



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Stevenson #1-14**

#### **14-7s-30w Sheridan,KS**

Start Date: 2014.03.17 @ 02:44:15

End Date: 2014.03.17 @ 12:39:45

Job Ticket #: 55648                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.03.24 @ 11:08:36



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 55648

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2014.03.17 @ 02:44:15

## GENERAL INFORMATION:

Formation: **Toronto- LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:35:45

Time Test Ended: 12:39:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

**Interval: 3931.00 ft (KB) To 3991.00 ft (KB) (TVD)**

Reference Elevations: 2902.00 ft (KB)

Total Depth: 3991.00 ft (KB) (TVD)

2897.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8373**

**Inside**

Press@RunDepth: 172.22 psig @ 3932.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.17

End Date:

2014.03.17

Last Calib.:

2014.03.17

Start Time:

02:44:20

End Time:

12:39:45

Time On Btm:

2014.03.17 @ 05:34:45

Time Off Btm:

2014.03.17 @ 09:40:15

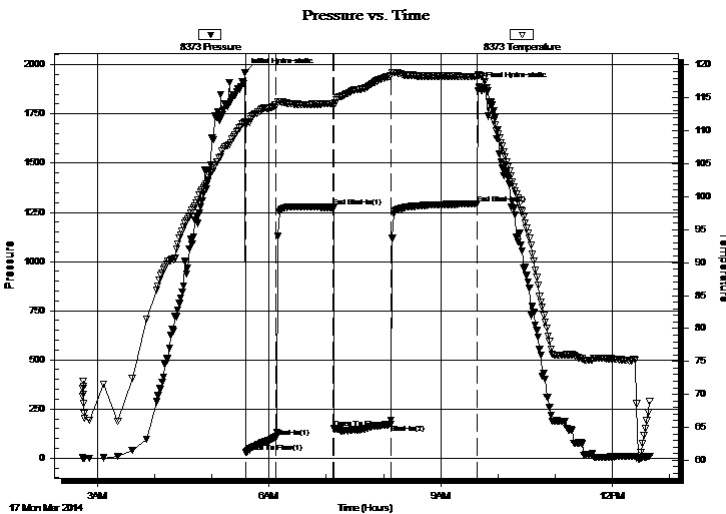
TEST COMMENT: IF: 1/2" blow built to 9"

IS: No return.

FF: BOB in 35 min.

FS: Surface blow built to 1/4" died in 30 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1961.58	111.33	Initial Hydro-static
1	29.41	111.18	Open To Flow (1)
33	108.66	113.92	Shut-In(1)
93	1276.56	114.17	End Shut-In(1)
94	149.73	113.79	Open To Flow (2)
153	172.22	118.32	Shut-In(2)
244	1294.00	118.25	End Shut-In(2)
246	1888.25	118.51	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	gocm 10%g 10%o 80%m	0.61
124.00	ocm 10%o 90%m	0.61
124.00	ocm 50%o 50%m	1.74

## Gas Rates

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



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TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 55648

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2014.03.17 @ 02:44:15

## GENERAL INFORMATION:

Formation: **Toronto- LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:35:45

Time Test Ended: 12:39:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

**Interval: 3931.00 ft (KB) To 3991.00 ft (KB) (TVD)**

Reference Elevations: 2902.00 ft (KB)

Total Depth: 3991.00 ft (KB) (TVD)

2897.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8356 Outside**

Press@RunDepth: psig @ 3932.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.17 End Date: 2014.03.17

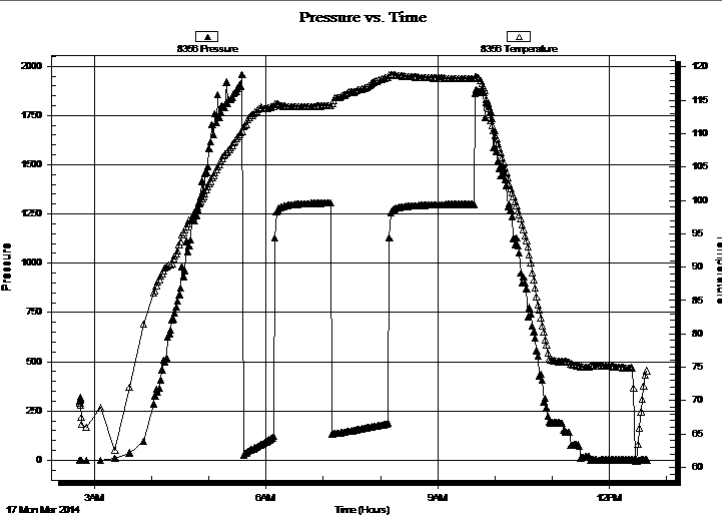
Last Calib.: 2014.03.17

Start Time: 02:44:15 End Time: 12:39:40

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF: 1/2" blow built to 9"  
IS: No return.  
FF: BOB in 35 min.  
FS: Surface blow built to 1/4" died in 30 min.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	gocm 10%g 10%o 80%m	0.61
124.00	ocm 10%o 90%m	0.61
124.00	ocm 50%o 50%m	1.74

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 55648

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2014.03.17 @ 02:44:15

## Tool Information

Drill Pipe:	Length: 3670.00 ft	Diameter: 3.80 inches	Volume: 51.48 bbl	Tool Weight:	2000.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 52.70 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	3931.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	60.00 ft				
Tool Length:	88.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			3904.00	
Shut In Tool	5.00			3909.00	
Hydraulic tool	5.00			3914.00	
Jars	5.00			3919.00	
Safety Joint	3.00			3922.00	
Packer	5.00			3927.00	28.00 Bottom Of Top Packer
Packer	4.00			3931.00	
Stubb	1.00			3932.00	
Recorder	0.00	8373	Inside	3932.00	
Recorder	0.00	8356	Outside	3932.00	
Perforations	20.00			3952.00	
Change Over Sub	1.00			3953.00	
Drill Pipe	32.00			3985.00	
Change Over Sub	1.00			3986.00	
Bullnose	5.00			3991.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 88.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 55648

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2014.03.17 @ 02:44:15

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
124.00	gocm 10%g 10%o 80%m	0.610
124.00	ocm 10%o 90%m	0.610
124.00	ocm 50%o 50%m	1.739

Total Length: 372.00 ft

Total Volume: 2.959 bbl

Num Fluid Samples: 0

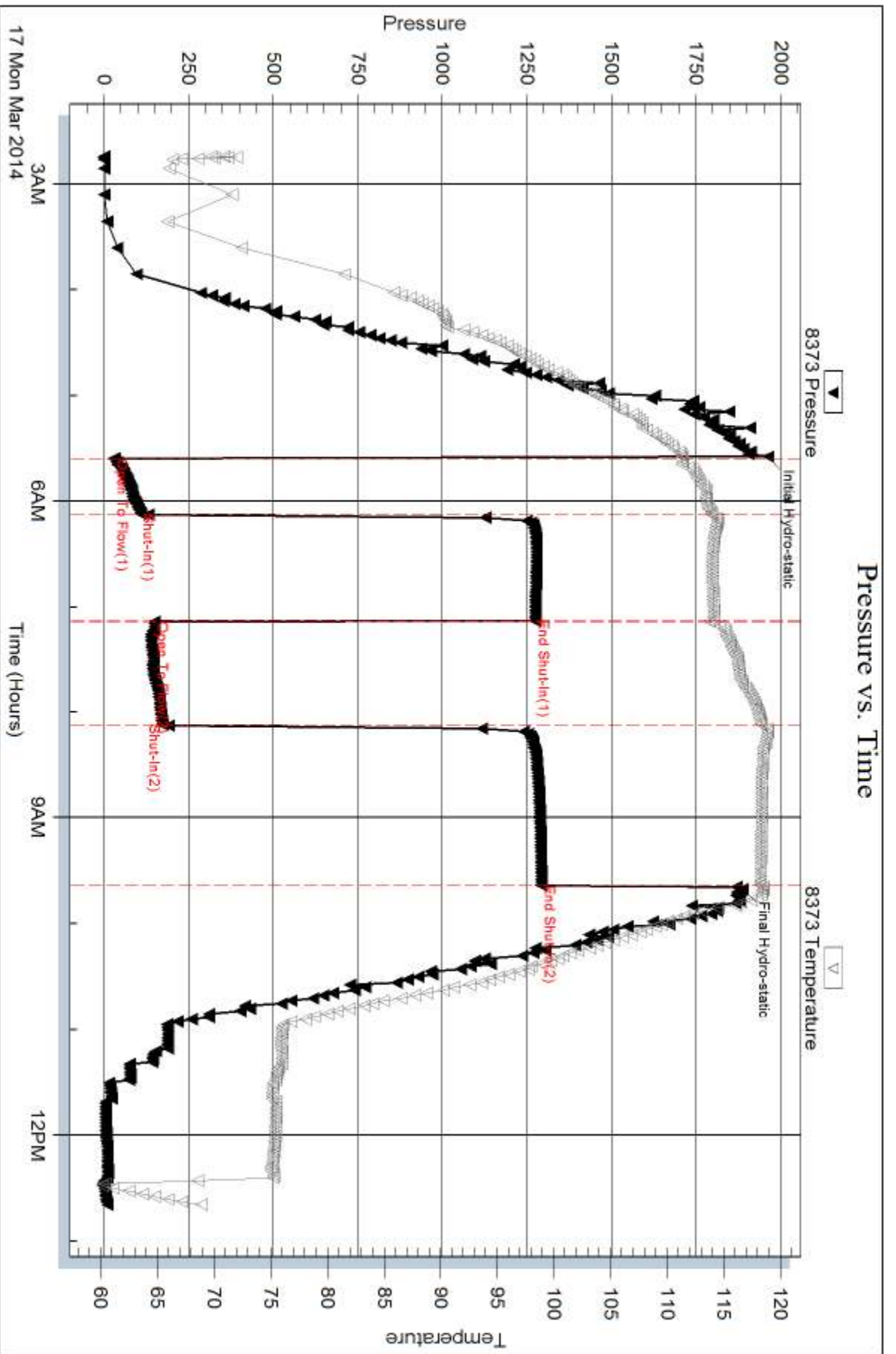
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

