

## DRILL STEM TEST REPORT

Prepared For: **R & B Oil & Gas**

PO Box 195  
Attica, KS 67009

ATTN: Tim Pierce

**Ricke B #1**

**33-31s-11w Barber,KS**

Start Date: 2014.08.26 @ 18:17:26

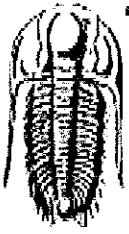
End Date: 2014.08.27 @ 01:13:41

Job Ticket #: 51824                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.09.02 @ 09:37:40

R & B Oil & Gas  
33-31s-11w Barber,KS  
Ricke B #1  
DST # 1  
Toronto  
2014.08.26



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

R & B Oil & Gas

33-31s-11w Barber,KS

PO Box 195  
Attica, KS 67009

Ricke B #1

Job Ticket: 51824

DST#: 1

ATTN: Tim Pierce

Test Start: 2014.08.26 @ 18:17:26

## GENERAL INFORMATION:

Formation: Toronto

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:39:41

Time Test Ended: 01:13:41

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

Interval: 3646.00 ft (KB) To 3685.00 ft (KB) (TVD)

Total Depth: 3685.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1579.00 ft (KB)

1569.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6798

Inside

Press@RunDepth: 13.73 psig @ 3647.00 ft (KB)

Start Date: 2014.08.26

End Date:

2014.08.27

Start Time: 18:17:27

End Time:

01:13:41

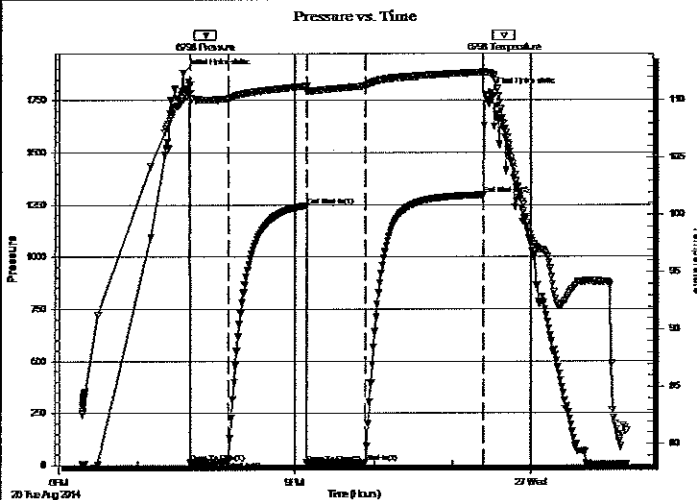
Capacity: 8000.00 psig

Last Calib.: 2014.08.27

Time On Btmr: 2014.08.26 @ 19:34:11

Time Off Btmr: 2014.08.26 @ 23:29:41

TEST COMMENT: IF: Fair Blow, BOB in 9 1/2 minutes  
IS: No Blow Back  
FF: Strong Blow, BOB in 10 seconds  
FS: No Blow Back



## PRESSURE SUMMARY

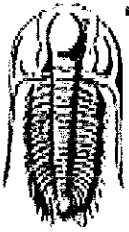
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1883.78	110.03	Initial Hydro-static
6	14.07	110.17	Open To Flow (1)
35	16.41	110.12	Shut-in(1)
94	1244.97	111.25	End Shut-in(1)
95	10.02	110.79	Open To Flow (2)
139	13.73	111.26	Shut-in(2)
230	1298.03	112.42	End Shut-in(2)
236	1787.45	112.26	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	2049 GP	0.00
10.00	SGCM 2%G 98%M	0.05

## Gas Rates

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



**TRILOBITE TESTING, INC.**

### DRILL STEM TEST REPORT

R & B Oil & Gas  
PO Box 195  
Attica, KS 67009  
ATTN: Tim Pierce

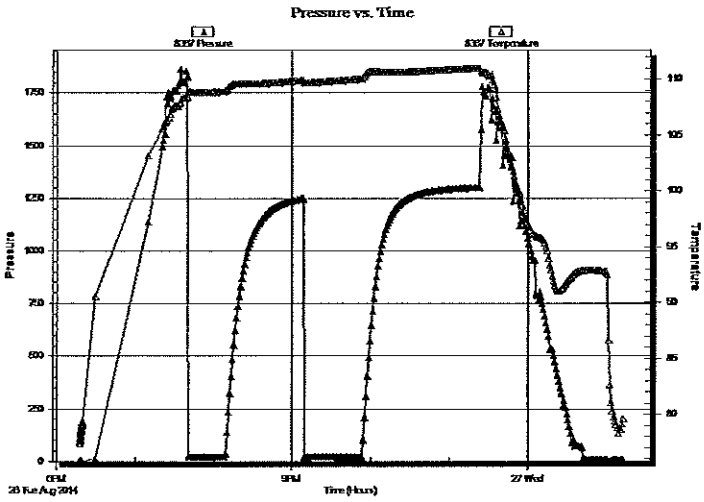
**33-31s-11w Barber, KS**  
**Ricke B #1**  
Job Ticket: 51824      **DST#: 1**  
Test Start: 2014.08.26 @ 18:17:26

#### GENERAL INFORMATION:

Formation: <b>Toronto</b>	Test Type: <b>Conventional Bottom Hole (Initial)</b>
Deviated: <b>No Whipstock: ft (KB)</b>	Tester: <b>Leal Cason</b>
Time Tool Opened: <b>19:39:41</b>	Unit No: <b>74</b>
Time Test Ended: <b>01:13:41</b>	Reference Elevations: <b>1579.00 ft (KB)</b>
Interval: <b>3646.00 ft (KB) To 3685.00 ft (KB) (TVD)</b>	<b>1569.00 ft (CF)</b>
Total Depth: <b>3685.00 ft (KB) (TVD)</b>	KB to GR/CF: <b>10.00 ft</b>
Hole Diameter: <b>7.88 inches</b>	Hole Condition: <b>Good</b>

<b>Serial #: 8367</b>	<b>Outside</b>		
Press@RunDepth:      psig @      3647.00 ft (KB)	Capacity:      8000.00 psig		
Start Date:      2014.08.26      End Date:      2014.08.27	Last Calib.:      2014.08.27		
Start Time:      18:17:27      End Time:      01:13:41	Time On Bltn:		
	Time Off Bltn:		

**TEST COMMENT:** IF: Fair Blow , BOB in 9 1/2 minutes  
 IS: No Blow Back  
 FF: Strong Blow , BOB in 10 seconds  
 FS: No Blow Back



#### PRESSURE SUMMARY

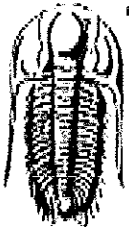
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

#### Recovery

Length (ft)	Description	Volume (bbl)
0.00	2049 GP	0.00
10.00	SGCM 2%G 98%M	0.05

#### Gas Rates

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



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

TOOL DIAGRAM

R & B Oil & Gas

33-31s-11w Barber,KS

PO Box 195  
Attica, KS 67009

Ricke B #1

Job Ticket: 51824

DST#: 1

ATTN: Tim Pierce

Test Start: 2014.08.26 @ 18:17:26

## Tool Information

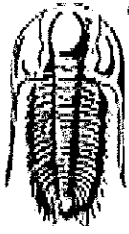
Drill Pipe:	Length: 3533.00 ft	Diameter: 3.80 inches	Volume: 49.56 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 50.14 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3646.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Shale Packer on Bottom

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3632.00	
Hydraulic tool	5.00			3637.00	
Packer	5.00			3642.00	19.00 Bottom Of Top Packer
Packer	4.00			3646.00	
Stubb	1.00			3647.00	
Recorder	0.00	6798	Inside	3647.00	
Recorder	0.00	8367	Outside	3647.00	
Perforations	3.00			3650.00	
Change Over Sub	1.00			3651.00	
Drill Pipe	30.00			3681.00	
Change Over Sub	1.00			3682.00	
Bullnose	3.00			3685.00	39.00 Bottom Packers & Anchor

**Total Tool Length: 58.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

R & B Oil & Gas

33-31s-11w Barber,KS

PO Box 195  
Attica, KS 67009

Ricke B #1

Job Ticket: 51824

DST#: 1

ATTN: Tim Pierce

Test Start: 2014.08.26 @ 18:17:26

## 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: bbl

Water Loss: 8.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 4500.00 ppm

Filter Cake: 0.02 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2049 GP	0.000
10.00	SGCM 2%G 98%M	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

