



## DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central STE 2  
Wichita KS 67212

ATTN: Wes Hanson

### **Moore #1-9**

### **9-20s-34w Scott,KS**

Start Date: 2012.11.08 @ 22:40:00

End Date: 2012.11.09 @ 10:56:30

Job Ticket #: 48920                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.27 @ 10:06:42



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48920

**DST#: 1**

ATTN: Wes Hanson

Test Start: 2012.11.08 @ 22:40:00

## GENERAL INFORMATION:

Formation: **Kansas City " K & L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:49:00

Time Test Ended: 10:56:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 46

**Interval: 4298.00 ft (KB) To 4384.00 ft (KB) (TVD)**

Reference Elevations: 3069.00 ft (KB)

Total Depth: 4384.00 ft (KB) (TVD)

3059.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 258.82 psig @ 4299.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.08

End Date:

2012.11.09

Last Calib.:

2012.11.09

Start Time:

22:40:15

End Time:

10:56:30

Time On Btm:

2012.11.09 @ 04:47:00

Time Off Btm:

2012.11.09 @ 08:38:15

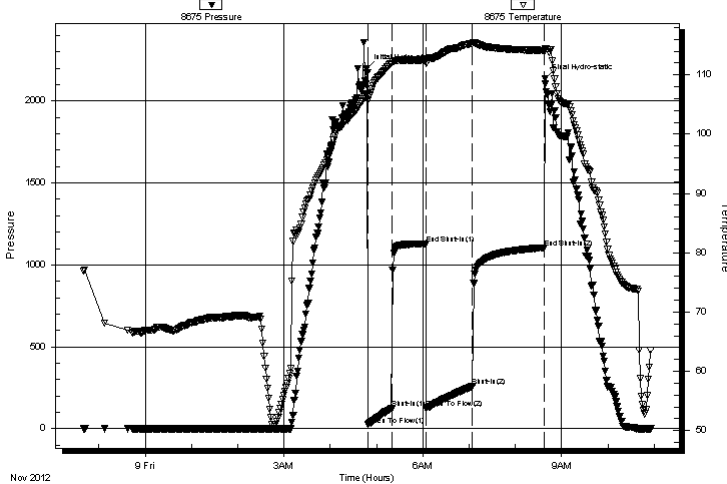
**TEST COMMENT:** B.O.B. in 24 min.

Bled off for 5 min. No return blow

B.O.B. in 28 min.

Bled off for 5 min. No return blow

Pressure vs. Time



## PRESSURE SUMMARY

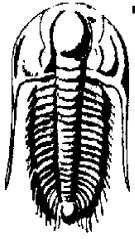
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2198.45	106.65	Initial Hydro-static
2	24.54	105.71	Open To Flow (1)
33	122.44	111.96	Shut-In(1)
78	1128.30	112.50	End Shut-In(1)
78	125.81	112.01	Open To Flow (2)
138	258.82	115.31	Shut-In(2)
231	1104.51	114.14	End Shut-In(2)
232	2138.39	114.12	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
76.00	w cm 10%W 90%m	1.07
310.00	mcw 40%M 60%w	4.35
124.00	mcw 10%M 90%w	1.74

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Abercrombie Energy, LLC

9-20s-34w Scott, KS

10209 W Central STE 2  
Wichita KS 67212

Moore #1-9

Job Ticket: 48920

DST#: 1

ATTN: Wes Hanson

Test Start: 2012.11.08 @ 22:40:00

### GENERAL INFORMATION:

Formation: **Kansas City " K & L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:49:00

Time Test Ended: 10:56:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 46

Interval: **4298.00 ft (KB) To 4384.00 ft (KB) (TVD)**

Reference Elevations: 3069.00 ft (KB)

Total Depth: 4384.00 ft (KB) (TVD)

3059.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8650 Outside

Press @ Run Depth: psig @ 4299.00 ft (KB)

Start Date: 2012.11.08

End Date: 2012.11.09

Capacity: 8000.00 psig

Last Calib.: 2012.11.09

Start Time: 22:40:15

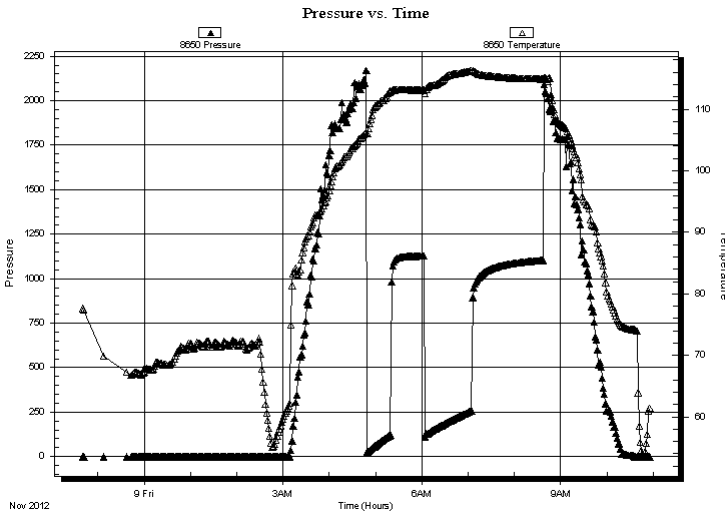
End Time: 10:56:15

Time On Btm:

Time Off Btm:

TEST COMMENT: B.O.B. in 24 min.  
Bled off for 5 min. No return blow  
B.O.B. in 28 min.  
Bled off for 5 min. No return blow

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
76.00	w cm 10%W 90%m	1.07
310.00	mcw 40%M 60%w	4.35
124.00	mcw 10%M 90%w	1.74

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48920

**DST#: 1**

ATTN: Wes Hanson

Test Start: 2012.11.08 @ 22:40:00

## Tool Information

Drill Pipe:	Length: 4294.89 ft	Diameter: 3.80 inches	Volume: 60.25 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 60.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.39 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4298.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	86.00 ft			
Tool Length:	113.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4271.50	
Shut In Tool	5.00			4276.50	
Hydraulic tool	5.00			4281.50	
Jars	5.00			4286.50	
Safety Joint	2.50			4289.00	
Packer	5.00			4294.00	27.50 Bottom Of Top Packer
Packer	4.00			4298.00	
Stubb	1.00			4299.00	
Recorder	0.00	8675	Inside	4299.00	
Recorder	0.00	8650	Outside	4299.00	
Perforations	18.00			4317.00	
Change Over Sub	1.00			4318.00	
Drill Pipe	62.00			4380.00	
Change Over Sub	1.00			4381.00	
Bullnose	3.00			4384.00	86.00 Bottom Packers & Anchor

**Total Tool Length: 113.50**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48920

**DST#: 1**

ATTN: Wes Hanson

Test Start: 2012.11.08 @ 22:40:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
76.00	w cm 10%W 90%m	1.066
310.00	mcw 40%M 60%w	4.348
124.00	mcw 10%M 90%w	1.739

