



## DRILL STEM TEST REPORT

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

250 N. Water Ste 300  
Wichita KS 67202

ATTN: Kent Crisler / Jarci

### **Gough-Bentley #1-5**

### **5-16s-27w Lane,KS**

Start Date: 2013.03.03 @ 19:28:00

End Date: 2013.03.04 @ 02:49:54

Job Ticket #: 49785                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.11 @ 13:37:49



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc

5-16s-27w Lane, KS

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

ATTN: Kent Crisler / Jarci

Job Ticket: 49785

**DST#: 1**

Test Start: 2013.03.03 @ 19:28:00

## GENERAL INFORMATION:

Formation: **LKC "H-1"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:42:40

Time Test Ended: 02:49:54

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 58

**Interval: 4032.00 ft (KB) To 4094.00 ft (KB) (TVD)**

Reference Elevations: 2611.00 ft (KB)

Total Depth: 4094.00 ft (KB) (TVD)

2600.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8674**

**Inside**

Press @ Run Depth: 26.81 psig @ 4033.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.03

End Date:

2013.03.04

Last Calib.:

2013.03.04

Start Time: 19:28:00

End Time:

02:49:54

Time On Btm:

2013.03.03 @ 21:42:25

Time Off Btm:

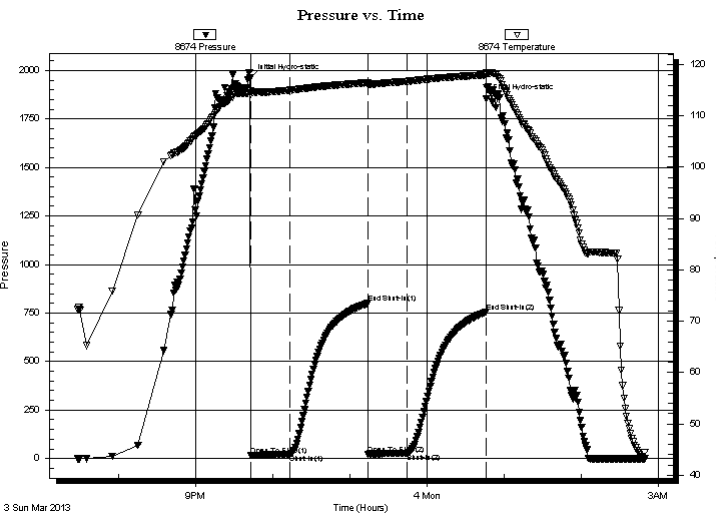
2013.03.04 @ 00:46:24

**TEST COMMENT:** IF- Weak Surface Blow 1/2"

IS- No Blow

FF- No Blow

FS- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1960.83	114.92	Initial Hydro-static
1	16.74	114.11	Open To Flow (1)
31	21.48	114.99	Shut-In(1)
92	800.40	116.47	End Shut-In(1)
92	23.42	116.07	Open To Flow (2)
123	26.81	116.72	Shut-In(2)
184	755.38	117.98	End Shut-In(2)
184	1854.88	118.47	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	100% m with a Skim of Oil on Top	0.05

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49785

**DST#: 1**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.03 @ 19:28:00

## Tool Information

Drill Pipe:	Length: 3769.00 ft	Diameter: 3.80 inches	Volume: 52.87 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:	24000.00 lb
Drill Collar:	Length: 267.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose:	10000.00 lb
			<u>Total Volume: 54.18 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	80000.00 lb
Depth to Top Packer:	4032.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	62.00 ft				
Tool Length:	90.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4005.00	
Shut In Tool	5.00			4010.00	
Hydraulic tool	5.00			4015.00	
Jars	5.00			4020.00	
Safety Joint	3.00			4023.00	
Packer	5.00			4028.00	28.00 Bottom Of Top Packer
Packer	4.00			4032.00	
Stubb	1.00			4033.00	
Recorder	0.00	8355	Outside	4033.00	
Recorder	0.00	8674	Inside	4033.00	
Perforations	20.00			4053.00	
Change Over Sub	1.00			4054.00	
Drill Pipe	31.00			4085.00	
Change Over Sub	1.00			4086.00	
Perforations	5.00			4091.00	
Bullnose	3.00			4094.00	62.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>90.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49785

**DST#: 1**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.03 @ 19:28:00

## 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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.35 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	100% m with a Skim of Oil on Top	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