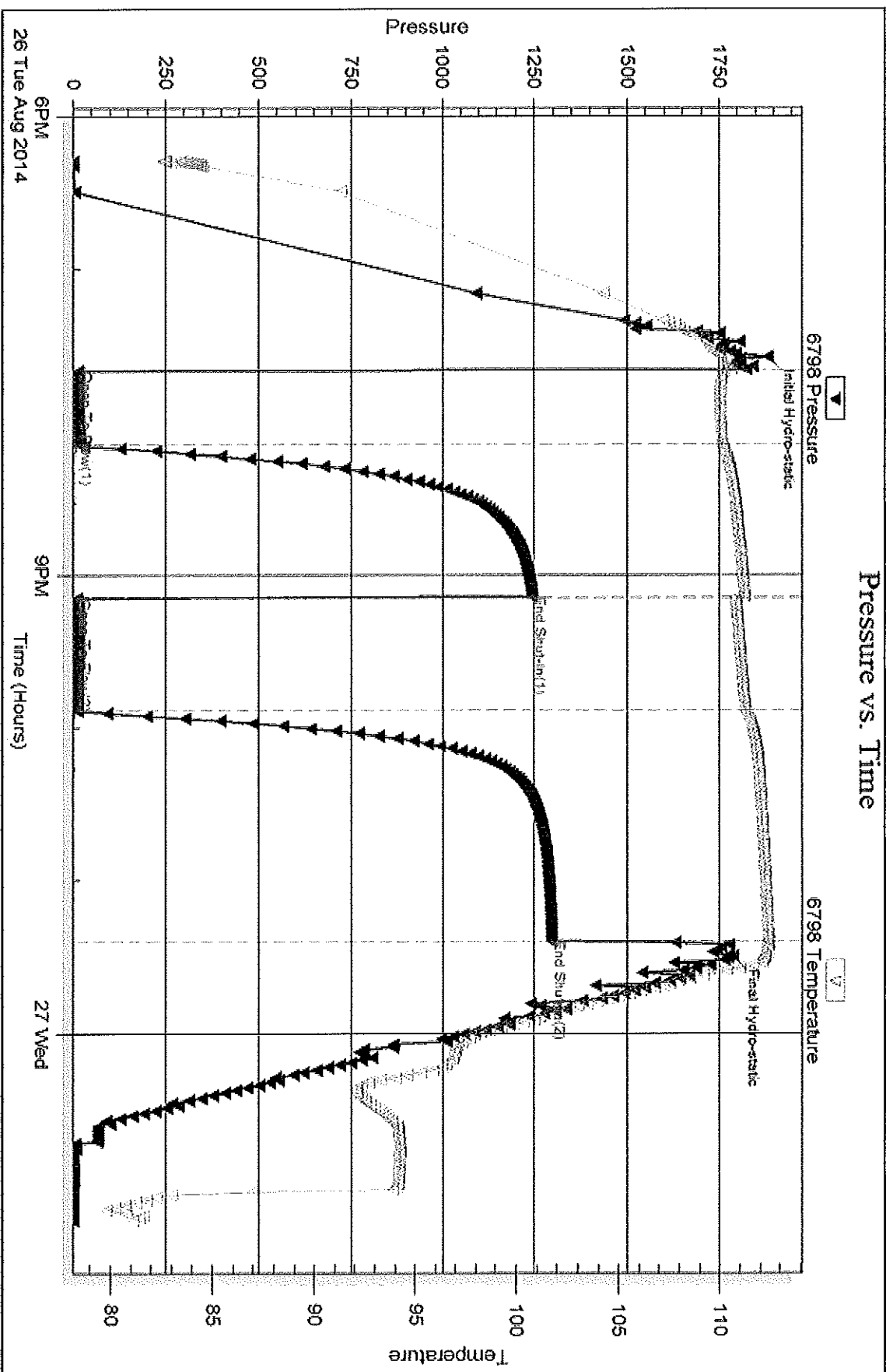
Serial #: 6798

Inside

R & B Oil & Gas

Ricke B#1

DST Test Number: 1

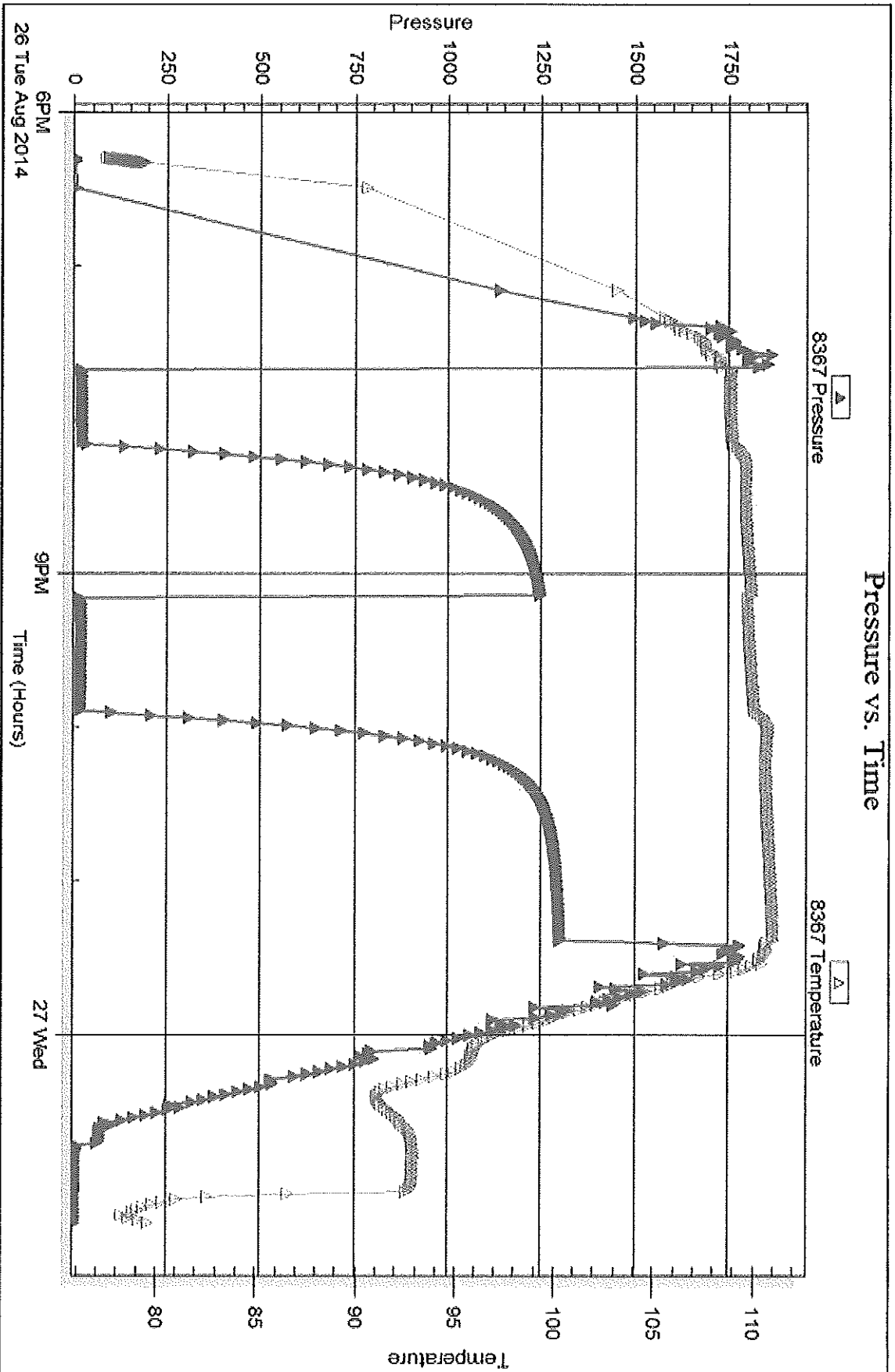


Serial #: 8367

Outside R & B Oil & Gas

Ricke B #1

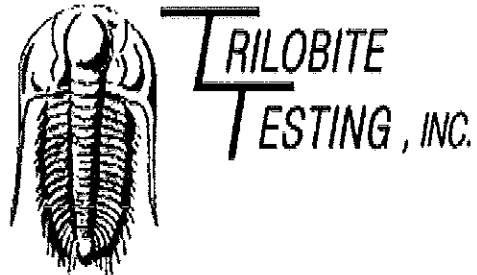
DST Test Number: 1



Tribble Testing, Inc

Ref. No: 51824

Printed: 2014.09.02 @ 09:37:41



## DRILL STEM TEST REPORT

Prepared For: **R & B Oil & Gas**

PO Box 195  
Attica, KS 67009

ATTN: Tim Pierce

**Ricke B #1**

**33-31s-11w Barber,KS**

Start Date: 2014.08.28 @ 16:15:33

End Date: 2014.08.29 @ 02:38:33

Job Ticket #: 51825                      DST #: 2

Trilobite Testing, Inc

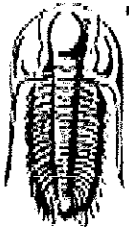
1515 Commerce Parkway Hays, KS 67601

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

Printed: 2014.09.02 @ 09:32:26

R & B Oil & Gas  
33-31s-11w Barber,KS  
Ricke B #1  
DST # 2  
Mississippi  
2014.08.28