Total Length: 510.00 ft      Total Volume: 7.153 bbl

Num Fluid Samples: 0

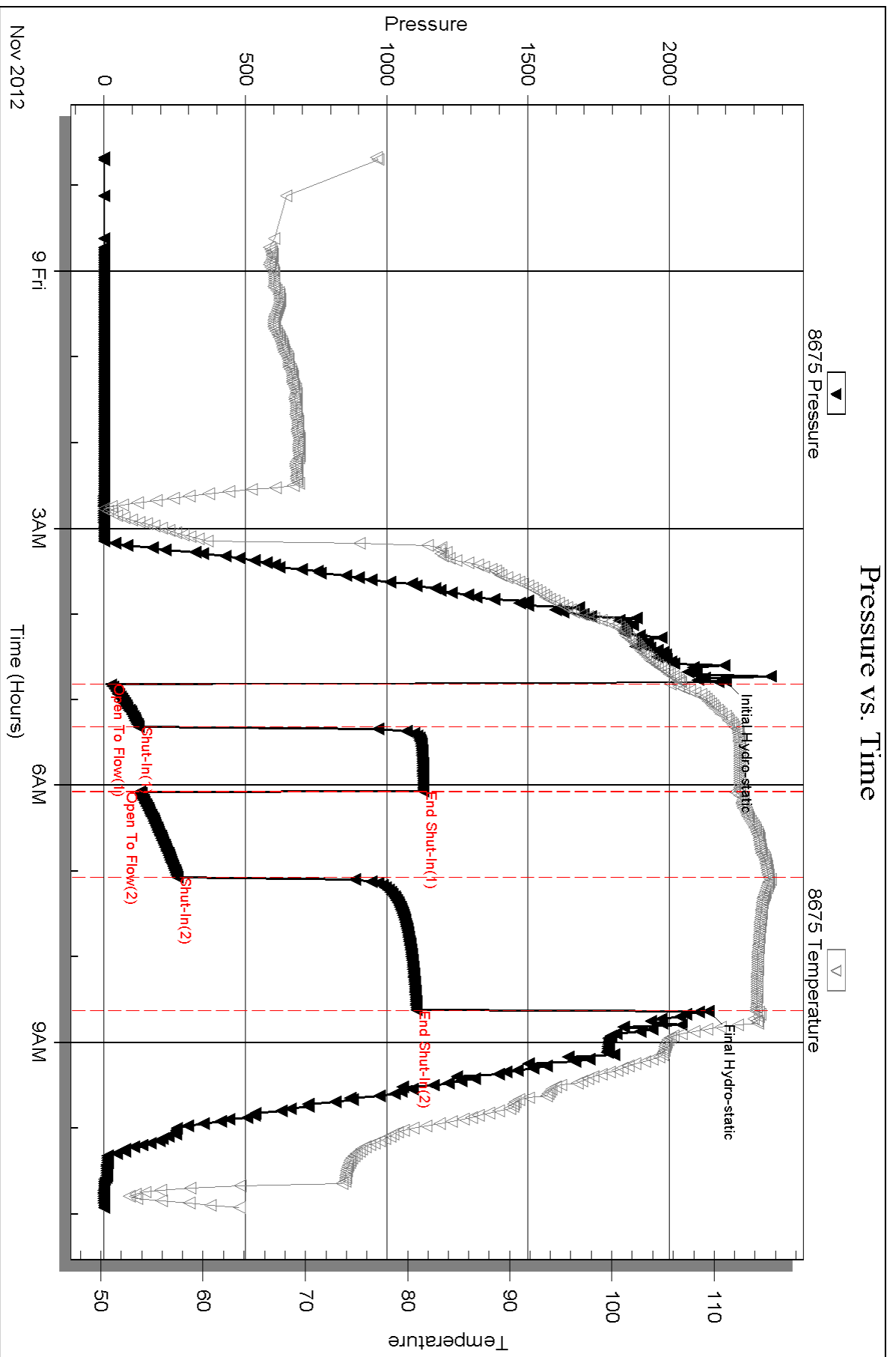
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw: .30 @ 60 F = 30,000

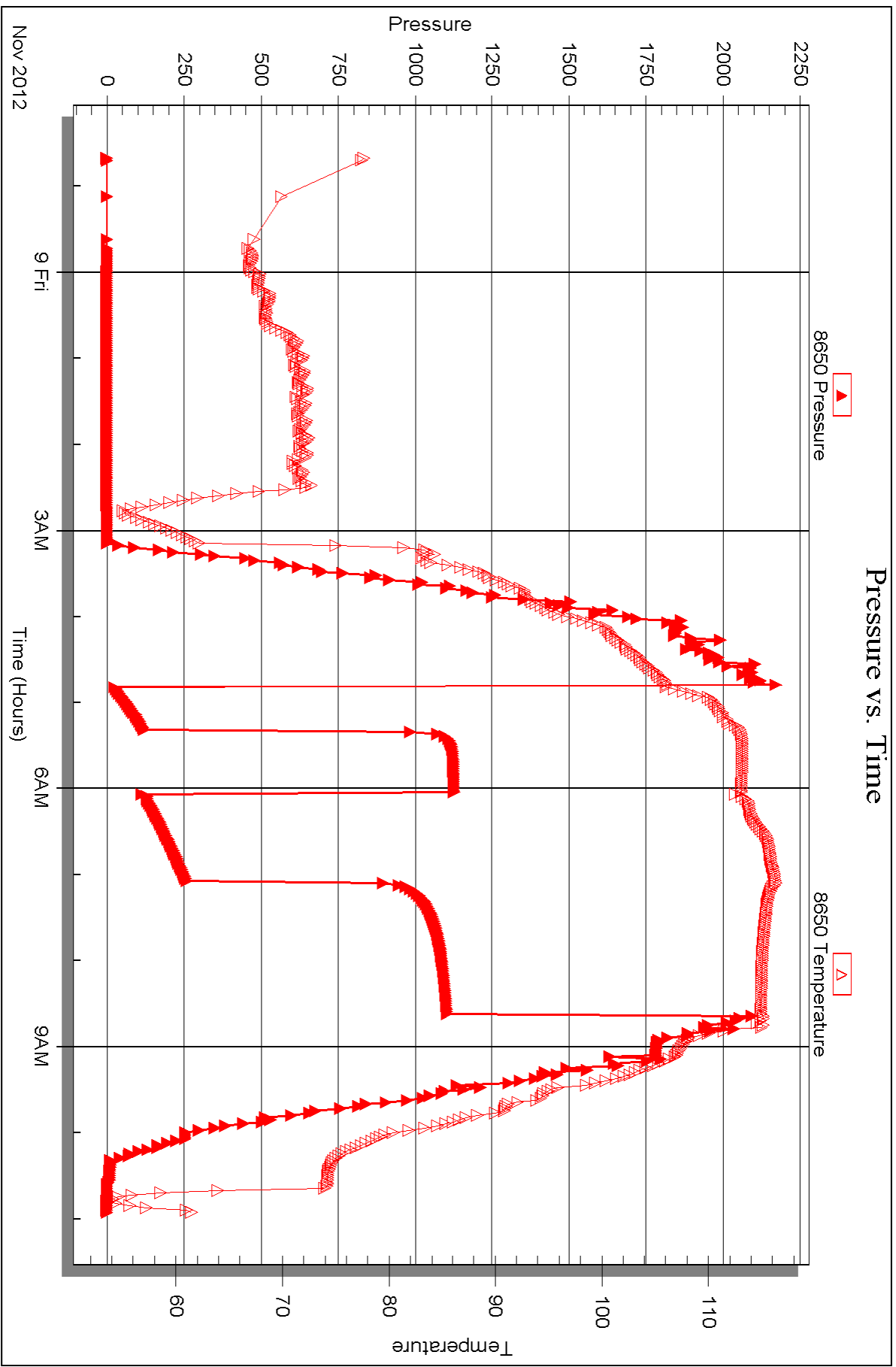


Serial #: 8650

Outside Abercrombie Energy, LLC

Moore #1-9

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central STE 2  
Wichita KS 67212

ATTN: Wes Hanson

### **Moore #1-9**

#### **9-20s-34w Scott,KS**

Start Date: 2012.11.10 @ 04:15:00

End Date: 2012.11.10 @ 13:54:30

Job Ticket #: 48921                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.27 @ 10:06:03





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48921

**DST#: 2**

ATTN: Wes Hanson

Test Start: 2012.11.10 @ 04:15:00

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:35:15

Time Test Ended: 13:54:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4483.00 ft (KB) To 4500.00 ft (KB) (TVD)**

Reference Elevations: 3069.00 ft (KB)

Total Depth: 4500.00 ft (KB) (TVD)

3059.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 745.97 psig @ 4484.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.10

End Date:

2012.11.10

Last Calib.:

2012.11.10

Start Time:

04:15:15

End Time:

13:54:30

Time On Btm:

2012.11.10 @ 06:34:00

Time Off Btm:

2012.11.10 @ 10:21:45

## TEST COMMENT:

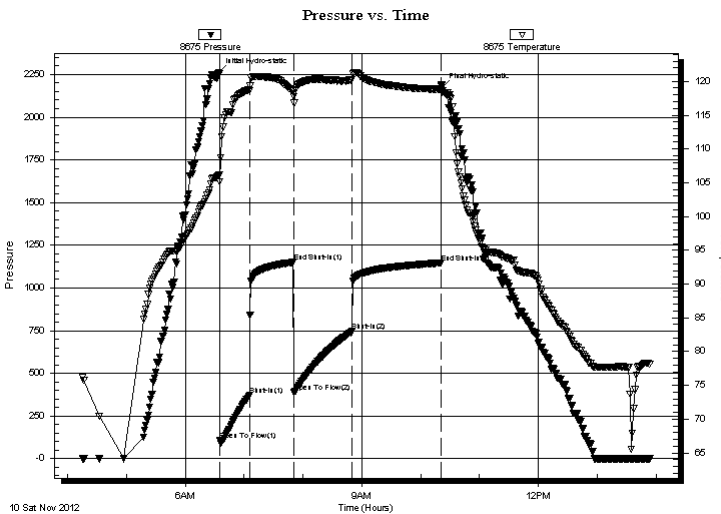
B.O.B. in 1 min

Bled off for 5 min. B.O.B. in 12 min.