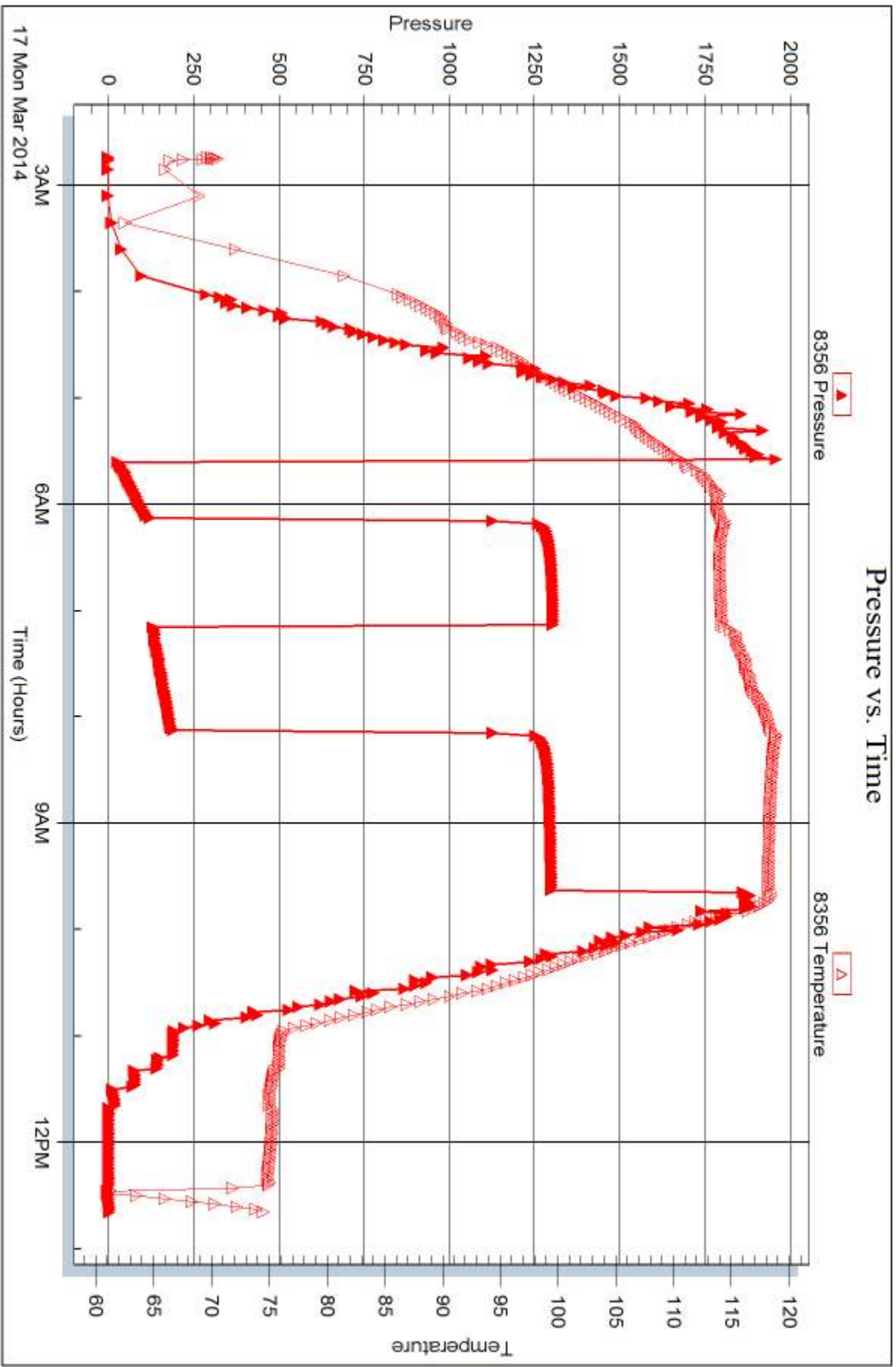


Serial #: 8356

Outside Murfin Drilling Company

Stevenson #1-14

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Stevenson #1-14**

#### **14-7s-30w Sheridan,KS**

Start Date: 2014.03.17 @ 23:00:00

End Date: 2014.03.18 @ 09:37:00

Job Ticket #: 56809                      DST #: 2

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

Printed: 2014.03.24 @ 11:08:12





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

ATTN: Jeff Christian

Job Ticket: 56809

**DST#: 2**

Test Start: 2014.03.17 @ 23:00:00

## GENERAL INFORMATION:

Formation: **LKC-**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:34:30

Time Test Ended: 09:37:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Kreuzer Jr.

Unit No: 61

**Interval: 3990.00 ft (KB) To 4030.00 ft (KB) (TVD)**

Reference Elevations: 2902.00 ft (KB)

Total Depth: 4030.00 ft (KB) (TVD)

2897.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8673**

**Inside**

Press@RunDepth: 403.31 psig @ 3991.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.17

End Date:

2014.03.18

Last Calib.: 2014.03.18

Start Time: 23:00:05

End Time:

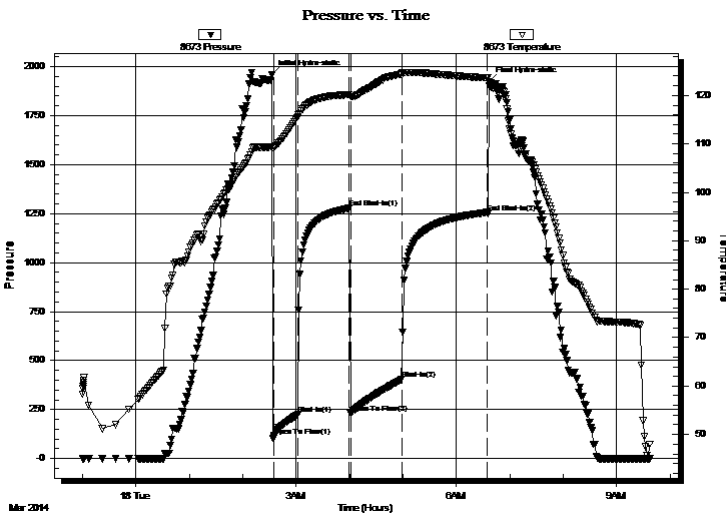
09:37:00

Time On Btm: 2014.03.18 @ 02:32:30

Time Off Btm: 2014.03.18 @ 06:36:30

**TEST COMMENT:** IF: Fair blow , Built to B.O.B in 12 mins.  
IS: No blow back  
FF: Fair blow , Built to B.O.B in 20 mins  
FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1957.17	109.38	Initial Hydro-static
2	111.59	109.31	Open To Flow (1)
30	225.43	115.62	Shut-In(1)
87	1277.49	120.12	End Shut-In(1)
89	233.09	119.80	Open To Flow (2)
146	403.31	124.44	Shut-In(2)
242	1255.72	123.64	End Shut-In(2)
244	1922.27	122.80	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
310.00	mcw -20%m80%w	2.09
186.00	mcw -40%m60%w	2.61
124.00	w cm-50%m50%w	1.74
134.00	w cm-20%w 80%m	1.88

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56809

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2014.03.17 @ 23:00:00

## Tool Information

Drill Pipe:	Length: 3729.00 ft	Diameter: 3.80 inches	Volume: 52.31 bbl	Tool Weight: 2400.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 53.53 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3990.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	68.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3967.00	
Hydraulic tool	5.00			3972.00	
Jars	5.00			3977.00	
Safety Joint	3.00			3980.00	
Packer	5.00			3985.00	28.00 Bottom Of Top Packer
Packer	5.00			3990.00	
Stubb	1.00			3991.00	
Recorder	0.00	8673	Inside	3991.00	
Recorder	0.00	8651	Outside	3991.00	
Perforations	2.00			3993.00	
change Over Sub	1.00			3994.00	
Blank Spacing	32.00			4026.00	
Change Over Sub	1.00			4027.00	
Bullnose	3.00			4030.00	40.00 Bottom Packers & Anchor

**Total Tool Length: 68.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56809

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2014.03.17 @ 23:00:00

## 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 1500.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
310.00	mcw -20%m80%w	2.089
186.00	mcw -40%m60%w	2.609
124.00	w cm-50%m50%w	1.739
134.00	w cm-20%w 80%m	1.880

