



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Gilbert Unit #1-26**

#### **26-4s-31w Rawlins KS**

Start Date: 2013.07.28 @ 08:41:00

End Date: 2013.07.28 @ 15:40:00

Job Ticket #: 52771                      DST #: 1

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

Printed: 2013.08.05 @ 11:02:51



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.  
 250 N. Water Suite 300  
 Wichita, KS 67202  
 ATTN: Jeff Christian

**26-4s-31w Rawlins KS**

**Gilbert Unit #1-26**

Job Ticket: 52771

**DST#: 1**

Test Start: 2013.07.28 @ 08:41:00

## GENERAL INFORMATION:

Formation: **Toronto**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 10:41:45  
 Tester: James Winder  
 Time Test Ended: 15:40:00  
 Unit No: 57  
 Interval: **3893.00 ft (KB) To 3933.00 ft (KB) (TVD)**  
 Reference Elevations: 2901.00 ft (KB)  
 Total Depth: 3933.00 ft (KB) (TVD)  
 2890.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

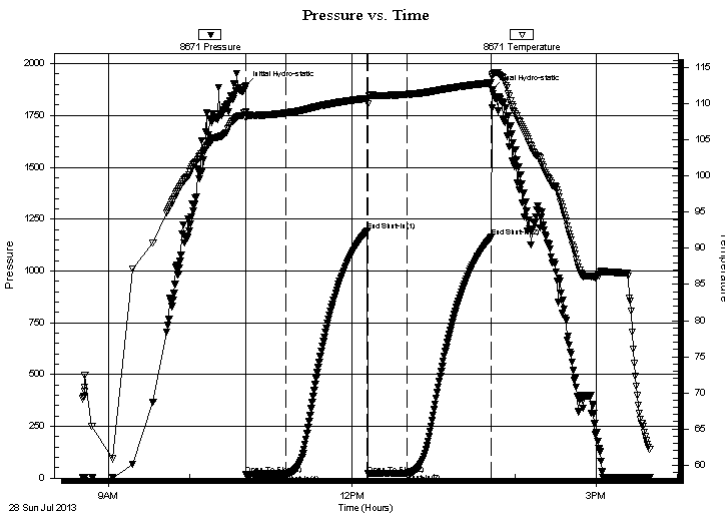
## Serial #: 8671

**Inside**

Press @ Run Depth: 22.26 psig @ 3894.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.07.28 End Date: 2013.07.28 Last Calib.: 2013.07.28  
 Start Time: 08:41:05 End Time: 15:39:59 Time On Btm: 2013.07.28 @ 10:41:30  
 Time Off Btm: 2013.07.28 @ 13:43:30

**TEST COMMENT:** 30 - IF: Blow built to 1/4", then died back to weak surface blow  
 60 - IS: No blow back  
 30 - FF: No blow  
 60 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1895.08	108.88	Initial Hydro-static
1	16.99	108.11	Open To Flow (1)
30	20.61	108.73	Shut-In(1)
90	1193.37	110.76	End Shut-In(1)
90	20.47	109.93	Open To Flow (2)
120	22.26	111.30	Shut-In(2)
182	1163.12	112.91	End Shut-In(2)
182	1875.92	114.07	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w /trace oil 100% <i>m</i>	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52771

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2013.07.28 @ 08:41:00

## Tool Information

Drill Pipe:	Length: 3661.00 ft	Diameter: 3.80 inches	Volume: 51.35 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: 25000.00 lb
Drill Collar:	Length: 231.00 ft	Diameter: 2.25 inches	Volume: 1.14 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 52.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3893.00 ft			Final 66000.00 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
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Shut In Tool	5.00			3870.00	
Hydraulic tool	5.00			3875.00	
Jars	5.00			3880.00	
Safety Joint	3.00			3883.00	
Packer	5.00			3888.00	28.00 Bottom Of Top Packer
Packer	5.00			3893.00	
Stubb	1.00			3894.00	
Recorder	0.00	8671	Inside	3894.00	
Recorder	0.00	8320	Outside	3894.00	
Perforations	3.00			3897.00	
Blank Spacing	33.00			3930.00	
Bullnose	3.00			3933.00	40.00 Bottom Packers & Anchor

**Total Tool Length: 68.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52771

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2013.07.28 @ 08:41:00

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud w /trace oil 100%m	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

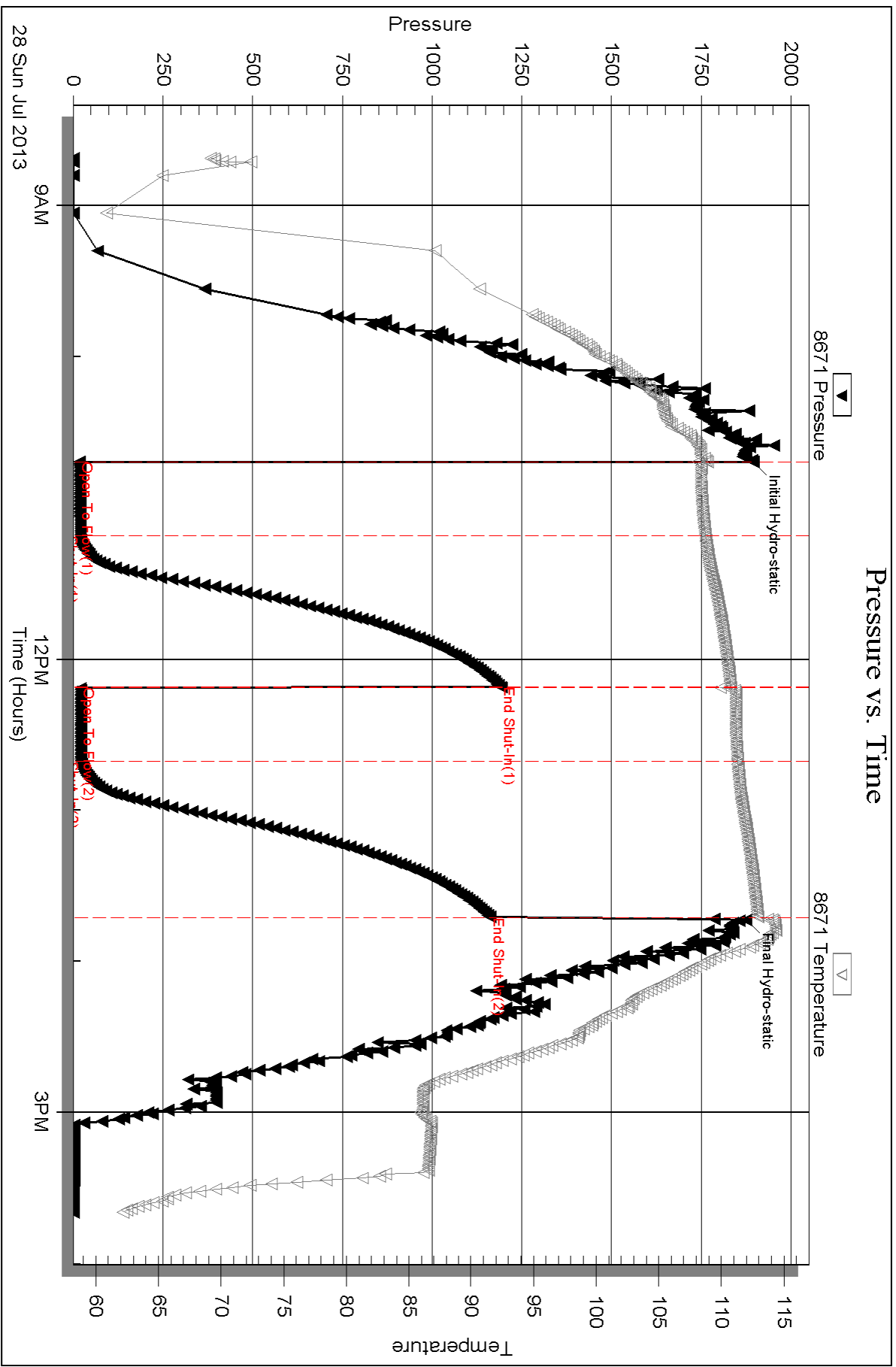
Serial #: 8671

Inside

Murfin Drilling Co., Inc.