B.O.B. in 2 1/2 min.

Bled off for 5 min. B.O.B. in 23 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2262.09	106.09	Initial Hydro-static
2	106.59	105.08	Open To Flow (1)
32	373.39	118.59	Shut-In(1)
77	1150.24	118.50	End Shut-In(1)
77	391.51	117.75	Open To Flow (2)
136	745.97	120.22	Shut-In(2)
227	1145.34	118.80	End Shut-In(2)
228	2171.62	118.45	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	2108 Feet Gas In Pipe	0.00
640.00	gco 10%G 90%O	8.98
620.00	gco 30%G 70%O	8.70
864.00	gco 15%G 85%O	12.12
186.00	mcw go 10%M 20%W 30%G 40%O	2.61

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

**9-20s-34w Scott, KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48921

**DST#: 2**

ATTN: Wes Hanson

Test Start: 2012.11.10 @ 04:15:00

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:35:15

Time Test Ended: 13:54:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4483.00 ft (KB) To 4500.00 ft (KB) (TVD)**

Reference Elevations: 3069.00 ft (KB)

Total Depth: 4500.00 ft (KB) (TVD)

3059.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8650 Outside**

Press @ Run Depth: psig @ 4484.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.10 End Date: 2012.11.10

Last Calib.: 2012.11.10

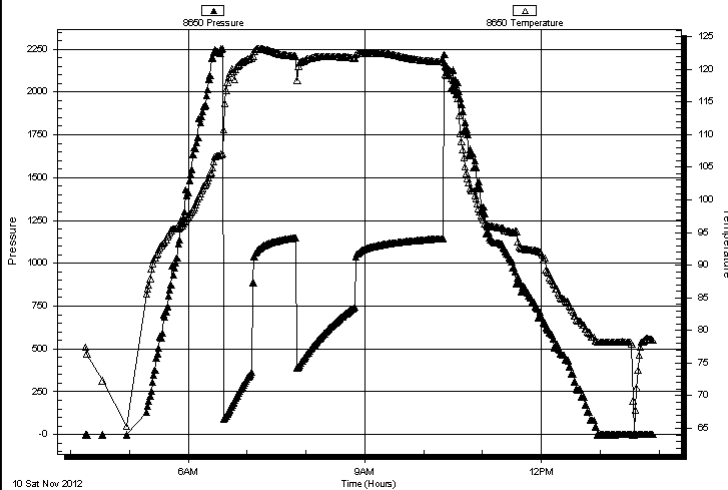
Start Time: 04:15:15 End Time: 13:54:15

Time On Btm:

Time Off Btm:

**TEST COMMENT:** B.O.B. in 1 min  
Bled off for 5 min. B.O.B. in 12 min.  
B.O.B. in 2 1/2 min.  
Bled off for 5 min. B.O.B. in 23 min.

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	2108 Feet Gas In Pipe	0.00
640.00	gco 10%G 90%O	8.98
620.00	gco 30%G 70%O	8.70
864.00	gco 15%G 85%O	12.12
186.00	mcw go 10%M 20%W 30%G 40%O	2.61

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48921

**DST#: 2**

ATTN: Wes Hanson

Test Start: 2012.11.10 @ 04:15:00

## Tool Information

Drill Pipe:	Length: 4482.59 ft	Diameter: 3.80 inches	Volume: 62.88 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 62.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.09 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4483.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	44.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4456.50	
Shut In Tool	5.00			4461.50	
Hydraulic tool	5.00			4466.50	
Jars	5.00			4471.50	
Safety Joint	2.50			4474.00	
Packer	5.00			4479.00	27.50 Bottom Of Top Packer
Packer	4.00			4483.00	
Stubb	1.00			4484.00	
Recorder	0.00	8675	Inside	4484.00	
Recorder	0.00	8650	Outside	4484.00	
Perforations	13.00			4497.00	
Change Over Sub	0.00			4497.00	
Drill Pipe	0.00			4497.00	
Change Over Sub	0.00			4497.00	
Bullnose	3.00			4500.00	17.00 Bottom Packers & Anchor

**Total Tool Length: 44.50**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48921

**DST#: 2**

ATTN: Wes Hanson

Test Start: 2012.11.10 @ 04:15:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5300.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2108 Feet Gas In Pipe	0.000
640.00	gco 10%G 90%O	8.978
620.00	gco 30%G 70%O	8.697
864.00	gco 15%G 85%O	12.120
186.00	mcw go 10%M 20%W 30%G 40%O	2.609

Total Length: 2310.00 ft      Total Volume: 32.404 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

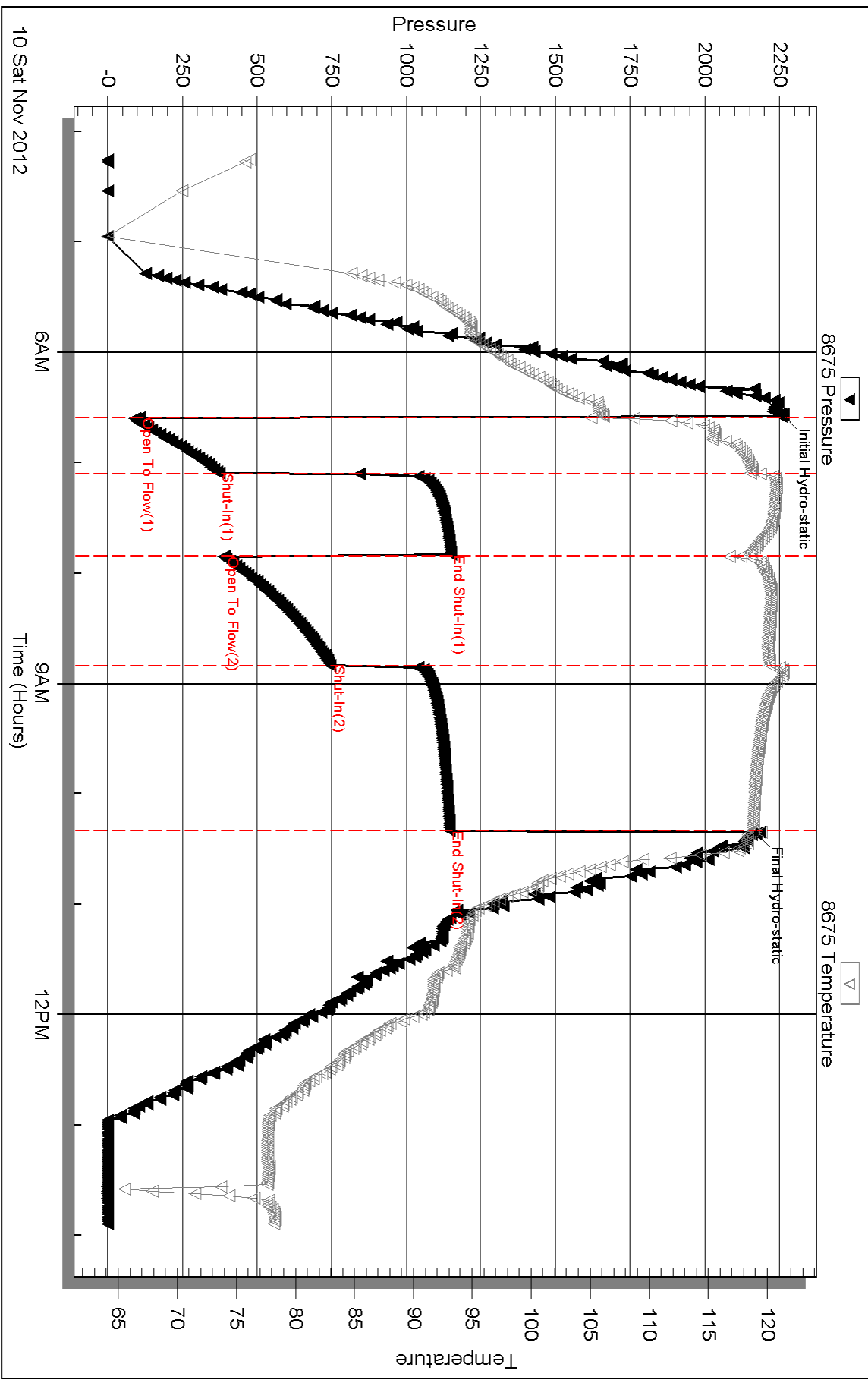
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 35 @ 70 F = 34    RW: .20 @ 70 F = 35,000