Total Length: 754.00 ft

Total Volume: 8.317 bbl

Num Fluid Samples: 0

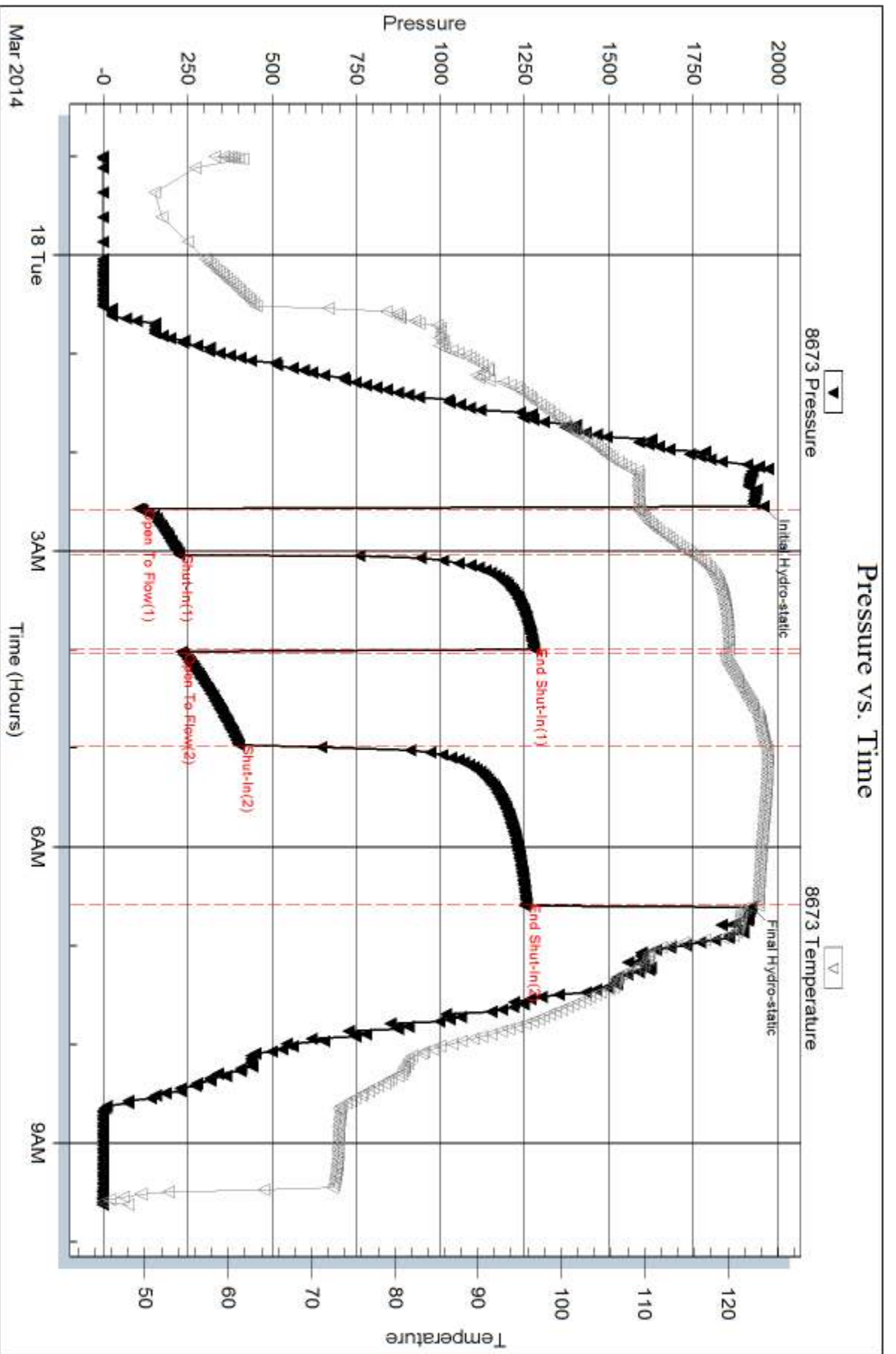
Num Gas Bombs: 0

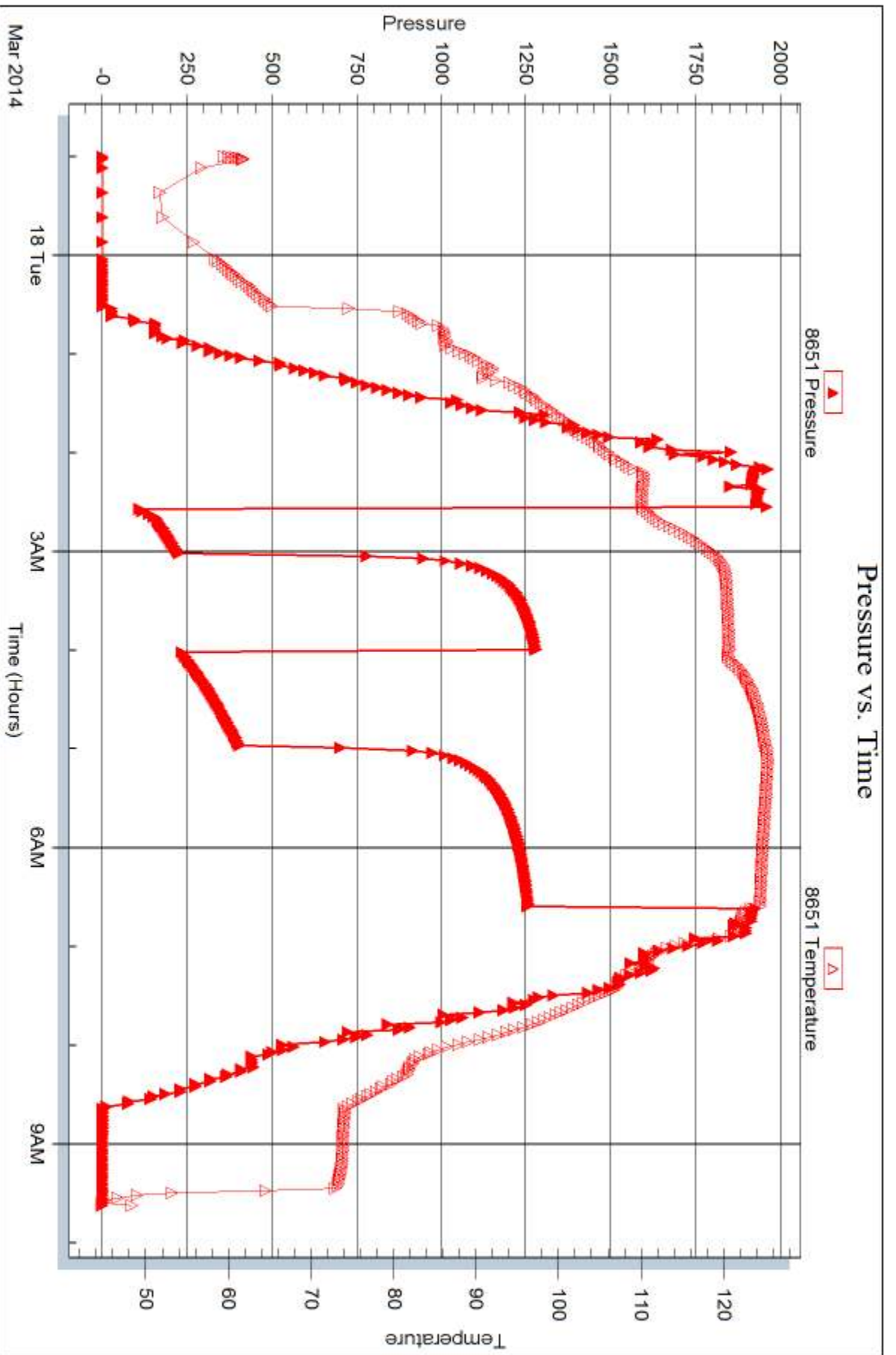
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Stevenson #1-14**

#### **14-7s-30w Sheridan,KS**

Start Date: 2014.03.19 @ 09:00:00

End Date: 2014.03.19 @ 17:17:00

Job Ticket #: 56810                      DST #: 3

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

Printed: 2014.03.24 @ 11:07:48



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56810

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2014.03.19 @ 09:00:00

## GENERAL INFORMATION:

Formation: **LKC-J,K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:40:30

Time Test Ended: 17:17:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

**Interval: 4108.00 ft (KB) To 4184.00 ft (KB) (TVD)**

Reference Elevations: 2902.00 ft (KB)

Total Depth: 4184.00 ft (KB) (TVD)

2897.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8673**

**Inside**

Press@RunDepth: 22.11 psig @ 4109.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.19

End Date:

2014.03.19

Last Calib.:

2014.03.19

Start Time: 09:00:05

End Time:

17:16:59

Time On Btm:

2014.03.19 @ 11:27:00

Time Off Btm:

2014.03.19 @ 14:45:30

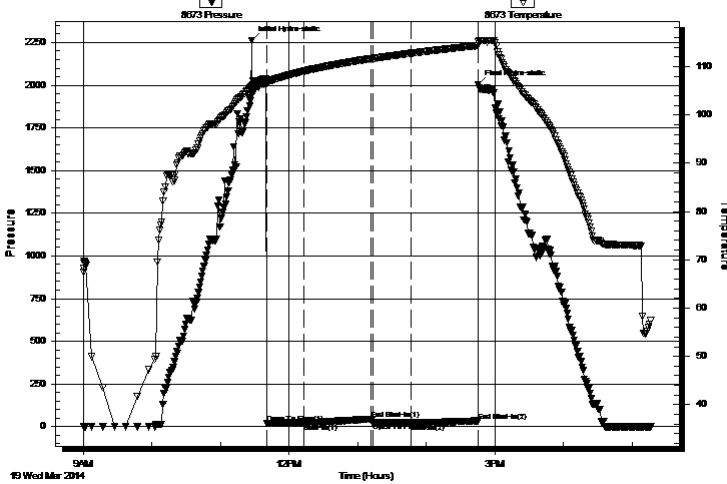
TEST COMMENT: IF: Weak surface blow , Dead in 21 mins.

