - G <sub>g</sub>	
Vertical Depth(H)		Pressure Taps		(Meter Run) (Prover) Size	

Pressure Buildup: Shut in 10-13-2010 20 10 at 8 am (AM) (PM) Taken 10-16 20 10 at 8 am (AM) (PM)  
Well on Line: Started 20 at (AM) (PM) Taken 20 at (AM) (PM)

### OBSERVED SURFACE DATA

Duration of Shut-in 72 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H <sub>2</sub> O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>c</sub> ) or (P <sub>e</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>c</sub> ) or (P <sub>e</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In		330#				330	344.4			72	
Flow											

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>p</sub> ) (F <sub>t</sub> ) Mcfd	Circle one Meter or Prover Pressure psia	Press Extension $\sqrt{P_w \times h}$	Gravity Factor F <sub>g</sub>	Flowing Temperature Factor F <sub>t</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>p</sub>

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = \_\_\_\_\_ ; (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ ; P<sub>d</sub> = \_\_\_\_\_ % ; (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ ; (P<sub>e</sub>)<sup>2</sup> = 0.207 ; (P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup> or (P <sub>e</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2 1. P <sub>c</sub> <sup>2</sup> - P <sub>d</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> divided by P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	LOG of formula 1, or 2, and divide by $\frac{P_c^2 - P_w^2}{P_c^2 - P_d^2}$	Backpressure Curve Slope = "n" or Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)

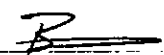
Open Flow Mcfd @ 14.65 psia      Deliverability 55      Mcfd @ 14.65 psia

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 therein, and that said report is true and correct. Executed this the 18 day of December 20 10

Witness (if any)

For Commission

For Company

  
Mital Bartelson  
Checked by

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DEC 20 2010

KCC WICHITA

I declare under penalty of 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 Bartelson Oil and that the foregoing pressure information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon available production summaries and lease records of equipment installation and/or upon type of completion or upon use being made of the gas well herein named.

I hereby request a one-year exemption from open flow testing for the Hemberger # 4 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 not capable of producing at a daily rate in excess of 250 mcf/D

I further agree to supply to the best of my ability any and all supporting documents deemed by Commission staff as necessary to corroborate this claim for exemption from testing.

Date: 12-18-2010

Signature: 

Title: operator

**Instructions:** If a gas well meets one of 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 claim exempt status for the gas well.

At some point during the current calendar year, wellhead shut-in pressure shall have been 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 for so long as the gas well continues to meet the eligibility criterion or until the claim of eligibility for exemption IS denied.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than December 31 of the year for which it's intended to acquire exempt status for the subject well. The form must be signed and dated on the front side as though it was a verified report of annual test results.

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**PRIORITY**  
ANALYTICAL LABORATORY, INC.

401 E. Douglas, Ste. 300, Wichita, KS 67202 (316) 269-4200

**EXTENDED NATURAL GAS ANALYSIS**

COMPANY NAME: Bartelson Oil  
 Sample I.D.: Hemberger #4, DST#2  
 SETT#: Elgin sand, TD 2439-2478  
 COUNTY: n/a  
 DATE SAMPLED: 10/2/07  
 SAMPLE PRESSURE: n/a  
 DATE ANALYZED: 10/15/07

Lab #: 746673

LEGAL LOCATION: Sec18-32S-3W  
 SAMPLER: Ricketts  
 TEMPERATURE (F): n/a  
 QUALITY CONTROL DATE: 10/15/07

**ANALYSIS**

CALCULATED AT 14.650 PSIA, 60 F, NORMALIZED

COMPONENT	MOLE %	BTU AMOUNT	GPM
METHANE	84.22	847.96	
ETHANE	4.73	83.44	1.26
PROPANE	2.52	63.21	0.69
ISOBUTANE	0.41	13.29	0.13
NORMAL BUTANE	0.84	27.32	0.26
ISOPENTANE	0.26	10.37	0.09
NORMAL PENTANE	0.27	10.79	0.1
HEXANES+	0.47	23.73	0.2
NITROGEN	5.93		
OXYGEN	*ND(<0.05)		
CARBON DIOXIDE	0.1		
HELIUM	0.25		
HYDROGEN	*ND(<0.02)		
<b>TOTALS</b>	<b>100</b>	<b>1077</b>	<b>2.73</b>

\*ND=Not detectable. Detection limit in parenthesis.

BTU/FT<sup>3</sup> DRY (IDEAL GROSS): 1077  
 BTU/FT<sup>3</sup> SATURATED (IDEAL GROSS): 1059.07  
 BTU/FT<sup>3</sup> DRY (REAL GROSS): 1082.9  
 BTU/FT<sup>3</sup> SATURATED (REAL GROSS): 1064.8

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 ENTERED 1  
 REF. 1

SPECIFIC GRAVITY: 0.6664  
 COMPRESSIBILITY: 0.9974  
 GPM: 2.73

RESPECTFULLY SUBMITTED

*Phil D. Fisher*

PRIORITY ANALYTICAL LAB

Hexanes+ parameters: BTU (dry)=5065.8; S.G.=3.1765; Summation factor=.0861, at 14.696 psia.  
 Analyzed and calculated by: Modified GPA 2261-90, 2145-94 & 2172-86.

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