# Pressure vs. Time

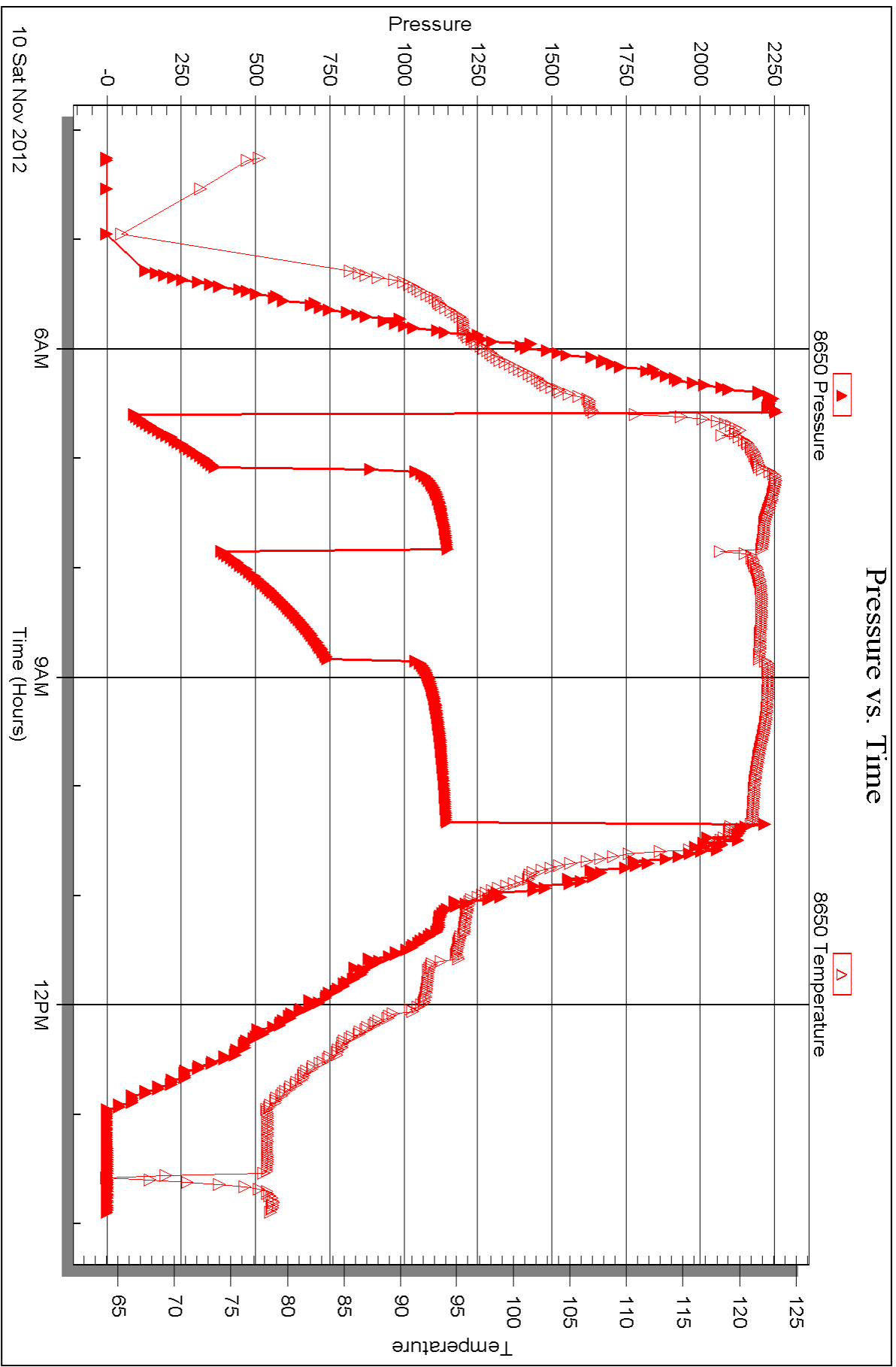


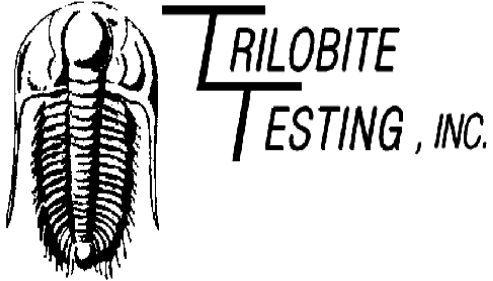
Serial #: 8650

Outside Abercrombie Energy, LLC

Moore #1-9

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central STE 2  
Wichita KS 67212

ATTN: Wes Hanson

### **Moore #1-9**

#### **9-20s-34w Scott,KS**

Start Date: 2012.11.11 @ 03:20:00

End Date: 2012.11.11 @ 10:21:15

Job Ticket #: 48922                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.27 @ 10:05:21



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48922

**DST#: 3**

ATTN: Wes Hanson

Test Start: 2012.11.11 @ 03:20:00

## GENERAL INFORMATION:

Formation: **Pawnee (Beymer)**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:28:45

Time Test Ended: 10:21:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4540.00 ft (KB) To 4563.00 ft (KB) (TVD)**

Reference Elevations: 3069.00 ft (KB)

Total Depth: 4563.00 ft (KB) (TVD)

3059.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8675**

**Inside**

Press @ RunDepth: 56.58 psig @ 4541.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.11

End Date:

2012.11.11

Last Calib.:

2012.11.11

Start Time: 03:20:15

End Time:

10:21:15

Time On Btm:

2012.11.11 @ 06:27:45

Time Off Btm:

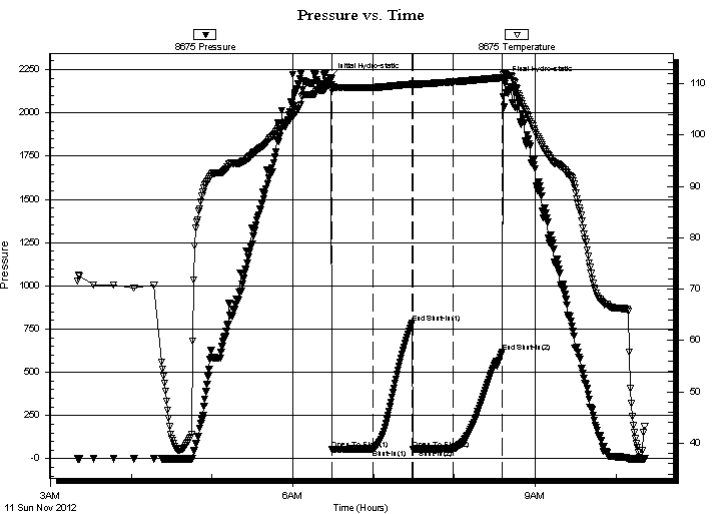
2012.11.11 @ 08:37:15

**TEST COMMENT:** Weak surface blow, Died in 20 min.

No return blow

No blow

No return blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2204.33	109.82	Initial Hydro-static
1	55.10	108.58	Open To Flow (1)
32	56.00	109.25	Shut-In(1)
61	785.94	109.88	End Shut-In(1)
62	56.43	109.56	Open To Flow (2)
91	56.58	110.32	Shut-In(2)
128	617.26	111.15	End Shut-In(2)
130	2188.02	111.97	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	100%Mud with few oil spots	1.05

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC  
 10209 W Central STE 2  
 Wichita KS 67212  
 ATTN: Wes Hanson

**9-20s-34w Scott,KS**  
**Moore #1-9**  
 Job Ticket: 48922      **DST#: 3**  
 Test Start: 2012.11.11 @ 03:20:00

## GENERAL INFORMATION:

Formation: **Pawnee (Beymer)**  
 Deviated: No Whipstock:                      ft (KB)  
 Time Tool Opened: 06:28:45  
 Time Test Ended: 10:21:15  
 Interval: **4540.00 ft (KB) To 4563.00 ft (KB) (TVD)**  
 Total Depth: 4563.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jace McKinney  
 Unit No: 46  
 Reference Elevations: 3069.00 ft (KB)  
 3059.00 ft (CF)  
 KB to GR/CF: 10.00 ft

