



DRILL STEM TEST REPORT

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

250 N.Water,Ste.300
Wichita KS 67202

ATTN: Jeff Christian

Hilger Unit #1-32

32-30s-3w Sumner,KS

Start Date: 2012.02.17 @ 10:00:41

End Date: 2012.02.17 @ 18:18:20

Job Ticket #: 45738 DST #: 1

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

Printed: 2012.02.28 @ 16:11:46



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

32-30s-3w Sumner,KS

Hilger Unit #1-32

Job Ticket: 45738

DST#: 1

Test Start: 2012.02.17 @ 10:00:41

GENERAL INFORMATION:

Formation: **Stalnaker**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:50:51

Time Test Ended: 18:18:20

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 56

Interval: 3040.00 ft (KB) To 3055.00 ft (KB) (TVD)

Reference Elevations: 1406.00 ft (KB)

Total Depth: 3055.00 ft (KB) (TVD)

1397.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8167

Inside

Press @ Run Depth: 1282.61 psig @ 3041.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.17

End Date:

2012.02.17

Last Calib.:

2012.02.17

Start Time: 10:10:08

End Time:

18:22:07

Time On Btm:

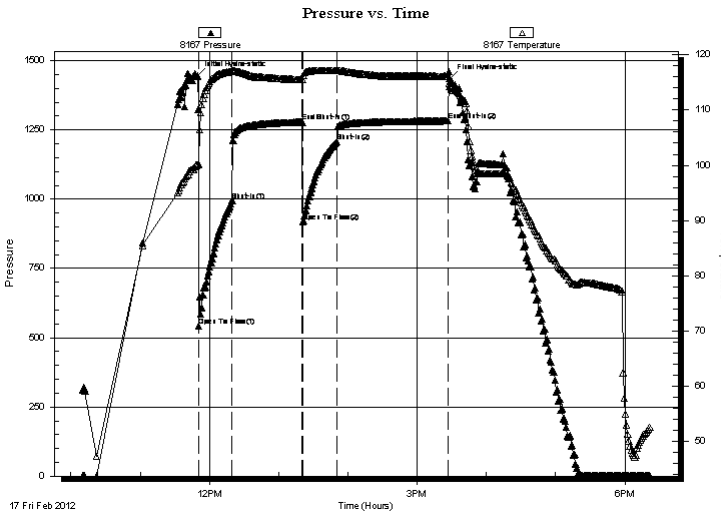
2012.02.17 @ 11:49:37

Time Off Btm:

2012.02.17 @ 15:28:07

TEST COMMENT: IF: Strong blow . B.O.B. in 1 min.
IS: Weak blow . 1/2 - 1 1/2".
FF: Strong blow . B.O.B. in 65 secs.
FS: No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1444.81	100.06	Initial Hydro-static
1	542.10	100.25	Open To Flow (1)
30	995.45	116.97	Shut-In(1)
91	1278.45	115.55	End Shut-In(1)
92	918.82	115.48	Open To Flow (2)
121	1208.89	117.16	Shut-In(2)
217	1282.61	116.13	End Shut-In(2)
219	1434.67	114.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MW 20% m 80% w	2.52
2285.00	SW	32.05

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45738

DST#: 1

ATTN: Jeff Christian

Test Start: 2012.02.17 @ 10:00:41

Tool Information

Drill Pipe:	Length: 3050.00 ft	Diameter: 3.80 inches	Volume: 42.78 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: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 71000.00 lb
			<u>Total Volume: 42.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3040.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	35.00 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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C.O. Sub	1.00			3021.00	
Shut in tool	5.00			3026.00	
HMV	5.00			3031.00	
Packer	4.00			3035.00	20.00 Bottom Of Top Packer
Packer	5.00			3040.00	
Stubb	1.00			3041.00	
Recorder	0.00	8167	Inside	3041.00	
Recorder	0.00	8370	Outside	3041.00	
Perforations	9.00			3050.00	
Bullnose	5.00			3055.00	15.00 Bottom Packers & Anchor
Total Tool Length:	35.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45738

DST#: 1

ATTN: Jeff Christian

Test Start: 2012.02.17 @ 10:00:41

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:

119000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.16 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	MW 20%m 80%w	2.525
2285.00	SW	32.053