Gilbert Unit #1-26

DST Test Number: 1

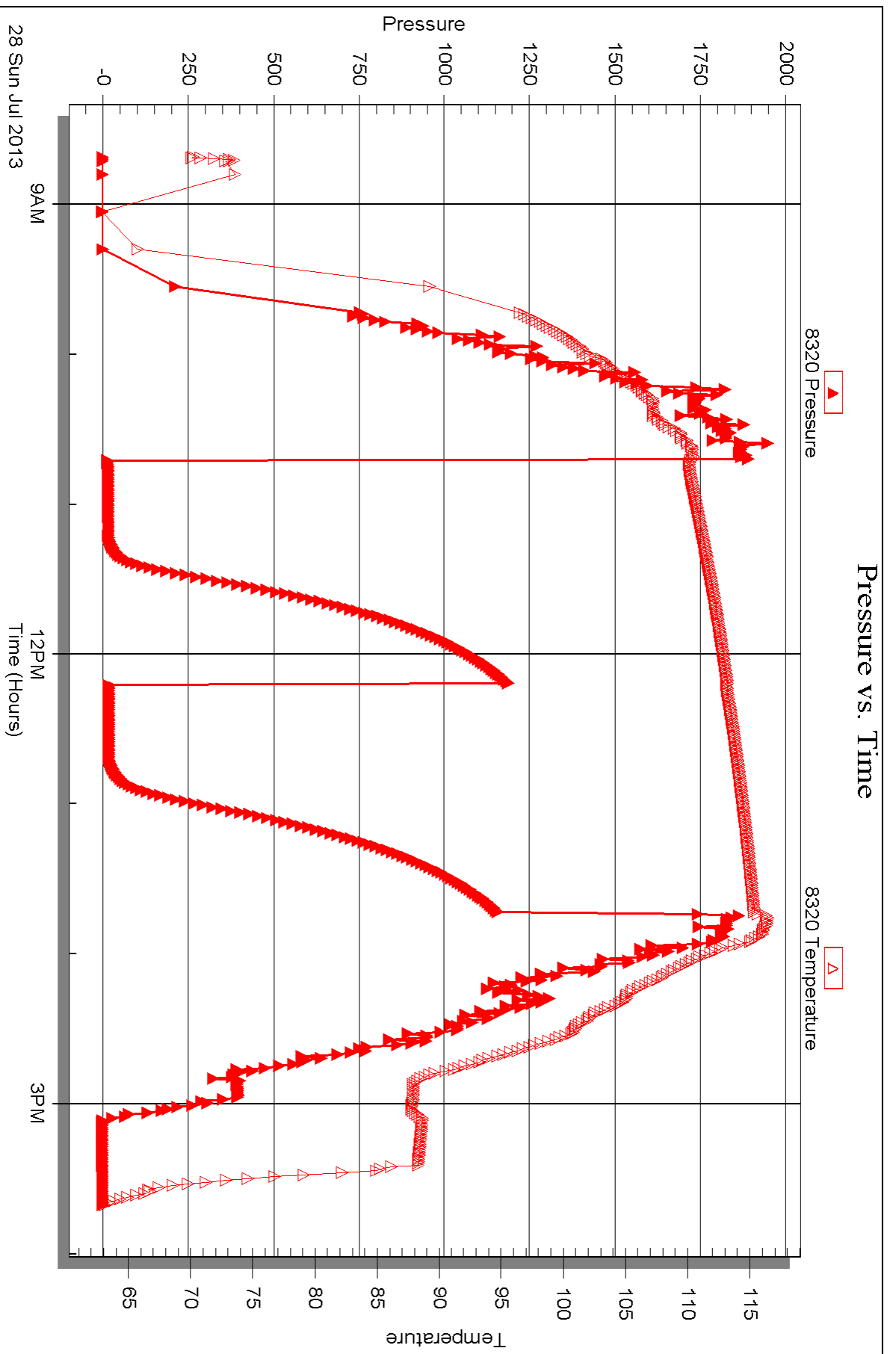


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Gilbert Unit #1-26

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 52771

Printed: 2013.08.05 @ 11:02:55



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Gilbert Unit #1-26**

#### **26-4s-31w Rawlins KS**

Start Date: 2013.07.29 @ 00:12:00

End Date: 2013.07.29 @ 07:14:00

Job Ticket #: 52772                      DST #: 2

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

Printed: 2013.08.05 @ 10:57:08

Murfin Drilling Co., Inc.  
26-4s-31w Rawlins KS  
Gilbert Unit #1-26  
DST # 2  
LKC "A - B"  
2013.07.29









**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52772

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2013.07.29 @ 00:12:00

## Tool Information

Drill Pipe:	Length: 3693.00 ft	Diameter: 3.80 inches	Volume: 51.80 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: 25000.00 lb
Drill Collar:	Length: 231.00 ft	Diameter: 2.25 inches	Volume: 1.14 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 52.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	3930.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	73.00 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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Shut In Tool	5.00			3907.00	
Hydraulic tool	5.00			3912.00	
Jars	5.00			3917.00	
Safety Joint	3.00			3920.00	
Packer	5.00			3925.00	28.00 Bottom Of Top Packer
Packer	5.00			3930.00	
Stubb	1.00			3931.00	
Recorder	0.00	8671	Inside	3931.00	
Recorder	0.00	8320	Outside	3931.00	
Perforations	8.00			3939.00	
Blank Spacing	33.00			3972.00	
Bullnose	3.00			3975.00	45.00 Bottom Packers & Anchor

**Total Tool Length: 73.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52772

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2013.07.29 @ 00:12:00

## 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: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.95 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SOCM 92% <sub>m</sub> , 8% <sub>o</sub>	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

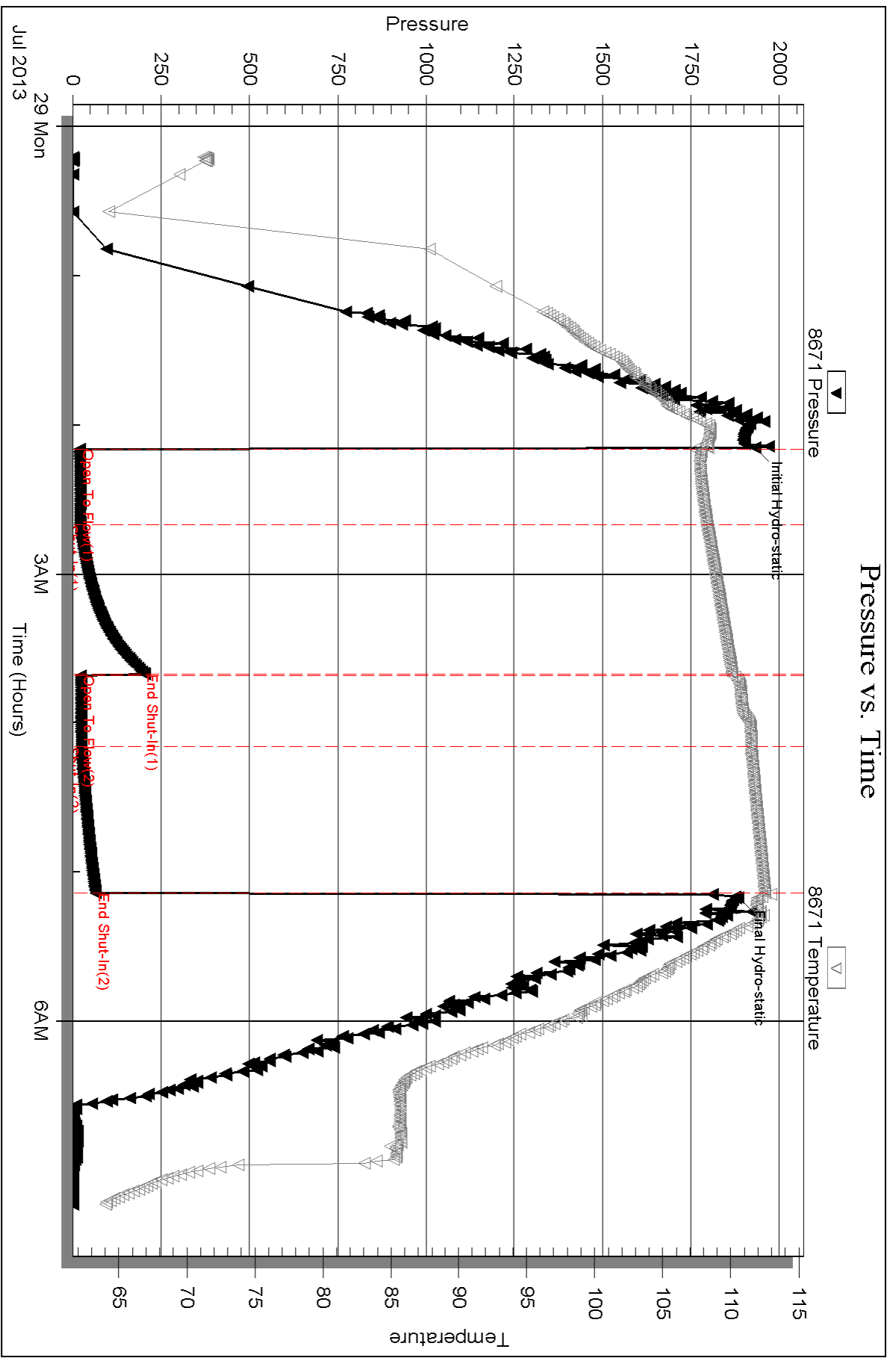
Serial #: 8671

Inside

Murfin Drilling Co., Inc.

Gilbert Unit #1-26

DST Test Number: 2

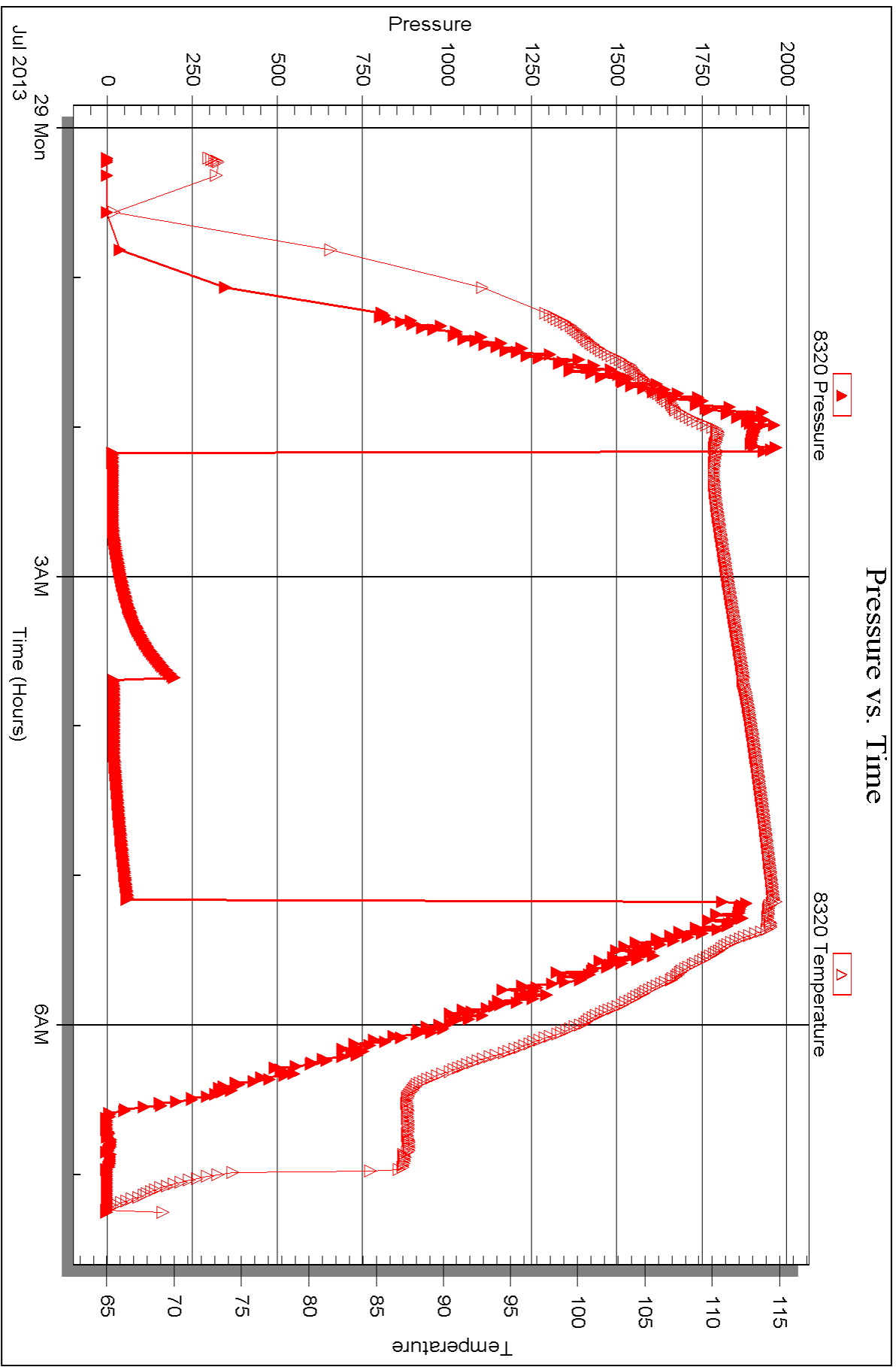


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Gilbert Unit #1-26

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 52772

Printed: 2013.08.05 @ 10:57:11



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Gilbert Unit #1-26**

#### **26-4s-31w Rawlins KS**

Start Date: 2013.07.29 @ 13:45:00

End Date: 2013.07.29 @ 21:26:00

Job Ticket #: 52773                      DST #: 3

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

Printed: 2013.08.05 @ 10:56:26



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.  
 250 N. Water Suite 300  
 Wichita, KS 67202  
 ATTN: Jeff Christian