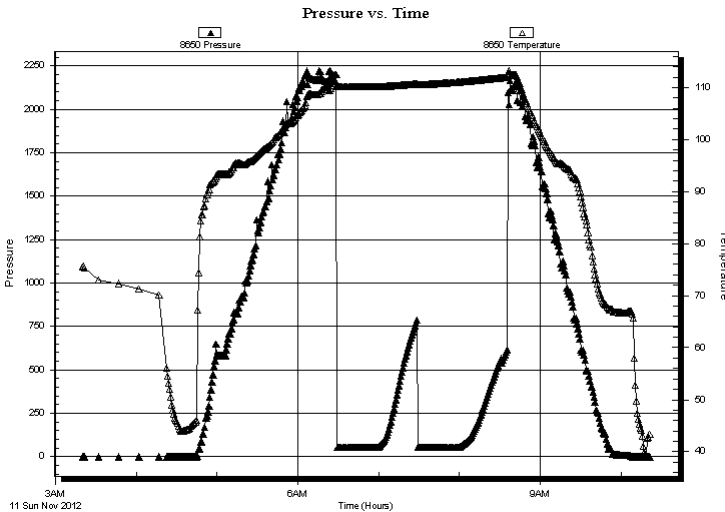
## Serial #: 8650

Outside

Press @ RunDepth:                      psig @ 4541.00 ft (KB)  
 Start Date: 2012.11.11      End Date: 2012.11.11  
 Start Time: 03:20:15      End Time: 10:21:15  
 Capacity: 8000.00 psig  
 Last Calib.: 2012.11.11  
 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** Weak surface blow , Died in 20 min.  
 No return blow  
 No blow  
 No return blow

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	100%Mud with few oil spots	1.05

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48922

**DST#: 3**

ATTN: Wes Hanson

Test Start: 2012.11.11 @ 03:20:00

## Tool Information

Drill Pipe:	Length: 4544.66 ft	Diameter: 3.80 inches	Volume: 63.75 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 63.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.16 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4540.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	50.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4513.50	
Shut In Tool	5.00			4518.50	
Hydraulic tool	5.00			4523.50	
Jars	5.00			4528.50	
Safety Joint	2.50			4531.00	
Packer	5.00			4536.00	27.50 Bottom Of Top Packer
Packer	4.00			4540.00	
Stubb	1.00			4541.00	
Recorder	0.00	8675	Inside	4541.00	
Recorder	0.00	8650	Outside	4541.00	
Perforations	19.00			4560.00	
Change Over Sub	0.00			4560.00	
Drill Pipe	0.00			4560.00	
Change Over Sub	0.00			4560.00	
Bullnose	3.00			4563.00	23.00 Bottom Packers & Anchor

**Total Tool Length: 50.50**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48922

**DST#: 3**

ATTN: Wes Hanson

Test Start: 2012.11.11 @ 03:20:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
75.00	100%Mud w ith few oil spots	1.052

Total Length: 75.00 ft      Total Volume: 1.052 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

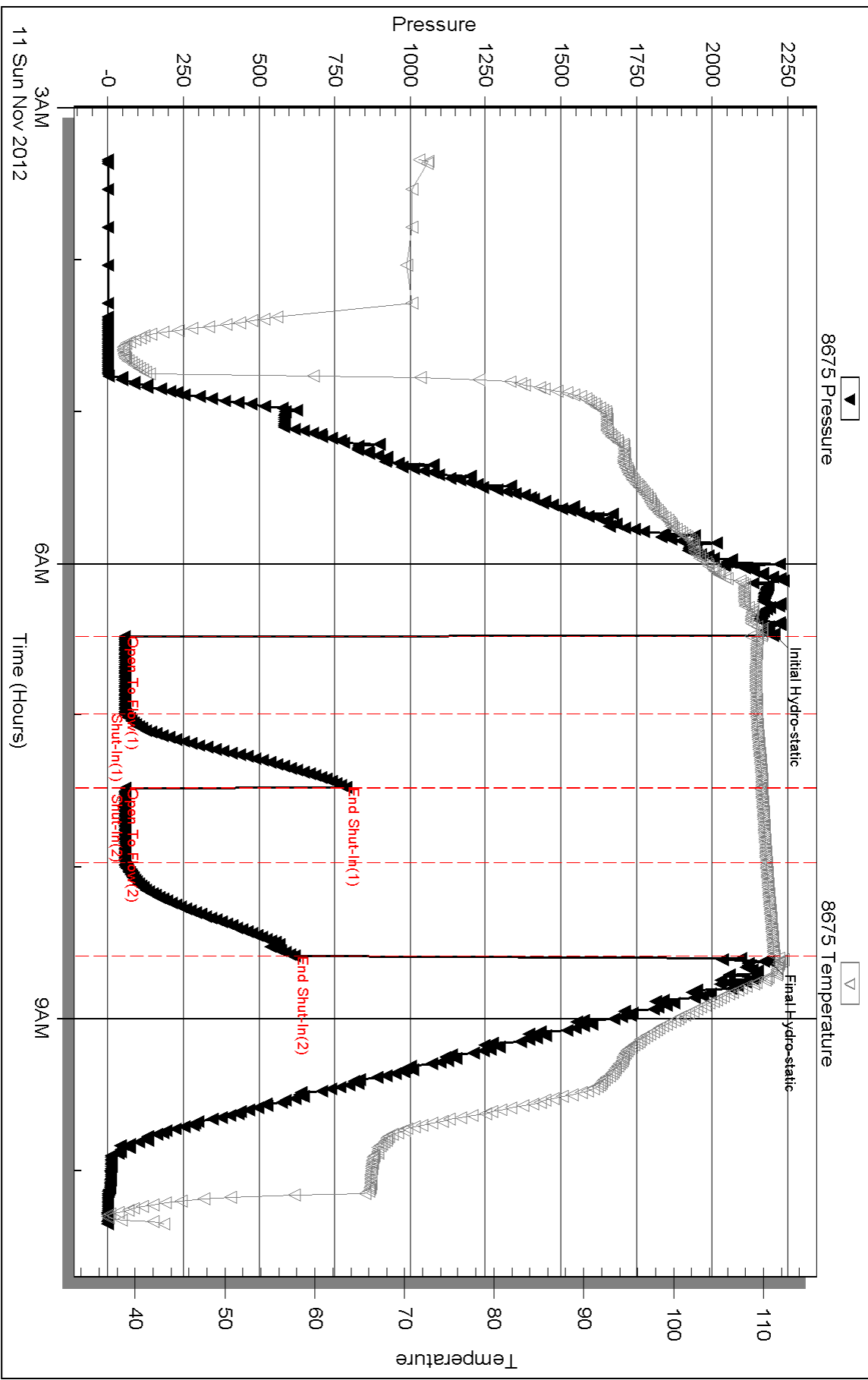
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