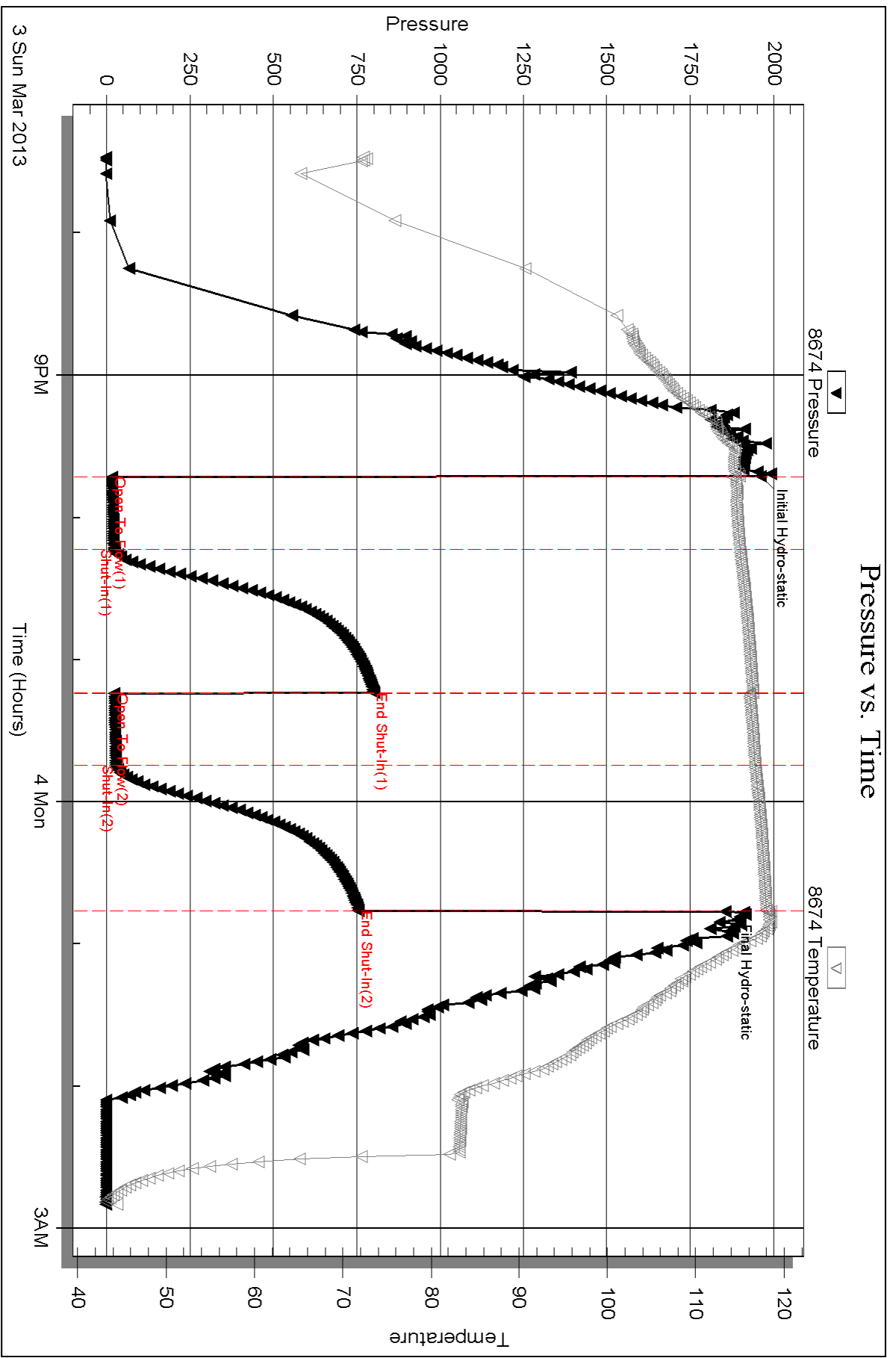
Serial #: 8674

Inside

Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 1

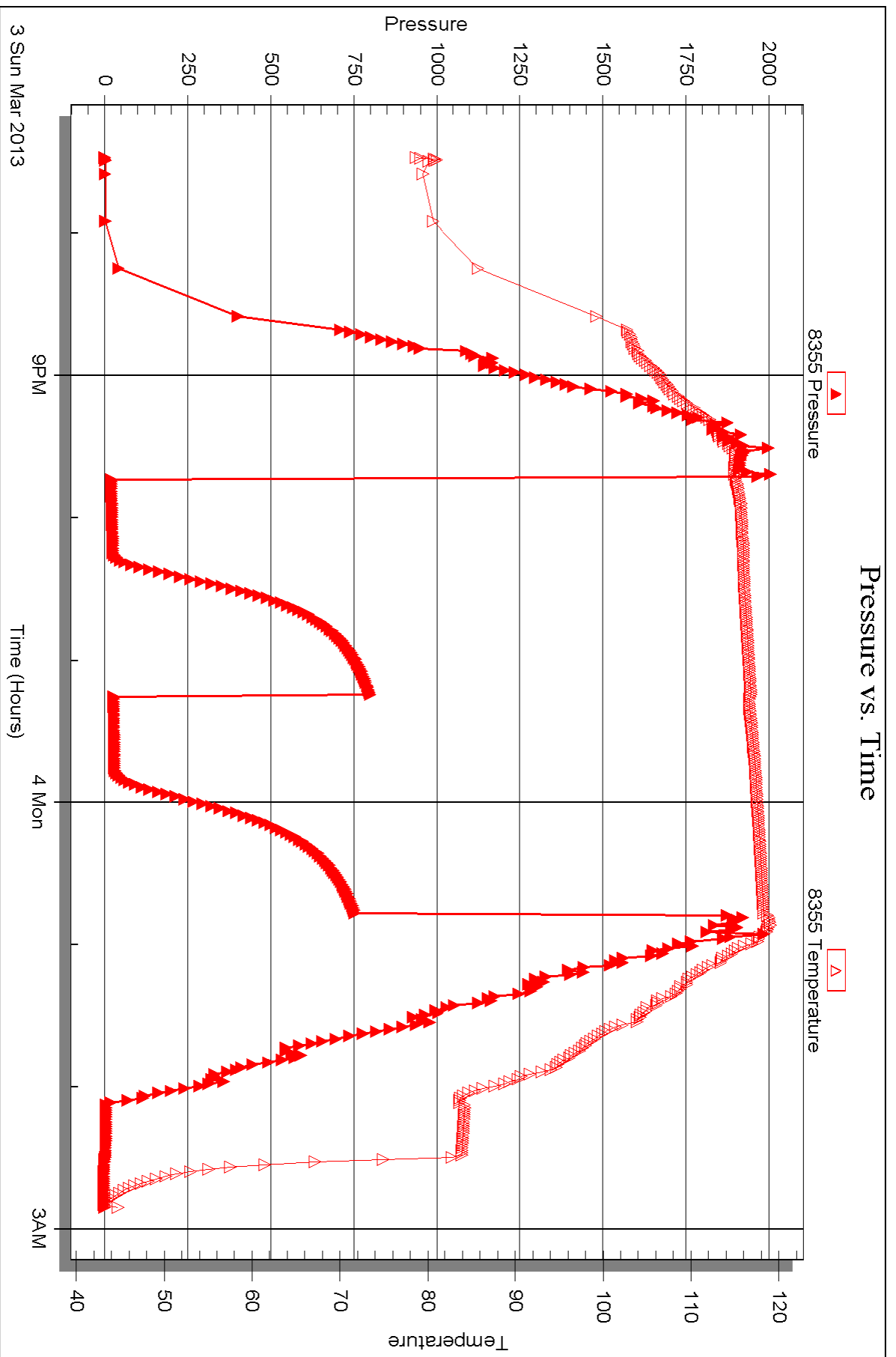


Serial #: 8355

Outside Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 49785

Printed: 2013.03.11 @ 13:37:52



## DRILL STEM TEST REPORT

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

250 N. Water Ste 300  
Wichita KS 67202

ATTN: Kent Crisler / Jarci

### **Gough-Bentley #1-5**

### **5-16s-27w Lane,KS**

Start Date: 2013.03.04 @ 10:48:00

End Date: 2013.03.04 @ 17:56:39

Job Ticket #: 49786                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.11 @ 13:37:07





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc

**5-16s-27w Lane, KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

ATTN: Kent Crisler / Jarci

Job Ticket: 49786

**DST#: 2**

Test Start: 2013.03.04 @ 10:48:00

## GENERAL INFORMATION:

Formation: **LKC " J "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:39:25

Time Test Ended: 17:56:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

**Interval: 4096.00 ft (KB) To 4126.00 ft (KB) (TVD)**

Reference Elevations: 2611.00 ft (KB)

Total Depth: 4126.00 ft (KB) (TVD)

2600.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8674**

**Inside**

Press @ Run Depth: 18.90 psig @ 4098.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.04

End Date:

2013.03.04

Last Calib.:

2013.03.04

Start Time: 10:48:00

End Time:

17:56:39

Time On Btm:

2013.03.04 @ 12:39:10

Time Off Btm:

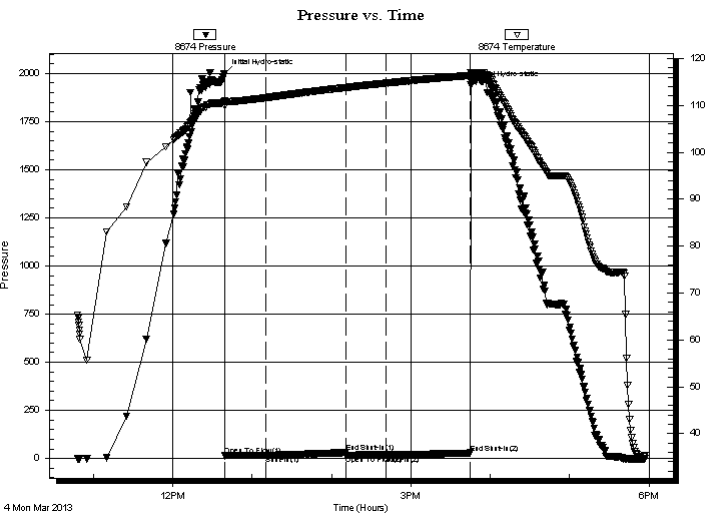
2013.03.04 @ 15:45:09

TEST COMMENT: IF- Weak Surface Blow

FF- No Blow

FF- No Blow

FSI- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1999.93	111.03	Initial Hydro-static
1	14.33	109.91	Open To Flow (1)
32	17.17	111.63	Shut-In(1)
92	31.16	113.80	End Shut-In(1)
92	17.95	113.80	Open To Flow (2)
123	18.90	114.74	Shut-In(2)
186	28.67	116.37	End Shut-In(2)
186	1939.43	117.00	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% m with a few Oil Spots	0.02

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Murfin Drilling Co. Inc

5-16s-27w Lane, KS

250 N. Water Ste 300  
Wichita KS 67202

Gough-Bentley #1-5

Job Ticket: 49786      **DST#: 2**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.04 @ 10:48:00

### GENERAL INFORMATION:

Formation: **LKC " J "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:39:25

Time Test Ended: 17:56:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Interval: **4096.00 ft (KB) To 4126.00 ft (KB) (TVD)**

Total Depth: 4126.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2611.00 ft (KB)

2600.00 ft (CF)

KB to GR/CF: 11.00 ft

**Serial #: 8355      Outside**

Press @ Run Depth: psig @ 4098.00 ft (KB)

Start Date: 2013.03.04

End Date:

2013.03.04

Start Time: 10:48:05

End Time:

17:58:14

Capacity: 8000.00 psig

Last Calib.: 2013.03.04

Time On Btm:

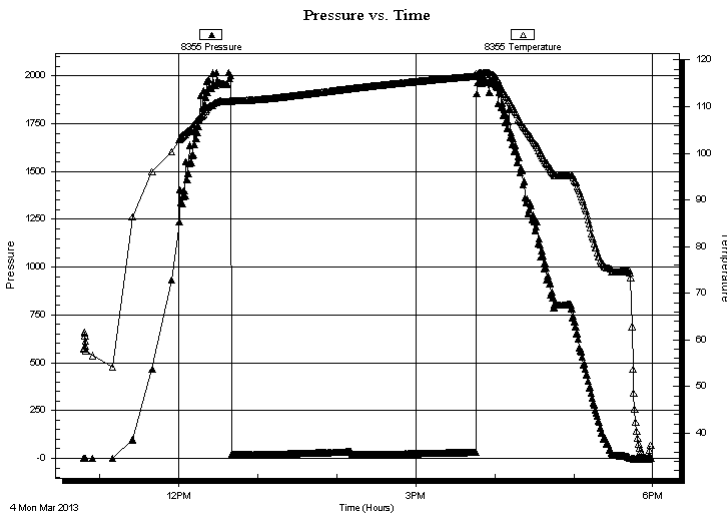
Time Off Btm:

TEST COMMENT: IF- Weak Surface Blow

FF- No Blow

FF- No Blow

FSI- No Blow



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% m with a few Oil Spots	0.02

### Gas Rates

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

\* Recovery from multiple tests



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TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49786

**DST#: 2**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.04 @ 10:48:00

## Tool Information

Drill Pipe:	Length: 3831.00 ft	Diameter: 3.80 inches	Volume: 53.74 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: 34000.00 lb
Drill Collar:	Length: 267.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose: 20000.00 lb
			<u>Total Volume: 55.05 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4096.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 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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Change Over Sub	1.00			4069.00	
Shut In Tool	5.00			4074.00	
Hydraulic tool	5.00			4079.00	
Jars	5.00			4084.00	
Safety Joint	3.00			4087.00	
Packer	5.00			4092.00	28.00 Bottom Of Top Packer
Packer	4.00			4096.00	
Stubb	1.00			4097.00	
Perforations	1.00			4098.00	
Recorder	0.00	8355	Outside	4098.00	
Recorder	0.00	8674	Inside	4098.00	
Perforations	25.00			4123.00	
Bullnose	3.00			4126.00	30.00 Bottom Packers & Anchor

**Total Tool Length: 58.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49786

**DST#: 2**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.04 @ 10:48:00

## 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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.35 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	100%m with a few Oil Spots	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 #: 8674