**26-4s-31w Rawlins KS**

**Gilbert Unit #1-26**

Job Ticket: 52773

**DST#: 3**

Test Start: 2013.07.29 @ 13:45:00

## GENERAL INFORMATION:

Formation: **LKC "D"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 15:41:15  
 Tester: James Winder  
 Time Test Ended: 21:26:00  
 Unit No: 57  
 Interval: **3972.00 ft (KB) To 3993.00 ft (KB) (TVD)**  
 Reference Elevations: 2901.00 ft (KB)  
 Total Depth: 3993.00 ft (KB) (TVD)  
 2890.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

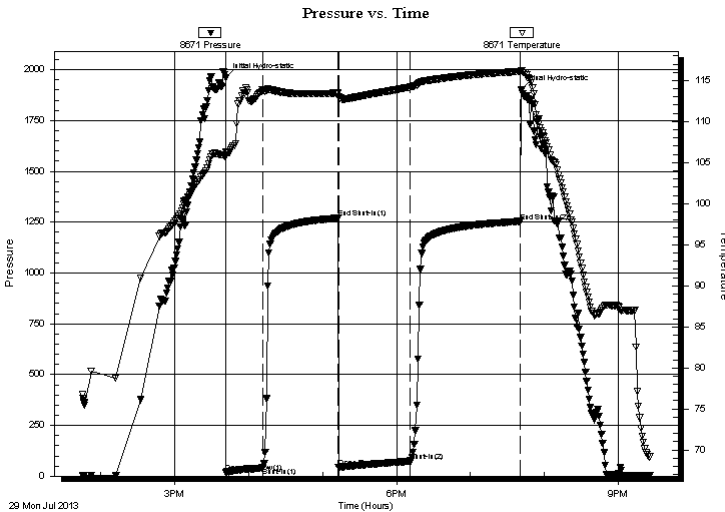
## Serial #: 8671

Inside

Press @ Run Depth: 73.24 psig @ 3973.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.07.29 End Date: 2013.07.29 Last Calib.: 2013.07.29  
 Start Time: 13:45:05 End Time: 21:25:59 Time On Btm: 2013.07.29 @ 15:41:00  
 Time Off Btm: 2013.07.29 @ 19:41:15

TEST COMMENT: 30 - IF: Blow built to 2 1/4"  
 60 - IS: No blow back  
 60 - FF: Blow started at 9 min., built to 2"  
 90 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1960.01	106.30	Initial Hydro-static
1	19.42	105.71	Open To Flow (1)
30	40.91	113.84	Shut-In(1)
92	1269.62	113.47	End Shut-In(1)
92	44.45	112.99	Open To Flow (2)
150	73.24	114.18	Shut-In(2)
240	1253.74	116.11	End Shut-In(2)
241	1901.38	116.23	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	WCM w/oil spots 74% <i>m</i> , 25% <i>w</i> , 1% <i>o</i>	0.10
40.00	MCW w/trace oil 76% <i>w</i> , 24% <i>m</i>	0.20
60.00	WM w/oil spots 59% <i>w</i> , 40% <i>m</i> , 1% <i>o</i>	0.30

\* 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 Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52773

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2013.07.29 @ 13:45:00

## Tool Information

Drill Pipe:	Length: 3724.00 ft	Diameter: 3.80 inches	Volume: 52.24 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: 25000.00 lb
Drill Collar:	Length: 231.00 ft	Diameter: 2.25 inches	Volume: 1.14 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 53.38 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3972.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 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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Shut In Tool	5.00			3949.00	
Hydraulic tool	5.00			3954.00	
Jars	5.00			3959.00	
Safety Joint	3.00			3962.00	
Packer	5.00			3967.00	28.00 Bottom Of Top Packer
Packer	5.00			3972.00	
Stubb	1.00			3973.00	
Recorder	0.00	8671	Inside	3973.00	
Recorder	0.00	8320	Outside	3973.00	
Perforations	17.00			3990.00	
Bullnose	3.00			3993.00	21.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52773

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2013.07.29 @ 13:45:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 76.00 sec/qt  
Water Loss: 5.96 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 1200.00 ppm  
Filter Cake: 2.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: 17500 ppm

## Recovery Information

Recovery Table

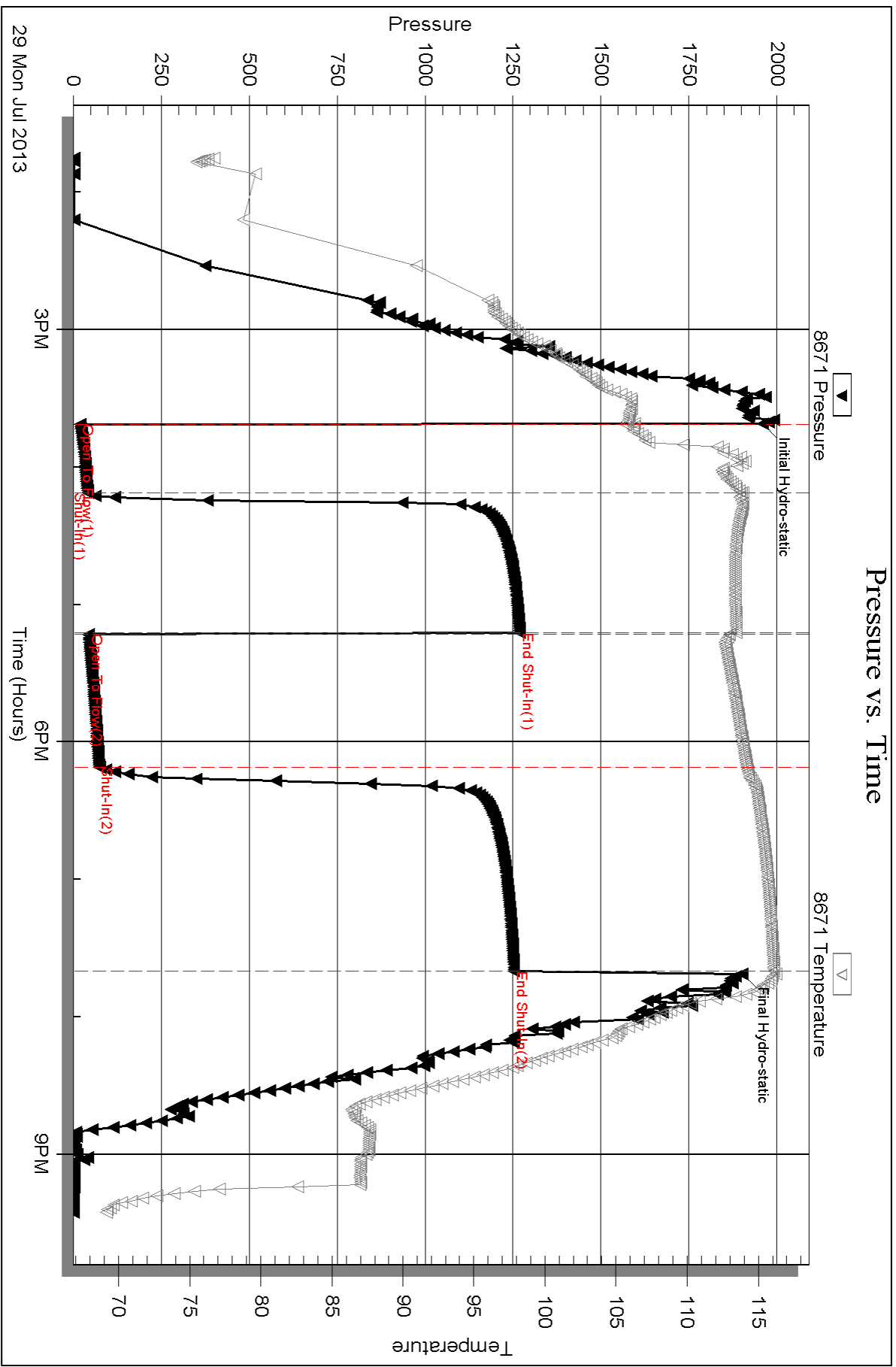
Length ft	Description	Volume bbl
20.00	WCM w/oil spots 74% <i>m</i> , 25% <i>w</i> , 1% <i>o</i>	0.098
40.00	MCW w/trace oil 76% <i>w</i> , 24% <i>m</i>	0.197
60.00	WM w/oil spots 59% <i>w</i> , 40% <i>m</i> , 1% <i>o</i>	0.295

Total Length: 120.00 ft      Total Volume: 0.590 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: RW = .369 ohms @ 73.4 deg F  
Chlorides = 17,500 ppm