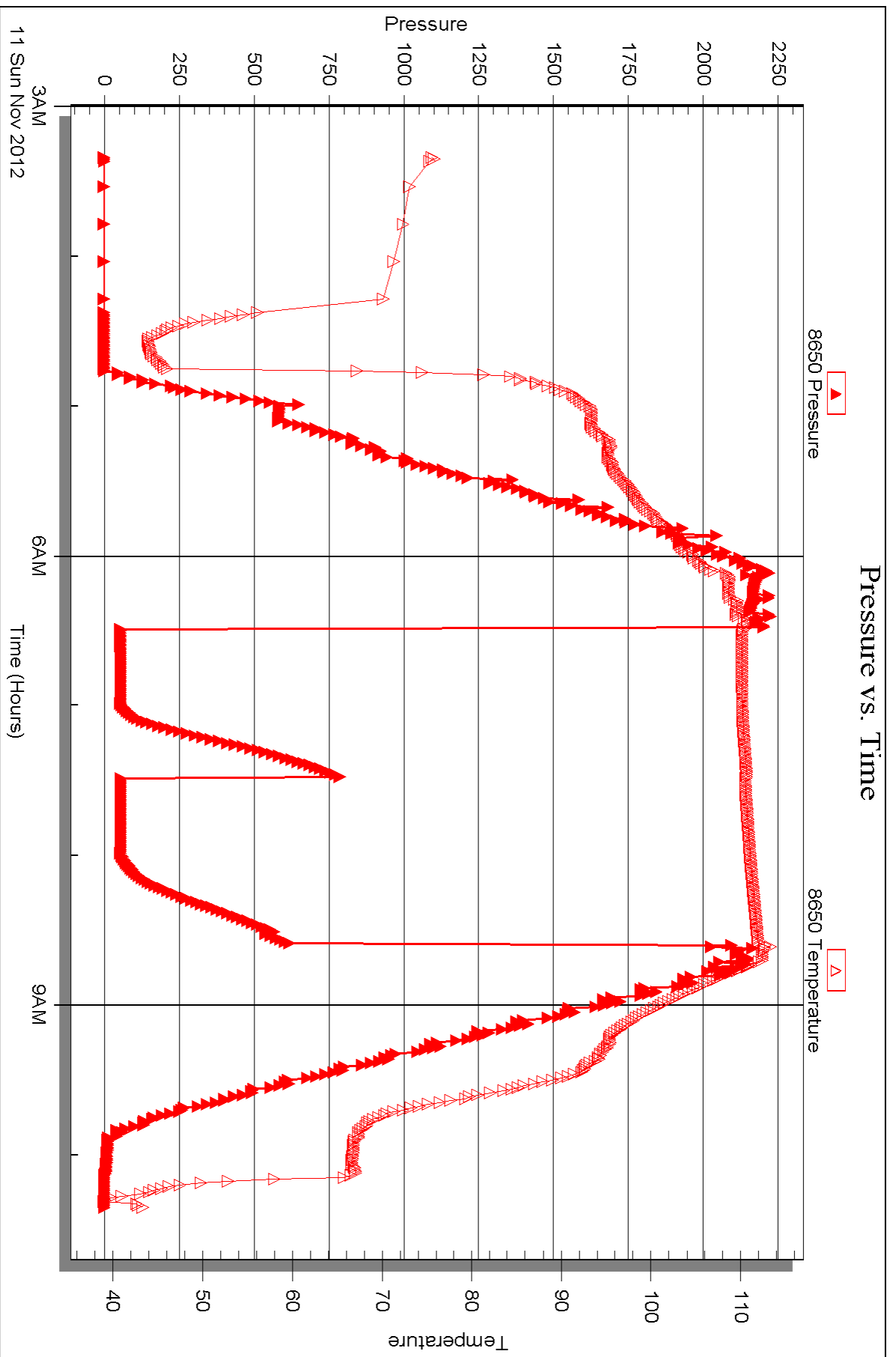


Serial #: 8650

Outside Abercrombie Energy, LLC

Moore #1-9

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central STE 2  
Wichita KS 67212

ATTN: Wes Hanson

### **Moore #1-9**

#### **9-20s-34w Scott,KS**

Start Date: 2012.11.11 @ 20:10:00

End Date: 2012.11.12 @ 03:29:00

Job Ticket #: 48923                      DST #: 4

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.27 @ 10:04:39



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48923

**DST#: 4**

ATTN: Wes Hanson

Test Start: 2012.11.11 @ 20:10:00

## GENERAL INFORMATION:

Formation: **Fort Scott (Johnson)**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:16:30

Time Test Ended: 03:29:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4564.00 ft (KB) To 4595.00 ft (KB) (TVD)**

Reference Elevations: 3069.00 ft (KB)

Total Depth: 4595.00 ft (KB) (TVD)

3059.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8675**

**Inside**

Press @ Run Depth: 31.49 psig @ 4565.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.11

End Date:

2012.11.12

Last Calib.:

2012.11.12

Start Time: 20:10:15

End Time:

03:29:00

Time On Btm:

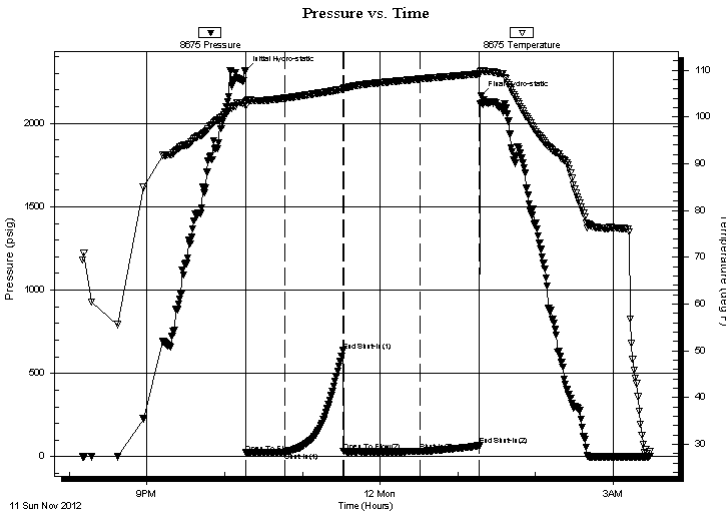
2012.11.11 @ 22:16:15

Time Off Btm:

2012.11.12 @ 01:18:15

**TEST COMMENT:** Built to 1" blow  
No return blow  
Weak surface blow  
No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2316.51	103.31	Initial Hydro-static
1	23.67	102.46	Open To Flow (1)
30	28.49	103.98	Shut-In(1)
75	636.63	105.92	End Shut-In(1)
76	30.83	105.95	Open To Flow (2)
135	31.49	108.11	Shut-In(2)
181	66.03	109.20	End Shut-In(2)
182	2164.44	109.95	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	100% Mud with oil spots	0.42

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

**9-20s-34w Scott, KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48923

**DST#: 4**

ATTN: Wes Hanson

Test Start: 2012.11.11 @ 20:10:00

## GENERAL INFORMATION:

Formation: **Fort Scott (Johnson)**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:16:30

Time Test Ended: 03:29:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

**Interval: 4564.00 ft (KB) To 4595.00 ft (KB) (TVD)**

Reference Elevations: 3069.00 ft (KB)

Total Depth: 4595.00 ft (KB) (TVD)

3059.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8650 Outside**

Press @ Run Depth: psig @ 4565.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.11

End Date:

2012.11.12

Last Calib.:

2012.11.12

Start Time: 20:10:15

End Time:

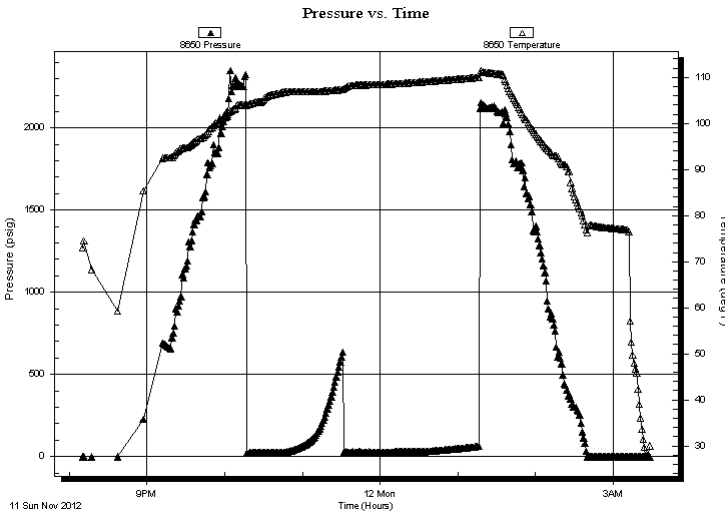
03:29:00

Time On Btm:

Time Off Btm:

**TEST COMMENT:** Built to 1" blow  
No return blow  
Weak surface blow  
No return blow

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	100% Mud w ith oil spots	0.42

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48923

**DST#: 4**

ATTN: Wes Hanson

Test Start: 2012.11.11 @ 20:10:00

## Tool Information

Drill Pipe:	Length: 4544.86 ft	Diameter: 3.80 inches	Volume: 63.75 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 63.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.36 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4564.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	58.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4537.50	
Shut In Tool	5.00			4542.50	
Hydraulic tool	5.00			4547.50	
Jars	5.00			4552.50	
Safety Joint	2.50			4555.00	
Packer	5.00			4560.00	27.50 Bottom Of Top Packer
Packer	4.00			4564.00	
Stubb	1.00			4565.00	
Recorder	0.00	8675	Inside	4565.00	
Recorder	0.00	8650	Outside	4565.00	
Perforations	27.00			4592.00	
Change Over Sub	0.00			4592.00	
Drill Pipe	0.00			4592.00	
Change Over Sub	0.00			4592.00	
Bullnose	3.00			4595.00	31.00 Bottom Packers & Anchor

**Total Tool Length: 58.50**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Abercrombie Energy, LLC

**9-20s-34w Scott,KS**

10209 W Central STE 2  
Wichita KS 67212

**Moore #1-9**

Job Ticket: 48923

**DST#: 4**

ATTN: Wes Hanson

Test Start: 2012.11.11 @ 20:10:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	100% Mud with oil spots	0.421

Total Length: 30.00 ft      Total Volume: 0.421 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

