



**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: 55586

**DST#: 1**

Test Start: 2013.12.15 @ 04:32:57

## GENERAL INFORMATION:

Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:56:27  
 Time Test Ended: 13:25:57  
 Interval: **4528.00 ft (KB) To 4587.00 ft (KB) (TVD)**  
 Total Depth: 4587.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brandon Turley  
 Unit No: 60  
 Reference Elevations: 2632.00 ft (KB)  
 2622.00 ft (CF)  
 KB to GR/CF: 10.00 ft

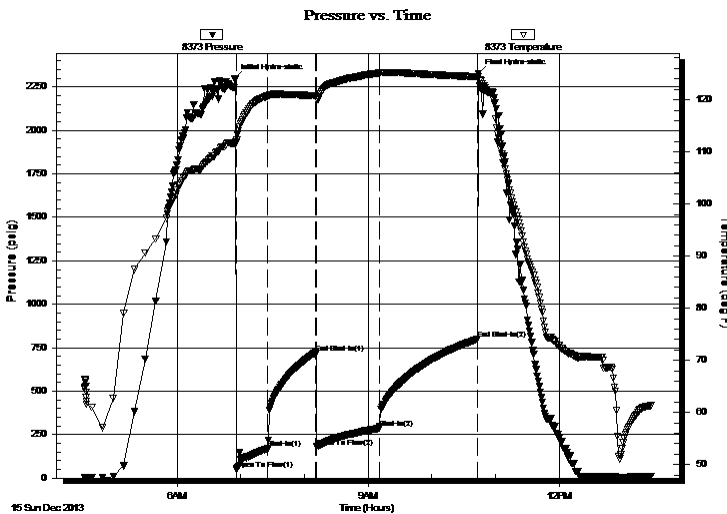
## Serial #: 8373

**Inside**

Press @ Run Depth: 286.46 psig @ 4529.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.12.15 End Date: 2013.12.15 Last Calib.: 2013.12.15  
 Start Time: 04:33:02 End Time: 13:25:57 Time On Btm: 2013.12.15 @ 06:54:27  
 Time Off Btm: 2013.12.15 @ 10:43:57

TEST COMMENT: IF: BOB in 5 min.  
 IS: Surface blow built to 1 1/2 died to a 1/4.  
 FF: BOB in 8 min.  
 FS: Surface blow built to 1 died in 42 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2297.03	111.59	Initial Hydro-static
2	52.00	112.26	Open To Flow (1)
31	169.61	120.69	Shut-In(1)
76	721.37	120.78	End Shut-In(1)
77	179.77	120.33	Open To Flow (2)
136	286.46	125.11	Shut-In(2)
229	799.71	124.43	End Shut-In(2)
230	2328.13	124.42	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	gocm 45%g 5%o 50%m	0.87
248.00	gocm 25%g 5%o 70%m	3.48
248.00	mcgo 20%g 50%o 30%m	3.48
169.00	mcgo 20%g 70%o 10%m	2.37
0.00	201 GIP	0.00

## Gas Rates

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



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**Vogel 4-24**  
Job Ticket: 55586      **DST#: 1**  
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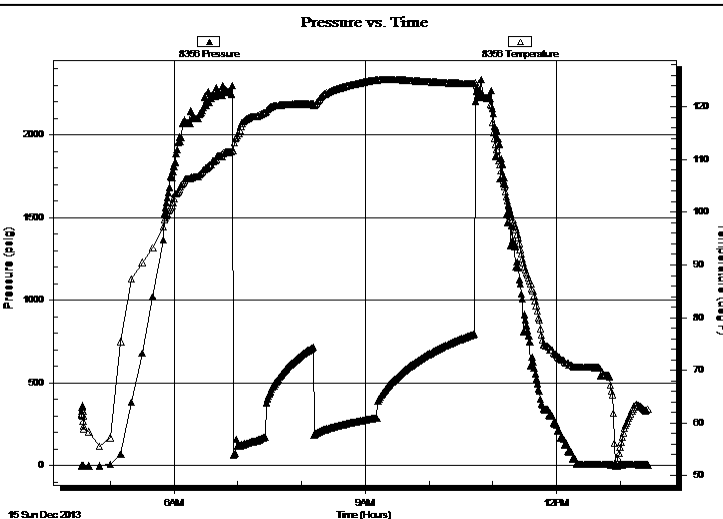
**GENERAL INFORMATION:**

Formation: **Miss**  
Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 06:56:27      Tester: Brandon Turley  
Time Test Ended: 13:25:57      Unit No: 60

Interval: **4528.00 ft (KB) To 4587.00 ft (KB) (TVD)**      Reference Elevations: 2632.00 ft (KB)  
Total Depth: 4587.00 ft (KB) (TVD)      2622.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good      KB to GR/CF: 10.00 ft

**Serial #: 8356      Outside**  
Press @ Run Depth:      psig @ 4529.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2013.12.15      End Date: 2013.12.15      Last Calib.: 2013.12.15  
Start Time: 04:33:00      End Time: 13:25:55      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF: BOB in 5 min.  
IS: Surface blow built to 1 1/2 died to a 1/4.  
FF: BOB in 8 min.  
FS: Surface blow built to 1 died in 42 min.