Total Length: 2465.00 ft Total Volume: 34.578 bbl

Num Fluid Samples: 0

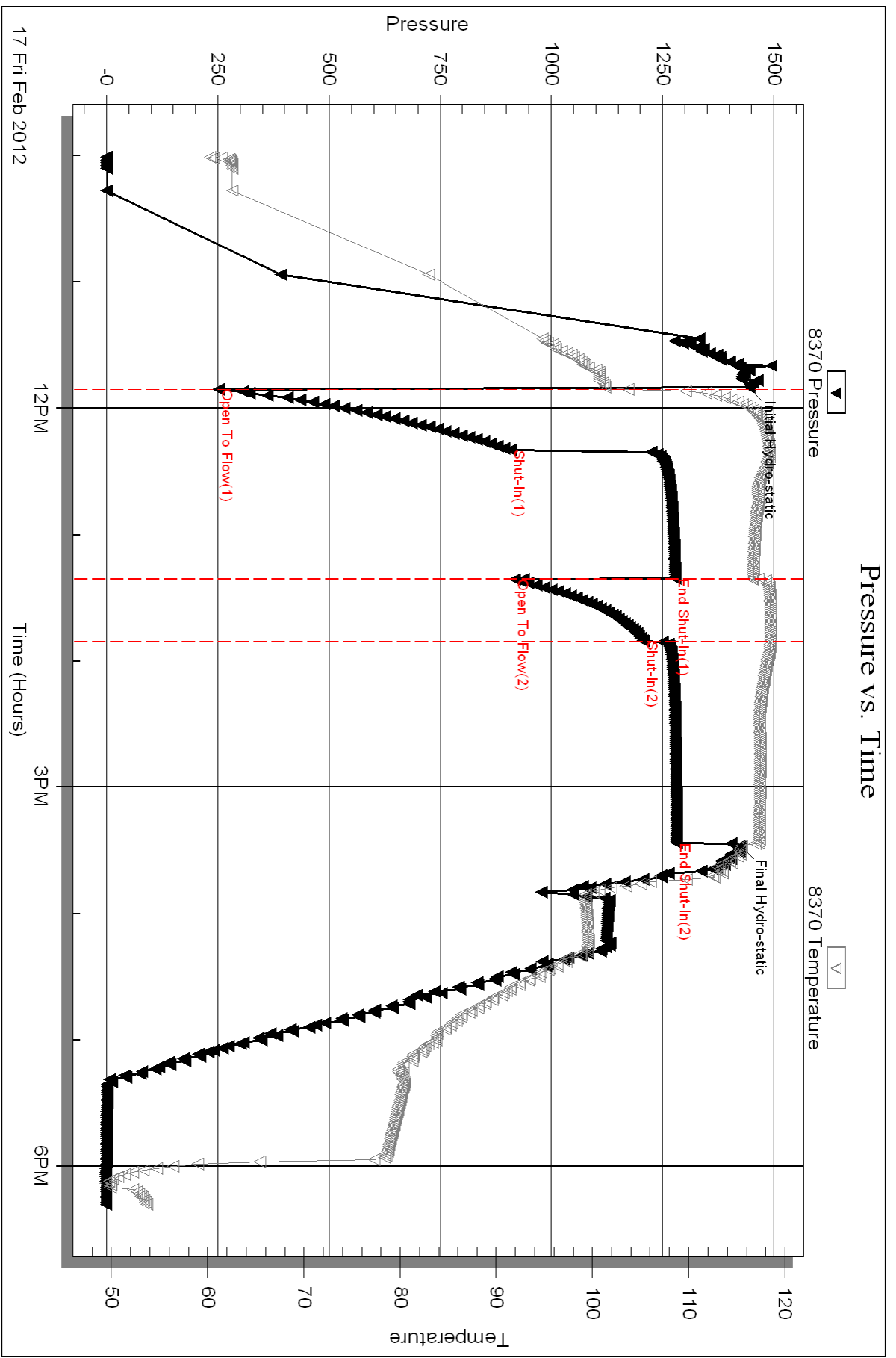
Num Gas Bombs: 0