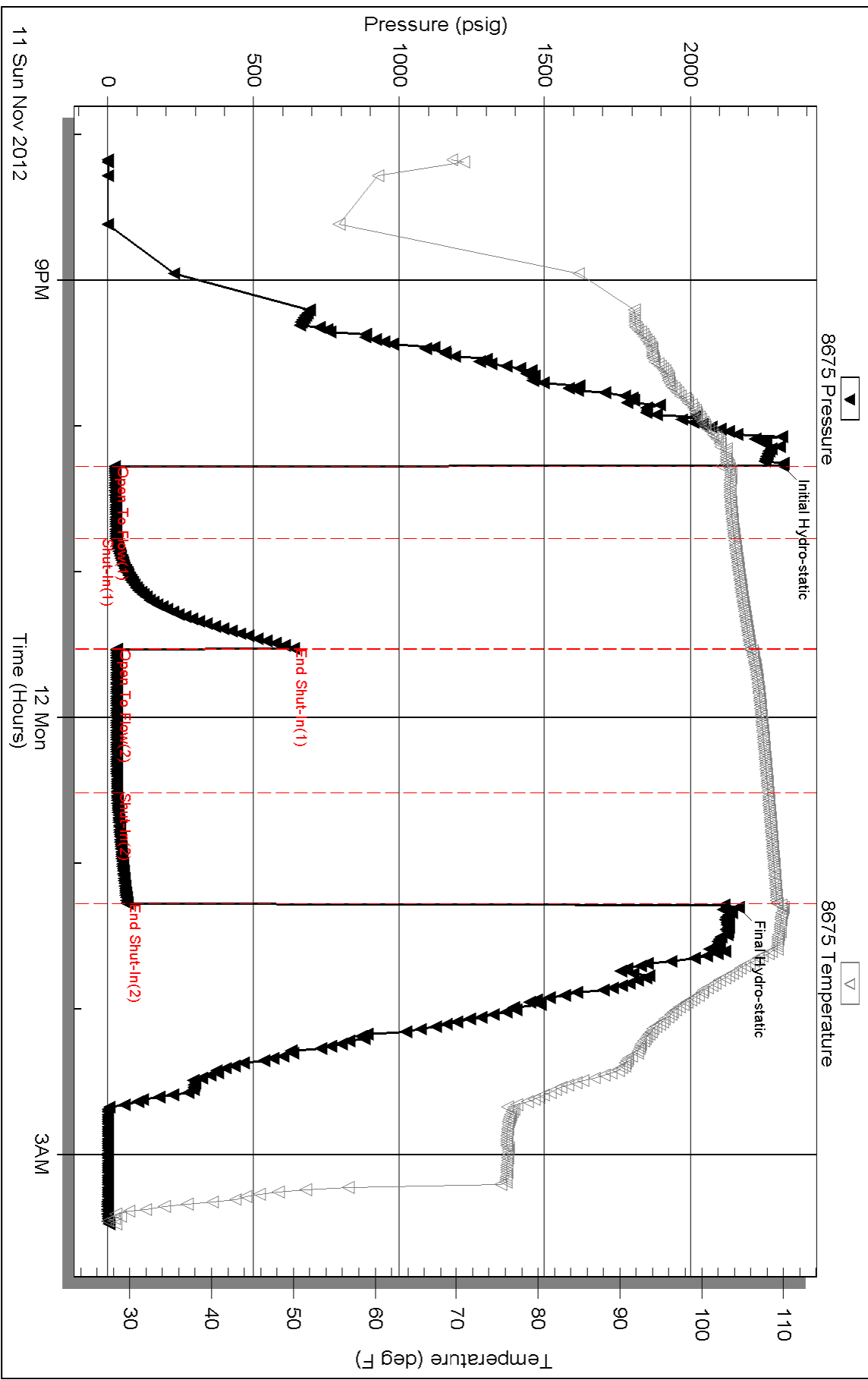
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time

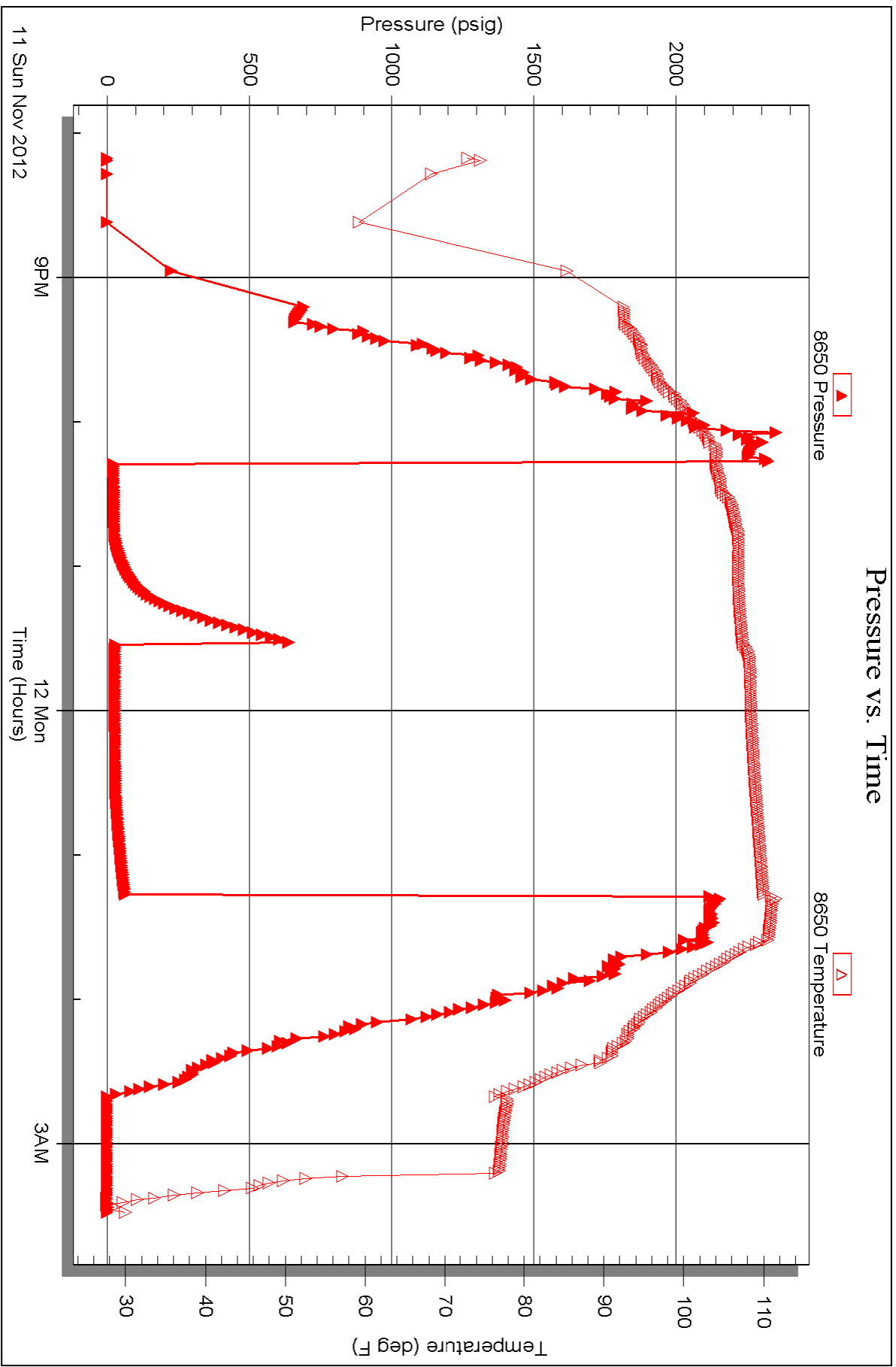


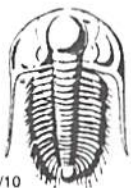
Serial #: 8650

Outside Abercrombie Energy, LLC

Moore #1-9

DST Test Number: 4





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48920

Well Name & No. Moore 1-9 Test No. 1 Date 11/8/12 11/9/12  
 Company Abercrombie Energy, LLC Elevation 3069 KB 3059 GL  
 Address 10209 W Central, STE 2 Wichita KS, 67212  
 Co. Rep / Geo. Wes Hanson Rig Val Energy Rig 7  
 Location: Sec. 9 Twp. 20S Rge. 34W Co. Scott State KS

Interval Tested 4298-4384 Zone Tested Kansas City "K:L"  
 Anchor Length 86 Drill Pipe Run 4294.89 Mud Wt. 9.3  
 Top Packer Depth 4294 Drill Collars Run \_\_\_\_\_ Vis 48  
 Bottom Packer Depth 4298 Wt. Pipe Run \_\_\_\_\_ WL 9.6  
 Total Depth 4384 Chlorides 6,000 ppm System LCM 3#

Blow Description B.O.B. in 24 min.  
Bled off for 5 min. No return below  
B.O.B. in 28 min.