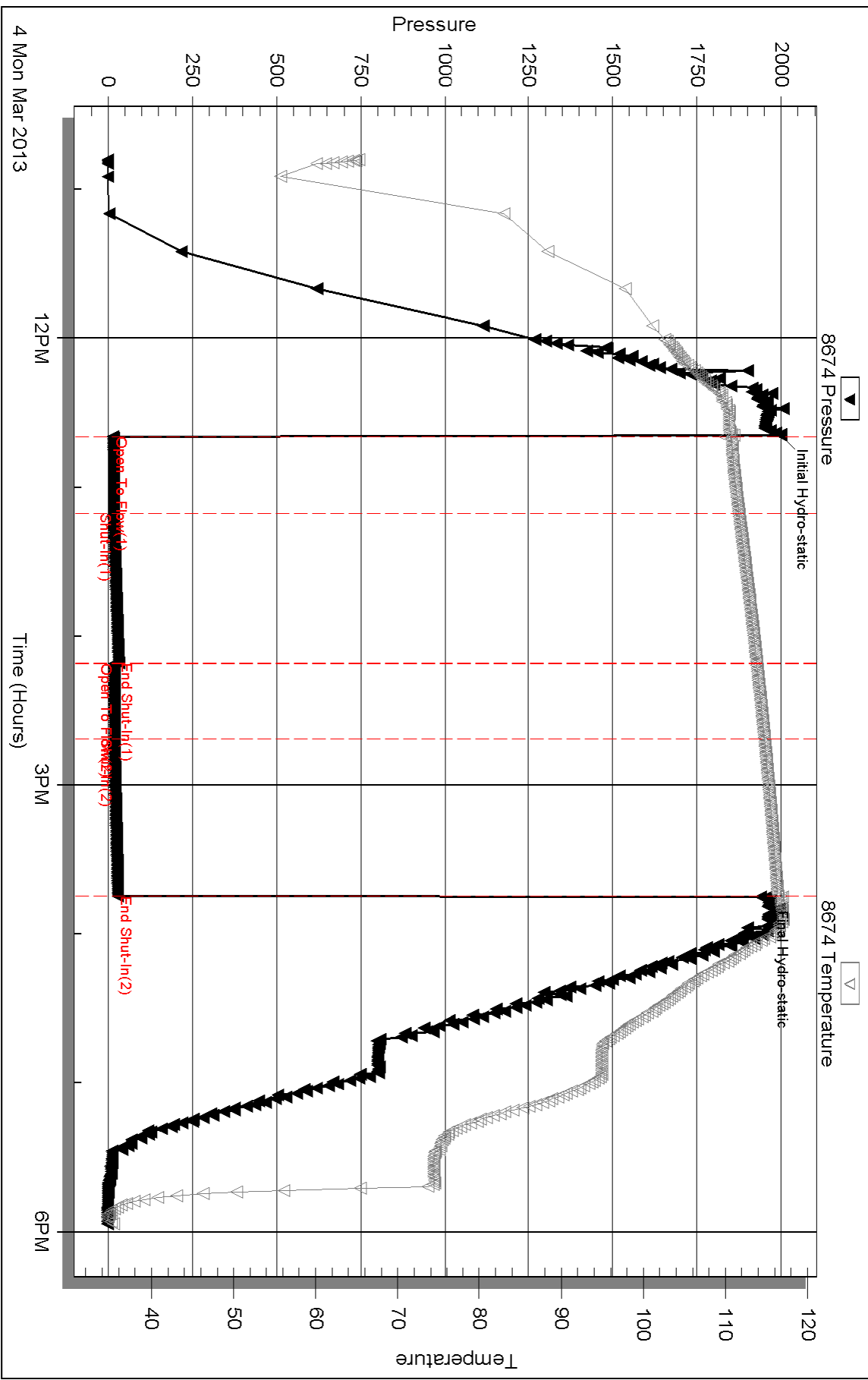
Inside

Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 2

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 49786

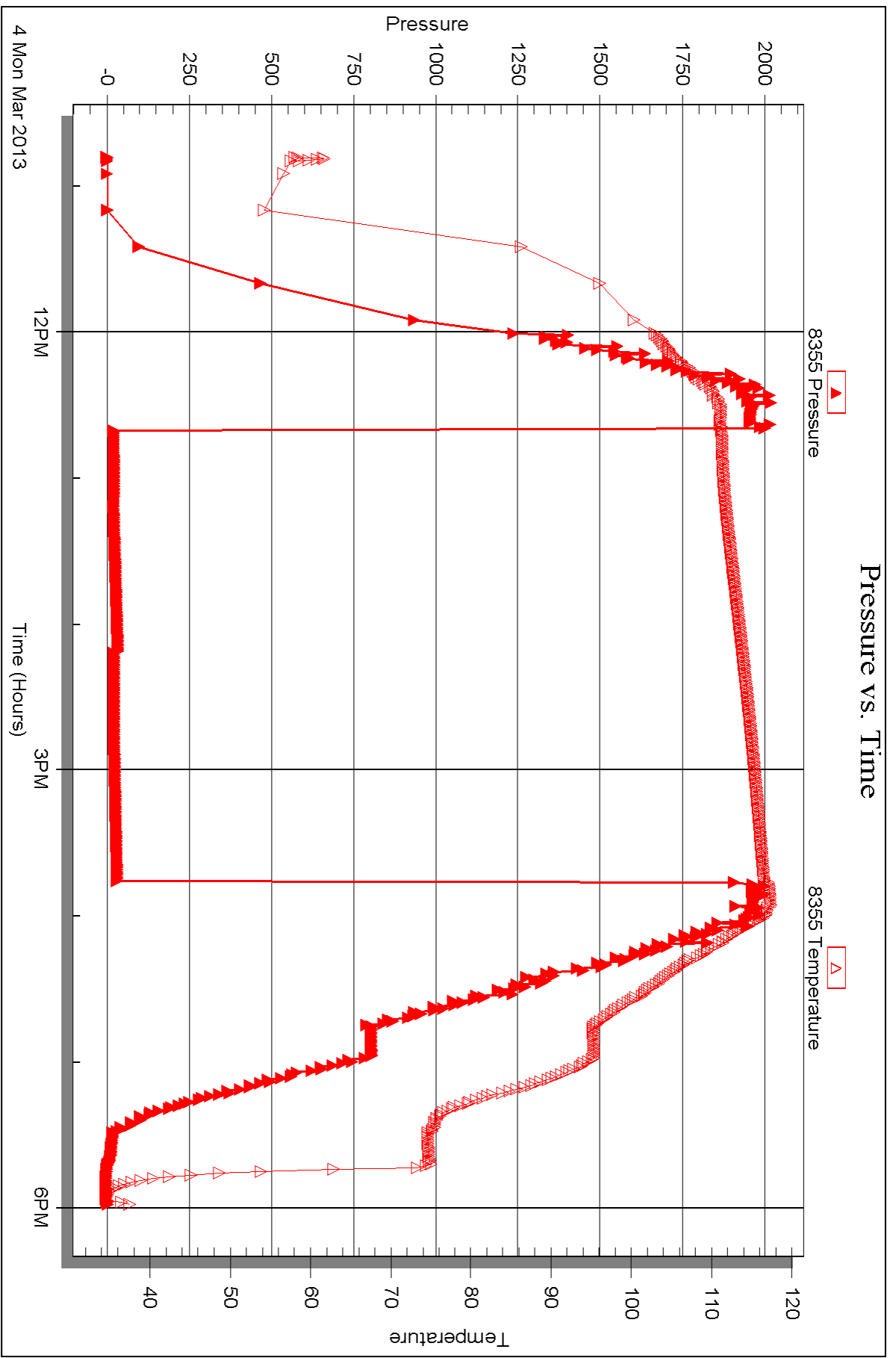
Printed: 2013.03.11 @ 13:37:10

Serial #: 8355

Outside Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 49786

Printed: 2013.03.11 @ 13:37:10



## DRILL STEM TEST REPORT

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

250 N. Water Ste 300  
Wichita KS 67202

ATTN: Kent Crisler / Jarci

### **Gough-Bentley #1-5**

### **5-16s-27w Lane,KS**

Start Date: 2013.03.05 @ 01:50:00

End Date: 2013.03.05 @ 10:09:09

Job Ticket #: 49787                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.11 @ 13:36:32

Murfin Drilling Co. Inc  
5-16s-27w Lane,KS  
Gough-Bentley #1-5  
DST # 3  
LKC " K "  
2013.03.05



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc

**5-16s-27w Lane, KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

ATTN: Kent Crisler / Jarci

Job Ticket: 49787

**DST#: 3**

Test Start: 2013.03.05 @ 01:50:00

## GENERAL INFORMATION:

Formation: **LKC " K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:41:55

Time Test Ended: 10:09:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

**Interval: 4124.00 ft (KB) To 4162.00 ft (KB) (TVD)**

Reference Elevations: 2611.00 ft (KB)

Total Depth: 4162.00 ft (KB) (TVD)

2600.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8674**

**Inside**

Press @ Run Depth: 191.60 psig @ 4126.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.05

End Date:

2013.03.05

Last Calib.: 2013.03.05

Start Time: 01:50:00

End Time:

10:09:09

Time On Btm: 2013.03.05 @ 03:41:40

Time Off Btm: 2013.03.05 @ 07:48:39

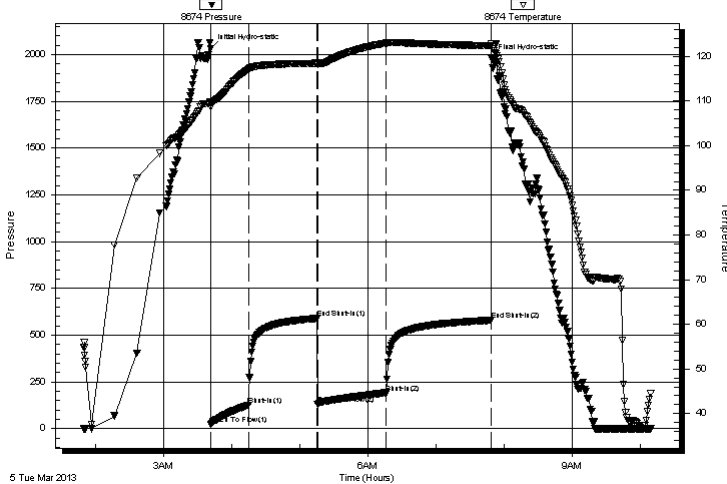
**TEST COMMENT:** IF- Surface Blow Built to 9 1/4"