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

R & B Oil & Gas

33-31s-11w Barber,KS

PO Box 195  
Attica, KS 67009

Ricke B #1

Job Ticket: 51825

DST#: 2

ATTN: Tim Pierce

Test Start: 2014.08.28 @ 16:15:33

## GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:41:18

Time Test Ended: 02:38:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 4342.00 ft (KB) To 4420.00 ft (KB) (TVD)

Total Depth: 4420.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1579.00 ft (KB)

1569.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6798 Inside

Press@RunDepth: 698.62 psig @ 4343.00 ft (KB)

Start Date: 2014.08.28

End Date: 2014.08.29

Start Time: 16:15:34

End Time: 02:38:33

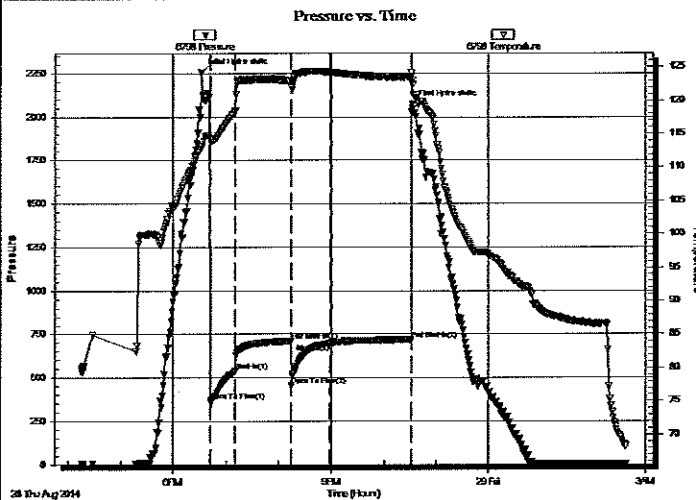
Capacity: 8000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2014.08.28 @ 18:31:18

Time Off Btm: 2014.08.28 @ 22:32:18

**TEST COMMENT:** FF: Strong Blow, BOB in 10 seconds, GTS in 7 minutes, Gauged Gas  
IS: 1" Blow Back  
FF: Strong Blow, BOB in 20 seconds, GTS immediate, Gauged Gas  
FS: 5" Blow Back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2256.87	113.05	Initial Hydro-static
10	365.13	113.86	Open To Flow (1)
40	540.60	118.42	Shut-in(1)
103	714.30	122.88	End Shut-in(1)
103	457.97	121.98	Open To Flow (2)
147	698.62	124.16	Shut-in(2)
240	718.27	123.38	End Shut-in(2)
241	2070.08	122.91	Final Hydro-static

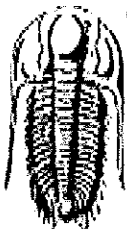
## Recovery

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
682.00	Water	8.49
248.00	GMCW 10%G 20%M 70%W	3.48
620.00	GMCW 5%G 40%M 55%W	8.70

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	65.00	535.61
Last Gas Rate	0.25	22.00	57.74
Max. Gas Rate	0.50	80.00	636.79

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

R & B Oil & Gas  
PO Box 195  
Attica, KS 67009  
ATTN: Tim Pierce

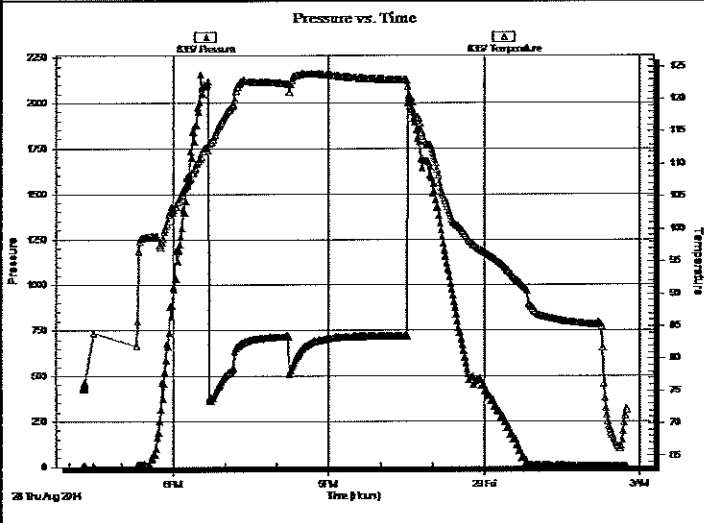
**33-31s-11w Barber,KS**  
**Ricke B #1**  
Job Ticket: 51825      **DST#: 2**  
Test Start: 2014.08.28 @ 16:15:33

### GENERAL INFORMATION:

Formation: **Mississippi**  
Deviated: **No Whipstock:** ft (KB)      Test Type: **Conventional Bottom Hole (Reset)**  
Time Tool Opened: **18:41:18**      Tester: **Leal Cason**  
Time Test Ended: **02:38:33**      Unit No: **74**  
Interval: **4342.00 ft (KB) To 4420.00 ft (KB) (TVD)**      Reference Elevations: **1579.00 ft (KB)**  
Total Depth: **4420.00 ft (KB) (TVD)**      **1569.00 ft (CF)**  
Hole Diameter: **7.88 inches**      Hole Condition: **Good**      KB to GR/CF: **10.00 ft**

**Serial #: 8367      Outside**  
Press@RunDepth:      psig @ **4343.00 ft (KB)**      Capacity: **8000.00 psig**  
Start Date: **2014.08.28**      End Date: **2014.08.29**      Last Calib.: **2014.08.29**  
Start Time: **16:15:34**      End Time: **02:45:33**      Time On Btm:      **Time Off Btm**

TEST COMMENT: **IF: Strong Blow , BOB in 10 seconds, GTS in 7 minutes, Gauged Gas**  
**IS: 1" Blow Back**  
**FF: Strong Blow , BOB in 20 seconds. GTS immediate, Gauged Gas**  
**FS: 5" Blow Back**

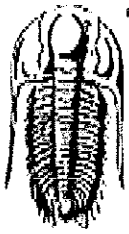


Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
682.00	Water	8.49
248.00	GMCW 10%G 20%M 70%W	3.48
620.00	GMCW 5%G 40%M 55%W	8.70

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	65.00	535.61
Last Gas Rate	0.25	22.00	57.74
Max. Gas Rate	0.50	80.00	636.79

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

R & B Oil & Gas

33-31s-11w Barber, KS

PO Box 195  
Attica, KS 67009

Ricke B #1

Job Ticket: 51825

DST#: 2

ATTN: Tim Pierce

Test Start: 2014.08.28 @ 16:15:33

### Tool Information

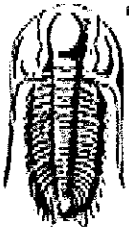
Drill Pipe:	Length: 4213.00 ft	Diameter: 3.80 inches	Volume: 59.10 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 59.68 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4342.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	97.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			4328.00	
Hydraulic tool	5.00			4333.00	
Packer	5.00			4338.00	19.00 Bottom Of Top Packer
Packer	4.00			4342.00	
Stubb	1.00			4343.00	
Recorder	0.00	6798	Inside	4343.00	
Recorder	0.00	8367	Outside	4343.00	
Perforations	5.00			4348.00	
Change Over Sub	1.00			4349.00	
Drill Pipe	62.00			4411.00	
Change Over Sub	1.00			4412.00	
perforations	5.00			4417.00	
Bullnose	3.00			4420.00	78.00 Bottom Packers & Anchor