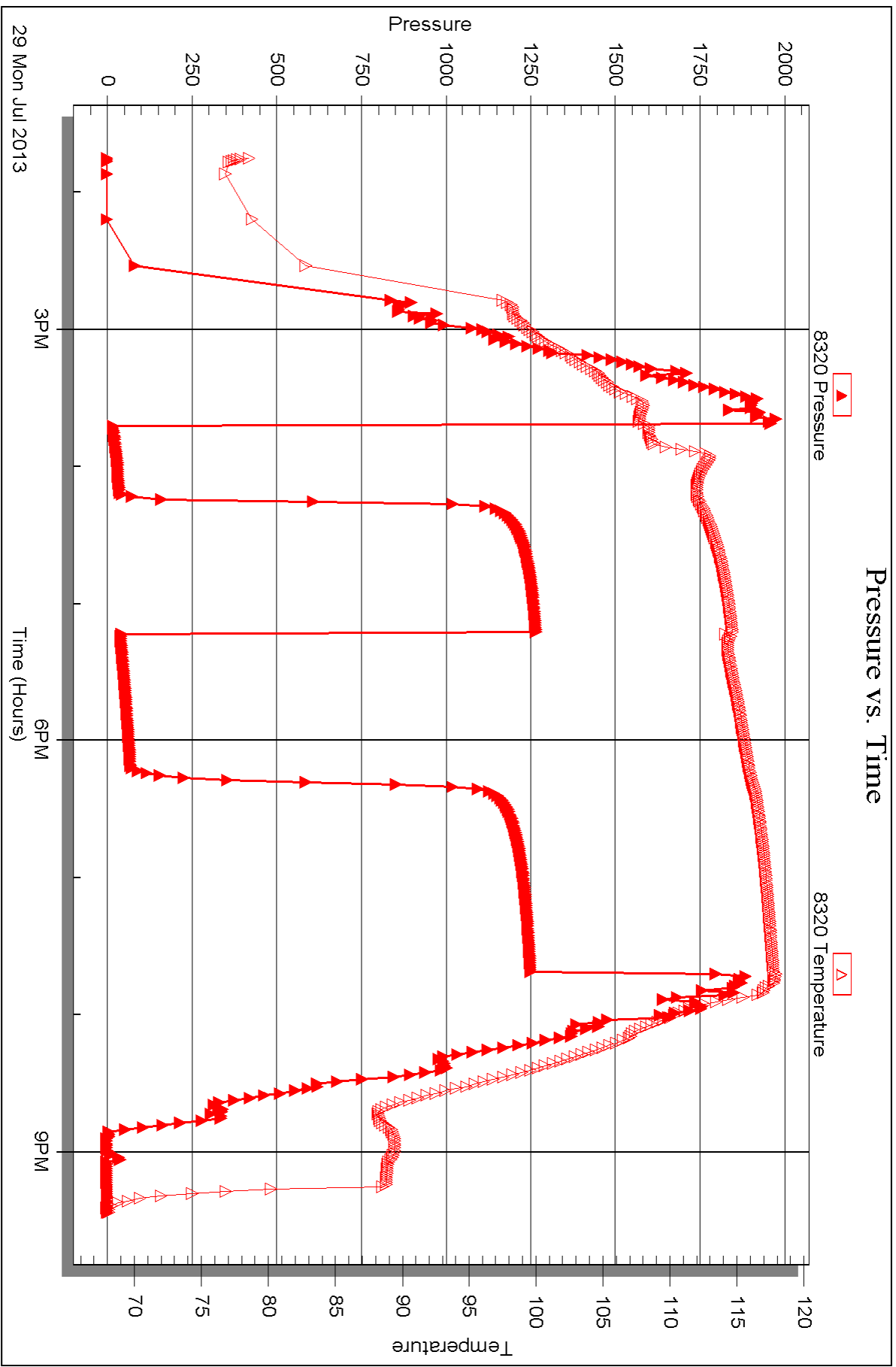


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Gilbert Unit #1-26

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Gilbert Unit #1-26**

#### **26-4s-31w Rawlins KS**

Start Date: 2013.07.30 @ 06:13:00

End Date: 2013.07.30 @ 14:09:30

Job Ticket #: 52774                      DST #: 4

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

Printed: 2013.08.05 @ 10:55:46



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.  
 250 N. Water Suite 300  
 Wichita, KS 67202  
 ATTN: Jeff Christian

**26-4s-31w Rawlins KS**

**Gilbert Unit #1-26**

Job Ticket: 52774

**DST#: 4**

Test Start: 2013.07.30 @ 06:13:00

## GENERAL INFORMATION:

Formation: **LKC "F - G"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 08:11:15  
 Time Test Ended: 14:09:30  
 Interval: **3995.00 ft (KB) To 4032.00 ft (KB) (TVD)**  
 Total Depth: 4032.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 57  
 Reference Elevations: 2901.00 ft (KB)  
 2890.00 ft (CF)  
 KB to GR/CF: 11.00 ft

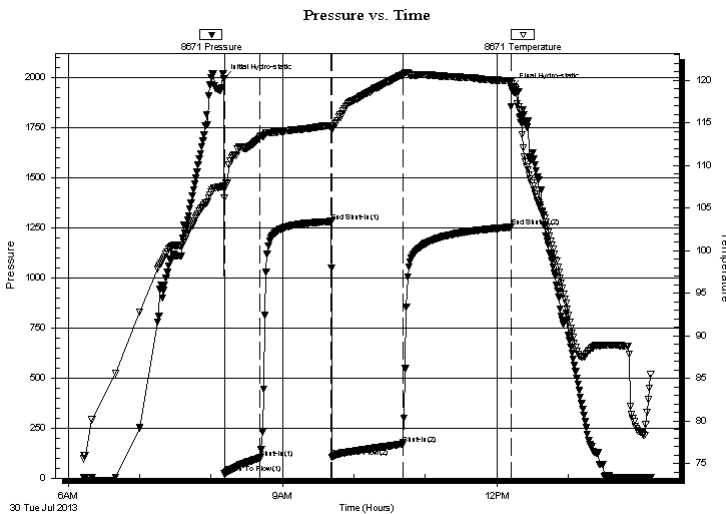
## Serial #: 8671

Inside

Press @ Run Depth: 170.59 psig @ 3996.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.07.30 End Date: 2013.07.30 Last Calib.: 2013.07.30  
 Start Time: 06:13:05 End Time: 14:09:29 Time On Btm: 2013.07.30 @ 08:11:00  
 Time Off Btm: 2013.07.30 @ 12:12:30

TEST COMMENT: 30 - IF: Blow built to 9 1/2"  
 60 - IS: No blow back  
 60 - FF: Blow built to BOB (11") in 23 1/2 min.  
 90 - FS: Blow back built to 1"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1995.83	107.54	Initial Hydro-static
1	21.46	106.21	Open To Flow (1)
31	101.52	113.34	Shut-In(1)
90	1282.62	114.71	End Shut-In(1)
91	105.58	114.19	Open To Flow (2)
150	170.59	120.65	Shut-In(2)
241	1254.00	119.95	End Shut-In(2)
242	1953.32	119.61	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
175.00	MCW w/trace oil 82%w , 18%m	0.86
75.00	SO/WCM 62%m, 30%w , 5%g, 3%o	0.54
55.00	OCM 71%m, 24%o, 5%g	0.77
30.00	CO 92%o, 5%g, 3%m	0.42
0.00	GIP = 150'	0.00

\* 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 Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52774

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2013.07.30 @ 06:13:00

### Tool Information

Drill Pipe:	Length: 3756.00 ft	Diameter: 3.80 inches	Volume: 52.69 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: 25000.00 lb
Drill Collar:	Length: 231.00 ft	Diameter: 2.25 inches	Volume: 1.14 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 53.83 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3995.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 ft			
Tool Length:	65.00 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			3972.00	
Hydraulic tool	5.00			3977.00	
Jars	5.00			3982.00	
Safety Joint	3.00			3985.00	
Packer	5.00			3990.00	28.00 Bottom Of Top Packer
Packer	5.00			3995.00	
Stubb	1.00			3996.00	
Recorder	0.00	8671	Inside	3996.00	
Recorder	0.00	8320	Outside	3996.00	
Perforations	33.00			4029.00	
Bullnose	3.00			4032.00	37.00 Bottom Packers & Anchor

**Total Tool Length: 65.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52774

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2013.07.30 @ 06:13:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 52.00 sec/qt  
Water Loss: 6.38 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 1600.00 ppm  
Filter Cake: 2.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: 34.6 deg API  
Water Salinity: 22000 ppm

## Recovery Information

Recovery Table

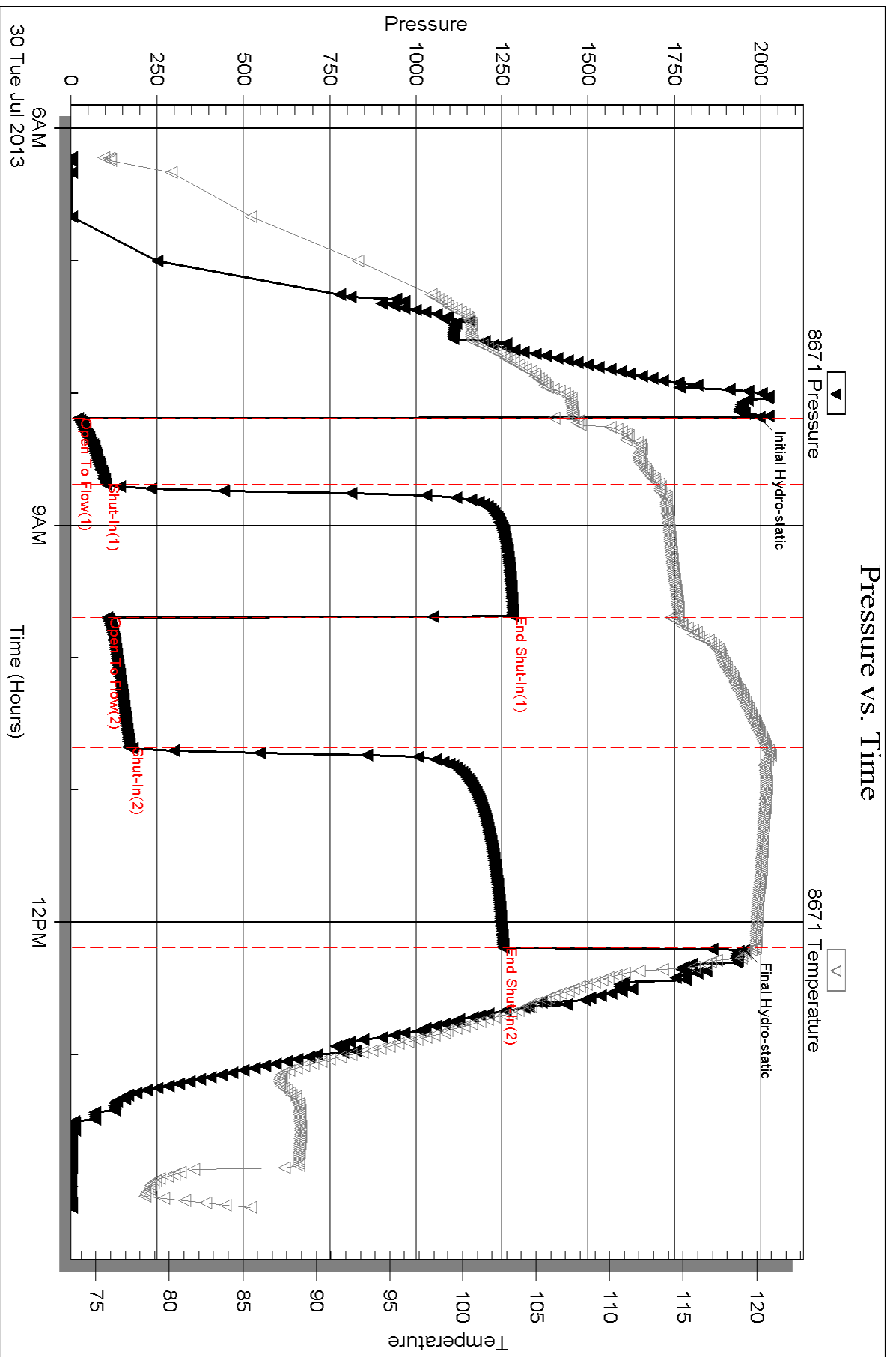
Length ft	Description	Volume bbl
175.00	MCW w/trace oil 82%w , 18%m	0.861
75.00	SO/WCM 62%m, 30%w , 5%g, 3%o	0.542
55.00	OCM 71%m, 24%o, 5%g	0.772
30.00	CO 92%o, 5%g, 3%m	0.421
0.00	GIP = 150'	0.000