IS: No blow back

FF: No blow

FS: No blow back

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2262.56	106.06	Initial Hydro-static
14	20.87	106.97	Open To Flow (1)
46	21.81	109.02	Shut-In(1)
105	44.86	111.67	End Shut-In(1)
106	22.36	111.69	Open To Flow (2)
140	22.11	112.78	Shut-In(2)
198	33.39	114.34	End Shut-In(2)
199	2002.06	115.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud-100%m	0.10

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

ATTN: Jeff Christian

Job Ticket: 56810

**DST#: 3**

Test Start: 2014.03.19 @ 09:00:00

## GENERAL INFORMATION:

Formation: **LKC-J,K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:40:30

Time Test Ended: 17:17:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: **4108.00 ft (KB) To 4184.00 ft (KB) (TVD)**

Total Depth: 4184.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2902.00 ft (KB)

2897.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8651 Outside**

Press@RunDepth: psig @ 4109.00 ft (KB)

Start Date: 2014.03.19

End Date:

2014.03.19

Start Time: 09:00:05

End Time:

17:16:59

Capacity: 8000.00 psig

Last Calib.:

2014.03.19

Time On Btm:

Time Off Btm:

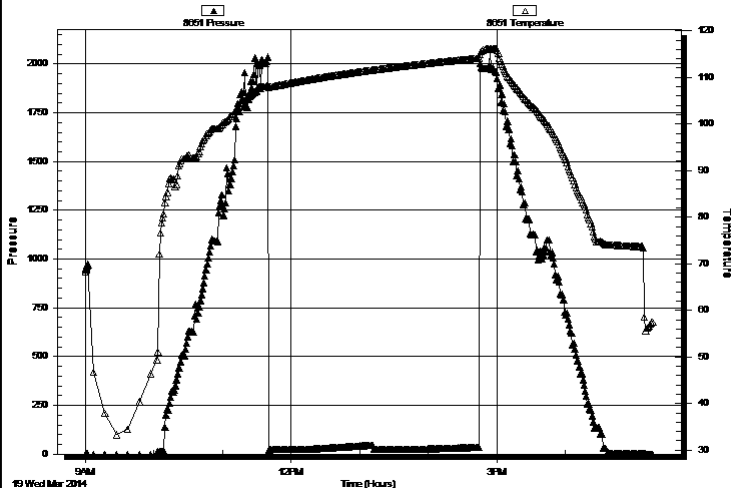
TEST COMMENT: IF: Weak surface blow, Dead in 21 mins.

IS: No blow back

FF: No blow

FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud-100%m	0.10

\* Recovery from multiple tests

Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56810

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2014.03.19 @ 09:00:00

## Tool Information

Drill Pipe:	Length: 3864.00 ft	Diameter: 3.80 inches	Volume: 54.20 bbl	Tool Weight: 2400.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 55.42 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4108.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.00 ft			
Tool Length:	104.00 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			4085.00	
Hydraulic tool	5.00			4090.00	
Jars	5.00			4095.00	
Safety Joint	3.00			4098.00	
Packer	5.00			4103.00	28.00 Bottom Of Top Packer
Packer	5.00			4108.00	
Stubb	1.00			4109.00	
Recorder	0.00	8673	Inside	4109.00	
Recorder	0.00	8651	Outside	4109.00	
Perforations	6.00			4115.00	
change Over Sub	1.00			4116.00	
Drill Pipe	64.00			4180.00	
Change Over Sub	1.00			4181.00	
Bullnose	3.00			4184.00	76.00 Bottom Packers & Anchor

**Total Tool Length: 104.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56810

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2014.03.19 @ 09:00:00

### 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 1600.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	mud-100%m	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

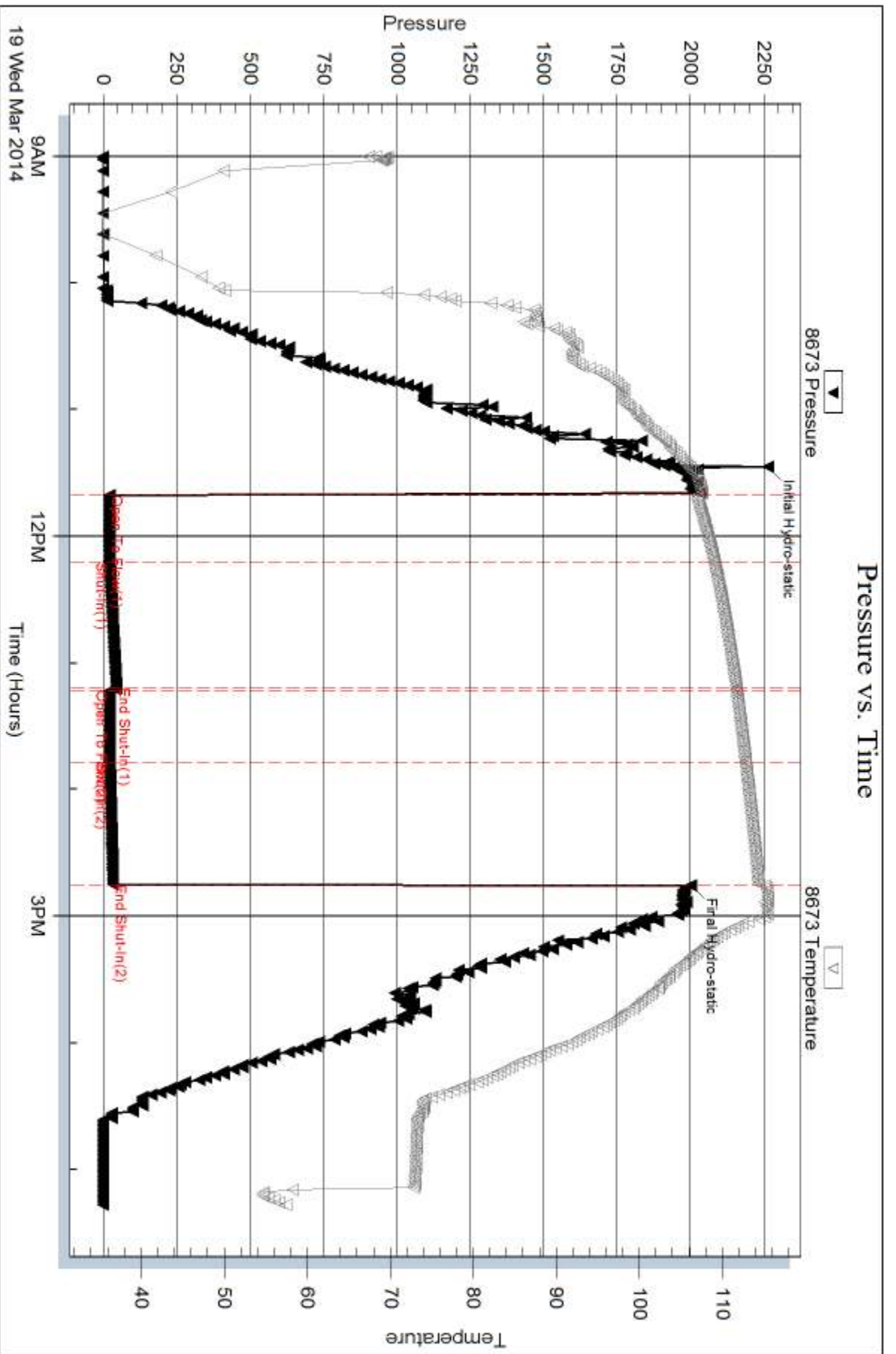
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

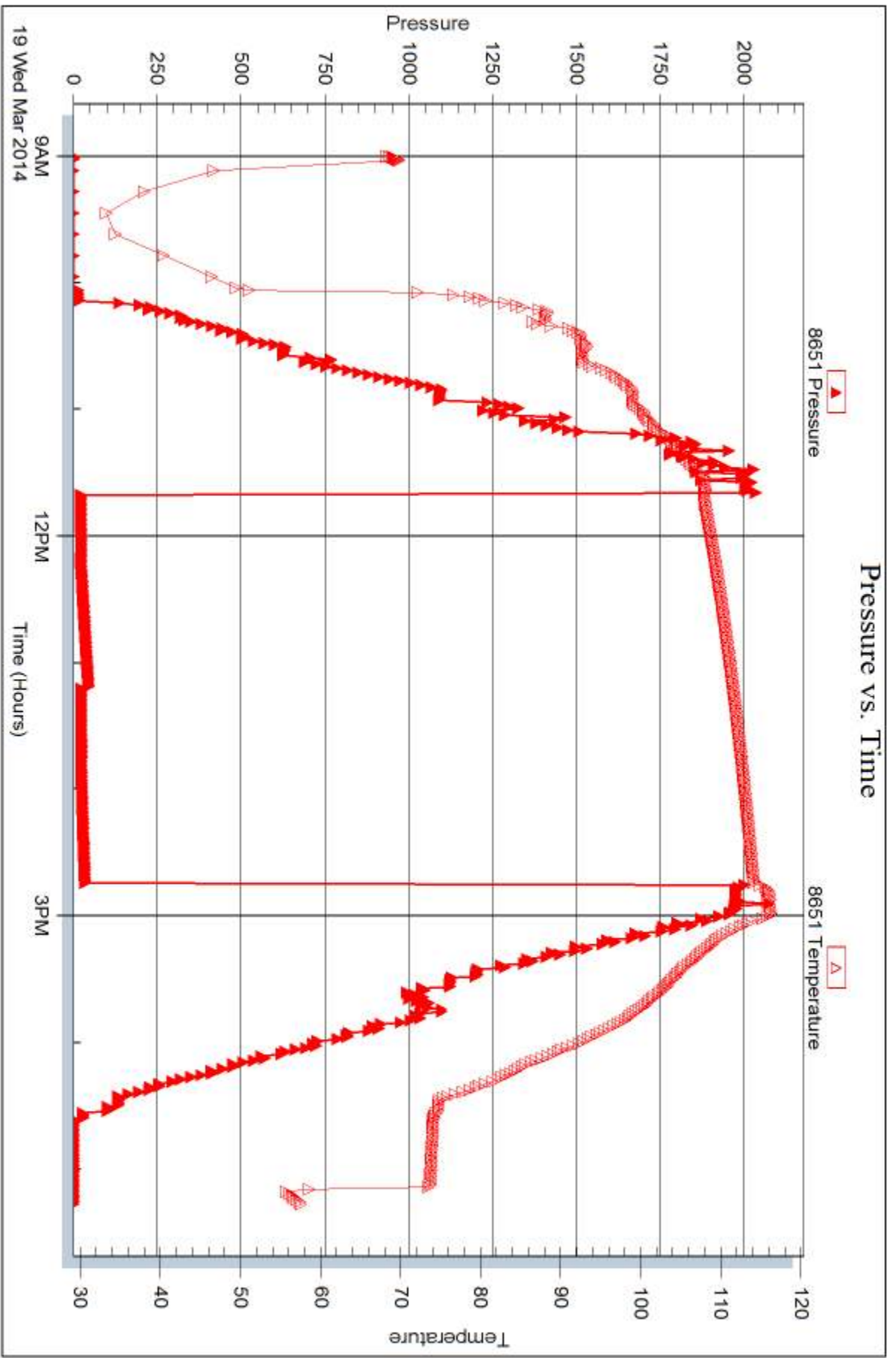


Serial #: 8651

Outside Murfin Drilling Company

Stevenson #1-14

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 56810

Printed: 2014.03.24 @ 11:07:50



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Stevenson #1-14**

#### **14-7s-30w Sheridan,KS**

Start Date: 2014.03.20 @ 16:40:00

End Date: 2014.03.21 @ 00:22:30

Job Ticket #: 56811                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.03.24 @ 11:07:11