IS- No Blow

FF- Weak Surface Blow Built to 3 1/2"

FS- No Blow

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2032.67	109.91	Initial Hydro-static
1	23.11	108.60	Open To Flow (1)
34	125.93	117.06	Shut-In(1)
94	589.13	118.49	End Shut-In(1)
94	131.57	118.31	Open To Flow (2)
155	191.60	122.97	Shut-In(2)
247	579.36	122.41	End Shut-In(2)
247	1981.06	122.82	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
240.00	MCW 8% <i>m</i> 92% <i>w</i>	1.18
126.00	MCW 25% <i>m</i> 75% <i>w</i> with Skim of Oil on	1.52
10.00	GOWCM 2% <i>g</i> 5% <i>oil</i> 28% <i>w</i> 75% <i>m</i>	0.14
0.00	53' of GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

ATTN: Kent Crisler / Jarci

Job Ticket: 49787

**DST#: 3**

Test Start: 2013.03.05 @ 01:50:00

## GENERAL INFORMATION:

Formation: **LKC " K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:41:55

Time Test Ended: 10:09:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

**Interval: 4124.00 ft (KB) To 4162.00 ft (KB) (TVD)**

Reference Elevations: 2611.00 ft (KB)

Total Depth: 4162.00 ft (KB) (TVD)

2600.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8355 Outside**

Press @ Run Depth: psig @ 4126.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.05

End Date:

2013.03.05

Last Calib.:

2013.03.05

Start Time: 01:50:05

End Time:

10:10:44

Time On Btm:

Time Off Btm:

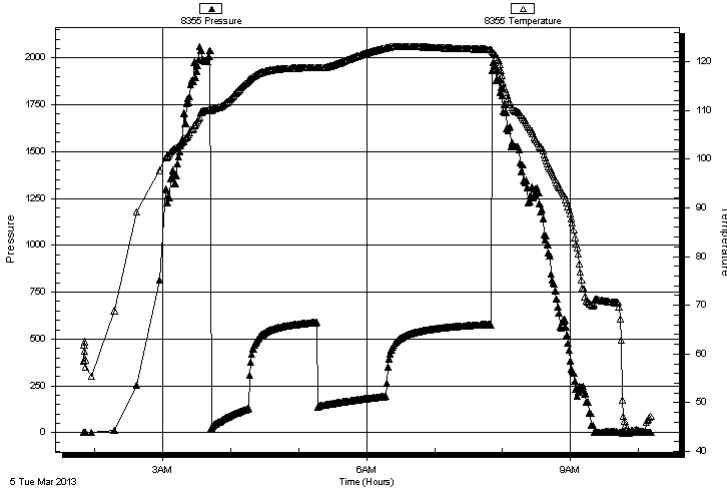
**TEST COMMENT:** IF- Surface Blow Built to 9 1/4"

IS- No Blow

FF- Weak Surface Blow Built to 3 1/2"

FS- No Blow

Pressure vs. Time



## PRESSURE SUMMARY

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

## Gas Rates

Length (ft)	Description	Volume (bbl)
240.00	MCW 8% m 92% w	1.18
126.00	MCW 25% m 75% w with Skim of Oil on	1.52
10.00	GOWCM 2% g 5% oil 28% w 75% m	0.14
0.00	53' of GIP	0.00

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49787

**DST#: 3**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.05 @ 01:50:00

## Tool Information

Drill Pipe:	Length: 3833.00 ft	Diameter: 3.80 inches	Volume: 53.77 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: 24000.00 lb
Drill Collar:	Length: 267.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose: 8000.00 lb
			<u>Total Volume: 55.08 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4124.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4097.00	
Shut In Tool	5.00			4102.00	
Hydraulic tool	5.00			4107.00	
Jars	5.00			4112.00	
Safety Joint	3.00			4115.00	
Packer	5.00			4120.00	28.00 Bottom Of Top Packer
Packer	4.00			4124.00	
Stubb	1.00			4125.00	
Perforations	1.00			4126.00	
Recorder	0.00	8355	Outside	4126.00	
Recorder	0.00	8674	Inside	4126.00	
Perforations	33.00			4159.00	
Bullnose	3.00			4162.00	38.00 Bottom Packers & Anchor

**Total Tool Length: 66.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49787

**DST#: 3**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.05 @ 01:50:00

## 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:

49000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
240.00	MCW 8%m 92%w	1.180
126.00	MCW 25%m 75%w with Skim of Oil on Top	1.521
10.00	GOWCM 2%g 5%oil 28%w 75%m	0.140
0.00	53' of GIP	0.000

Total Length: 376.00 ft Total Volume: 2.841 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW is .274 @ 38f = 49000