**Total Tool Length: 97.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

R & B Oil & Gas

**33-31s-11w Barber,KS**

PO Box 195  
Attica, KS 67009

**Ricke B #1**

Job Ticket: 51825

**DST#: 2**

ATTN: Tim Pierce

Test Start: 2014.08.28 @ 16:15:33

### 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:

82000 ppm

Viscosity: 42.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 0.02 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GTS	0.000
682.00	Water	8.492
248.00	GMCW 10%G 20%M 70%W	3.479
620.00	GMCW 5%G 40%M 55%W	8.697

Total Length: 1550.00 ft

Total Volume: 20.668 bbl

Num Fluid Samples: 0

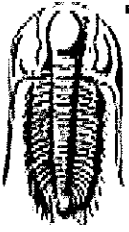
Num Gas Borris: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .09 @ 75 degrees



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**GAS RATES**

R & B Oil & Gas

**33-31s-11w Barber,KS**

PO Box 195  
Attica, KS 67009

**Ricke B #1**

Job Ticket: 51825

**DST#: 2**

ATTN: Tim Pierce

Test Start: 2014.08.28 @ 16:15:33

## Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	10	0.50	65.00	535.61
1	10	0.50	65.00	535.61
1	20	0.50	80.00	636.79
2	10	0.25	8.00	35.54
2	20	0.25	20.00	54.57
2	30	0.25	22.00	57.74
2	40	0.25	22.00	57.74