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company  
 250 N Water Ste 300  
 Wichita, KS 67202  
 ATTN: Jeff Christian

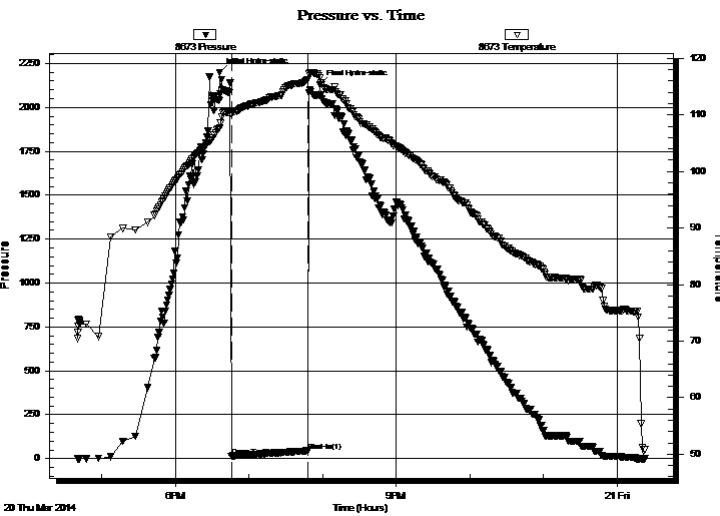
**14-7s-30w Sheridan,KS**  
**Stevenson #1-14**  
 Job Ticket: 56811 **DST#: 4**  
 Test Start: 2014.03.20 @ 16:40:00

## GENERAL INFORMATION:

Formation: **Lw Pawnee**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:45:30  
 Time Test Ended: 00:22:30  
 Interval: **4347.00 ft (KB) To 4370.00 ft (KB) (TVD)**  
 Total Depth: 4030.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Chuck Kreutzer Jr.  
 Unit No: 61  
 Reference Elevations: 2902.00 ft (KB)  
 2897.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8673 Inside**  
 Press@RunDepth: psig @ 4348.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.03.20 End Date: 2014.03.21 Last Calib.: 2014.03.21  
 Start Time: 16:40:05 End Time: 00:22:29 Time On Btm: 2014.03.20 @ 18:36:00  
 Time Off Btm: 2014.03.20 @ 19:57:30

## TEST COMMENT:



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2199.39	107.70	Initial Hydro-static
10	15.14	110.16	Open To Flow (1)
72	44.26	116.30	Shut-In(1)
82	2127.78	116.55	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud w ith oil specs	0.07

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Company

14-7s-30w Sheridan, KS

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

ATTN: Jeff Christian

Job Ticket: 56811

**DST#: 4**

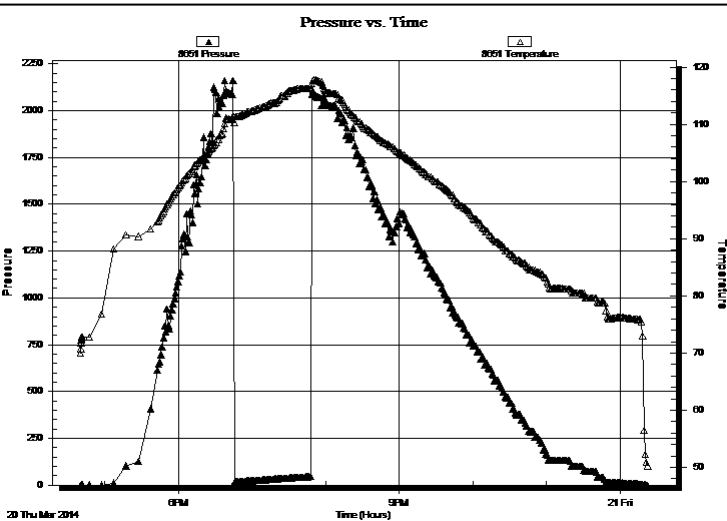
Test Start: 2014.03.20 @ 16:40:00

**GENERAL INFORMATION:**

<b>Formation:</b>	<b>Lw Pawnee</b>		<b>Test Type:</b>	Conventional Bottom Hole (Reset)
<b>Deviated:</b>	No Whipstock:	ft (KB)	<b>Tester:</b>	Chuck Kreuzer Jr.
<b>Time Tool Opened:</b>	18:45:30		<b>Unit No:</b>	61
<b>Time Test Ended:</b>	00:22:30			
<b>Interval:</b>	<b>4347.00 ft (KB) To 4370.00 ft (KB) (TVD)</b>		<b>Reference Elevations:</b>	2902.00 ft (KB)
<b>Total Depth:</b>	4030.00 ft (KB) (TVD)			2897.00 ft (CF)
<b>Hole Diameter:</b>	7.88 inches	Hole Condition: Good	<b>KB to GR/CF:</b>	5.00 ft

<b>Serial #: 8651</b>	<b>Outside</b>		<b>Capacity:</b>	8000.00 psig
<b>Press@RunDepth:</b>	psig @ 4348.00 ft (KB)		<b>Last Calib.:</b>	2014.03.21
<b>Start Date:</b>	2014.03.20	<b>End Date:</b>	2014.03.21	
<b>Start Time:</b>	16:40:05	<b>End Time:</b>	00:22:29	<b>Time On Btm:</b>
				<b>Time Off Btm:</b>

**TEST COMMENT:**



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
15.00	mud w ith oil specs	0.07

**Gas Rates**

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56811

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2014.03.20 @ 16:40:00

## Tool Information

Drill Pipe:	Length: 4086.00 ft	Diameter: 3.80 inches	Volume: 57.32 bbl	Tool Weight: 2400.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 58.54 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4347.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	68.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4324.00	
Hydraulic tool	5.00			4329.00	
Jars	5.00			4334.00	
Safety Joint	3.00			4337.00	
Packer	5.00			4342.00	28.00 Bottom Of Top Packer
Packer	5.00			4347.00	
Stubb	1.00			4348.00	
Recorder	0.00	8673	Inside	4348.00	
Recorder	0.00	8651	Outside	4348.00	
Perforations	2.00			4350.00	
change Over Sub	1.00			4351.00	
Blank Spacing	32.00			4383.00	
Change Over Sub	1.00			4384.00	
Bullnose	3.00			4387.00	40.00 Bottom Packers & Anchor

**Total Tool Length: 68.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56811

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2014.03.20 @ 16:40:00

### 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 1600.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	mud w ith oil specs	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