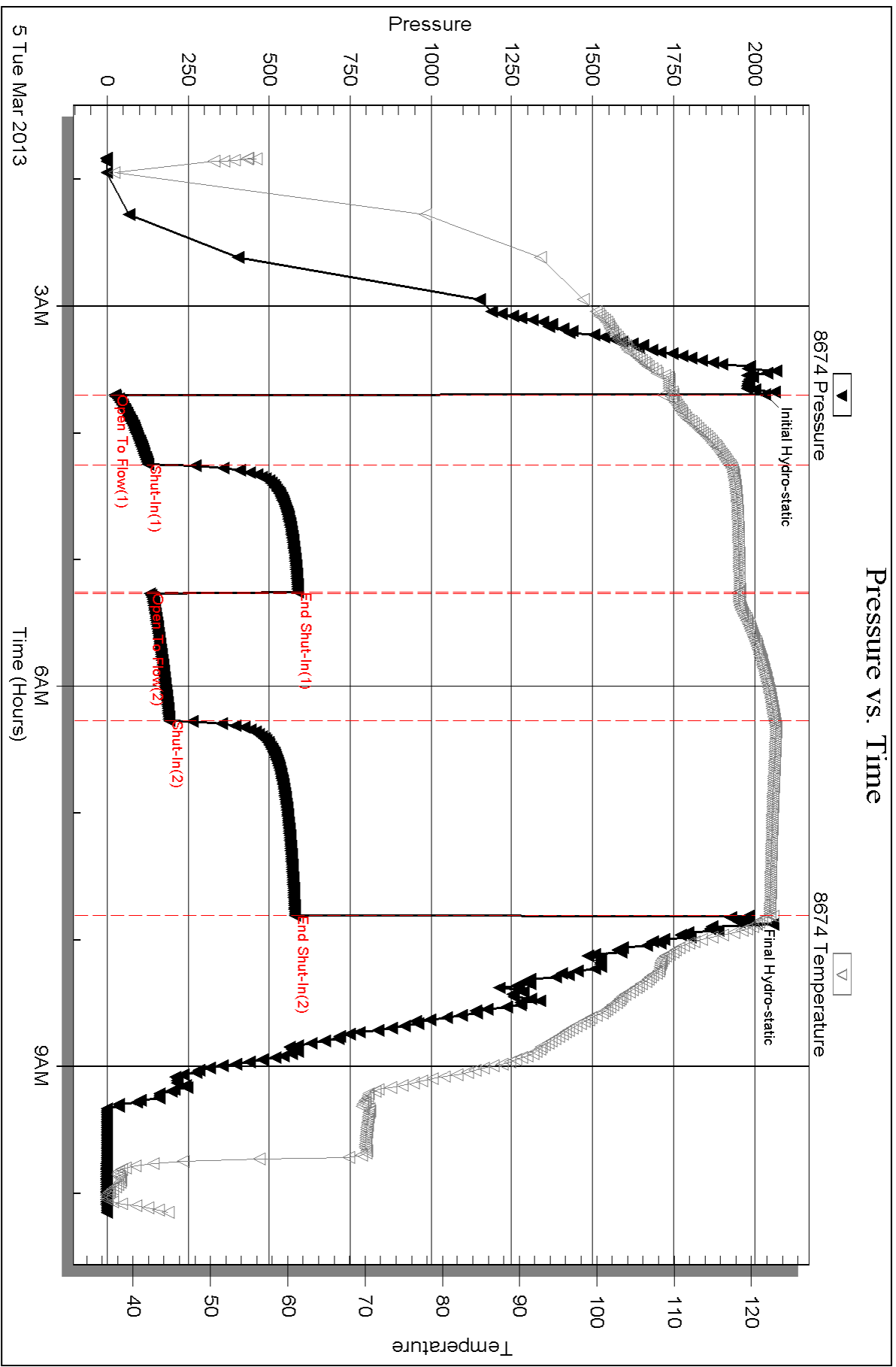
Serial #: 8674

Inside

Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 3

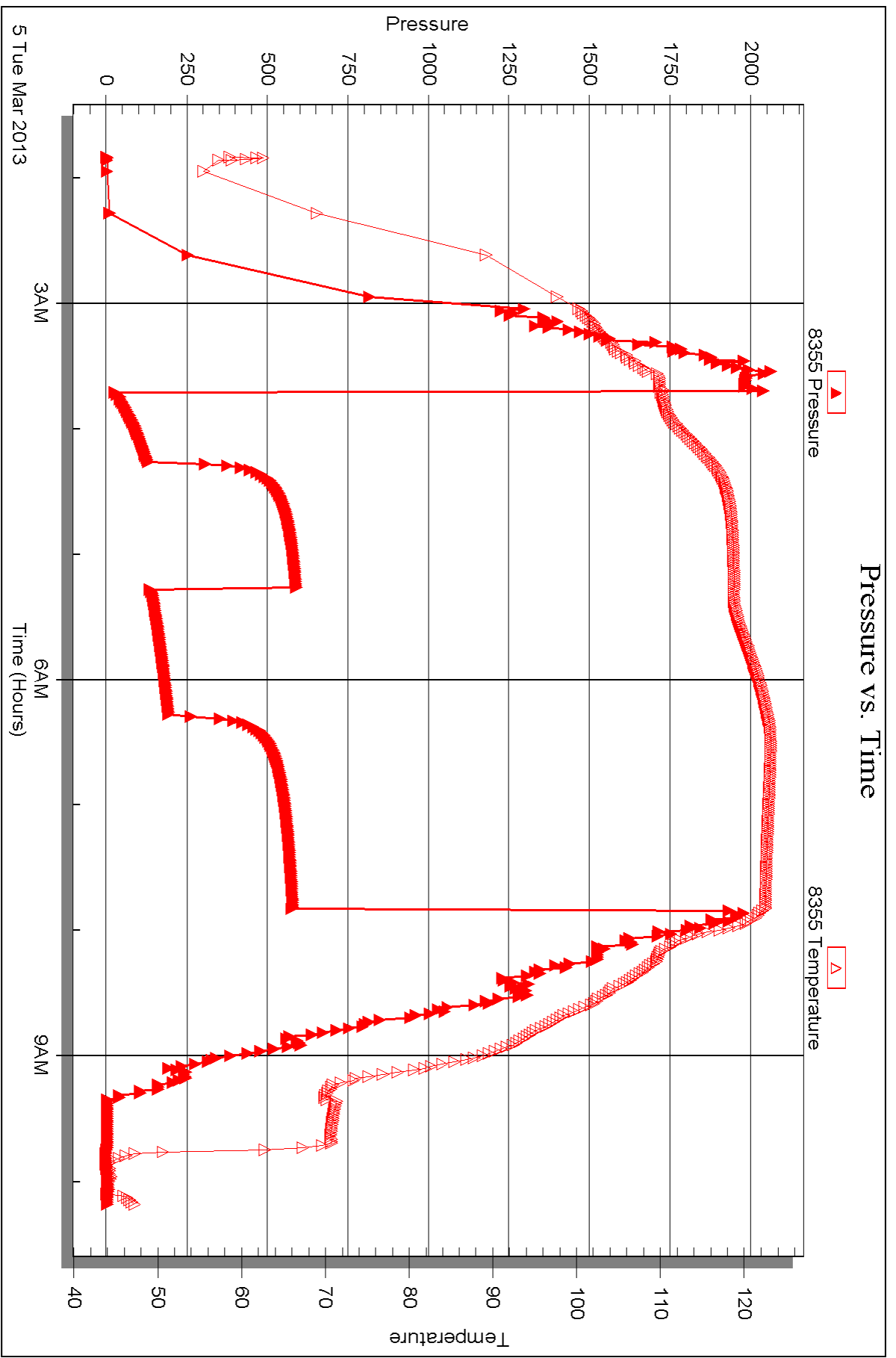


Serial #: 8355

Outside Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 3





## DRILL STEM TEST REPORT

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

250 N. Water Ste 300  
Wichita KS 67202

ATTN: Kent Crisler / Jarci

### **Gough-Bentley #1-5**

### **5-16s-27w Lane,KS**

Start Date: 2013.03.05 @ 18:28:00

End Date: 2013.03.06 @ 01:41:24

Job Ticket #: 49788                      DST #: 4

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

Printed: 2013.03.11 @ 13:35:53

Murfin Drilling Co. Inc  
5-16s-27w Lane,KS  
Gough-Bentley #1-5  
DST # 4  
LKC " L "  
2013.03.05



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc

**5-16s-27w Lane, KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

ATTN: Kent Crisler / Jarci

Job Ticket: 49788

**DST#: 4**

Test Start: 2013.03.05 @ 18:28:00

## GENERAL INFORMATION:

Formation: **LKC " L "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:34:55

Time Test Ended: 01:41:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

**Interval: 4159.00 ft (KB) To 4192.00 ft (KB) (TVD)**

Reference Elevations: 2611.00 ft (KB)

Total Depth: 4192.00 ft (KB) (TVD)

2600.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8674**

**Inside**

Press @ Run Depth: 21.57 psig @ 4160.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.05

End Date:

2013.03.06

Last Calib.:

2013.03.06

Start Time:

18:28:00

End Time:

01:41:24

Time On Btm:

2013.03.05 @ 20:34:40

Time Off Btm:

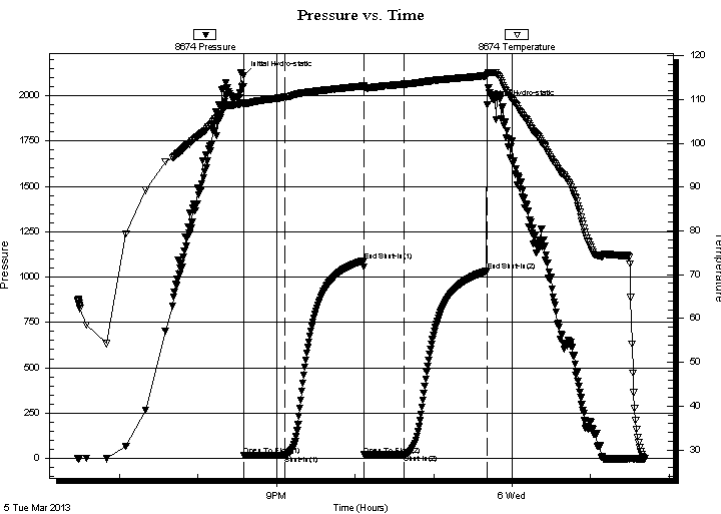
2013.03.05 @ 23:41:09

**TEST COMMENT:** IF- Weak Surface Blow Built to 3/4"

IS- No Blow

FF- No Blow

FS- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2109.93	109.33	Initial Hydro-static
1	16.10	108.75	Open To Flow (1)
32	18.54	110.53	Shut-In(1)
92	1090.23	113.06	End Shut-In(1)
93	19.69	112.64	Open To Flow (2)
123	21.57	113.47	Shut-In(2)
186	1033.18	115.40	End Shut-In(2)
187	1949.97	115.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% m with Few Oil Spots in Tool	0.02

\* 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

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49788

**DST#: 4**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.05 @ 18:28:00

## Tool Information

Drill Pipe:	Length: 3892.00 ft	Diameter: 3.80 inches	Volume: 54.59 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:	24000.00 lb
Drill Collar:	Length: 267.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose:	4000.00 lb
			<u>Total Volume: 55.90 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	82000.00 lb
Depth to Top Packer:	4159.00 ft			Final	82000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	33.00 ft				
Tool Length:	61.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4132.00	
Shut In Tool	5.00			4137.00	
Hydraulic tool	5.00			4142.00	
Jars	5.00			4147.00	
Safety Joint	3.00			4150.00	
Packer	5.00			4155.00	28.00 Bottom Of Top Packer
Packer	4.00			4159.00	
Stubb	1.00			4160.00	
Recorder	0.00	8355	Outside	4160.00	
Recorder	0.00	8674	Inside	4160.00	
Perforations	29.00			4189.00	
Bullnose	3.00			4192.00	33.00 Bottom Packers & Anchor

**Total Tool Length: 61.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49788

**DST#: 4**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.05 @ 18:28:00

## 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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100%m with Few Oil Spots in Tool	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:

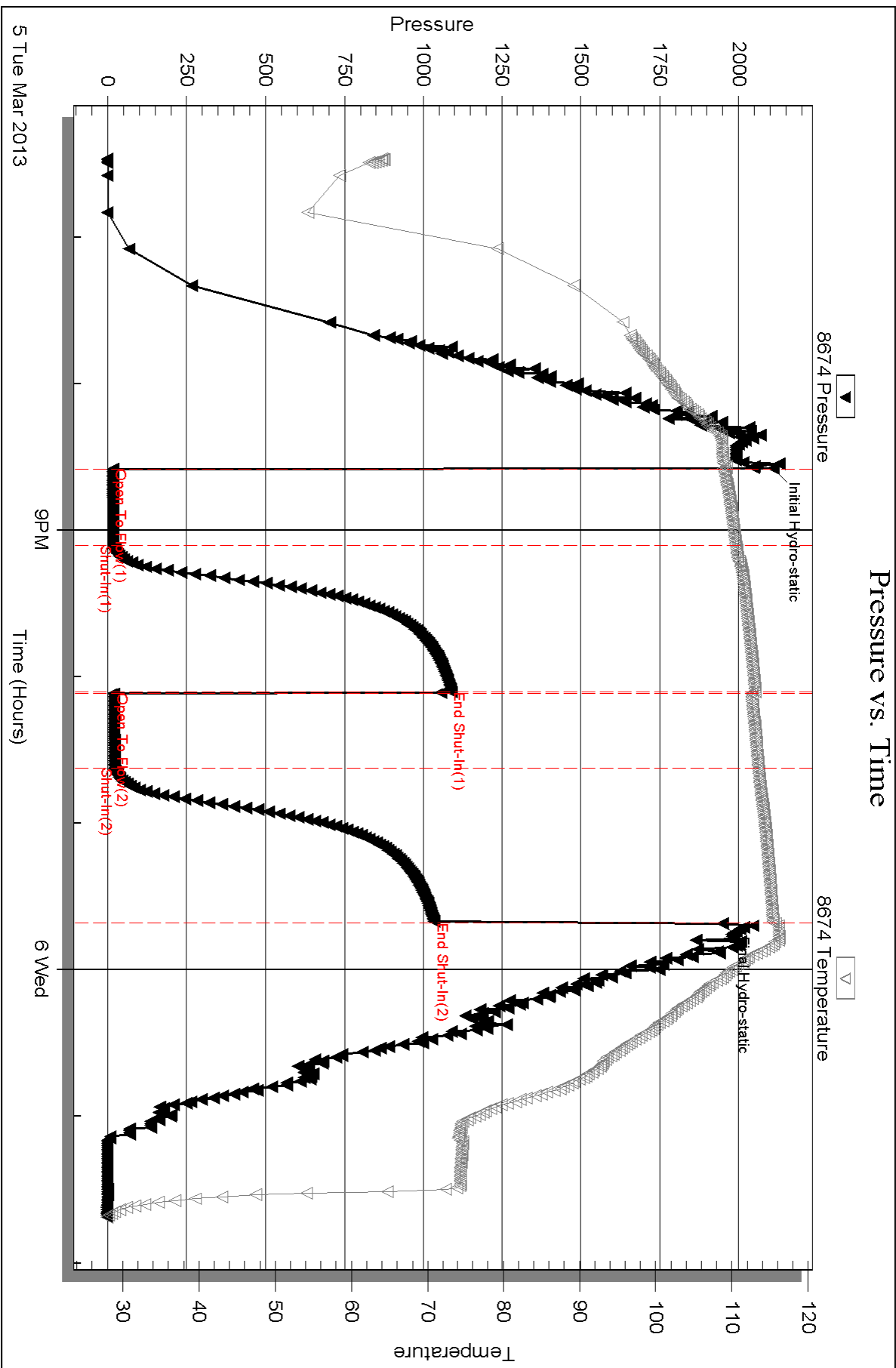
Serial #: 8674

Inside

Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 4

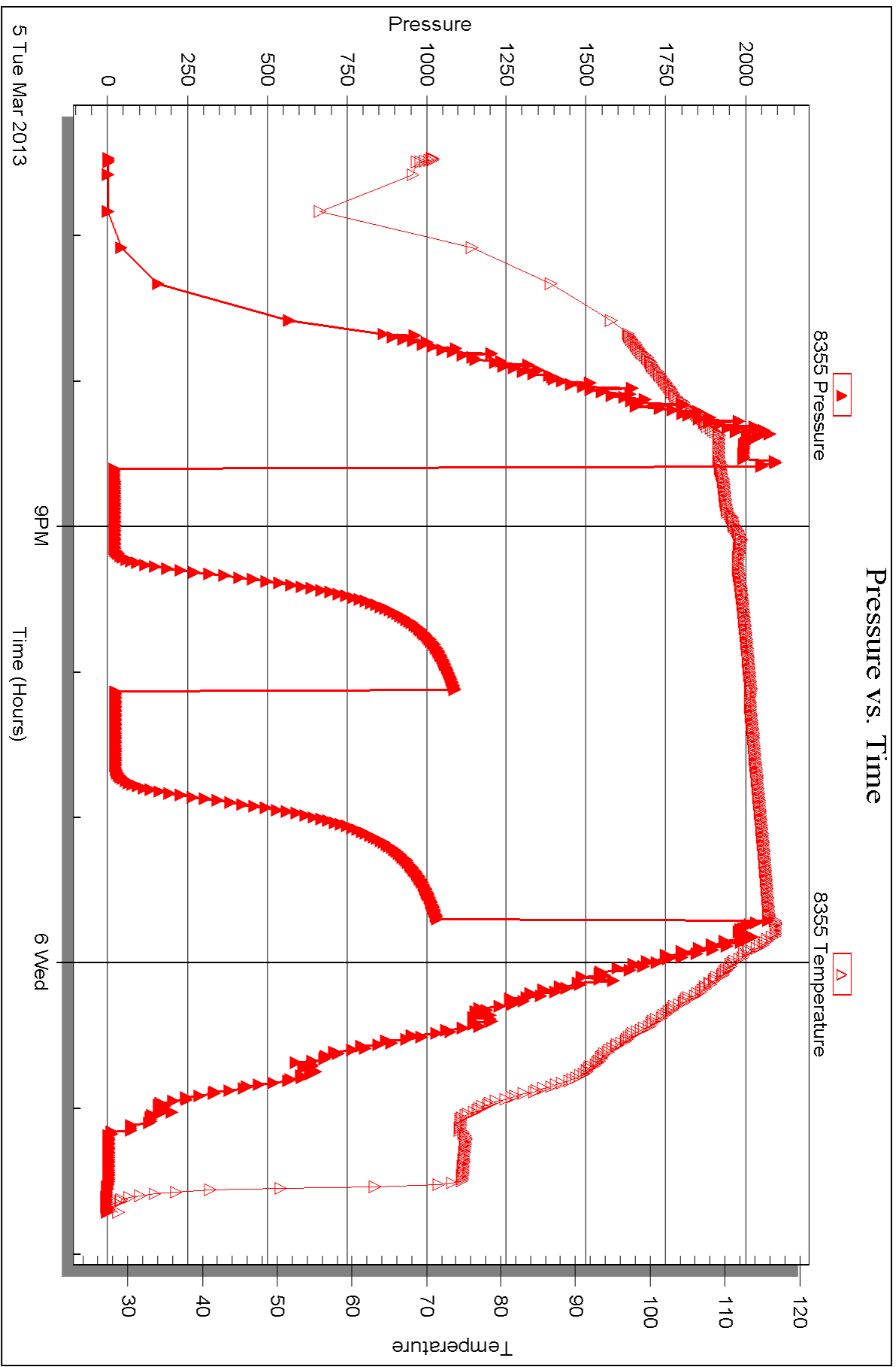


Serial #: 8355

Outside Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 4





## DRILL STEM TEST REPORT

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

250 N. Water Ste 300  
Wichita KS 67202

ATTN: Kent Crisler / Jarci

### **Gough-Bentley #1-5**

### **5-16s-27w Lane,KS**

Start Date: 2013.03.07 @ 00:44:05

End Date: 2013.03.07 @ 09:31:45

Job Ticket #: 49789                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.11 @ 13:35:06

Murfin Drilling Co. Inc

5-16s-27w Lane,KS

Gough-Bentley #1-5

DST # 5

Ft. Scott / Upper Ch

2013.03.07



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co. Inc

**5-16s-27w Lane, KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

ATTN: Kent Crisler / Jarci

Job Ticket: 49789

**DST#: 5**

Test Start: 2013.03.07 @ 00:44:05

## GENERAL INFORMATION:

Formation: **Ft. Scott / Upper Ch**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:47:45

Time Test Ended: 09:31:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

**Interval: 4368.00 ft (KB) To 4425.00 ft (KB) (TVD)**

Reference Elevations: 2611.00 ft (KB)

Total Depth: 4094.00 ft (KB) (TVD)

2600.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8674**

**Inside**

Press @ Run Depth: 171.47 psig @ 4369.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.07

End Date:

2013.03.07

Last Calib.:

2013.03.07

Start Time:

00:44:05

End Time:

09:31:45

Time On Btm:

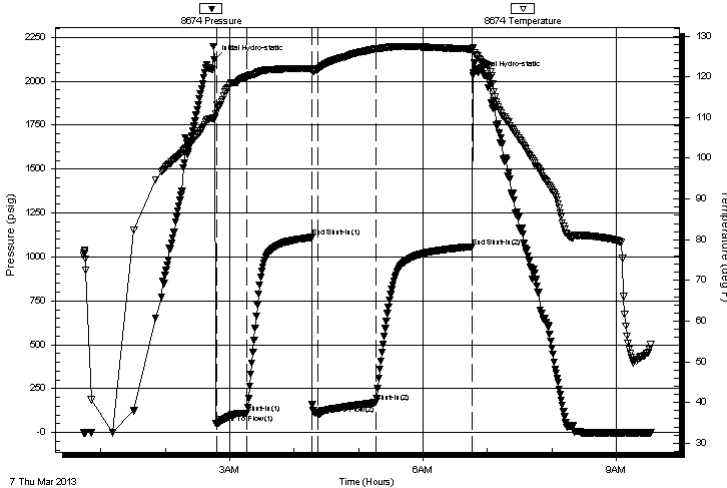
2013.03.07 @ 02:46:00

Time Off Btm:

2013.03.07 @ 06:46:29

**TEST COMMENT:** IF- Surface Blow Built to BOB in 3 3/4 min  
IS- Weak Surface Blow in 7 min  
FF- Surface Blow Built to BOB in 4 1/2 min  
FS- Weak Surface Blow Built to 7"

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2121.71	109.88	Initial Hydro-static
2	51.22	113.14	Open To Flow (1)
30	110.91	120.10	Shut-In(1)
91	1111.45	122.11	End Shut-In(1)
96	103.10	121.84	Open To Flow (2)
151	171.47	126.86	Shut-In(2)
240	1058.37	126.81	End Shut-In(2)
241	2032.21	127.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	MGCO 22%m 25%g 53%oil	0.89
60.00	MGCO 12%m 15%g 73%oil	0.30
126.00	MOCG 16%m 24%oil 60%g	1.52
53.00	GMCO 4%g 7%m 89%oil	0.74
25.00	GO 9%g 91%oil	0.35
0.00	2946' of GIP	0.00