Total Length: 335.00 ft      Total Volume: 2.596 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: Gravity = 38.8 api @ 102 deg F Corrected Gravity = 34.6 api  
RW = .250 ohms @ 87.7 deg F Chlorides = 22,000 ppm

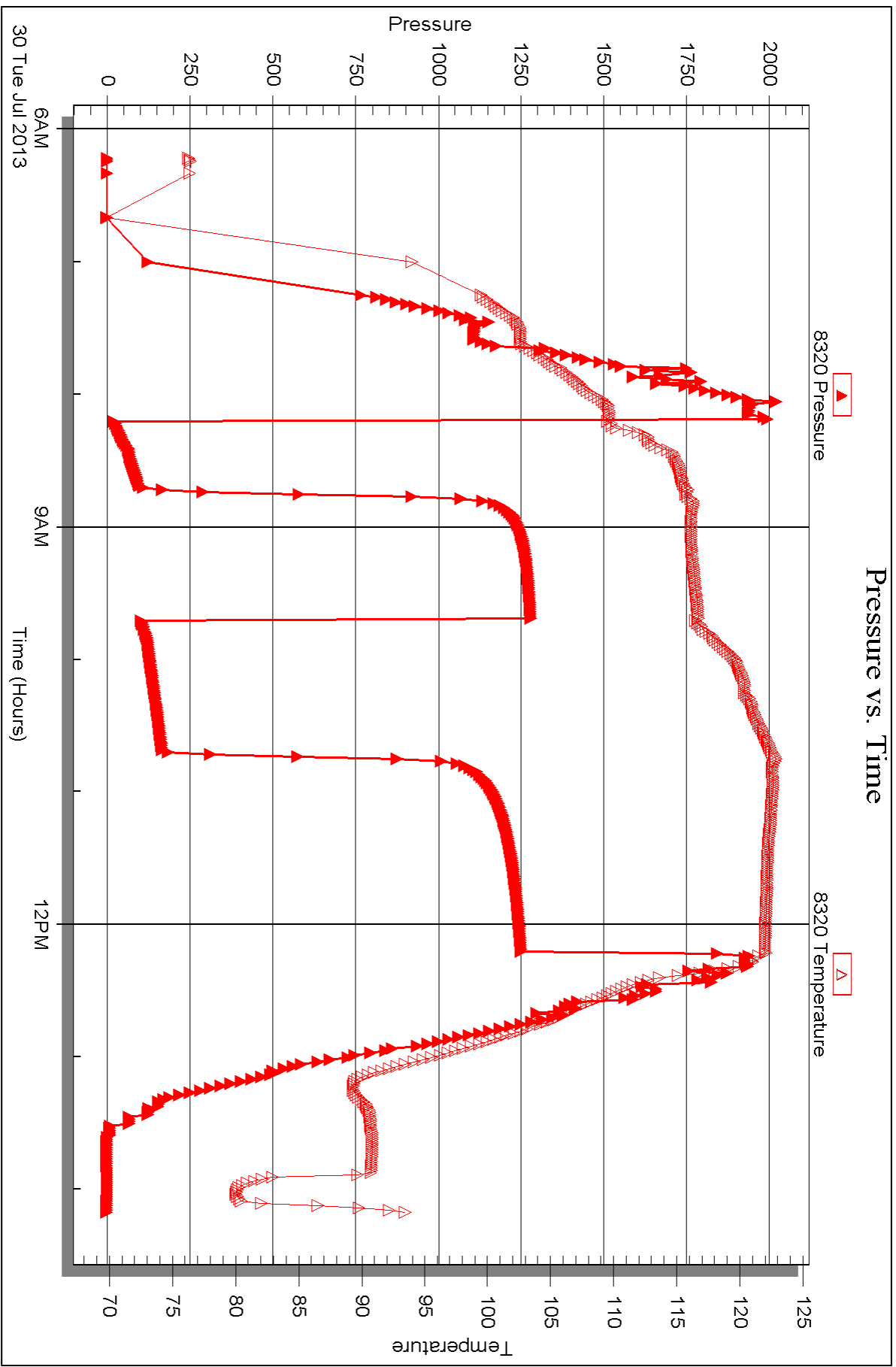


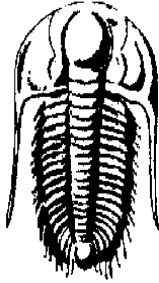
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Gilbert Unit #1-26

DST Test Number: 4





**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Gilbert Unit #1-26**

#### **26-4s-31w Rawlins KS**

Start Date: 2013.07.31 @ 01:18:00

End Date: 2013.07.31 @ 10:56:02

Job Ticket #: 52775                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.08.05 @ 10:53:48

Murfin Drilling Co., Inc.

26-4s-31w Rawlins KS

Gilbert Unit #1-26

DST # 5

LKC "H - J"

2013.07.31







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52775

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2013.07.31 @ 01:18:00

## Tool Information

Drill Pipe:	Length: 3788.00 ft	Diameter: 3.80 inches	Volume: 53.14 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: 25000.00 lb
Drill Collar:	Length: 231.00 ft	Diameter: 2.25 inches	Volume: 1.14 bbl	Weight to Pull Loose: 86000.00 lb
			<u>Total Volume: 54.28 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 67000.00 lb
Depth to Top Packer:	4041.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 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			4018.00	
Hydraulic tool	5.00			4023.00	
Jars	5.00			4028.00	
Safety Joint	3.00			4031.00	
Packer	5.00			4036.00	28.00 Bottom Of Top Packer
Packer	5.00			4041.00	
Stubb	1.00			4042.00	
Recorder	0.00	8671	Inside	4042.00	
Recorder	0.00	8320	Outside	4042.00	
Perforations	30.00			4072.00	
Blank Spacing	33.00			4105.00	
Perforations	2.00			4107.00	
Bullnose	3.00			4110.00	69.00 Bottom Packers & Anchor

**Total Tool Length: 97.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52775

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2013.07.31 @ 01:18:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

22000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	SO/MCW 65%w , 25%m, 5%o, 5%g	0.295
60.00	MCW w/oil spots 71%w , 27%m, 2%o	0.295
1440.00	Rev Out CO 96%o, 3%g, 1%m	19.188
0.00	a lot of gas broke out before smpls took	0.000
30.00	CGO 90%o, 10%g	0.421
0.00	GIP = 1550'	0.000

Total Length: 1590.00 ft      Total Volume: 20.199 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

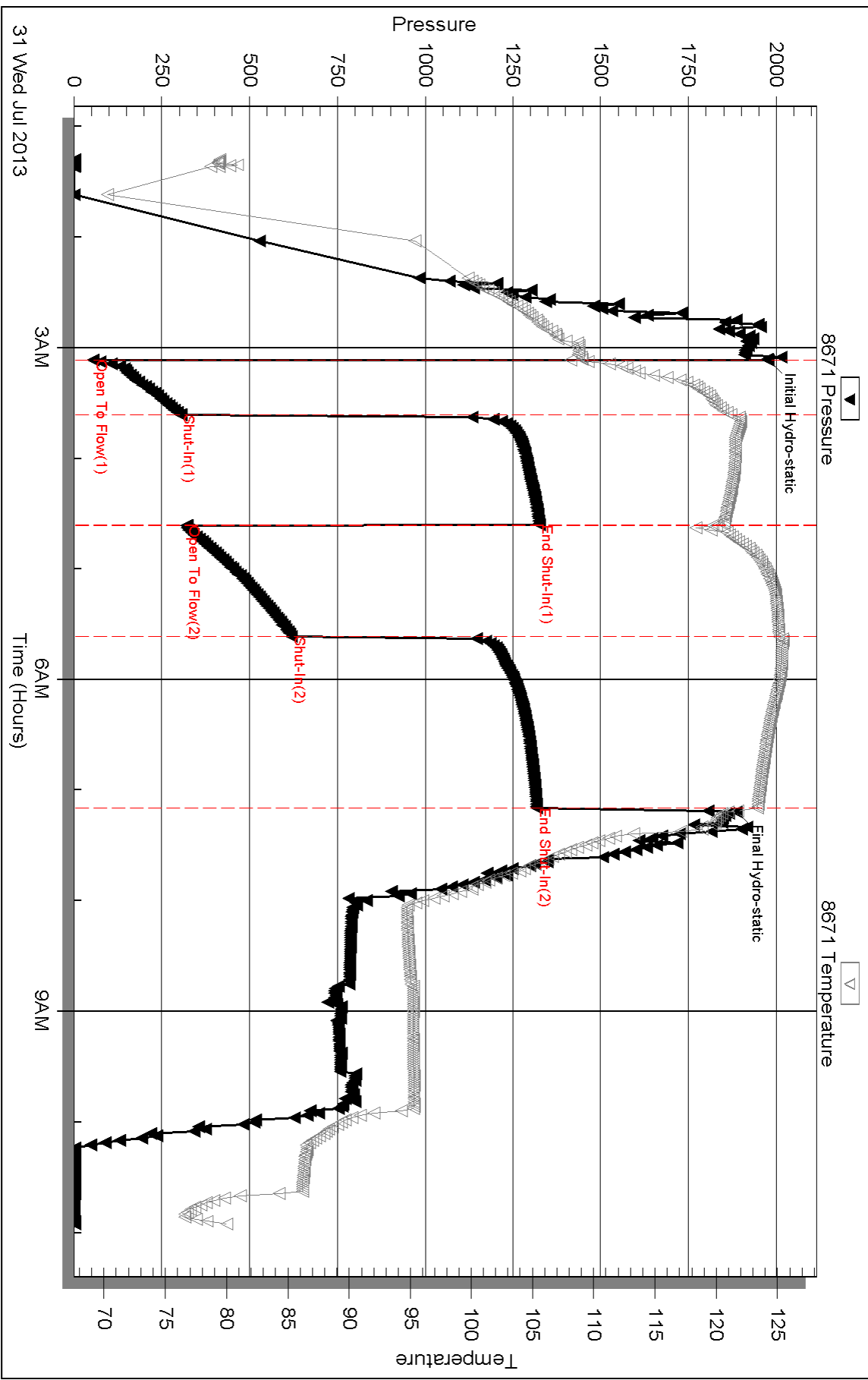
Laboratory Location:

Recovery Comments: Gravity = 42.2 api @ 84 deg F corrected Gravity = 39.8 api

RW = .281 ohms @ 81 deg F Chlorides = 22,000 ppm

truck driver estimated 11 or 12 bbl on truck after reversing out

### Pressure vs. Time

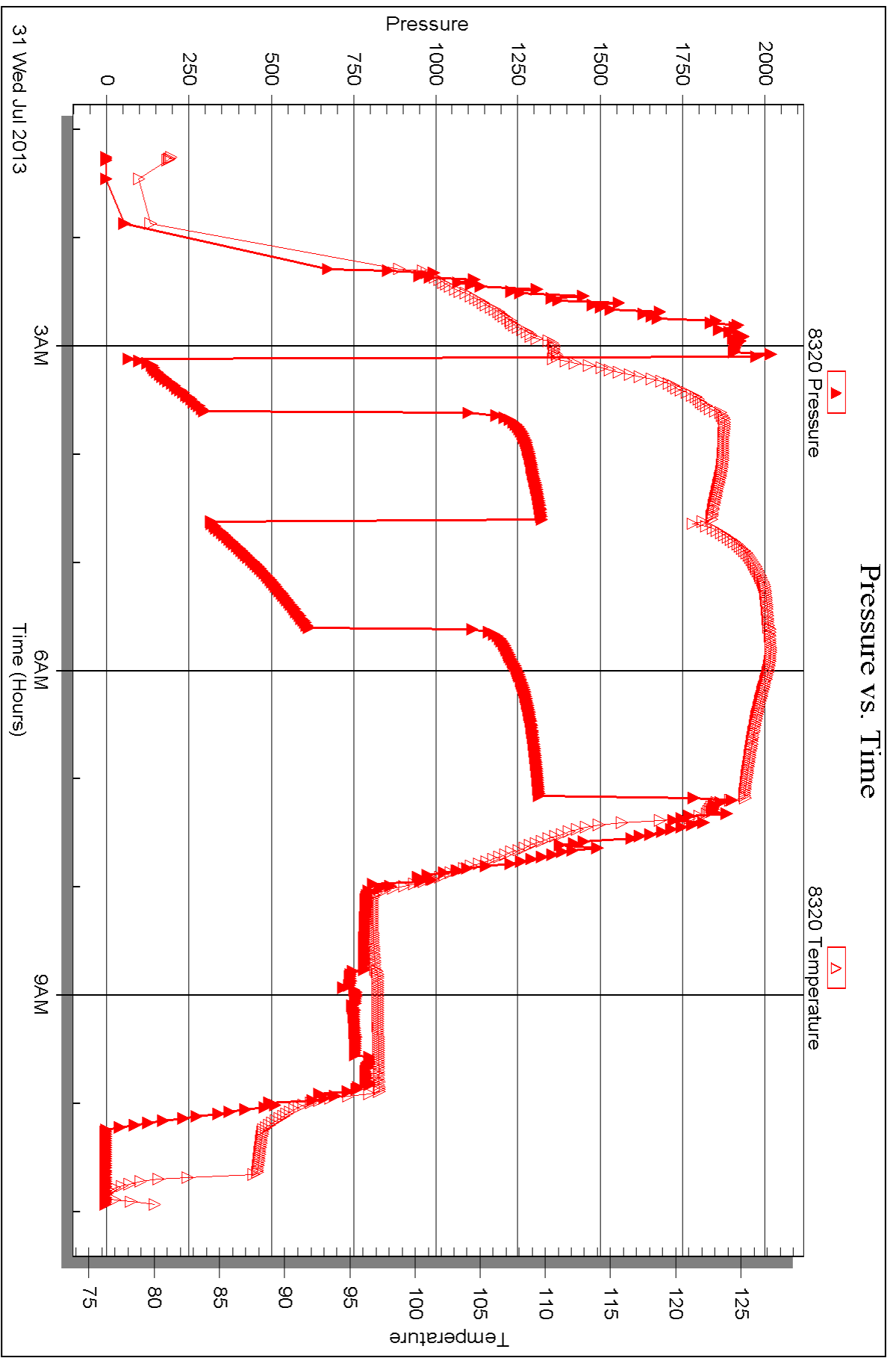


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Gilbert Unit #1-26

DST Test Number: 5





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Gilbert Unit #1-26**

#### **26-4s-31w Rawlins KS**

Start Date: 2013.07.31 @ 21:06:00

End Date: 2013.08.01 @ 05:39:30

Job Ticket #: 52651                      DST #: 6

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

Printed: 2013.08.05 @ 10:53:08

Murfin Drilling Co., Inc.  
26-4s-31w Rawlins KS  
Gilbert Unit #1-26  
DST # 6  
LKC "K - L"  
2013.07.31



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.  
250 N. Water Suite 300  
Wichita, KS 67202  
ATTN: Jeff Christian

**26-4s-31w Rawlins KS**

**Gilbert Unit #1-26**

Job Ticket: 52651

**DST#: 6**

Test Start: 2013.07.31 @ 21:06:00

## GENERAL INFORMATION:

Formation: **LKC "K - L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:08:00

Time Test Ended: 05:39:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 4106.00 ft (KB) To 4170.00 ft (KB) (TVD)**

Reference Elevations: 2901.00 ft (KB)

Total Depth: 4170.00 ft (KB) (TVD)

2890.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8671**

**Inside**

Press @ Run Depth: 92.23 psig @ 4107.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.31

End Date:

2013.08.01

Last Calib.:

2013.08.01

Start Time:

21:06:05

End Time:

05:39:30

Time On Btm:

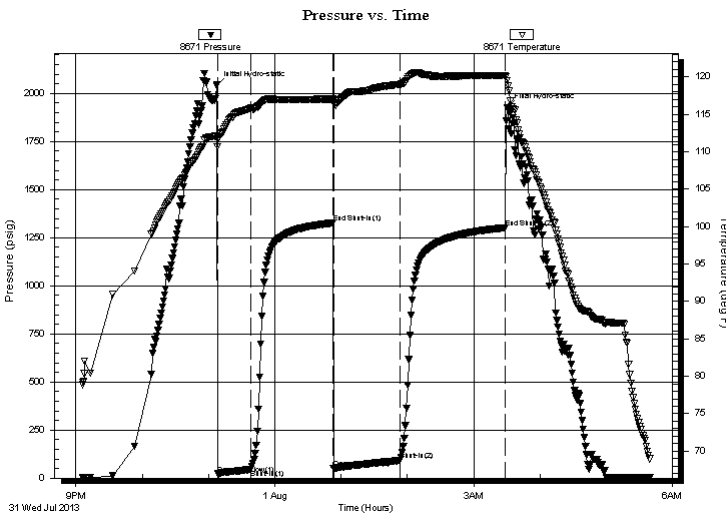
2013.07.31 @ 23:07:30

Time Off Btm:

2013.08.01 @ 03:30:15

**TEST COMMENT:** 30 - IF: Blow built to 8 1/2"  
75 - IS: No blow back  
60 - FF: Blow built to BOB (11") in 33 1/2 min.  
90 - FS: Blow back built to 1 1/4"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2040.86	112.11	Initial Hydro-static
1	21.59	110.72	Open To Flow (1)
31	46.03	115.86	Shut-In(1)
106	1326.64	117.07	End Shut-In(1)
106	51.22	116.47	Open To Flow (2)
166	92.23	119.02	Shut-In(2)
261	1301.26	120.22	End Shut-In(2)
263	1925.40	119.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
55.00	GOCM 57%o, 33%g, 10%g	0.27
120.00	CGO 78%o, 18%g, 4%m	0.59
15.00	CO 94%o, 4%g, 2%m	0.07
0.00	GIP = 300'	0.00

\* 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 Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52651

**DST#: 6**

ATTN: Jeff Christian

Test Start: 2013.07.31 @ 21:06:00

## Tool Information

Drill Pipe:	Length: 3851.00 ft	Diameter: 3.80 inches	Volume: 54.02 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: 25000.00 lb
Drill Collar:	Length: 231.00 ft	Diameter: 2.25 inches	Volume: 1.14 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 55.16 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4106.00 ft			Final 69000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	92.00 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			4083.00	
Hydraulic tool	5.00			4088.00	
Jars	5.00			4093.00	
Safety Joint	3.00			4096.00	
Packer	5.00			4101.00	28.00 Bottom Of Top Packer
Packer	5.00			4106.00	
Stubb	1.00			4107.00	
Recorder	0.00	8671	Inside	4107.00	
Recorder	0.00	8320	Outside	4107.00	
Perforations	25.00			4132.00	
Blank Spacing	33.00			4165.00	
Perforations	2.00			4167.00	
Bullnose	3.00			4170.00	64.00 Bottom Packers & Anchor

**Total Tool Length: 92.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**26-4s-31w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Gilbert Unit #1-26**

Job Ticket: 52651

**DST#: 6**

ATTN: Jeff Christian

Test Start: 2013.07.31 @ 21:06:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
55.00	GOCM 57% <i>m</i> , 33% <i>o</i> , 10% <i>g</i>	0.270
120.00	CGO 78% <i>o</i> , 18% <i>g</i> , 4% <i>m</i>	0.590
15.00	CO 94% <i>o</i> , 4% <i>g</i> , 2% <i>m</i>	0.074
0.00	GIP = 300'	0.000

Total Length: 190.00 ft      Total Volume: 0.934 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 31.8 api @ 68 deg F