Bled off for 5 min. No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>76</u>	<u>Feet of vcm</u>		<u>10</u>	<u>90</u>	
<u>310</u>	<u>Feet of mcw</u>		<u>60</u>	<u>40</u>	
<u>124</u>	<u>Feet of mcw</u>		<u>90</u>	<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 510 BHT 115 Gravity \_\_\_\_\_ API RW 30 @ 60 ° F Chlorides 30,000 ppm

(A) Initial Hydrostatic	<u>2,198</u>
(B) First Initial Flow	<u>25</u>
(C) First Final Flow	<u>122</u>
(D) Initial Shut-In	<u>1,128</u>
(E) Second Initial Flow	<u>126</u>
(F) Second Final Flow	<u>259</u>
(G) Final Shut-In	<u>1,105</u>
(H) Final Hydrostatic	<u>2,140</u>

- Test 1250
  - Jars 250
  - Safety Joint 75
  - Circ Sub N/C
  - Hourly Standby 5 hrs 500
  - Mileage 50 RT 77.50
  - Sampler
  - Straddle
  - Shale Packer
  - Extra Packer
  - Extra Recorder
  - Day Standby
  - Accessibility
- Sub Total 2152.50

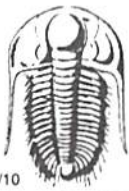
T-On Location 19:25  
 T-Started 22:40  
 T-Open 4:50  
 T-Pulled 8:35  
 T-Out 10:57  
 Comments They tighten stands to tight had to wait on welder to heat up break loose  
 Ruined Shale Packer  
 Ruined Packer  
 Extra Copies  
 Sub Total 0  
 Total 2152.50  
 MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 60  
 Final Shut-In 90

Approved By Wesley Hanson Our Representative [Signature]

TriLOBITE Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48921

Well Name & No. Moore 1-9 Test No. 2 Date 11/10/12  
 Company Abercrombie Energy, LLC Elevation 3069 KB 3059 GL  
 Address 10209 W Central, STE 2 Wichita 145, 67212  
 Co. Rep / Geo. Wes Hansen Rig Val Energy Rig 7  
 Location: Sec. 9 Twp. 20s Rge. 34w Co. Scott State KS

Interval Tested 4483 - 4500 Zone Tested Marmaton  
 Anchor Length 17 Drill Pipe Run 4482.59 Mud Wt. 9.3  
 Top Packer Depth 4479 Drill Collars Run \_\_\_\_\_ Vis 54  
 Bottom Packer Depth 4483 Wt. Pipe Run \_\_\_\_\_ WL 8.0  
 Total Depth 4500 Chlorides 5,300 ppm System LCM 2

Blow Description B.O.B. in 1 min.  
Bled off for 5 min. B.O.B. in 12 min.  
B.O.B. 2 1/2 min.  
Bled off for 5 min. B.O.B. in 23 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>2108 Feet Gas In Pipe</u>				
<u>640</u>	<u>600</u>	<u>10%</u>	<u>90</u>		
<u>620</u>	<u>600</u>	<u>30%</u>	<u>70</u>		
<u>864</u>	<u>600</u>	<u>15%</u>	<u>85</u>		
<u>186</u>	<u>MCW000</u>	<u>30%</u>	<u>40</u>	<u>20</u>	<u>10</u>
Rec Total <u>2310</u>	BHT <u>121</u>	Gravity <u>34</u>	API RW <u>20 @ 70</u>	F Chlorides <u>35,000</u>	ppm

(A) Initial Hydrostatic	<u>2,262</u>
(B) First Initial Flow	<u>107</u>
(C) First Final Flow	<u>373</u>
(D) Initial Shut-In	<u>1,150</u>
(E) Second Initial Flow	<u>392</u>
(F) Second Final Flow	<u>746</u>
(G) Final Shut-In	<u>1,145</u>
(H) Final Hydrostatic	<u>2,172</u>

- Test 1250
  - Jars 250
  - Safety Joint 75
  - Circ Sub N/C
  - Hourly Standby 1hr .75 75
  - Mileage 50 RT 77.50
  - Sampler
  - Straddle
  - Shale Packer
  - Extra Packer
  - Extra Recorder
  - Day Standby
  - Accessibility
- Sub Total 1727.50

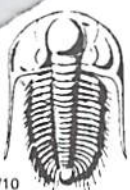
T-On Location 3:10  
 T-Started 4:15  
 T-Open 6:36  
 T-Pulled 10:22  
 T-Out 13:55  
 Comments went over 10 hrs  
dumping fluid

Ruined Shale Packer  
 Ruined Packer  
 Extra Copies

Sub Total 0  
 Total 1727.50  
 MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 60  
 Final Shut-In 90

Approved By Wesley Hansen Our Representative [Signature]  
 TriLOBITE TESTING Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48922

Well Name & No. Moose 1-9 Test No. 3 Date 11/11/12  
 Company Abercrombie Energy, LLC Elevation 3069 KB 3059 GL  
 Address 10209 W Central, STE 2 Wichita KS, 67212  
 Co. Rep / Geo. Wes Hansen Rig Val Energy Rig 7  
 Location: Sec. 9 Twp. 20S Rge. 34W Co. Scott State KS

Interval Tested 4540 - 4563 Zone Tested Pawnee (Beymar)  
 Anchor Length 23 Drill Pipe Run 4544.66 Mud Wt. 9.3  
 Top Packer Depth 4536 Drill Collars Run \_\_\_\_\_ Vis 54  
 Bottom Packer Depth 4540 Wt. Pipe Run \_\_\_\_\_ WL 8.8  
 Total Depth 4563 Chlorides 6,000 ppm System LCM 3#  
 Blow Description Weak surface below, Diced in 20 min.  
No return below  
No below  
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>75</u>	<u>Mud with few oil spots</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 75 BHT 110 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2,204  Test 1250 T-On Location 1:40  
 (B) First Initial Flow 55  Jars 250 T-Started 3:20  
 (C) First Final Flow 56  Safety Joint 75 T-Open 6:28  
 (D) Initial Shut-In 78.6  Circ Sub N/C T-Pulled 8:28  
 (E) Second Initial Flow 56  Hourly Standby T-Out 10:21  
 (F) Second Final Flow 57  Mileage 50 RT 77.50 Comments with a bridge  
 (G) Final Shut-In 617  Sampler last stand going in.  
 (H) Final Hydrostatic 2,188  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies  
 Extra Recorder Sub Total 0  
 Day Standby Total 1652.50  
 Accessibility MP/DST Disc't \_\_\_\_\_  
 Sub Total 1652.50

Approved By Wesley Hansen Our Representative [Signature]

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48923

Well Name & No. Moore 1-9 Test No. 4 Date 11/11/12 11/12/12  
 Company Aker Crombie Energy, LLC Elevation 3069 KB 3059 GL  
 Address 10209 W Central, STE 2 Wichita 115, 67212  
 Co. Rep / Geo. Wes Hansen Rig Val Energy Rig 7  
 Location: Sec. 9 Twp. 20S Rge. 34W Co. Scott State K5

Interval Tested 4564 - 4595 Zone Tested Fort Scott (Johnson)  
 Anchor Length 31 Drill Pipe Run 4544.66 Mud Wt. 9.3  
 Top Packer Depth 4560 Drill Collars Run \_\_\_\_\_ Vis 57  
 Bottom Packer Depth 4564 Wt. Pipe Run \_\_\_\_\_ WL 8.8  
 Total Depth 4595 Chlorides 7,500 ppm System LCM 2#

Blow Description Built to 1" below  
No return below  
Weak surface below  
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Mud with oil spots</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 109 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2,317</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>19:20</u>
(B) First Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>20:10</u>
(C) First Final Flow <u>28</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>22:16</u>
(D) Initial Shut-In <u>637</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1:17</u>
(E) Second Initial Flow <u>31</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>3:29</u>
(F) Second Final Flow <u>31</u>	<input checked="" type="checkbox"/> Mileage <u>50AT</u> 77.50	Comments _____
(G) Final Shut-In <u>666</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2,164</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>600</u>	<input type="checkbox"/> Extra Recorder	Total <u>1652.50</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input checked="" type="checkbox"/> Accessibility	
	Sub Total <u>1652.50</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.