Serial #: none

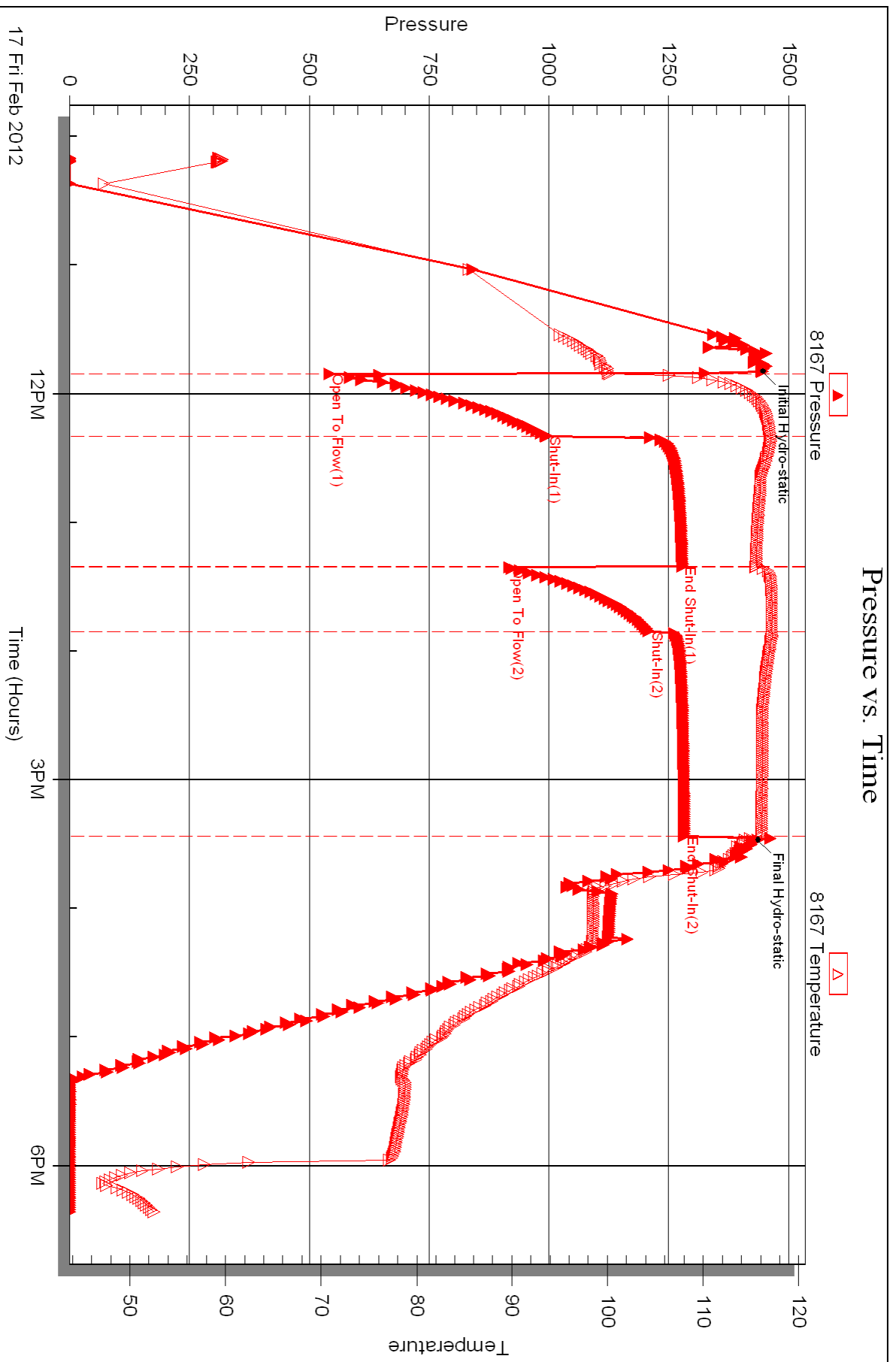
Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .09ohms @54 deg