## 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 Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49789

**DST#: 5**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.07 @ 00:44:05

## Tool Information

Drill Pipe:	Length: 4085.00 ft	Diameter: 3.80 inches	Volume: 57.30 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: 26000.00 lb
Drill Collar:	Length: 267.00 ft	Diameter: 2.25 inches	Volume: 1.31 bbl	Weight to Pull Loose: 6000.00 lb
			<u>Total Volume: 58.61 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 84000.00 lb
Depth to Top Packer:	4368.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	85.00 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
Change Over Sub	1.00			4341.00	
Shut In Tool	5.00			4346.00	
Hydraulic tool	5.00			4351.00	
Jars	5.00			4356.00	
Safety Joint	3.00			4359.00	
Packer	5.00			4364.00	28.00 Bottom Of Top Packer
Packer	4.00			4368.00	
Stubb	1.00			4369.00	
Recorder	0.00	8355	Outside	4369.00	
Recorder	0.00	8674	Inside	4369.00	
Perforations	20.00			4389.00	
Change Over Sub	1.00			4390.00	
Drill Pipe	31.00			4421.00	
Change Over Sub	1.00			4422.00	
Bullnose	3.00			4425.00	57.00 Bottom Packers & Anchor

**Total Tool Length: 85.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co. Inc

**5-16s-27w Lane,KS**

250 N. Water Ste 300  
Wichita KS 67202

**Gough-Bentley #1-5**

Job Ticket: 49789

**DST#: 5**

ATTN: Kent Crisler / Jarci

Test Start: 2013.03.07 @ 00:44:05

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
180.00	MGCO 22%m 25%g 53%oil	0.885
60.00	MGCO 12%m 15%g 73%oil	0.295
126.00	MOCG 16%m 24%oil 60%g	1.521
53.00	GMCO 4%g 7%m 89%oil	0.743
25.00	GO 9%g 91%oil	0.351
0.00	2946' of GIP	0.000

Total Length: 444.00 ft Total Volume: 3.795 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API is 33 @ 40f =35

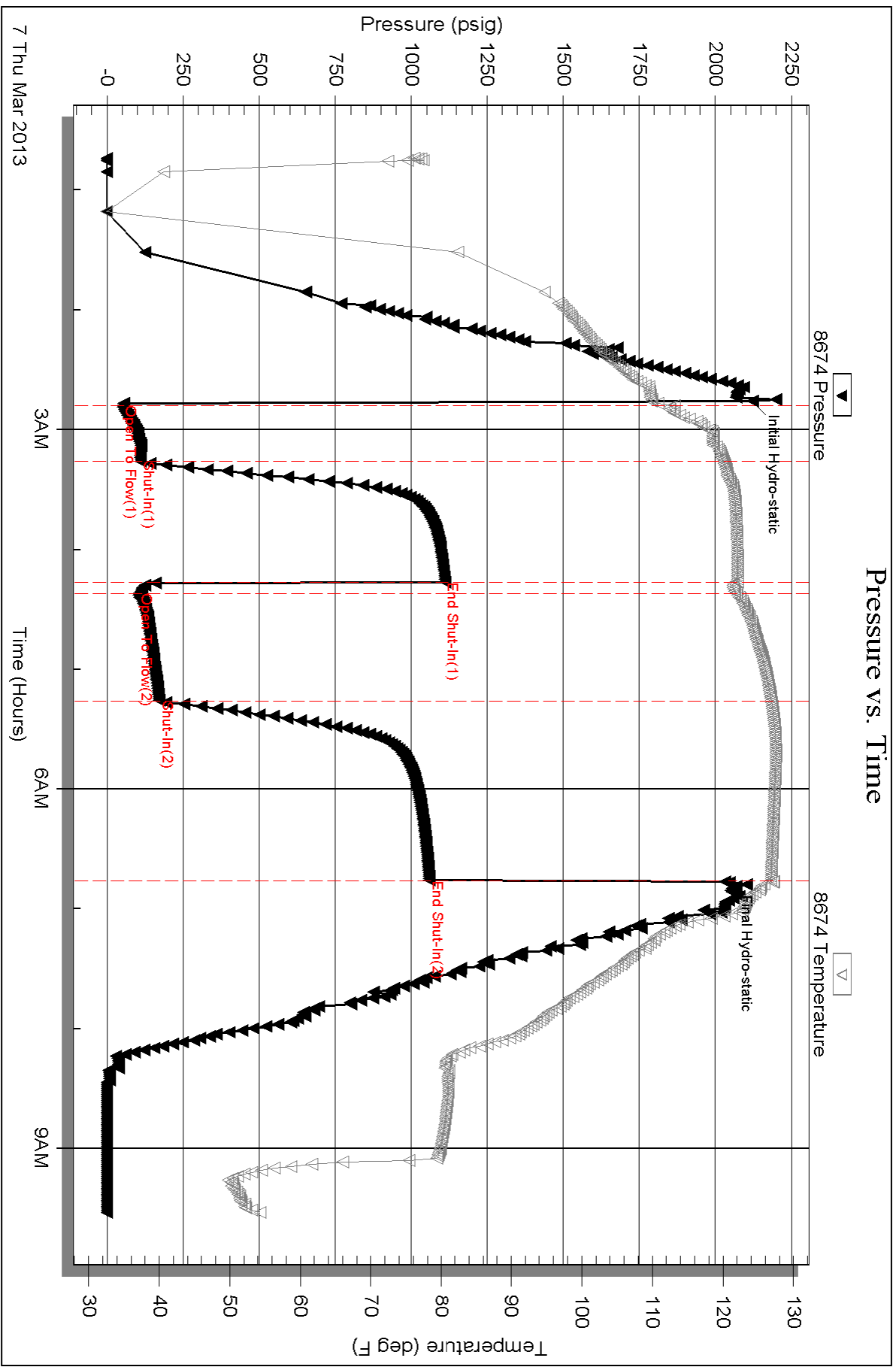
Serial #: 8674

Inside

Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 5

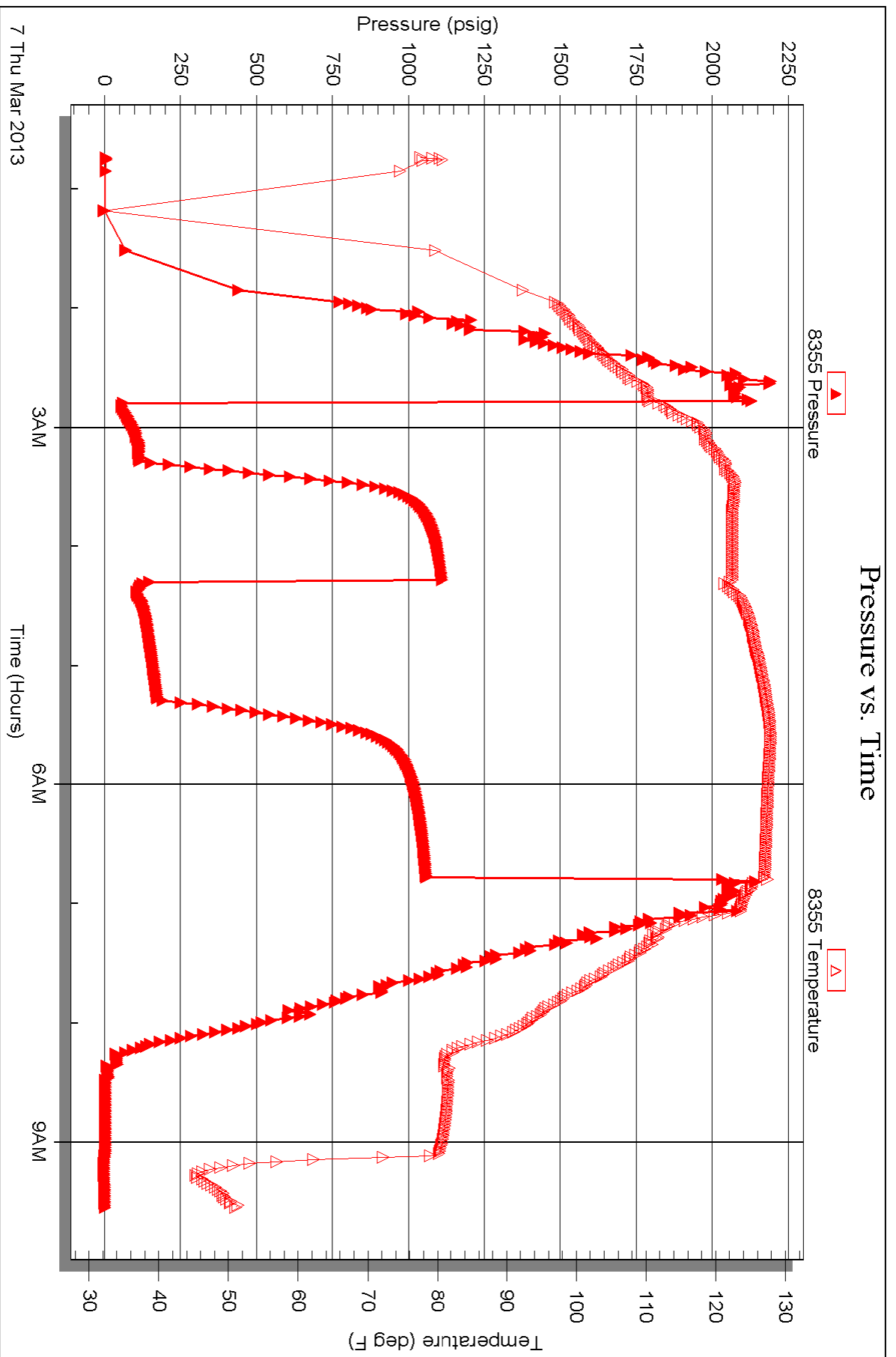


Serial #: 8355

Outside Murfin Drilling Co. Inc

Gough-Bentley #1-5

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 49789

Printed: 2013.03.11 @ 13:35:09



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **49785**

4/10

Well Name & No. Gough - Bentley #1-5 Test No. DST #1 Date 3-3-13  
 Company Murfin Drilling Co. Inc Elevation 2611 KB 2600 GL  
 Address 250 N. Ste 300 Wichita KS 67202  
 Co. Rep / Geo. Kent Crisler / Jarcie Crisler Rig Murfin Rig #21  
 Location: Sec. 5 Twp. 16s Rge. 27w Co. Lane State KS