Serial #: 6798

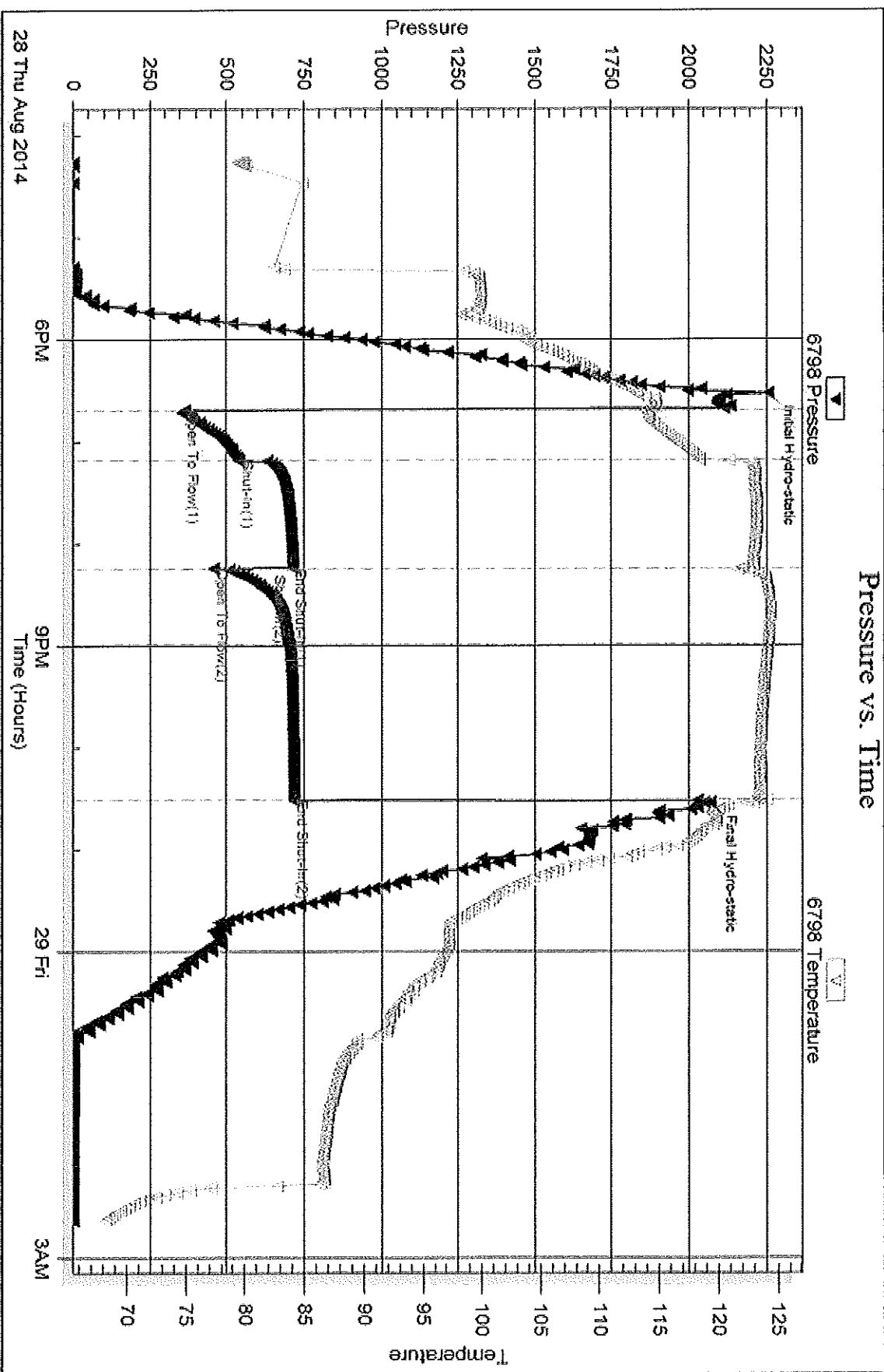
Inside

R & B Oil & Gas

Recke B#1

DST Test Number 2

### Pressure vs. Time

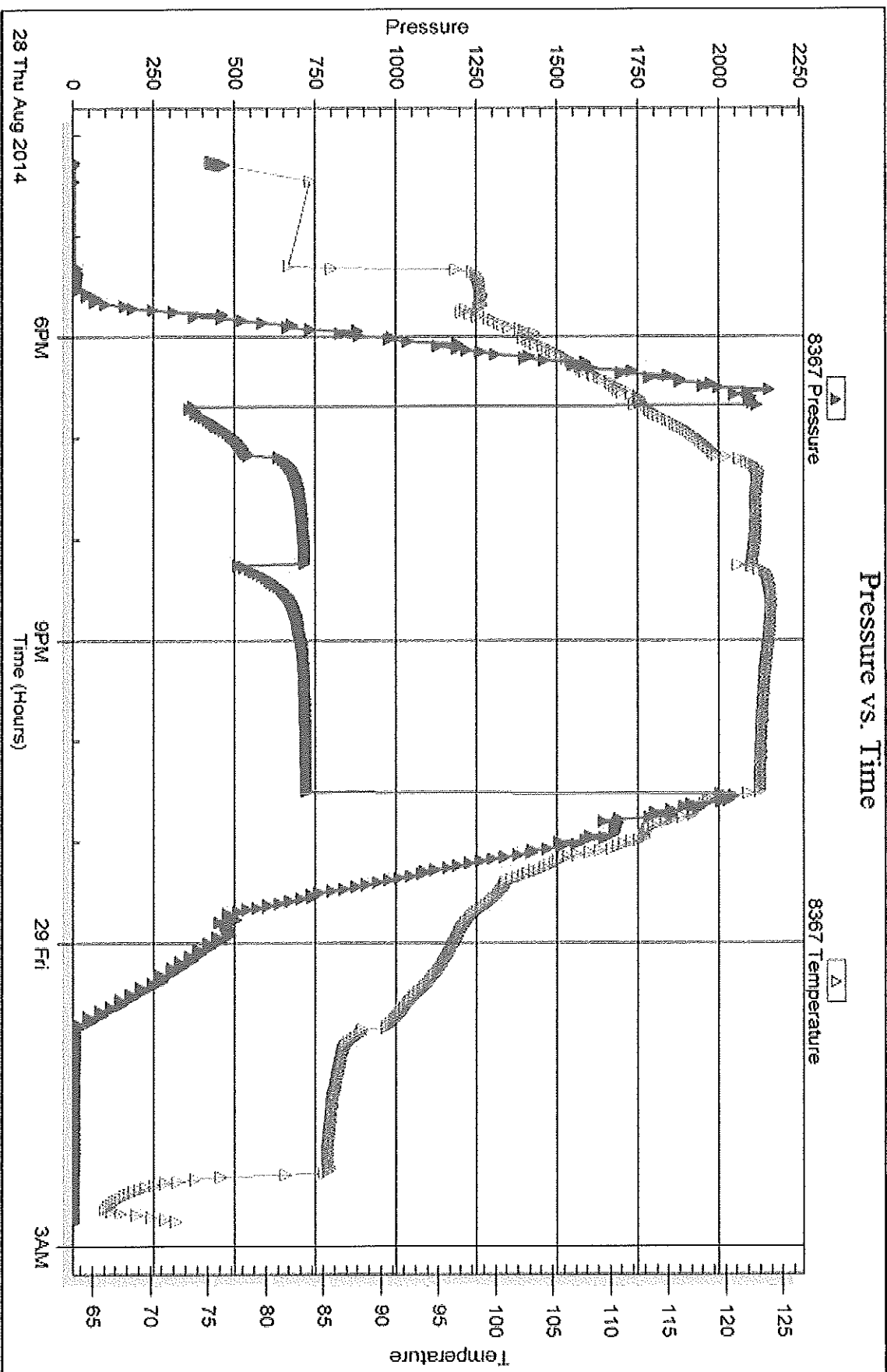


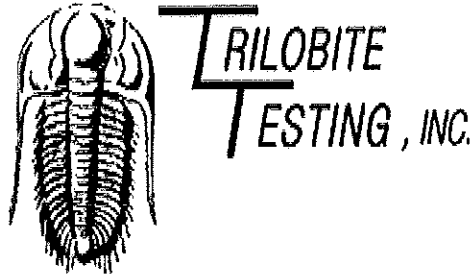
Serial #: 8367

Outside R & B Oil & Gas

Reke B#1

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **R & B Oil & Gas**

PO Box 195  
Attica, KS 67009

ATTN: Tim Pierce

**Ricke B #1**

**33-31s-11w Barber,KS**

Start Date: 2014.08.29 @ 18:09:59

End Date: 2014.08.30 @ 01:49:07

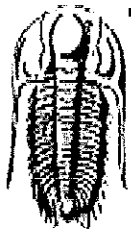
Job Ticket #: 57751                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.09.02 @ 09:36:18

R & B Oil & Gas  
33-31s-11w Barber,KS  
Ricke B #1  
DST # 3  
Cherokee  
2014.08.29





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

R & B Oil & Gas

33-31s-11w Barber, KS

PO Box 195  
Attica, KS 67009

Ricke B #1

Job Ticket: 57751

DST#: 3

ATTN: Tim Pierce

Test Start: 2014.08.29 @ 18:09:59

## GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:39:29

Time Test Ended: 01:49:07

Test Type: Conventional Straddle (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 4346.00 ft (KB) To 4394.00 ft (KB) (TVD)

Total Depth: 4394.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1579.00 ft (KB)

1569.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6798

Inside

Press@RunDepth: 631.80 psig @ 4347.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.29

End Date: 2014.08.30

Last Calib.: 2014.08.30

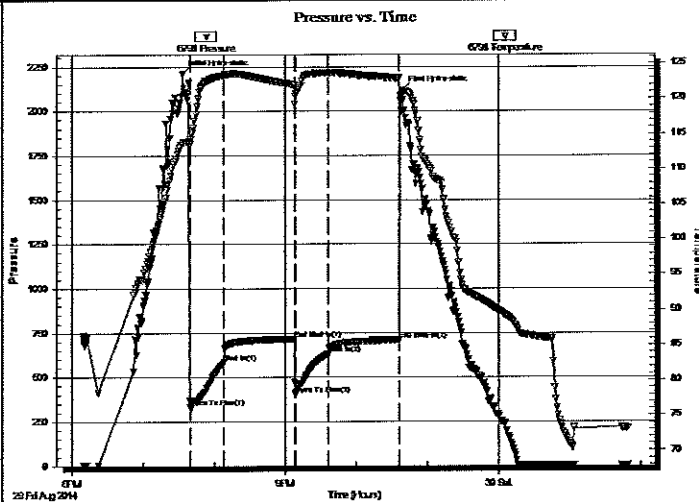
Start Time: 18:10:00

End Time: 01:49:07

Time On Bltn: 2014.08.29 @ 19:33:14

Time Off Bltn: 2014.08.29 @ 22:38:59

TEST COMMENT: IF: Strong Blow, BOB in 10 seconds, GTS in 12 minutes, Gaugrd Gas  
IS: 4 1/2 inch Blow Back  
FF: Strong Blow, BOB in 5 seconds, GTS immediate, Gauged Gas  
FS: Would Not Bleed Off



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2210.81	113.67	Initial Hydro-static
7	331.88	113.49	Open To Flow (1)
36	582.28	123.21	Shut-In(1)
95	717.49	121.97	End Shut-In(1)
96	403.18	120.33	Open To Flow (2)
124	631.80	123.64	Shut-In(2)
183	711.40	122.86	End Shut-In(2)
186	2117.14	120.43	Final Hydro-static

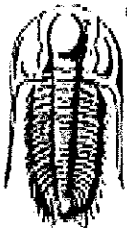
## Recovery

Length (ft)	Description	Volume (bbl)
0.00	3070 GP	0.00
558.00	Water	6.75
186.00	GMCW 6%G 14%M 80%W	2.61
516.00	GWCM 20%G 20%W 60%M	7.24

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	100.00	181.49
Last Gas Rate	0.25	67.00	129.13
Max. Gas Rate	0.25	180.00	308.40



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

R & B Oil & Gas  
 PO Box 195  
 Attica, KS 67009  
 ATTN: Tim Pierce

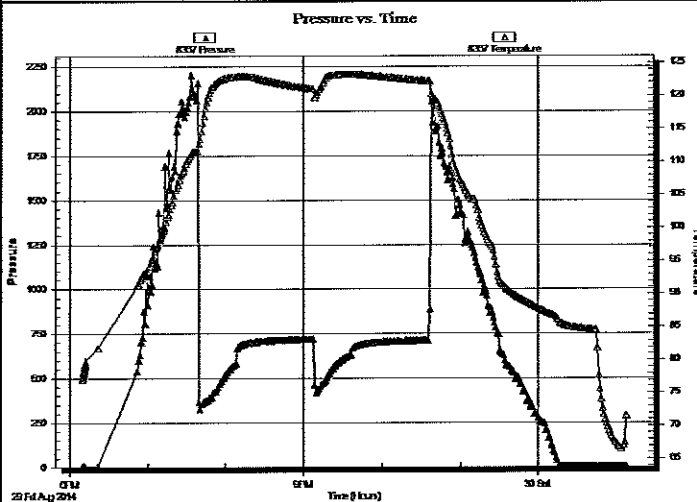
**33-31s-11w Barber, KS**  
**Ricke B #1**  
 Job Ticket: 57751      **DST#: 3**  
 Test Start: 2014.08.29 @ 18:09:59

## GENERAL INFORMATION:

Formation: <b>Cherokee</b>	Test Type: <b>Conventional Straddle (Reset)</b>
Deviated: <b>No Whipstock:                      ft (KB)</b>	Tester: <b>Leal Cason</b>
Time Tool Opened: <b>19:39:29</b>	Unit No: <b>74</b>
Time Test Ended: <b>01:49:07</b>	Reference Elevations: <b>1579.00 ft (KB)</b>
Interval: <b>4346.00 ft (KB) To 4394.00 ft (KB) (TVD)</b>	<b>1569.00 ft (CF)</b>
Total Depth: <b>4394.00 ft (KB) (TVD)</b>	KB to GR/CF: <b>10.00 ft</b>
Hole Diameter: <b>7.88 inches</b> Hole Condition: <b>Good</b>	

<b>Serial #: 8367</b>	<b>Outside</b>		
Press@RunDepth: <b>psig @ 4347.00 ft (KB)</b>	Capacity: <b>8000.00 psig</b>		
Start Date: <b>2014.08.29</b>	End Date: <b>2014.08.30</b>	Last Calib.: <b>2014.08.30</b>	
Start Time: <b>18:10:00</b>	End Time: <b>01:08:14</b>	Time On Btm:	
		Time Off Btm:	

**TEST COMMENT:** FF: Strong Blow , BOB in 10 seconds, GTS in 12 minutes, Gaugrd Gas  
 IS: 4 1/2inch Blow Back  
 FF: Strong Blow , BOB in 5 seconds, GTS immediate, Gauged Gas  
 FS: Would Not Bleed Off



## PRESSURE SUMMARY

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

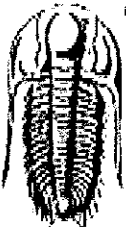
## Recovery

Length (ft)	Description	Volume (bbl)
0.00	3070 GP	0.00
558.00	Water	6.75
186.00	GMCW 6%G 14%M 80%W	2.61
516.00	GWCM 20%G 20%W 60%M	7.24

## Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	100.00	181.49
Last Gas Rate	0.25	67.00	129.13
Max. Gas Rate	0.25	180.00	308.40