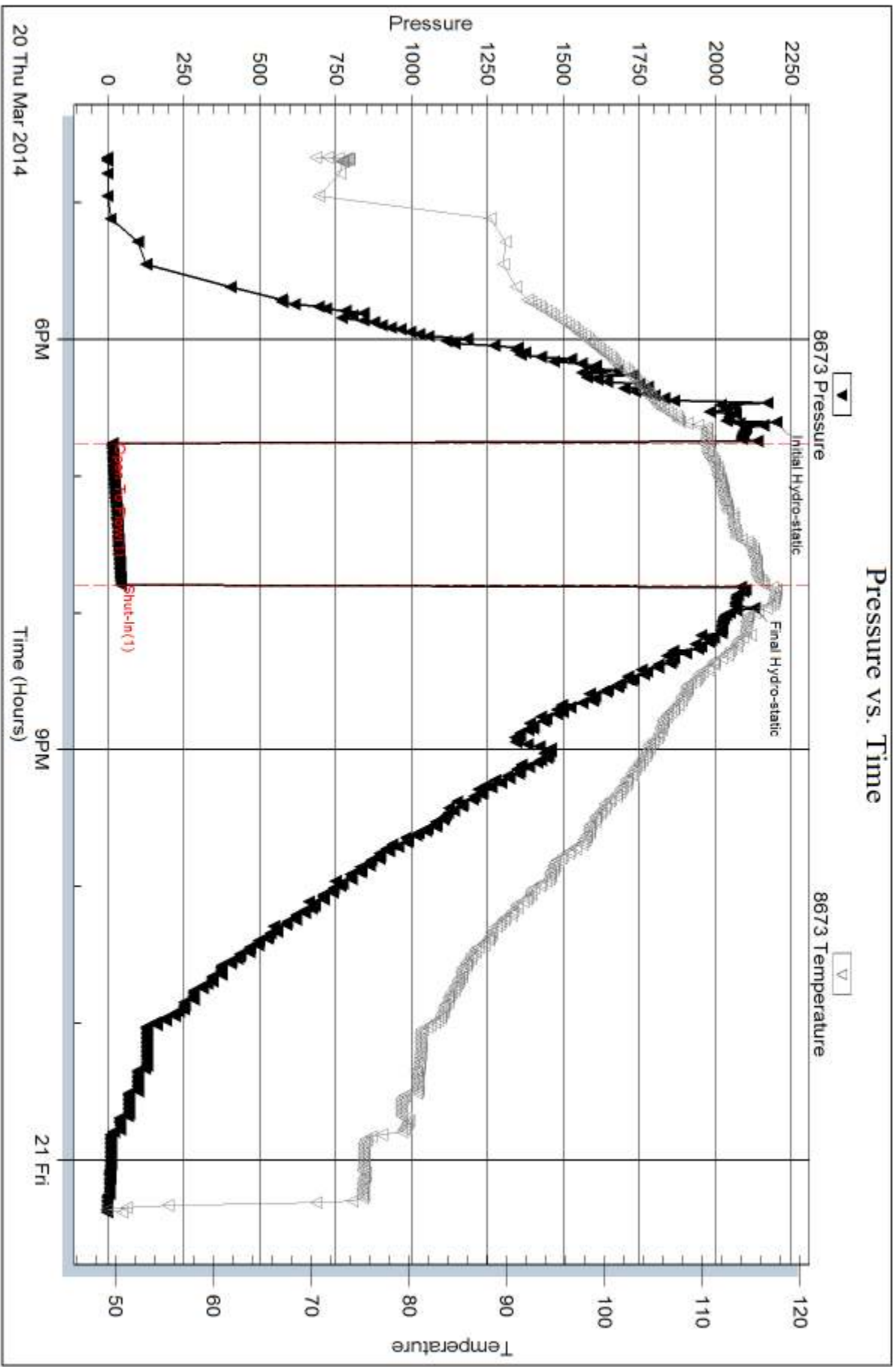
Serial #: 8673

Inside

Murfin Drilling Company

Stevenson #1-14

DST Test Number: 4

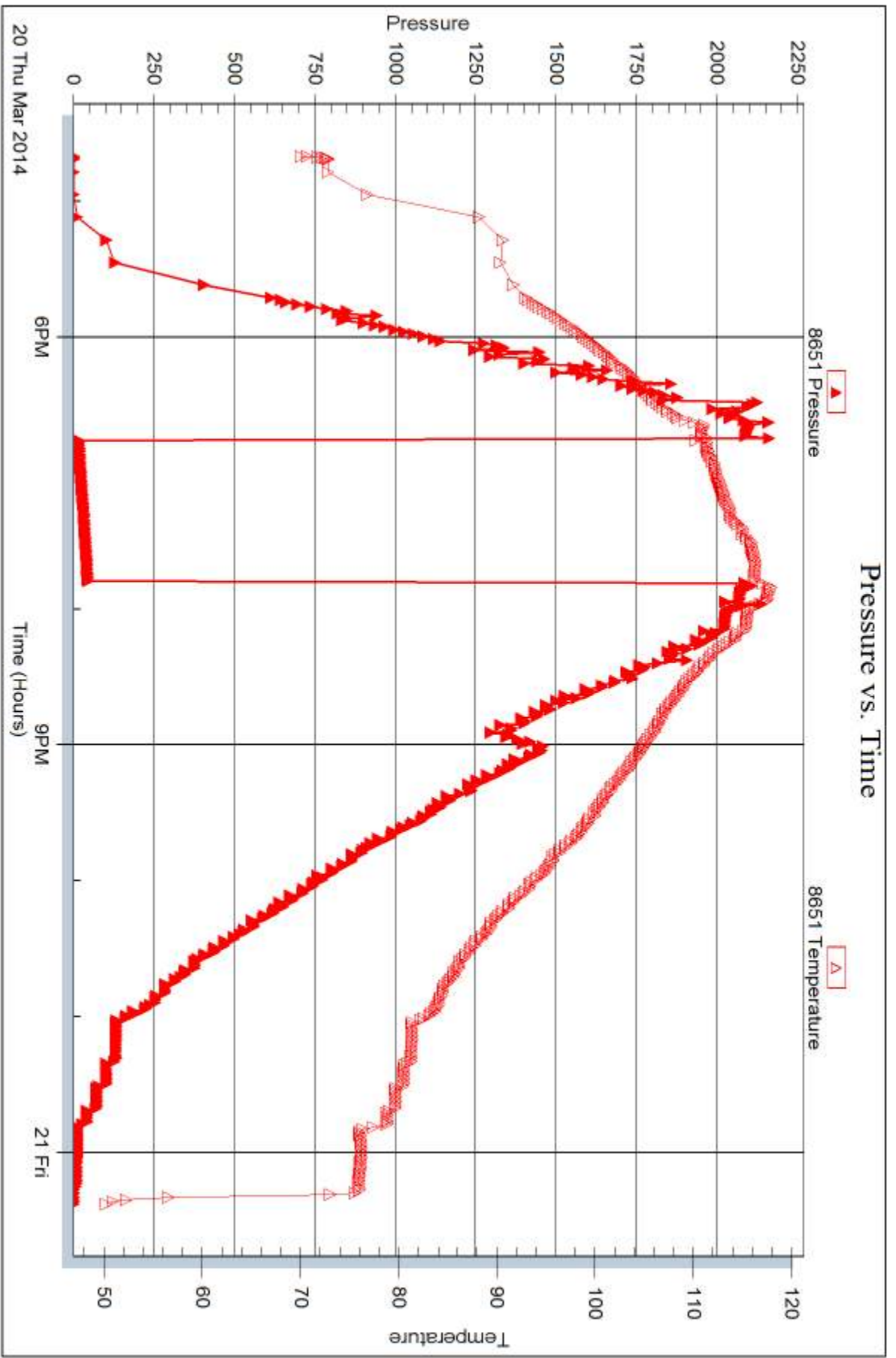


Serial #: 8651

Outside Murfin Drilling Company

Stevenson #1-14

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 56811

Printed: 2014.03.24 @ 11:07:14



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Stevenson #1-14**

#### **14-7s-30w Sheridan,KS**

Start Date: 2014.03.21 @ 00:43:00

End Date: 2014.03.21 @ 09:11:00

Job Ticket #: 56812                      DST #: 5

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

Printed: 2014.03.24 @ 11:06:05



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56812

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2014.03.21 @ 00:43:00

## GENERAL INFORMATION:

Formation: **LWS Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:23:30

Time Test Ended: 09:11:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

**Interval: 4345.00 ft (KB) To 4370.00 ft (KB) (TVD)**

Reference Elevations: 2902.00 ft (KB)

Total Depth: 4370.00 ft (KB) (TVD)

2897.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8673**

**Inside**

Press@RunDepth: 48.69 psig @ 4346.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.21

End Date:

2014.03.21

Last Calib.:

2014.03.21

Start Time: 00:43:05

End Time:

09:10:59

Time On Btm:

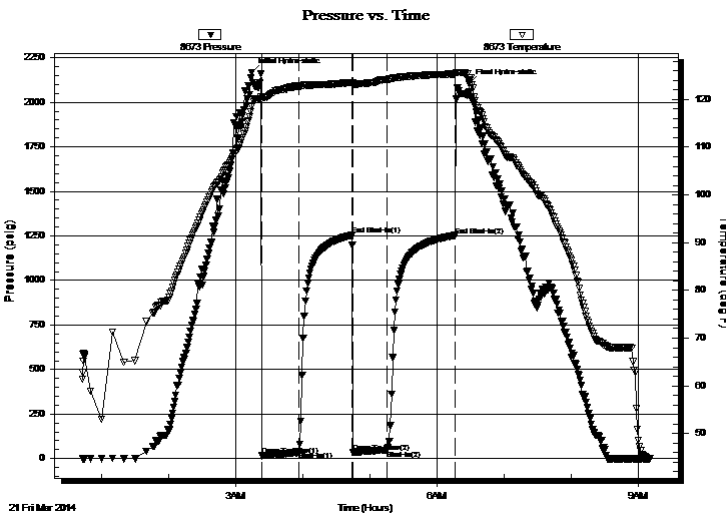
2014.03.21 @ 03:14:30

Time Off Btm:

2014.03.21 @ 06:29:00

**TEST COMMENT:** IF: Weak blow , Built to 3/4 in. Over 30 mins.  
IS: No blow back  
FF: Weak blow , Built to 3/4 in. over 60 mins.  
FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2167.67	118.52	Initial Hydro-static
9	16.71	119.93	Open To Flow (1)
42	39.86	122.75	Shut-In(1)
90	1253.71	123.55	End Shut-In(1)
91	34.91	123.18	Open To Flow (2)
121	48.69	124.17	Shut-In(2)
182	1252.85	125.33	End Shut-In(2)
195	2105.11	124.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud w ith oil specs	0.07

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Company  
250 N Water Ste 300  
Wichita, KS 67202  
ATTN: Jeff Christian

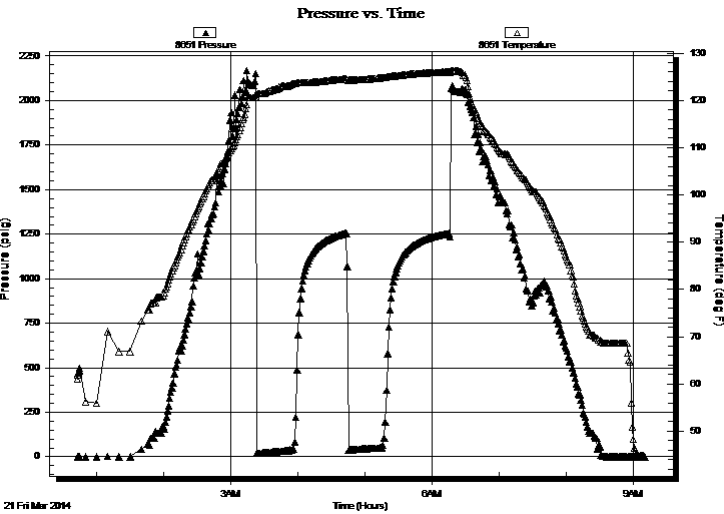
**14-7s-30w Sheridan,KS**  
**Stevenson #1-14**  
Job Ticket: 56812      **DST#: 5**  
Test Start: 2014.03.21 @ 00:43:00