Pressure vs. Time





DRILL STEM TEST REPORT

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

250 N.Water,Ste.300
Wichita KS 67202

ATTN: Jeff Christian

Hilger Unit #1-32

32-30s-3w Sumner,KS

Start Date: 2012.02.18 @ 11:34:56

End Date: 2012.02.18 @ 19:17:41

Job Ticket #: 45739 DST #: 2

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

Printed: 2012.02.28 @ 16:10:46



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

32-30s-3w Sumner,KS

Hilger Unit #1-32

Job Ticket: 45739

DST#: 2

Test Start: 2012.02.18 @ 11:34:56

GENERAL INFORMATION:

Formation: **L-KC H**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:02:56
 Time Test Ended: 19:17:41
 Interval: **3334.00 ft (KB) To 3356.00 ft (KB) (TVD)**
 Total Depth: 3356.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Gary Pevoteaux
 Unit No: 56
 Reference Elevations: 1406.00 ft (KB)
 1397.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8167

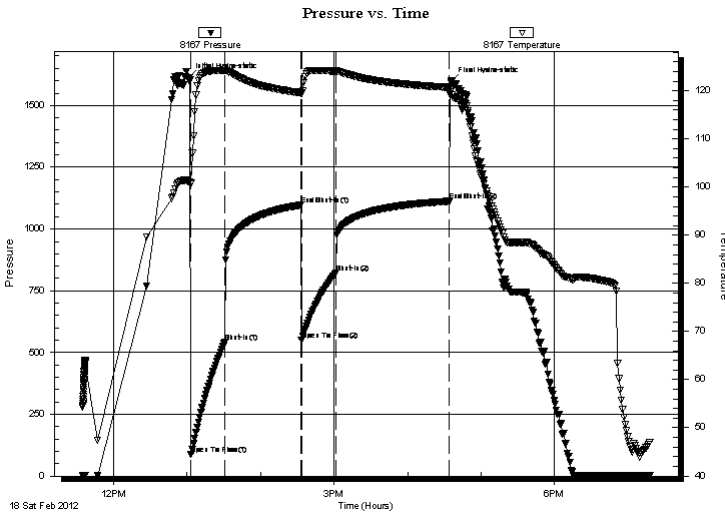
Inside

Press @ Run Depth: 822.22 psig @ 3335.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.02.18 End Date: 2012.02.18 Last Calib.: 2012.02.18
 Start Time: 11:34:57 End Time: 19:17:41 Time On Btm: 2012.02.18 @ 13:01:41
 Time Off Btm: 2012.02.18 @ 16:35:41

TEST COMMENT: IF: Strong blow . B.O.B. in 2 1/4 mins.
 IS: Weak blow . 1/2 - 1".
 FF: Strong blow . B.O.B. in 2 1/2 mins.
 FS: No blow .

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1613.54	101.11	Initial Hydro-static
2	87.24	100.56	Open To Flow (1)
30	541.57	124.18	Shut-In(1)
92	1097.05	119.55	End Shut-In(1)
92	552.00	119.40	Open To Flow (2)
120	822.22	124.08	Shut-In(2)
213	1112.62	120.73	End Shut-In(2)
214	1598.44	119.83	Final Hydro-static



Recovery

Length (ft)	Description	Volume (bbl)
125.00	MW 37%w 63%w	1.75
1500.00	SW	21.04

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45739

DST#: 2

ATTN: Jeff Christian

Test Start: 2012.02.18 @ 11:34:56

Tool Information

Drill Pipe:	Length: 3334.00 ft	Diameter: 3.80 inches	Volume: 46.77 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:	24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 46.77 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	3334.00 ft			Final	61000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	42.00 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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C.O. Sub	1.00			3315.00	
Shut in tool	5.00			3320.00	
HMV	5.00			3325.00	
Packer	4.00			3329.00	20.00 Bottom Of Top Packer
Packer	5.00			3334.00	
Stubb	1.00			3335.00	
Recorder	0.00	8167	Inside	3335.00	
Recorder	0.00	8370	Outside	3335.00	
Perforations	16.00			3351.00	
Bullnose	5.00			3356.00	22.00 Bottom Packers & Anchor
Total Tool Length:	42.00				



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45739

DST#: 2

ATTN: Jeff Christian

Test Start: 2012.02.18 @ 11:34:56

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:

122000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.96 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	MW 37% _m 63% _w	1.753
1500.00	SW	21.041