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

**Recovery**

Length (ft)	Description	Volume (bbl)
62.00	gocm 45%g 5%o 50%m	0.87
248.00	gocm 25%g 5%o 70%m	3.48
248.00	mcgo 20%g 50%o 30%m	3.48
169.00	mcgo 20%g 70%o 10%m	2.37
0.00	201 GIP	0.00

**Gas Rates**

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



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Abercrombie Energy

**24-19s-26w Ness, Ks**

10209 W Central Ste 2  
Wichita, Ks 67212

**Vogel 4-24**

Job Ticket: 55586

**DST#: 1**

ATTN: Tyler Sanders

Test Start: 2013.12.15 @ 04:32:57

## 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:

0 ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 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 bbl
62.00	gocm 45%g 5%o 50%m	0.870
248.00	gocm 25%g 5%o 70%m	3.479
248.00	mcgo 20%g 50%o 30%m	3.479
169.00	mcgo 20%g 70%o 10%m	2.371
0.00	201 GIP	0.000

Total Length: 727.00 ft

Total Volume: 10.199 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

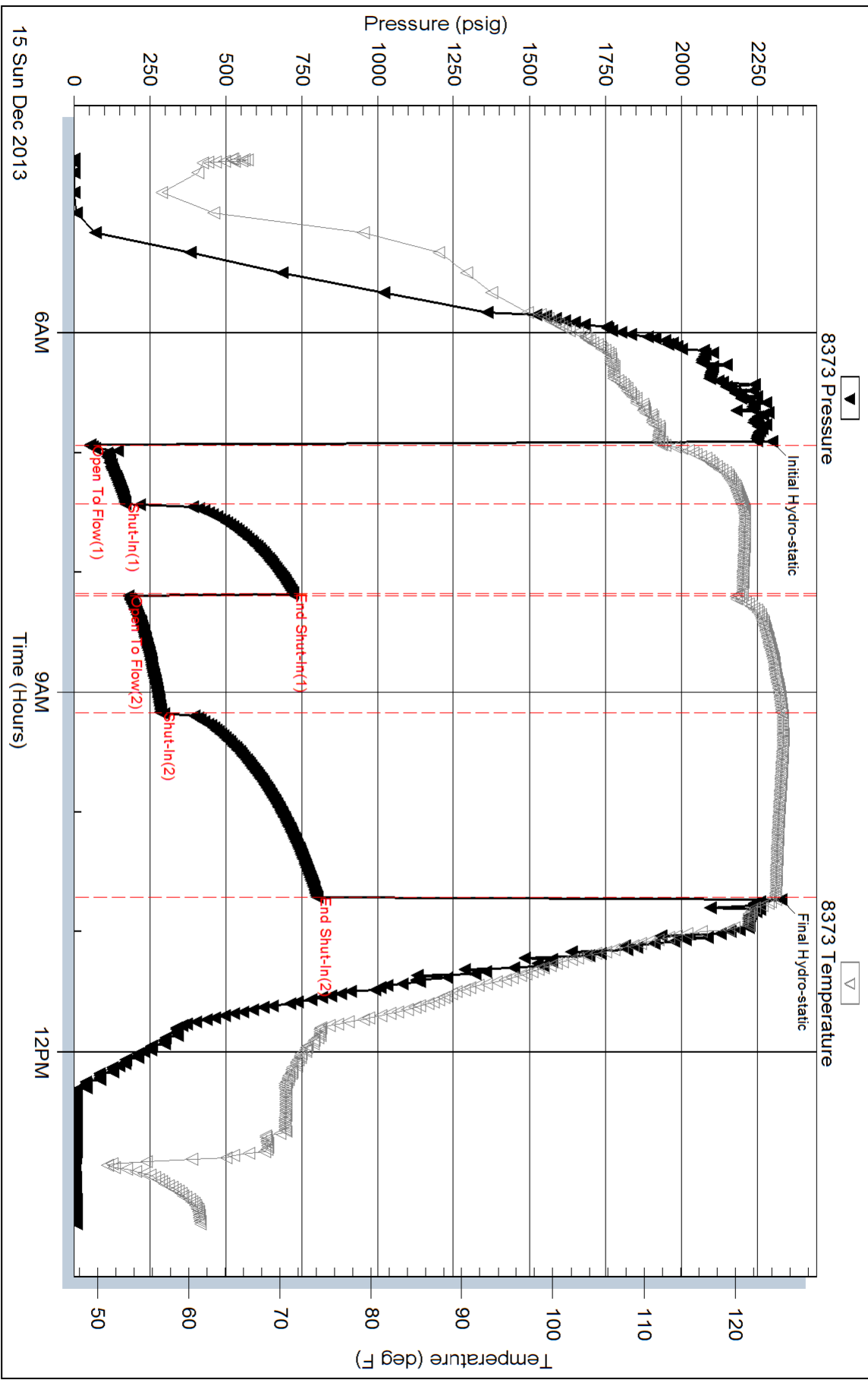
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 32@60=32

### Pressure vs. Time



Serial #: 8356

Outside Abercrombie Energy

Vogel 4-24

DST Test Number: 1