Interval Tested 4032-4094 Zone Tested LKC "H-I"  
 Anchor Length 62 Drill Pipe Run 3769 Mud Wt. 9.2  
 Top Packer Depth 4028 Drill Collars Run 267 Vis 61  
 Bottom Packer Depth 4032 Wt. Pipe Run 0 WL 6.4  
 Total Depth 4094 Chlorides 2100 ppm System LCM 516  
 Blow Description IF- Weak Surface Blow 1/2"  
TSI- No Blow  
FF- No Blow  
FSI- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud with Skim of Oil on Top</u>			<u>100</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 10 BHT 112 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1960</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>18:34</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>19:28</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>21:42</u>
(D) Initial Shut-In <u>800</u>	<input checked="" type="checkbox"/> Circ Sub <u>MC</u>	T-Pulled <u>00:46</u>
(E) Second Initial Flow <u>23</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2:49</u>
(F) Second Final Flow <u>26</u>	<input checked="" type="checkbox"/> Mileage <u>86 R/T</u> 133.30	Comments _____
(G) Final Shut-In <u>755</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>1854</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>1708.30</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1708.30</u>	

Approved By Kent Crisler Our Representative Win M

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. 49786

Well Name & No. Gough - Bentley #1-5 Test No. DST #2 Date 3-4-13  
 Company Murfin Drilling Co. Inc Elevation 2611 KB 2600 GL  
 Address 250 N. Water Ste 300 Wichita KS 67202  
 Co. Rep / Geo. Kent Crister / Jarcie Crister Rig Murfin R.s 21  
 Location: Sec. 5 Twp. 16s Rge. 27w Co. Lane State KS

Interval Tested 4096 - 4126 Zone Tested LKC "J"  
 Anchor Length 30 Drill Pipe Run 3831 Mud Wt. 9.2  
 Top Packer Depth 4092 Drill Collars Run 267 Vis 61  
 Bottom Packer Depth 4096 Wt. Pipe Run 0 WL 6.4  
 Total Depth 4126 Chlorides 2100 ppm System LCM 516

Blow Description IF - Weak Surface Blow  
ISI - No Blow  
FF - No Blow  
FST - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud with a Few Oil Spots</u>			<u>100</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 114 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1999</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>10:08</u>
(B) First Initial Flow <u>14</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>10:48</u>
(C) First Final Flow <u>17</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>12:39</u>
(D) Initial Shut-In <u>31</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>15:45</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>17:56</u>
(F) Second Final Flow <u>18</u>	<input checked="" type="checkbox"/> Mileage <u>86 RIT</u> 133.30	Comments _____
(G) Final Shut-In <u>28</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1939</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer

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

Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

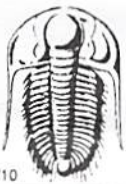
Sub Total 1708.30

Total 1708.30  
 MP/DST Disc't \_\_\_\_\_

Approved By Kent Crister Our Representative William

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. 49787

4/10

Well Name & No. Gough - Bentley #1-5 Test No. DST # 3 Date 3-5-13  
 Company Murfin Drilling Co. Inc Elevation 2611 KB 2600 GL  
 Address 250 N. Water Ste. 300 Wichita KS 67202  
 Co. Rep / Geo. Kent Crisler / Jarcie Crisler Rig Murfin Rig #21  
 Location: Sec. 5 Twp. 16S Rge. 27W Co. Lane State KS

Interval Tested 4124 - 4162 Zone Tested LRC "K"  
 Anchor Length 38 Drill Pipe Run 3833 Mud Wt. 9.2  
 Top Packer Depth 4120 Drill Collars Run 267 Vis 50  
 Bottom Packer Depth 4124 Wt. Pipe Run 0 WL 6.0  
 Total Depth 4162 Chlorides 2300 ppm System LCM 416

Blow Description IF - Surface Blow Built to 9 1/4"  
ISJ - No Blow  
FF - Weak Surface Blow Built to 3 1/2"  
FSI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>GOWCM</u>	<u>2</u>	<u>5</u>	<u>28</u>	<u>75</u>
<u>126</u>	<u>MCW with a skm at 0.1 on Top</u>			<u>75</u>	<u>25</u>
<u>240</u>	<u>MCW</u>			<u>92</u>	<u>8</u>
	<u>53' of GIP</u>				

Rec Total 376 BHT 118 Gravity API RW 274 @ 38 ° F Chlorides 49000 ppm

(A) Initial Hydrostatic <u>2032</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>1:50</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>2:18</u>
(C) First Final Flow <u>125</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>3:41</u>
(D) Initial Shut-In <u>589</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>7:48</u>
(E) Second Initial Flow <u>131</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:09</u>
(F) Second Final Flow <u>191</u>	<input checked="" type="checkbox"/> Mileage <u>86 RIT</u> 133.30	Comments _____
(G) Final Shut-In <u>579</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1981</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

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

Shale Packer  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility

Sub Total 1708.30

Sub Total 1708.30

Approved By \_\_\_\_\_ Our Representative Will M

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. **49788**

Well Name & No. Gough-Bentley #1-5 Test No. DST #4 Date 3-5-13  
 Company Murfin Drilling Co Inc Elevation 2611 KB 2600 GL  
 Address 250 N. Water Ste 300 Wichita KS 67202  
 Co. Rep / Geo. Kent Crisler / Jarcie Crisler Rig Murfin Rig #21  
 Location: Sec. 5 Twp. 16s Rge. 27w Co. Lane State KS

Interval Tested 4159-4192 Zone Tested LKC "L"  
 Anchor Length 33 Drill Pipe Run 3892 Mud Wt. 9.1  
 Top Packer Depth 4155 Drill Collars Run 267 Vis 51  
 Bottom Packer Depth 4159 Wt. Pipe Run 0 WL 6.0  
 Total Depth 4192 Chlorides 3200 ppm System LCM 416  
 Blow Description IF- Weak Surface Blow Built to 34"  
ISI- No Blow  
FF- No Blow  
FSI- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud with Few Oil Spots in Tool</u>			<u>100</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 109 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2109</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>17:42</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>18:28</u>
(C) First Final Flow <u>18</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>20:34</u>
(D) Initial Shut-In <u>1090</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>23:41</u>
(E) Second Initial Flow <u>19</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1:41</u>
(F) Second Final Flow <u>21</u>	<input checked="" type="checkbox"/> Mileage <u>86 R/T</u> 133.30	Comments _____
(G) Final Shut-In <u>1033</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1949</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>1708.30</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1708.30</u>	

Approved By Kent Crisler Our Representative William

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 49789

Well Name & No. Gough-Bentley #1-5 Test No. DST #5 Date 3-6-13  
 Company Murfin Drilling Co Inc Elevation 2611 KB 2600 GL  
 Address 250 N. Water Ste 300 Wichita KS 67202  
 Co. Rep / Geo. Kent Crister / Jarvie Crister Rig Murfin Rig #21  
 Location: Sec. 5 Twp. 16s Rge. 27w Co. Lane State KS

Interval Tested 4368-4425 Zone Tested Ft. Scott / Upper Cherokee  
 Anchor Length 57 Drill Pipe Run 4085 Mud Wt. 9.1  
 Top Packer Depth 4364 Drill Collars Run 267 Vis 61  
 Bottom Packer Depth 4368 Wt. Pipe Run 0 WL 6.0  
 Total Depth 4425 Chlorides 2300 ppm System LCM 616  
 Blow Description IF - Surface Blow Built to BOB in 3<sup>3</sup>/<sub>4</sub> min  
ISI - Weak Surface Blow in 7 min  
FF - Surface Blow Built to BOB in 4<sup>1</sup>/<sub>2</sub> min  
FSI - Weak Surface Blow Built to 7"

Rec	Feet of	%gas	%oil	%water	%mud
<u>73</u>	<u>25</u>	<u>9</u>	<u>91</u>		
<u>53</u>	<u>GMCO</u>	<u>4</u>	<u>89</u>		<u>7</u>
<u>126</u>	<u>MOCG</u>	<u>60</u>	<u>24</u>		<u>16</u>
<u>60</u>	<u>MGCO</u>	<u>15</u>	<u>73</u>		<u>12</u>
<u>180</u>	<u>MGCO</u>	<u>25</u>	<u>53</u>		<u>22</u>

Rec Total 495 BHT \_\_\_\_\_ Gravity 35 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2121  Test 1250 T-On Location 23:34  
 (B) First Initial Flow 51  Jars 250 T-Started 00:44  
 (C) First Final Flow 110  Safety Joint 75 T-Open 2:47  
 (D) Initial Shut-In 1111  Circ Sub NIC T-Pulled 6:46  
 (E) Second Initial Flow 103  Hourly Standby T-Out 9:31  
 (F) Second Final Flow 171  Mileage 86 RIT x2 Comments 2946' of GIP  
 (G) Final Shut-In 1058  Sampler API is 3B @ 40T = 35  
 (H) Final Hydrostatic 2032  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies  
 Extra Recorder Sub Total 0  
 Day Standby Total 1841.60  
 Accessibility MP/DST Disc't \_\_\_\_\_  
 Sub Total 1841.60

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

Approved By Kent Crister Our Representative KM

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