Total Length: 1625.00 ft Total Volume: 22.794 bbl

Num Fluid Samples: 0

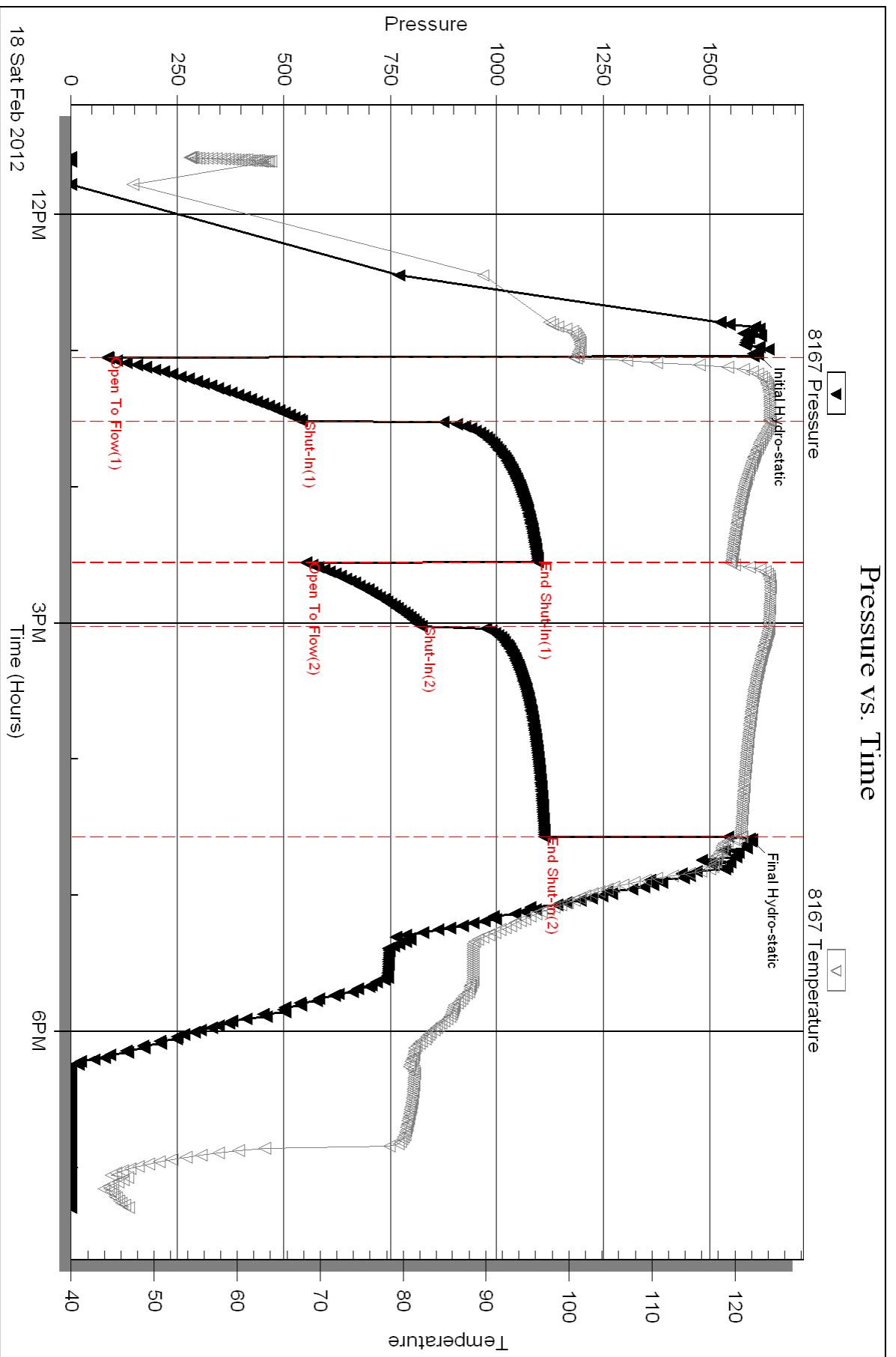
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .10ohms @49 deg