## GENERAL INFORMATION:

Formation: **LWS Pawnee**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 03:23:30  
Time Test Ended: 09:11:00  
Interval: **4345.00 ft (KB) To 4370.00 ft (KB) (TVD)**  
Total Depth: 4370.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Chuck Kreuzer Jr.  
Unit No: 61  
Reference Elevations: 2902.00 ft (KB)  
2897.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8651      Outside**  
Press@RunDepth:      psig @ 4346.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.03.21      End Date: 2014.03.21      Last Calib.: 2014.03.21  
Start Time: 00:43:05      End Time: 09:10:59      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF: Weak blow , Built to 3/4 in. Over 30 mins.  
IS: No blow back  
FF: Weak blow , Built to 3/4 in. over 60 mins.  
FS: No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud w ith oil specs	0.07

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56812

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2014.03.21 @ 00:43:00

## Tool Information

Drill Pipe:	Length: 4084.00 ft	Diameter: 3.80 inches	Volume: 57.29 bbl	Tool Weight: 2400.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 58.51 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4345.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	53.00 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			4322.00	
Hydraulic tool	5.00			4327.00	
Jars	5.00			4332.00	
Safety Joint	3.00			4335.00	
Packer	5.00			4340.00	28.00 Bottom Of Top Packer
Packer	5.00			4345.00	
Stubb	1.00			4346.00	
Recorder	0.00	8673	Inside	4346.00	
Recorder	0.00	8651	Outside	4346.00	
Perforations	21.00			4367.00	
Bullnose	3.00			4370.00	25.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Company

**14-7s-30w Sheridan,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Stevenson #1-14**

Job Ticket: 56812

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2014.03.21 @ 00:43:00

## 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: 6.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 1600.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	mud w ith oil specs	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

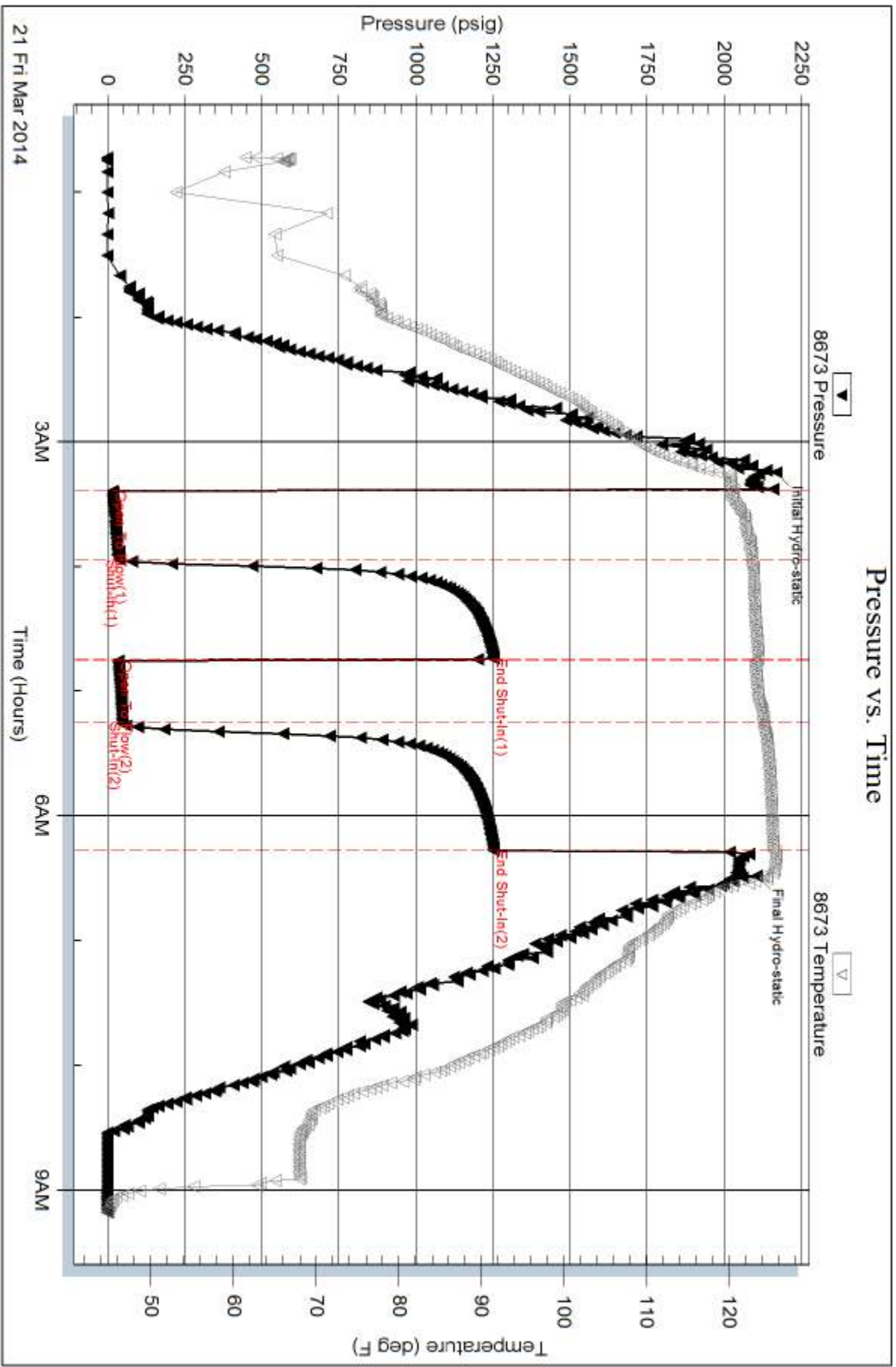
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

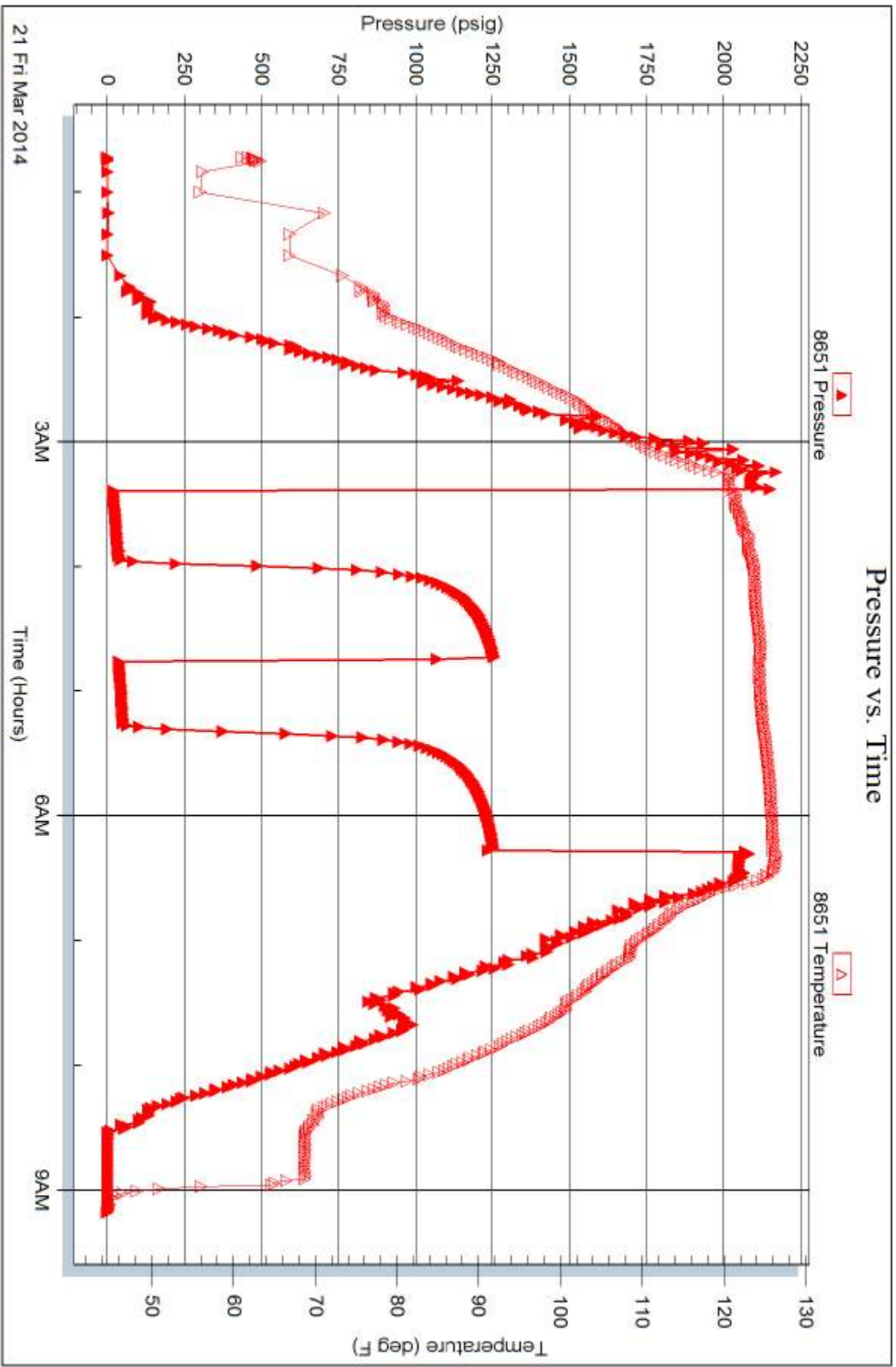


Serial #: 8651

Outside Murfin Drilling Company

Stevenson #1-14

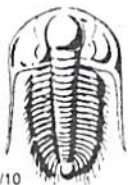
DST Test Number: 5



Triobite Testing, Inc

Ref. No: 56812

Printed: 2014.03.24 @ 11:06:09



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 55648

Well Name & No. Stevenson 1-14 Test No. 1 Date 3-16-14  
 Company Murfin Drilling Company Elevation 2902 KB 2897 GL  
 Address 250 N Water Ste 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #17  
 Location: Sec. 14 Twp. 7S Rge. 30W Co. Sheridan State KS