\* Recovery from multiple tests



**TRILOBITE TESTING, INC**

## DRILL STEM TEST REPORT

R & B Oil & Gas

33-31s-11w Barber,KS

PO Box 195  
Attica, KS 67009

Ricke B #1

Job Ticket: 57751

DST#: 3

ATTN: Tim Pierce

Test Start: 2014.08.29 @ 18:09:59

### GENERAL INFORMATION:

Formation: Cherokee

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:39:29

Time Test Ended: 01:49:07

Test Type: Conventional Straddle (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 4346.00 ft (KB) To 4394.00 ft (KB) (TVD)

Total Depth: 4394.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1579.00 ft (KB)

1569.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8358 Below (Straddle)

Press@RunDepth: psig @ 4408.00 ft (KB)

Start Date: 2014.08.29

End Date: 2014.08.30

Capacity: 8000.00 psig

Last Calib.: 2014.08.30

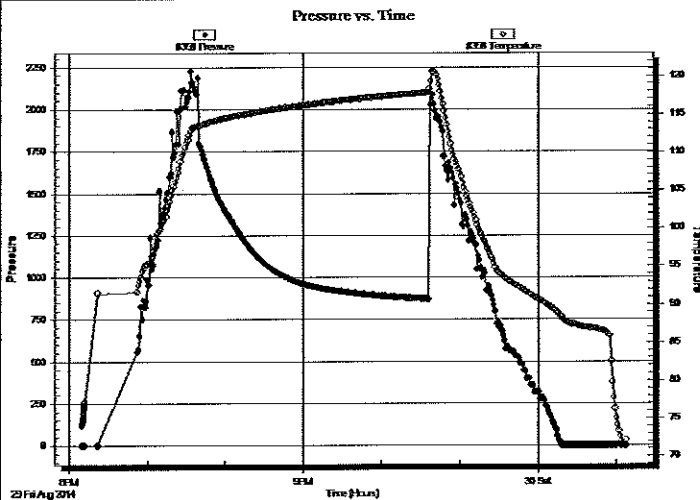
Start Time: 18:10:00

End Time: 01:07:29

Time On Blm:

Time Off Blm:

TEST COMMENT: FF: Strong Blow, BOB in 10 seconds, GTS in 12 minutes, Gaugrd Gas  
IS: 4 1/2inch Blow Back  
FF: Strong Blow, BOB in 5 seconds, GTS immediate, Gauged Gas  
FS: Would Not Bleed Off



### PRESSURE SUMMARY

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

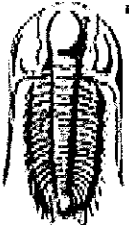
### Recovery

Length (ft)	Description	Volume (bbl)
0.00	3070 GP	0.00
558.00	Water	6.75
186.00	GMCW 6%G 14%M 80%W	2.61
516.00	GWCM 20%G 20%W 60%M	7.24

\* Recovery from multiple tests

### Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	100.00	181.49
Last Gas Rate	0.25	67.00	129.13
Max. Gas Rate	0.25	180.00	308.40



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

R & B Oil & Gas

**33-31s-11w Barber,KS**

PO Box 195  
Attica, KS 67009

**Ricke B #1**

Job Ticket: 57751

**DST#: 3**

ATTN: Tim Pierce

Test Start: 2014.08.29 @ 18:09:59

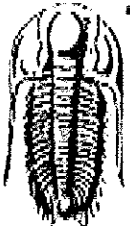
### Tool Information

Drill Pipe:	Length: 4212.00 ft	Diameter: 3.80 inches	Volume: 59.08 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 59.66 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4346.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	4394.00 ft			
Interval between Packers:	48.00 ft			
Tool Length:	147.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4332.00	
Hydraulic tool	5.00			4337.00	
Packer	5.00			4342.00	19.00 Bottom Of Top Packer
Packer	4.00			4346.00	
Stubb	1.00			4347.00	
Recorder	0.00	6798	Inside	4347.00	
Recorder	0.00	8367	Outside	4347.00	
Perforations	7.00			4354.00	
Change Over Sub	1.00			4355.00	
Drill Pipe	31.00			4386.00	
Change Over Sub	1.00			4387.00	
Perforations	6.00			4393.00	
Blank Off Sub	1.00			4394.00	48.00 Tool Interval
Packer	3.00			4397.00	
Perforations	10.00			4407.00	
Change Over Sub	1.00			4408.00	
Recorder	0.00	8358	Below	4408.00	
Drill Pipe	62.00			4470.00	
Change Over Sub	1.00			4471.00	
Bullnose	3.00			4474.00	80.00 Bottom Packers & Anchor

**Total Tool Length: 147.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

R & B Oil & Gas

33-31s-11w Barber,KS

PO Box 195  
Attica, KS 67009

Ricke B #1

Job Ticket: 57751

DST#: 3

ATTN: Tim Pierce

Test Start: 2014.08.29 @ 18:09:59

### 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:

72000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 0.02 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
0.00	3070 GP	0.000
558.00	Water	6.752
186.00	GMCW 6%G 14%M 80%W	2.609
516.00	GWCM 20%G 20%W 60%M	7.238

Total Length: 1260.00 ft      Total Volume: 16.599 bbf

Num Fluid Samples: 0

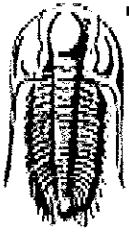
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .095 @ 80 Degrees



**TRILOBITE**  
TESTING, INC.

## DRILL STEM TEST REPORT

**GAS RATES**

R & B Oil & Gas

33-31s-11w Barber, KS

PO Box 195  
Attica, KS 67009

Ricke B #1

Job Ticket: 57751

DST#: 3

ATTN: Tim Pierce

Test Start: 2014.08.29 @ 18:09:59

### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	15	0.25	100.00	181.49
1	20	0.25	140.00	244.94
1	30	0.25	180.00	308.40
2	10	0.25	48.00	98.99
2	20	0.25	68.00	130.72
2	30	0.25	67.00	129.13