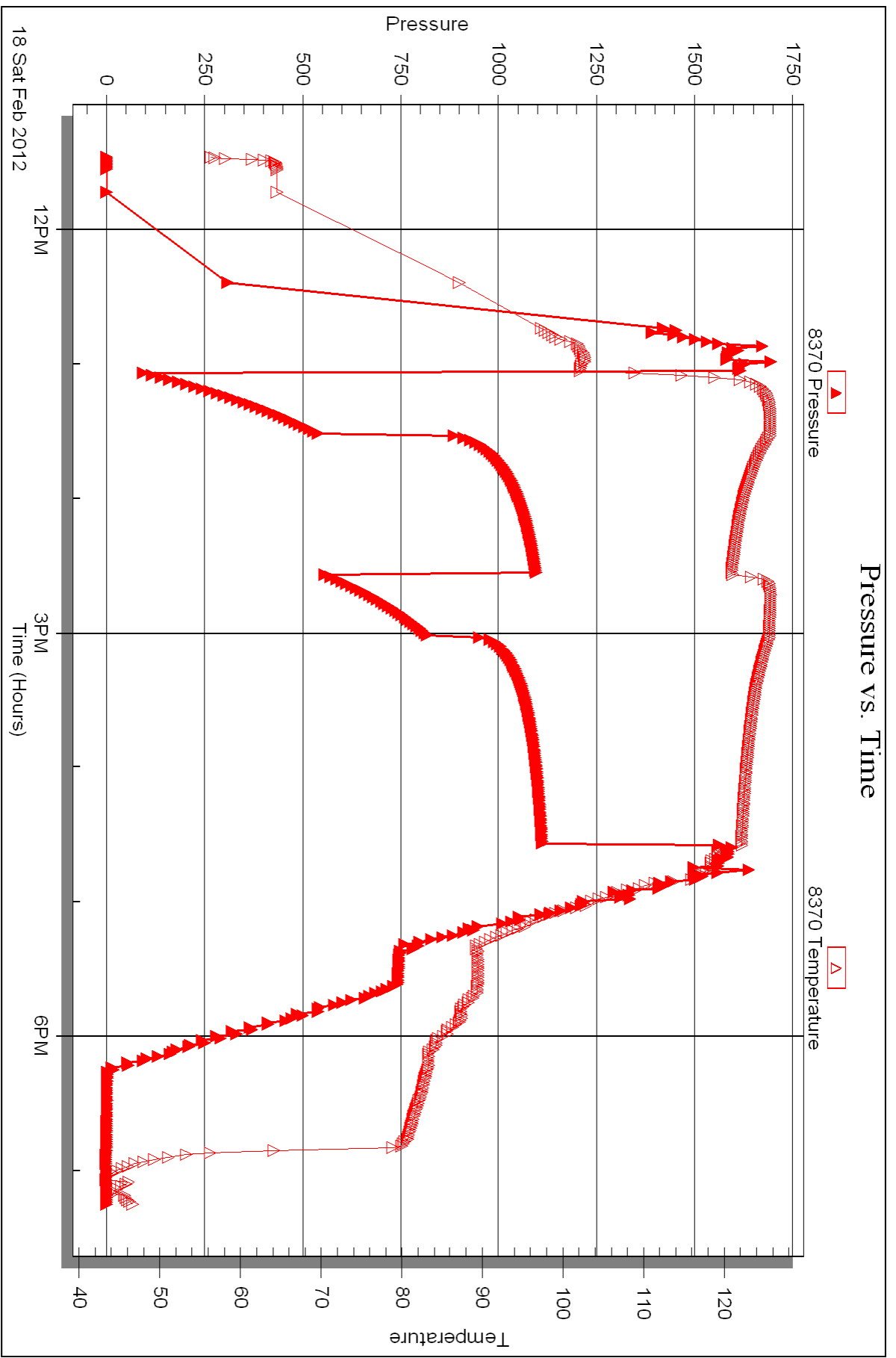


Serial #: 8370

Outside Murfin Drty. Co. Inc.