Interval Tested 3931 3991 Zone Tested Toronto-LKO A  
 Anchor Length 60 Drill Pipe Run 3670 Mud Wt. 9.2  
 Top Packer Depth 3926 Drill Collars Run 248 Vis 60  
 Bottom Packer Depth 3931 Wt. Pipe Run          WL 6.4  
 Total Depth 3991 Chlorides 1800 ppm System LCM 2

Blow Description ±F: 1/2 blow built to 9,  
±S: No return,  
FK: BOB in 35 min,  
F3: Weak surface blow built to 1/4 died in 30 min,

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>0cm</u>	<u>50</u>		<u>50</u>	
<u>124</u>	<u>0cm</u>	<u>10</u>		<u>90</u>	
<u>124</u>	<u>90cm</u>	<u>10</u>		<u>80</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 372 BHT 118 Gravity          API RW          @          °F Chlorides          ppm

(A) Initial Hydrostatic 1961  Test 1150 T-On Location 23:30  
 (B) First Initial Flow 29  Jars 250 T-Started 2:44  
 (C) First Final Flow 108  Safety Joint 75 T-Open 5:35  
 (D) Initial Shut-In 1276  Circ Sub N/C 2h 200 T-Pulled 9:35  
 (E) Second Initial Flow 149  Hourly Standby 4-400.00 T-Out 12:35  
 (F) Second Final Flow 172  Mileage 162 - 74rt 114.70  
 (G) Final Shut-In 1294  Sampler           
 (H) Final Hydrostatic 1888  Straddle         

Initial Open 30  Shale Packer           Ruined Shale Packer           
 Initial Shut-In 60  Extra Packer           Ruined Packer           
 Final Flow 60  Extra Recorder          Sub Total 0  
 Final Shut-In 90  Day Standby          Total 1789.70  
 Accessibility          MP/DST Disc't           
 Sub Total 1789.70

Approved By [Signature] 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 of 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. 56809

Well Name & No. Stevenson # 1-14 Test No. 2 Date 3-17-2014  
 Company Murfin Drilling Co. Elevation 2902 KB 2897 GL  
 Address 250 N. Water St 300 Wichita Ks  
 Co. Rep / Geo. Jeff Christation Rig Murfin #7  
 Location: Sec. 14 Twp. 7S Rge. 30W Co. Sheridan State Ks

Interval Tested 3990 4030 Zone Tested LKC  
 Anchor Length 40 Drill Pipe Run 2729 Mud Wt. 9.1  
 Top Packer Depth 3985 Drill Collars Run 248 Vis 52  
 Bottom Packer Depth 3990 Wt. Pipe Run -0' WL 6-8  
 Total Depth 4030 Chlorides 1,500 ppm System LCM 1.5 #

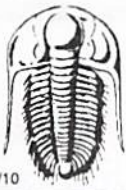
Blow Description IF: Fair blow, Built to B.O.B in 12 mins.  
ISJ: No blow back  
FF: Fair blow, Built to B.O.B in 20 mins.  
FSJ: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
134	wcm			20%	80%
124	wcm			50%	50%
186	mcw			60%	40%
310	water mcw			80%	20%

Rec Total 754 BHT 121 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1957</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>2200</u>
(B) First Initial Flow <u>112</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>23:00</u>
(C) First Final Flow <u>225</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2:34</u>
(D) Initial Shut-In <u>1277</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>6:30</u>
(E) Second Initial Flow <u>233</u>	<input checked="" type="checkbox"/> Hourly Standby <u>.5h 50</u>	T-Out <u>9:37</u>
(F) Second Final Flow <u>403</u>	<input checked="" type="checkbox"/> Mileage <u>37x2 = 74x1.55</u> 114.70	Comments _____
(G) Final Shut-In <u>1256</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1922</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1739.70</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1739.70</u>	

Approved By \_\_\_\_\_ Our Representative Chad Vgo  
 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. **56810**

4/10

Well Name & No. Stevenson #114 Test No. 3 Date 3-19-2014  
 Company Murfin Drilling Co. Elevation 2902 KB 2897 GL  
 Address 250 N. water ste. 300 Wichita Ks.  
 Co. Rep / Geo. Jeff Christobn Rig Murfin #1  
 Location: Sec. 14 Twp. 7s Rge. 30w Co. Shertdon State KS

Interval Tested 4108 4184 Zone Tested LHF-J, K  
 Anchor Length 76 Drill Pipe Run 3864 Mud Wt. 92  
 Top Packer Depth 4103 Drill Collars Run 248 Vis 53  
 Bottom Packer Depth 4108 Wt. Pipe Run - 0 - WL 6.4  
 Total Depth 4184 Chlorides 1,600 ppm System LCM 4#

Blow Description IFI Weak blow, Dead in 21 mins.  
ISI: No blow back  
FF: No blow  
FSI: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mud</u>				<u>100</u>

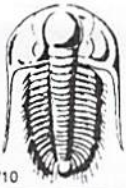
Rec Total 10 BHT 113 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2263</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>8:45</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>9:00</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>11:40</u>
(D) Initial Shut-In <u>45</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>14:45</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>17:17</u>
(F) Second Final Flow <u>22</u>	<input checked="" type="checkbox"/> Mileage <u>3742 = 74 x 1.55 = 114.70</u>	Comments _____
(G) Final Shut-In <u>33</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2002</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1689.70</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1689.70</u>	

Approved By \_\_\_\_\_ Our Representative Chub King

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. 56811

4/10

Well Name & No. Stevenson #1-14 Test No. 4 Date 3-20-2014  
 Company Murphy Drilling Elevation 2902 KB 2897 GL  
 Address 250 N. Water Ste. 300 Wichita KS  
 Co. Rep / Geo. Jeff Christian Rig Murphy #7  
 Location: Sec. 14 Twp. 17S Rge. 30W Co. Sheridan State Ks

Interval Tested 4347 4370 Zone Tested LWR Pawnee  
 Anchor Length 23 Drill Pipe Run \_\_\_\_\_ Mud Wt. 9.1  
 Top Packer Depth 4342 Drill Collars Run 249 Vis 48  
 Bottom Packer Depth 4347 Wt. Pipe Run 0 WL 6.8  
 Total Depth 4370 Chlorides 1,600 ppm System LCM 4#

Blow Description IF: Weak blow, Built to 3/4 in over 30 mins.  
Went to shut in. Picked up slacked off turned my tool 6 times. Driller Ricked it out and the tool started to back latch. I ~~reached~~ Reached over and locked the table. Never did shut in Ran 60 min Flow and then started out of Hole.

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>mud with specs</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

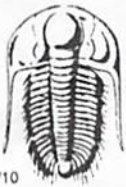
Rec Total 15 BHT 116 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2199</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>16:00</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>18:40</u>
(C) First Final Flow <u>44</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>18:45</u>
(D) Initial Shut-In _____	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>6:00</u>
(E) Second Initial Flow _____	<input type="checkbox"/> Hourly Standby _____	T-Out <u>00:22</u>
(F) Second Final Flow _____	<input checked="" type="checkbox"/> Mileage <u>37x2=74x1.55</u> 114.70	Comments _____
(G) Final Shut-In _____	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2128</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby _____	Total <u>1489.70</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1489.70</u>	

Initial Open 30  
 Initial Shut-In 30  
 Final Flow \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Chris [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56812

4/10

Well Name & No. Stevenson #1-14 Test No. 5 Date 2-26-2014  
 Company MURFIN Drilling Co. Elevation 2402 KB 2897 GL  
 Address 250 N. Water ste 200 wchstraks  
 Co. Rep / Geo. JEFF CHRISTIAN Rig MURFIN #7  
 Location: Sec. 14 Twp. 17S Rge. 30W Co. Sheridan State KS

Interval Tested 4345 4370 Zone Tested LWS Packer  
 Anchor Length 25 Drill Pipe Run 4084 Mud Wt. 9.1  
 Top Packer Depth 4330 Drill Collars Run 244 Vis 48  
 Bottom Packer Depth 4335 Wt. Pipe Run - 0 WL 6.8  
 Total Depth 4370 Chlorides 1,600 ppm System LCM 4#

Blow Description IF: Weak blow, Built to 3/4 of 30 mins.  
ISE: No blow back  
FF: Weak blow, Built to 3/4 in. over 60 mins.  
FSE: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
15	mud with oil specs				

Rec Total 15 BHT 124 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2168  Test 1250 T-On Location New left from test #4  
 (B) First Initial Flow 17  Jars 250 T-Started 12:43  
 (C) First Final Flow 40  Safety Joint 75 T-Open 3:23  
 (D) Initial Shut-In 1254  Cjrc Sub \_\_\_\_\_ T-Pulled 6:00  
 (E) Second Initial Flow 35  Hourly Standby \_\_\_\_\_ T-Out 9:11  
 (F) Second Final Flow 49  Mileage 37x2 = 74x1.55 = 114.70 Comments \_\_\_\_\_  
 (G) Final Shut-In 1253  ~~Sampler~~ washed tools ON 3-22-14 at 1300  
 (H) Final Hydrostatic 2105  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 60  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 800  
 Final Shut-In 60  Day Standby 1d 3.75h Total 2489.70  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1689.70

Approved By \_\_\_\_\_ Our Representative [Signature]

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