Corrected gravity = 31 api



Serial #: 8671

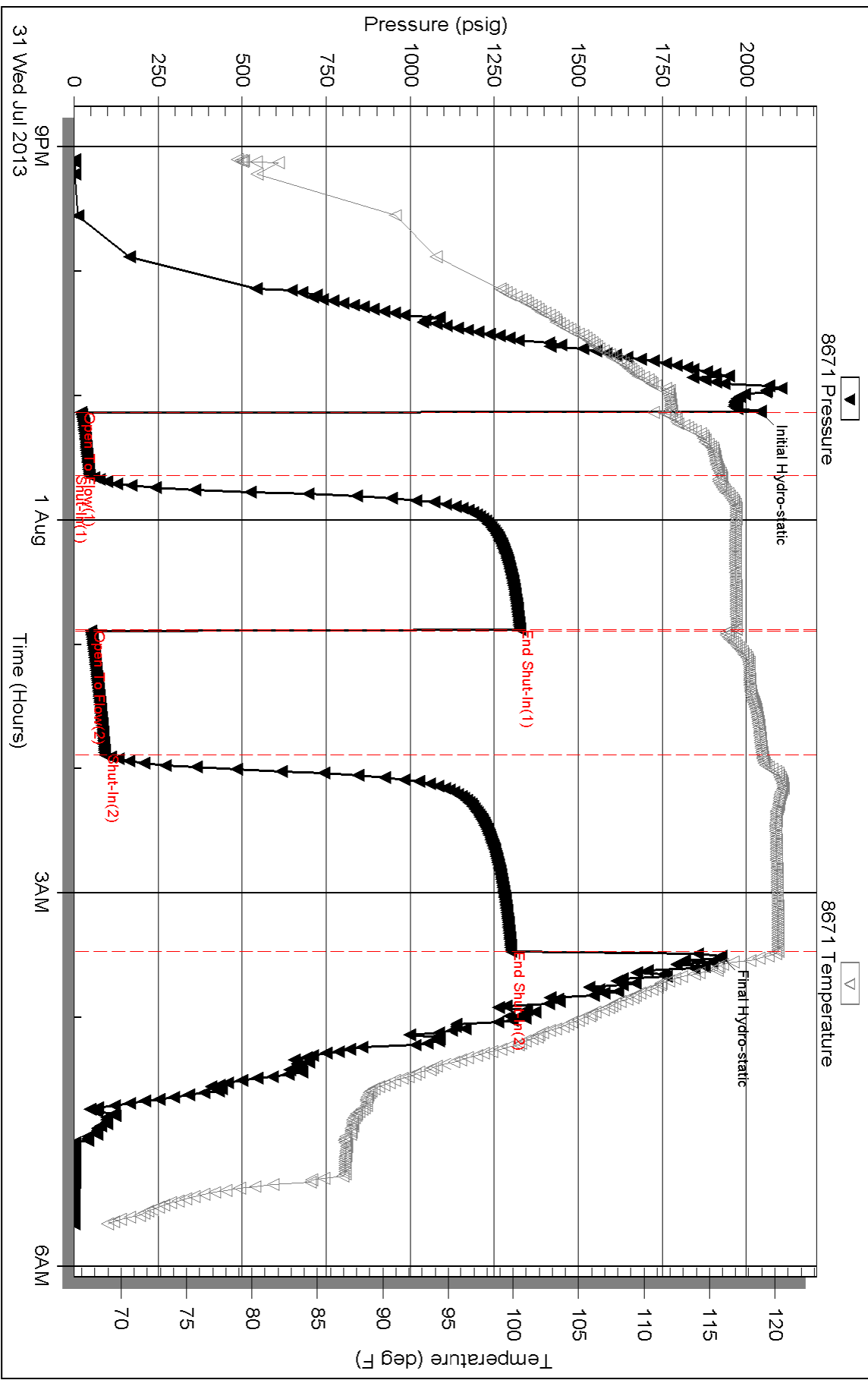
Inside

Murfin Drilling Co., Inc.

Gilbert Unit #1-26

DST Test Number: 6

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 52651

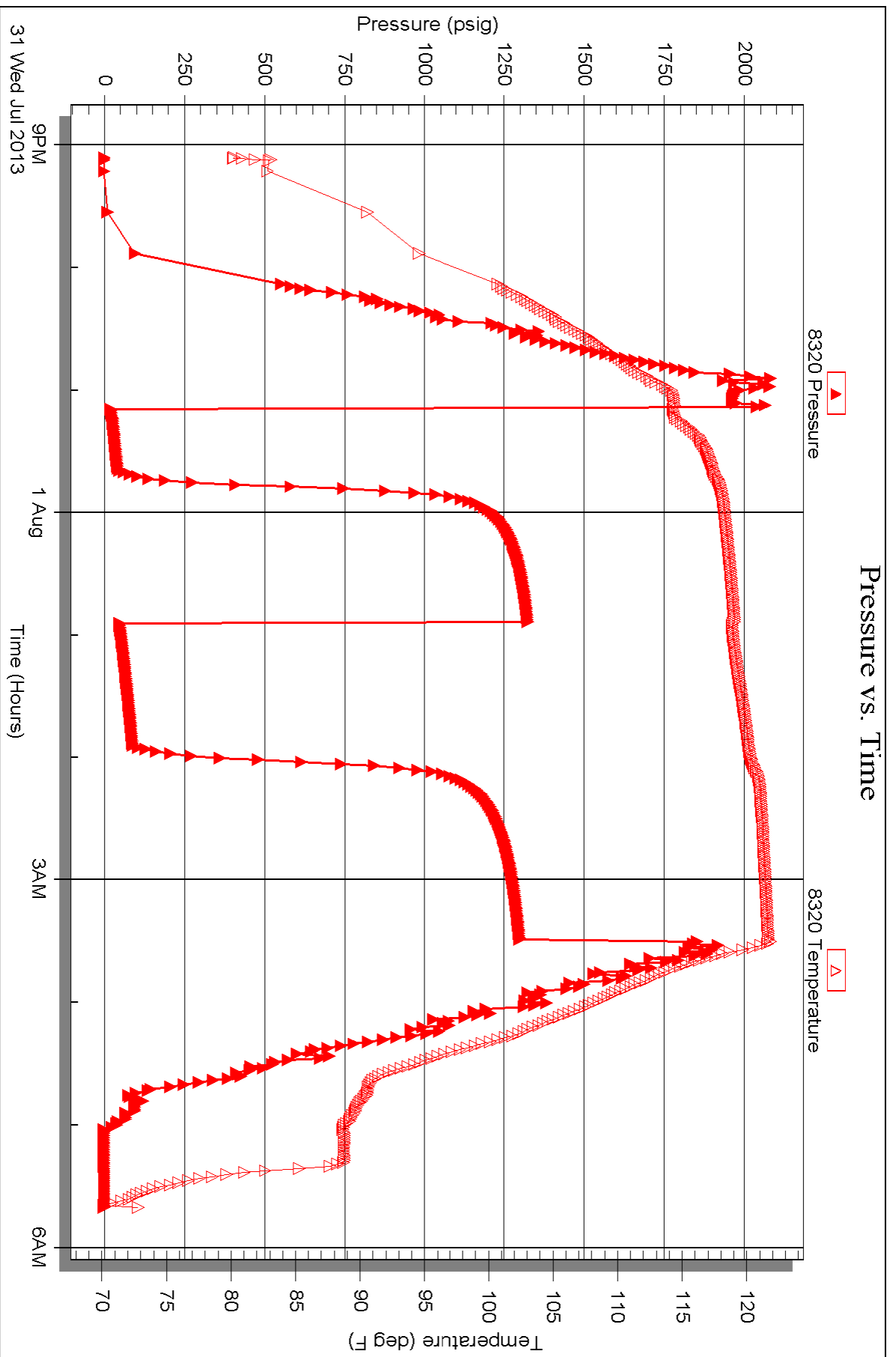
Printed: 2013.08.05 @ 10:53:11

Serial #: 8320

Outside Murfin Drilling Co., Inc.

Gilbert Unit #1-26

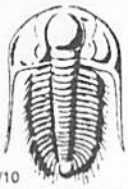
DST Test Number: 6



Triobite Testing, Inc

Ref. No: 52651

Printed: 2013.08.05 @ 10:53:12



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 52771

Well Name & No. Gilbert Unit #1-26 Test No. 1 Date 7-28-13  
 Company Murfin Drilling Co. Inc Elevation 2901 KB 2890 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #2  
 Location: Sec. 26 Twp. 4s Rge. 31w Co. Rawlins State KS

Interval Tested 3893 - 3933 Zone Tested Toronto  
 Anchor Length 40 Drill Pipe Run 3661 Mud Wt. 9.0  
 Top Packer Depth 3888 Drill Collars Run 231 Vis 5.3  
 Bottom Packer Depth 3893 Wt. Pipe Run - WL 6.0  
 Total Depth 3933 Chlorides 600 ppm System LCM 5

Blow Description IF: Blow built to 1/4" then died back to weak surface blow  
ISI: No blowback  
FF: No blow  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud w/trace of oil</u>	<u>trace</u>	<u>-</u>	<u>100</u>	<u>-</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 5 BHT 113 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1895</u>	<input type="checkbox"/> Test <u>*</u> 1150	T-On Location <u>8:05</u>
(B) First Initial Flow <u>17</u>	<input type="checkbox"/> Jars <u>*</u> 250	T-Started <u>8:41</u>
(C) First Final Flow <u>21</u>	<input type="checkbox"/> Safety Joint <u>*</u> 75	T-Open <u>10:41</u>
(D) Initial Shut-In <u>1193</u>	<input checked="" type="checkbox"/> Circ Sub <u>*NA</u>	T-Pulled <u>13:42</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>15:40</u>
(F) Second Final Flow <u>22</u>	<input type="checkbox"/> Mileage <u>46 RT</u> 71.30	Comments <u>15:40</u>
(G) Final Shut-In <u>1163</u>	<input checked="" type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1876</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer

Initial Open <u>30</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input checked="" type="checkbox"/> Day Standby	Total <u>1546.30</u>
Final Shut-In <u>60</u>	<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1546.30</u>	

Approved By Jeff Christian Our Representative James Winder

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. 52772

Well Name & No. Gilbert Unit #1-26 Test No. 2 Date 7-29-13  
 Company Murfin Drilling Co. Inc Elevation 2901 KB 2890 GL  
 Address 250 N Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #2  
 Location: Sec. 26 Twp. 4s Rge. 31w Co. Rawlins State KS

Interval Tested 3930 - 3975 Zone Tested LKC "A-B"  
 Anchor Length 45 Drill Pipe Run 3693 Mud Wt. 9.0  
 Top Packer Depth 3925 Drill Collars Run 231 Vis 67  
 Bottom Packer Depth 3930 Wt. Pipe Run - WL 6.0  
 Total Depth 3975 Chlorides 1200 ppm System LCM 5

