



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Abercrombie Energy  
 10209 W Central Ste 2  
 Wichita, Ks 67212  
 ATTN: Tyler Sanders

**24-19s-26w Ness, Ks**  
**Vogel 4-24**  
 Job Ticket: 54673      **DST#: 2**  
 Test Start: 2013.12.15 @ 23:10:38

## GENERAL INFORMATION:

Formation: **miss**  
 Deviated: No    Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 01:16:23  
 Time Test Ended: 07:45:23  
 Interval: **4587.00 ft (KB) To 4600.00 ft (KB) (TVD)**  
 Total Depth: 4600.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches    Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Shane McBride  
 Unit No: 55  
 Reference Elevations: 2632.00 ft (KB)  
 2622.00 ft (CF)  
 KB to GR/CF: 10.00 ft

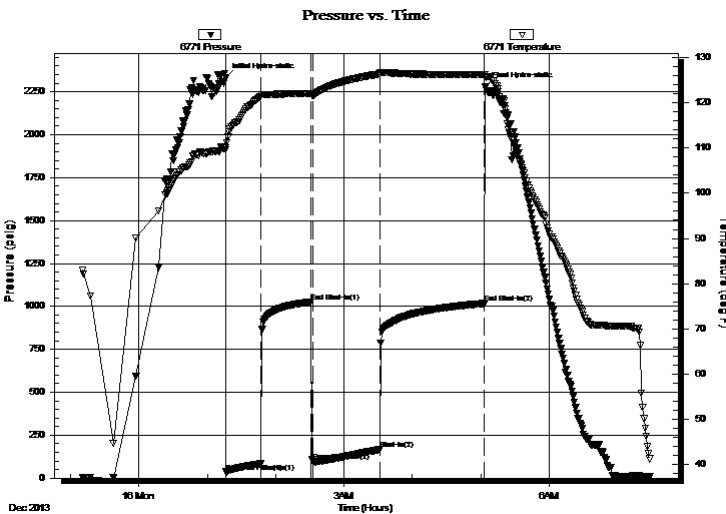
## Serial #: 6771

Inside

Press@RunDepth: 166.82 psig @ 4588.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2013.12.15      End Date: 2013.12.16      Last Calib.: 2013.12.16  
 Start Time: 23:10:38      End Time: 07:28:23      Time On Btm: 2013.12.16 @ 01:16:08  
 Time Off Btm: 2013.12.16 @ 05:04:08

TEST COMMENT: B.O.B. in 15 min.  
 1" in. return blow, died back to a surface blow  
 B.O.B. in 22 min.  
 1 1/4" in return blow, died back to 1/4" in

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2330.09	110.13	Initial Hydro-static
1	36.50	109.55	Open To Flow (1)
31	84.35	121.35	Shut-In(1)
75	1027.22	122.07	End Shut-In(1)
77	98.77	121.69	Open To Flow (2)
136	166.82	126.35	Shut-In(2)
227	1017.48	126.19	End Shut-In(2)
228	2277.83	125.76	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
310.00	c g o 20%g 80%o	4.35
60.00	w & m c g o 15%w 20%m 25%g 40%o	0.84
30.00	g m c w 5%g 10%m 85%w	0.42
0.00	260' gas in pipe	0.00

\* Recovery from multiple tests

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



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**FLUID SUMMARY**

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**Vogel 4-24**

Job Ticket: 54673

**DST#: 2**

ATTN: Tyler Sanders

Test Start: 2013.12.15 @ 23:10:38

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

32500 ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.74 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
310.00	c g o 20%g 80%o	4.348
60.00	w & m c g o 15%w 20%m 25%g 40%o	0.842
30.00	g m c w 5%g 10%m 85%w	0.421
0.00	260' gas in pipe	0.000

Total Length: 400.00 ft      Total Volume: 5.611 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw .349 @ 40\*f = 32,500 chlor