Serial #: 6798

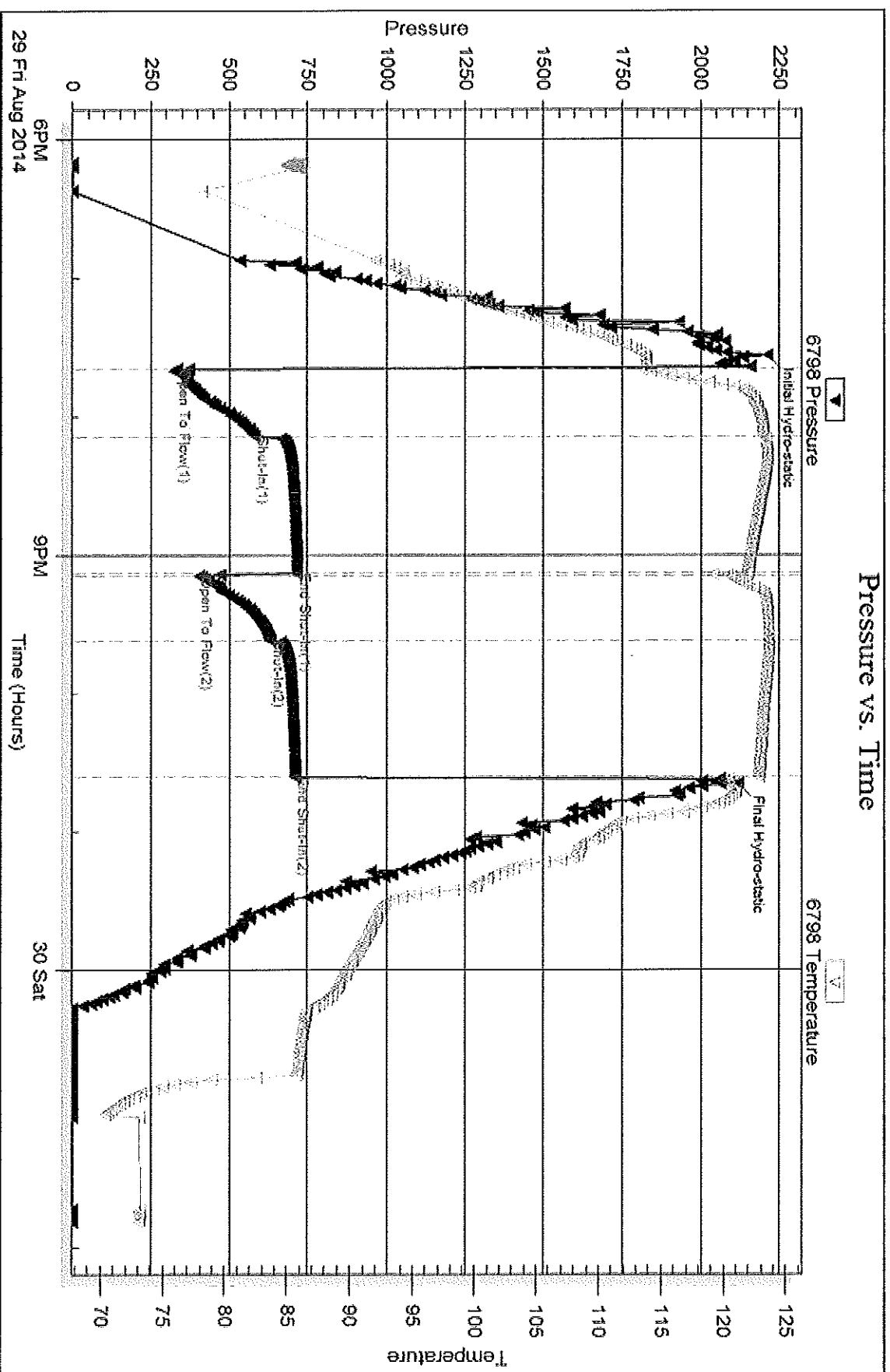
Inside

R & B Oil & Gas

Ricke B #1

OST Test Number: 3

### Pressure vs. Time



Tribble Testing, Inc

Ref. No: 57751

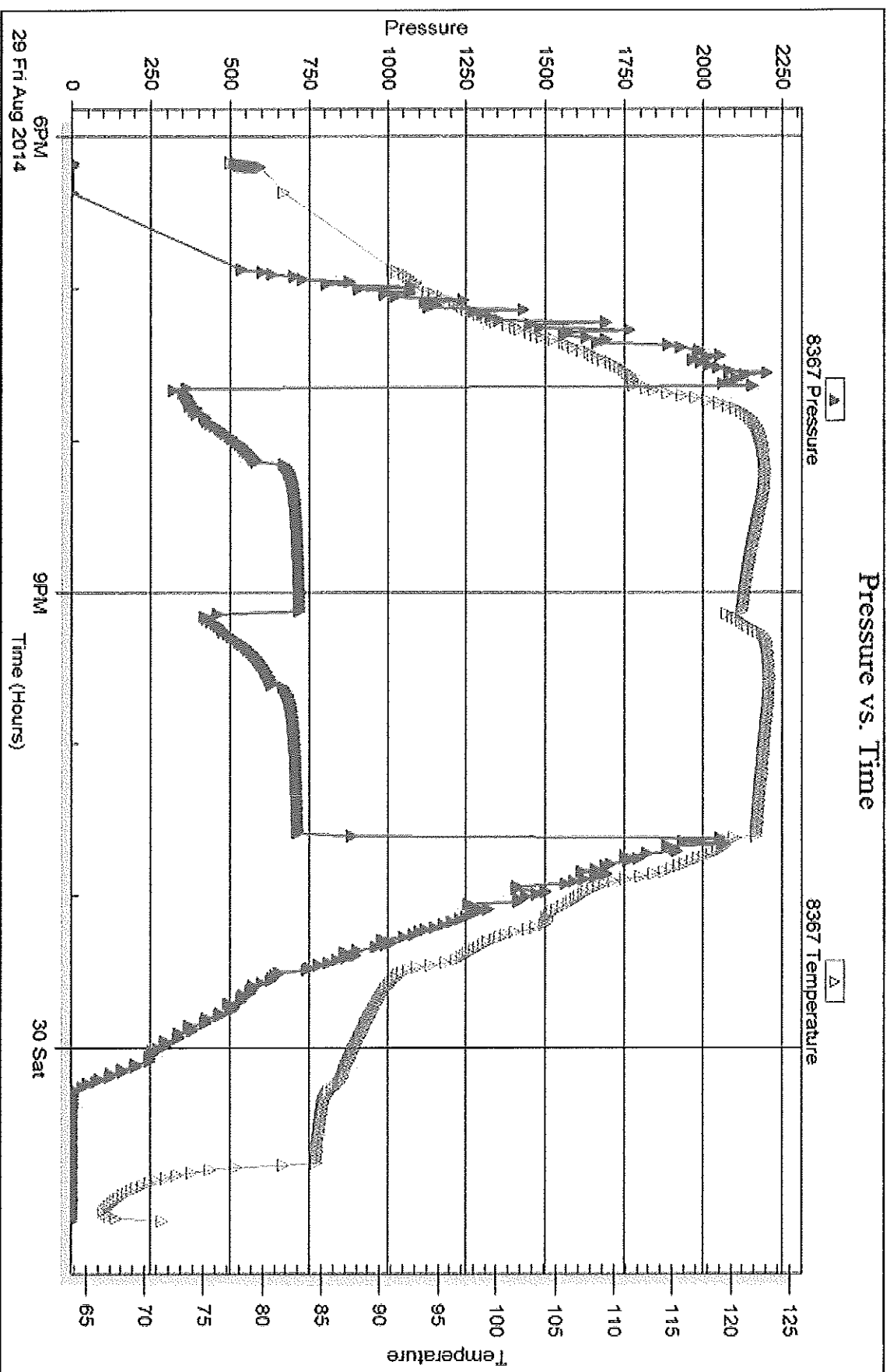
Printed: 2014.09.02 @ 09:36:19

Serial #: 8367

Outside R & B Oil & Gas

Rocke B#1

DST Test Number: 3



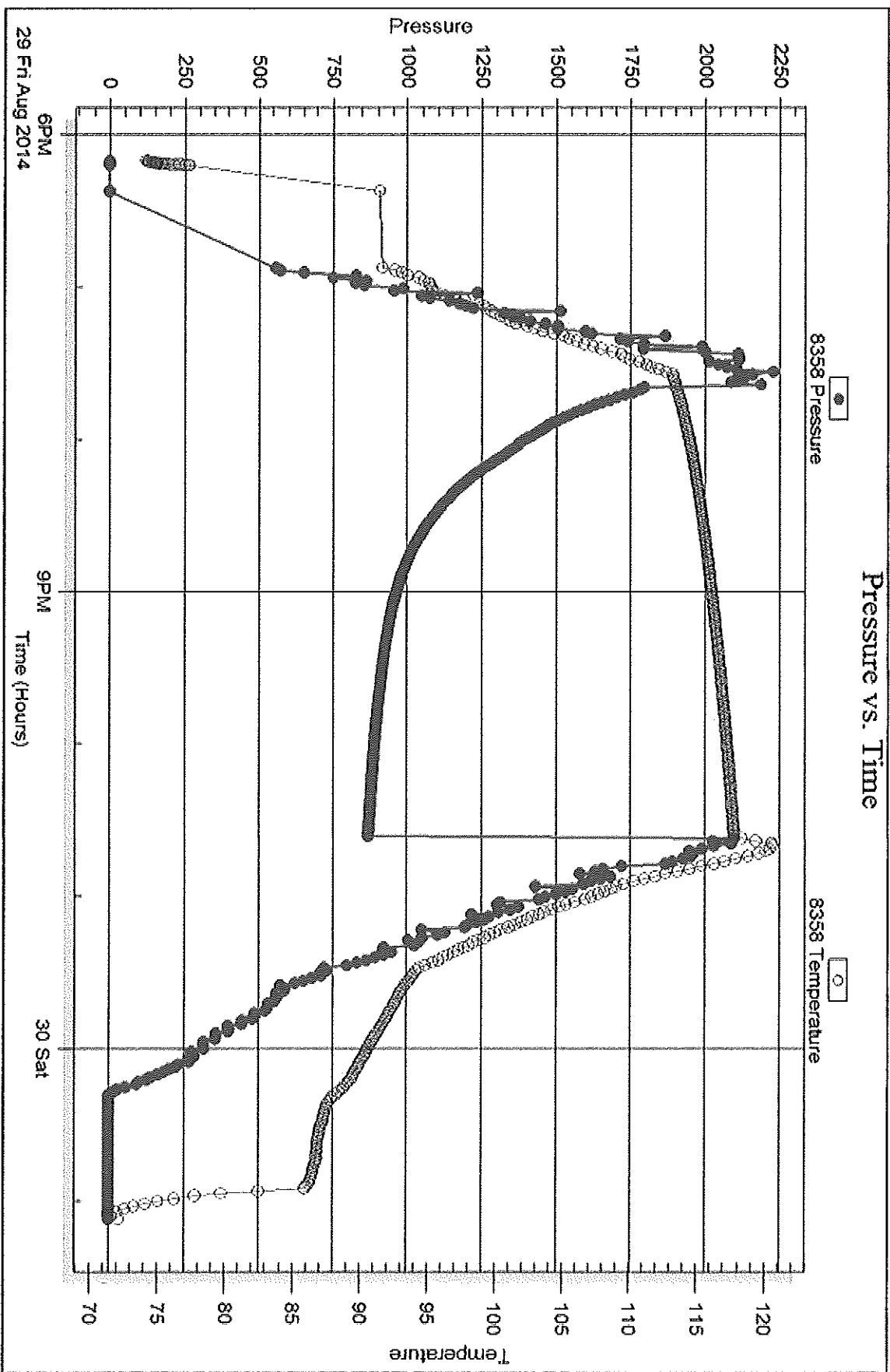


Serial #: 8358

Below (Surf) Air Oil & Gas

Ricke B #1

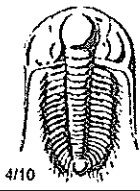
DST Test Number: 3



Tribble Testing, Inc

Ref. No: 57751

Printed: 2014.09.02 @ 09:36:20



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51824

Well Name & No. Ricke B-1 Test No. 1 Date 08/26/14  
 Company R+B Oil & Gas Elevation 1579 KB 1569 GL  
 Address PO Box 195 Attila, KS 67009  
 Co. Rep / Geo. Tim Pierce Rig Hardt 1  
 Location: Sec. 33 Twp. 31S Rge. 11W Co. Barber State KS

Interval Tested 3646 - 3685 Zone Tested TORONTO  
 Anchor Length 39 Drill Pipe Run 3533 Mud Wt. 9.4  
 Top Packer Depth 3641 Drill Collars Run 118 Vis 54  
 Bottom Packer Depth 3646 Wt. Pipe Run 0 WL 9.0  
 Total Depth 3685 Chlorides 4500 ppm System LCM

Blow Description IF: Fair Blow, BOB in 9 1/2 minutes  
ISI: NO Blow Back  
FF: Strong Blow, BOB in 10 seconds  
FSI: NO Blow Back

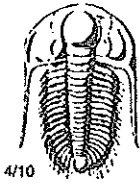
Rec	Feet of	%gas	%oil	%water	%mud
<u>2049</u>	<u>Feet of GIP</u>				
<u>10</u>	<u>Feet of SGCM</u>	<u>2</u>			<u>98</u>

Rec Total 10 BHT 112 Gravity N/C API RW N/C @ N/C °F Chlorides N/C ppm

(A) Initial Hydrostatic <u>1884</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>17:00</u>
(B) First Initial Flow <u>14</u>	<input type="checkbox"/> Jars	T-Started <u>18:17</u>
(C) First Final Flow <u>16</u>	<input type="checkbox"/> Safety Joint	T-Open <u>19:39</u>
(D) Initial Shut-In <u>1245</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>23:23</u>
(E) Second Initial Flow <u>10</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>01:13</u>
(F) Second Final Flow <u>14</u>	<input checked="" type="checkbox"/> Mileage <u>80</u> 124	Comments
(G) Final Shut-In <u>1298</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1787</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1524.00</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1524</u>	

Approved By Tim Pierce 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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51825

Well Name & No. Ricke B-1 Test No. 2 Date 08/28/14  
 Company R+B Oil & Gas Elevation 1579 KB 1569 GL  
 Address PO Box 195 Attica, KS 67009  
 Co. Rep / Geo. Tim Pierce Rig Hardt 1  
 Location: Sec. 33 Twp. 31S Rge. 11W Co. Barber State KS

Interval Tested 4342 - 4420 Zone Tested Mississippi  
 Anchor Length 78 Drill Pipe Run 4213 Mud Wt. 9.3  
 Top Packer Depth 4337 Drill Collars Run 118 Vis 42  
 Bottom Packer Depth 4342 Wt. Pipe Run 0 WL 9.6  
 Total Depth 4420 Chlorides 4500 ppm System LCM 2

Blow Description IF: Strong Blow, BOB in 10 <sup>seconds</sup>, GTS in 7 minutes, Gauged Gas  
ISI: 1 inch Blow Back

FF: Strong Blow, BOB in 20 seconds, GTS immediate, Gauged Gas

FSI: 5 inch Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>2781</u>	<u>Feet of GIP</u>				