Blow Description IF: Blow built to 1/8", then died back, dead at 15 min.  
ISI: No blowback  
FF: No blow  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>500m</u>	<u>-</u>	<u>8</u>	<u>-</u>	<u>92</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 113 Gravity - API RW - @ - °F Chlorides - ppm

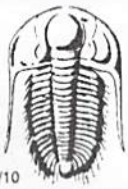
(A) Initial Hydrostatic 1933  Test \* 1150 T-On Location 23:10 7/28  
 (B) First Initial Flow 20  Jars \* 250 T-Started 00:12  
 (C) First Final Flow 22  Safety Joint \* 75 T-Open 2:09  
 (D) Initial Shut-In 203  Circ Sub \* NA T-Pulled 5:08  
 (E) Second Initial Flow 23  Hourly Standby \_\_\_\_\_ T-Out 7:10 7/29  
 (F) Second Final Flow 25  Mileage 46RT 71.30 Comments \_\_\_\_\_  
 (G) Final Shut-In 65  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1884  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 30  Day Standby \_\_\_\_\_ Total 1546.30  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1546.30

Approved By Jeff Christian Our Representative James Winder

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. 52773

Well Name & No. Gilbert Unit #1-26 Test No. 3 Date 7-29-13  
 Company Murfin Drilling Co. Inc Elevation 2901 KB 2890 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #2  
 Location: Sec. 26 Twp. 4s Rge. 31w Co. Rawlins State KS

Interval Tested 3972 - 3993 Zone Tested LKC "D"  
 Anchor Length 21 Drill Pipe Run 3724 Mud Wt. 9.1  
 Top Packer Depth 3967 Drill Collars Run 231 Vis 76  
 Bottom Packer Depth 3972 Wt. Pipe Run - WL 6.0  
 Total Depth 3993 Chlorides 1200 ppm System LCM 5

Blow Description IF: Blow built to 2 1/4"  
ISI: No blowback  
FF: Blow started at 9min, built to 2"  
FSI: No blowback

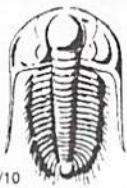
Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>WCM w/oil spots</u>	<u>-</u>	<u>1</u>	<u>59</u>	<u>40</u>
<u>40</u>	<u>MCW w/trace of oil</u>	<u>-</u>	<u>trace</u>	<u>76</u>	<u>24</u>
<u>20</u>	<u>WCM w/oil spots</u>	<u>-</u>	<u>1</u>	<u>25</u>	<u>74</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 120 BHT 116 Gravity - API RW .369 @ 73.4° F Chlorides 17,500 ppm  
 (A) Initial Hydrostatic 1960  Test 1150 T-On Location 13:05  
 (B) First Initial Flow 19  Jars 250 T-Started 13:45  
 (C) First Final Flow 41  Safety Joint 75 T-Open 15:41  
 (D) Initial Shut-In 1270  Circ Sub N/A T-Pulled 19:40  
 (E) Second Initial Flow 44  Hourly Standby \_\_\_\_\_ T-Out 21:20  
 (F) Second Final Flow 73  Mileage 46RT 71.30 Comments \_\_\_\_\_  
 (G) Final Shut-In 1254  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1901  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 60  Day Standby \_\_\_\_\_ Total 1546.30  
 Final Shut-In 90  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1546.30

Approved By Jeff Chit Our Representative James Windes

Trilobite Testing Inc. shall not be liable for damaged or 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. 52774

Well Name & No. Gilbert Unit #1-26 Test No. 4 Date 7-30-13  
 Company Murfin Drilling Co. Inc Elevation 2901 KB 2890 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #2  
 Location: Sec. 26 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 3995 - 4032 Zone Tested LKC "F-6"  
 Anchor Length 37 Drill Pipe Run 3756 Mud Wt. 9.2  
 Top Packer Depth 3990 Drill Collars Run 231 Vis 52  
 Bottom Packer Depth 3995 Wt. Pipe Run - WL 6.4  
 Total Depth 4032 Chlorides 1600 ppm System LCM 4

Blow Description IF: Blow built to 9 1/2"  
ISI: No blowback  
FF: Blow built to BOB<sub>A</sub> in 23 1/2 min.  
FSI: Blowback built to 1"

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>CO</u>	<u>5</u>	<u>92</u>	<u>-</u>	<u>3</u>
<u>55</u>	<u>OCM</u>	<u>5</u>	<u>24</u>	<u>-</u>	<u>71</u>
<u>75</u>	<u>SO/WCM</u>	<u>5</u>	<u>3</u>	<u>30</u>	<u>62</u>
<u>175</u>	<u>MCW w/trace of oil</u>	<u>-</u>	<u>trace</u>	<u>82</u>	<u>18</u>
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
	<u>BIP = 150'</u>				

Rec Total 335 BHT 120 Gravity 34.6 API RW .250 @ 87.7 °F Chlorides 22,000 ppm

(A) Initial Hydrostatic 1996  Test \* 1250 T-On Location 5:30  
 (B) First Initial Flow 21  Jars \* 250 T-Started 6:13  
 (C) First Final Flow 102  Safety Joint \* 75 T-Open 8:11  
 (D) Initial Shut-In 1283  Circ Sub \*NA T-Pulled 12:11  
 (E) Second Initial Flow 106  Hourly Standby \_\_\_\_\_ T-Out 14:00  
 (F) Second Final Flow 171  Mileage 46RT 71.30 Comments \_\_\_\_\_  
 (G) Final Shut-In 1254  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1953  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 60  Day Standby \_\_\_\_\_ Total 1646.30  
 Final Flow 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 90 Sub Total 1646.30

Approved By [Signature] Our Representative James Winder  
 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. 52775

Well Name & No. Gilbert Unit #1-26 Test No. 5 Date 7-31-13  
 Company Murfin Drilling Co. Inc Elevation 2901 KB 2890 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #2  
 Location: Sec. 26 Twp. 4s Rge. 31w Co. Rawlins State KS

Interval Tested 4041 - 4110 Zone Tested LKC "H-J"  
 Anchor Length 69 Drill Pipe Run 3788 Mud Wt. 9.1  
 Top Packer Depth 4036 Drill Collars Run 231 Vis 56  
 Bottom Packer Depth 4041 Wt. Pipe Run - WL 6.4  
 Total Depth 4110 Chlorides 1600 ppm System LCM 4

Blow Description IF: Blow built to BOB (11") in 3 1/2 min.  
ISI: Blowback built to BOB in 8 1/2 min.  
FF: Blow built to BOB in 3 3/4 min.  
FSI: Blowback built to BOB in 8 3/4 min.

Rec	Feet of	%gas	%oil	%water	%mud
30	CGO	10	90	-	-
Rev. Out 1440'	CO (a lot of gas broke out before)	3	96	-	1
	(samples were caught)				
60	mcw w/oil spots	-	2	71	27
60	50/mcw	5	5	65	25

Rec Total 1590 Fluid 1550 <sup>GIP</sup>BHT 123 Gravity 39.8 API RW .281 @ 81 °F Chlorides 22,000 ppm

(A) Initial Hydrostatic <u>1978</u>	<input type="checkbox"/> Test <u>*</u> 1250	T-On Location <u>00:20</u>
(B) First Initial Flow <u>55</u>	<input type="checkbox"/> Jars <u>*</u> 250	T-Started <u>1:15</u>
(C) First Final Flow <u>305</u>	<input type="checkbox"/> Safety Joint <u>*</u> 75	T-Open <u>3:06</u>
(D) Initial Shut-In <u>1326</u>	<input type="checkbox"/> Circ Sub <u>* Drop Bar</u> 50	T-Pulled <u>7:10</u>
(E) Second Initial Flow <u>320</u>	<input type="checkbox"/> Hourly Standby <u>* 1/2hr</u> 50	T-Out <u>10:50</u>
(F) Second Final Flow <u>620</u>	<input type="checkbox"/> Mileage <u>46 RT</u> 71.30	Comments <u>truck driver est.</u>
(G) Final Shut-In <u>1319</u>	<input checked="" type="checkbox"/> Sampler	<u>11 or 12 bbl on truck</u>
(H) Final Hydrostatic <u>1866</u>	<input checked="" type="checkbox"/> Straddle	<u>after Rev. Out</u>

Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Ruined Packer
Final Flow <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input checked="" type="checkbox"/> Day Standby	Total <u>1746.30</u>
	<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1746.30</u>	

Approved By [Signature] Our Representative James Winder  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 52651

Well Name & No. Gilbert Unit #1-26 Test No. 6 Date 7-31-13  
 Company Murfin Drilling Co. Inc. Elevation 2901 KB 2890 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #2  
 Location: Sec. 26 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4106 - 4170 Zone Tested LKC "K-L"  
 Anchor Length 64 Drill Pipe Run 3851 Mud Wt. 9.0  
 Top Packer Depth 4101 Drill Collars Run 231 Vis 60  
 Bottom Packer Depth 4106 Wt. Pipe Run - WL 5.6  
 Total Depth 4170 Chlorides 1400 ppm System LCM 4

Blow Description IF: Blow built to 8 1/2"  
ISI: No blowback  
FF: Blow built to BOB (11") in 33 1/2 min.  
FSI: Blowback built to 1 1/4"

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>CO</u>	<u>4</u>	<u>94</u>	<u>-</u>	<u>2</u>
<u>120</u>	<u>CSO</u>	<u>18</u>	<u>78</u>	<u>-</u>	<u>4</u>
<u>55</u>	<u>GOCM</u>	<u>10</u>	<u>33</u>	<u>-</u>	<u>57</u>
<u>6IP=300</u>					

Rec Total 190 BHT 120 Gravity 31 API RW - @ - ° F Chlorides - ppm  
 (A) Initial Hydrostatic 2041  Test X 1250 T-On Location 20:15 7/31  
 (B) First Initial Flow 22  Jars X 250 T-Started 21:06  
 (C) First Final Flow 46  Safety Joint X 75 T-Open 23:08  
 (D) Initial Shut-In 1327  Circ Sub X NA T-Pulled 3:28  
 (E) Second Initial Flow 51  Hourly Standby T-Out 5:30 8/1  
 (F) Second Final Flow 92  Mileage 46 RT 71.30 Comments \_\_\_\_\_  
 (G) Final Shut-In 1301  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  
 \_\_\_\_\_  Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 \_\_\_\_\_  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 75  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 60  Day Standby \_\_\_\_\_ Total 1646.30  
 Final Shut-In 90  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1646.30

Approved By Jeff Christian Our Representative James Winder

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