<u>620</u>	<u>Feet of GMCW</u>	<u>5</u>	<u>55</u>	<u>40</u>	
<u>248</u>	<u>Feet of GMCW</u>	<u>10</u>	<u>70</u>	<u>20</u>	
<u>620</u>	<u>Feet of Water</u>				
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1550 BHT 124 Gravity NIC API RW .09 @ 75 °F Chlorides 82000 ppm

(A) Initial Hydrostatic 2257  Test 1250 T-On Location 15:00  
 (B) First Initial Flow 365  Jars \_\_\_\_\_ T-Started 16:15  
 (C) First Final Flow 540  Safety Joint \_\_\_\_\_ T-Open 18:41  
 (D) Initial Shut-In 714  Circ Sub \_\_\_\_\_ T-Pulled 22:30  
 (E) Second Initial Flow 458  Hourly Standby \_\_\_\_\_ T-Out 02:38  
 (F) Second Final Flow 698  Mileage 124 (80) Comments \_\_\_\_\_  
 (G) Final Shut-In 718  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2070  Straddle \_\_\_\_\_

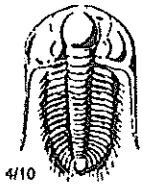
Initial Open 30  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 60  Ruined Packer \_\_\_\_\_  
 Final Flow 45  Extra Packer \_\_\_\_\_  
 Final Shut-In 90  Extra Recorder \_\_\_\_\_  
 Sub Total 458.33  
 Total 1732.33  
 MP/DST Disc't \_\_\_\_\_

Approved By Tim Pierce Our Representative \_\_\_\_\_

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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57751

Well Name & No. Ricke B-1 Test No. 3 Date 08/29/14  
 Company R+B Oil & Gas Elevation 1579 KB 1569 GL  
 Address PO BOX 195 Attica, KS 67009  
 Co. Rep / Geo. Tim Pierce Rig Hardt 1  
 Location: Sec. 33 Twp. 31S Rge. 11W Co. Barber State KS

Interval Tested 4346 - 4394 Zone Tested Cherokee  
 Anchor Length 48 Drill Pipe Run 4212 Mud Wt. 9.1  
 Top Packer Depth 4341 Drill Collars Run 118 Vis 53  
 Bottom Packer Depth 4394 Wt. Pipe Run 0 WL 9.2  
 Total Depth 4472 Chlorides 5500 ppm System LCM 2

Blow Description IF: strong blow, 130B in 10 seconds, 6TS in 12 minutes, Gauged Gas  
ISI: 4 1/2 inch Blow Back  
FF: strong Blow, BOB in 5 seconds 6TS immediate, Gauged Gas  
FSI: WOULD NOT BLEED OFF

Rec	Feet of	%gas	%oil	%water	%mud
<u>3070</u>	<u>Feet of GIP</u>				
<u>516</u>	<u>Feet of GWCW</u>	<u>20</u>		<u>20</u>	<u>60</u>
<u>186</u>	<u>Feet of GMCW</u>	<u>6</u>		<u>80</u>	<u>14</u>
<u>558</u>	<u>Feet of Water</u>				
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1260 BHT 123° Gravity N/C API RW .095 @ 80 °F Chlorides 72000 ppm

(A) Initial Hydrostatic 2211  Test 1250 T-On Location 17:15  
 (B) First Initial Flow 332  Jars \_\_\_\_\_ T-Started 18:09  
 (C) First Final Flow 582  Safety Joint \_\_\_\_\_ T-Open 19:39  
 (D) Initial Shut-In 717  Circ Sub \_\_\_\_\_ T-Pulled 22:36  
 (E) Second Initial Flow 403  Hourly Standby \_\_\_\_\_ T-Out 01:49  
 (F) Second Final Flow 632  Mileage (80) 124 Comments \_\_\_\_\_  
 (G) Final Shut-In 711  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2117  Straddle 600  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 60  Extra Packer \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_  
 Final Shut-In 60  Day Standby \_\_\_\_\_  
 Sub Total 1974  Accessibility \_\_\_\_\_  
 Total 1974 MP/DST Disc't \_\_\_\_\_

Approved By Tim Pierce Our Representative [Signature]

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