Hilger Unit #1-32

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 45739

Printed: 2012.02.28 @ 16:10:48



DRILL STEM TEST REPORT

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

250 N.Water,Ste.300
Wichita KS 67202

ATTN: Jeff Christian

Hilger Unit #1-32

32-30s-3w Sumner,KS

Start Date: 2012.02.19 @ 07:42:40

End Date: 2012.02.19 @ 14:45:25

Job Ticket #: 45740 DST #: 3

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

Printed: 2012.02.28 @ 16:10:13



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

32-30s-3w Sumner,KS

Hilger Unit #1-32

Job Ticket: 45740

DST#: 3

Test Start: 2012.02.19 @ 07:42:40

GENERAL INFORMATION:

Formation: **L-KC K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:19:40
 Time Test Ended: 14:45:25
 Interval: **3460.00 ft (KB) To 3487.00 ft (KB) (TVD)**
 Total Depth: 3487.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Gary Pevoteaux
 Unit No: 56
 Reference Elevations: 1406.00 ft (KB)
 1397.00 ft (CF)
 KB to GR/CF: 9.00 ft

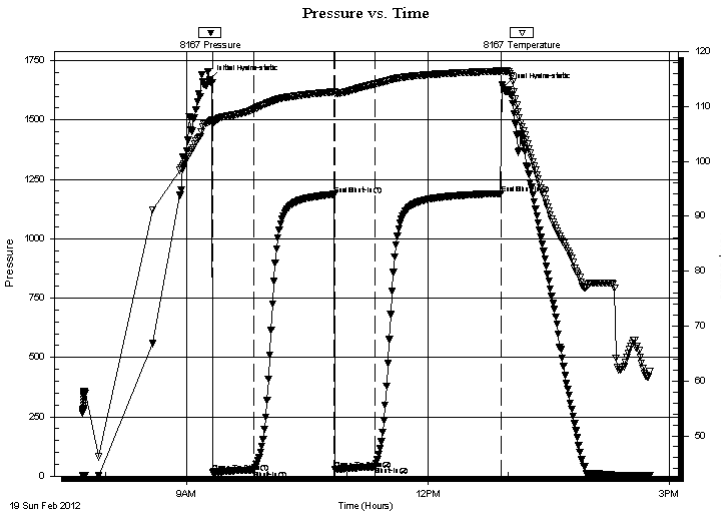
Serial #: 8167

Inside

Press @ Run Depth: 39.92 psig @ 3461.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.02.19 End Date: 2012.02.19 Last Calib.: 2012.02.19
 Start Time: 07:42:41 End Time: 14:45:25 Time On Btm: 2012.02.19 @ 09:17:10
 Time Off Btm: 2012.02.19 @ 12:56:10

TEST COMMENT: IF:Strong blow . B.O.B. in 14 mins.
 IS:No blow .
 FF:Strong blow . B.O.B. in 12 mins.
 FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1669.03	107.29	Initial Hydro-static
3	16.32	107.08	Open To Flow (1)
33	26.35	109.48	Shut-In(1)
93	1186.75	112.66	End Shut-In(1)
94	27.92	112.43	Open To Flow (2)
123	39.92	114.08	Shut-In(2)
218	1190.23	116.46	End Shut-In(2)
219	1635.10	116.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
61.00	GOCWM 20%g 18%o 20%w 42%m	0.86
0.00	430 ft.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

TOOL DIAGRAM

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45740

DST#: 3

ATTN: Jeff Christian

Test Start: 2012.02.19 @ 07:42:40

Tool Information

Drill Pipe:	Length: 3458.00 ft	Diameter: 3.80 inches	Volume: 48.51 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: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 48.51 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3460.00 ft			Final 55500.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	47.00 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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C.O. Sub	1.00			3441.00	
Shut in tool	5.00			3446.00	
HMV	5.00			3451.00	
Packer	4.00			3455.00	20.00 Bottom Of Top Packer
Packer	5.00			3460.00	
Stubb	1.00			3461.00	
Recorder	0.00	8167	Inside	3461.00	
Recorder	0.00	8370	Outside	3461.00	
Perforations	21.00			3482.00	
Bullnose	5.00			3487.00	27.00 Bottom Packers & Anchor
Total Tool Length:	47.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45740

DST#: 3

ATTN: Jeff Christian

Test Start: 2012.02.19 @ 07:42:40

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:

23500 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.16 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
61.00	GOCWM 20%g 18%o 20%w 42%m	0.856
0.00	430 ft.of GIP	0.000

Total Length: 61.00 ft Total Volume: 0.856 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .38ohms @ 52 deg

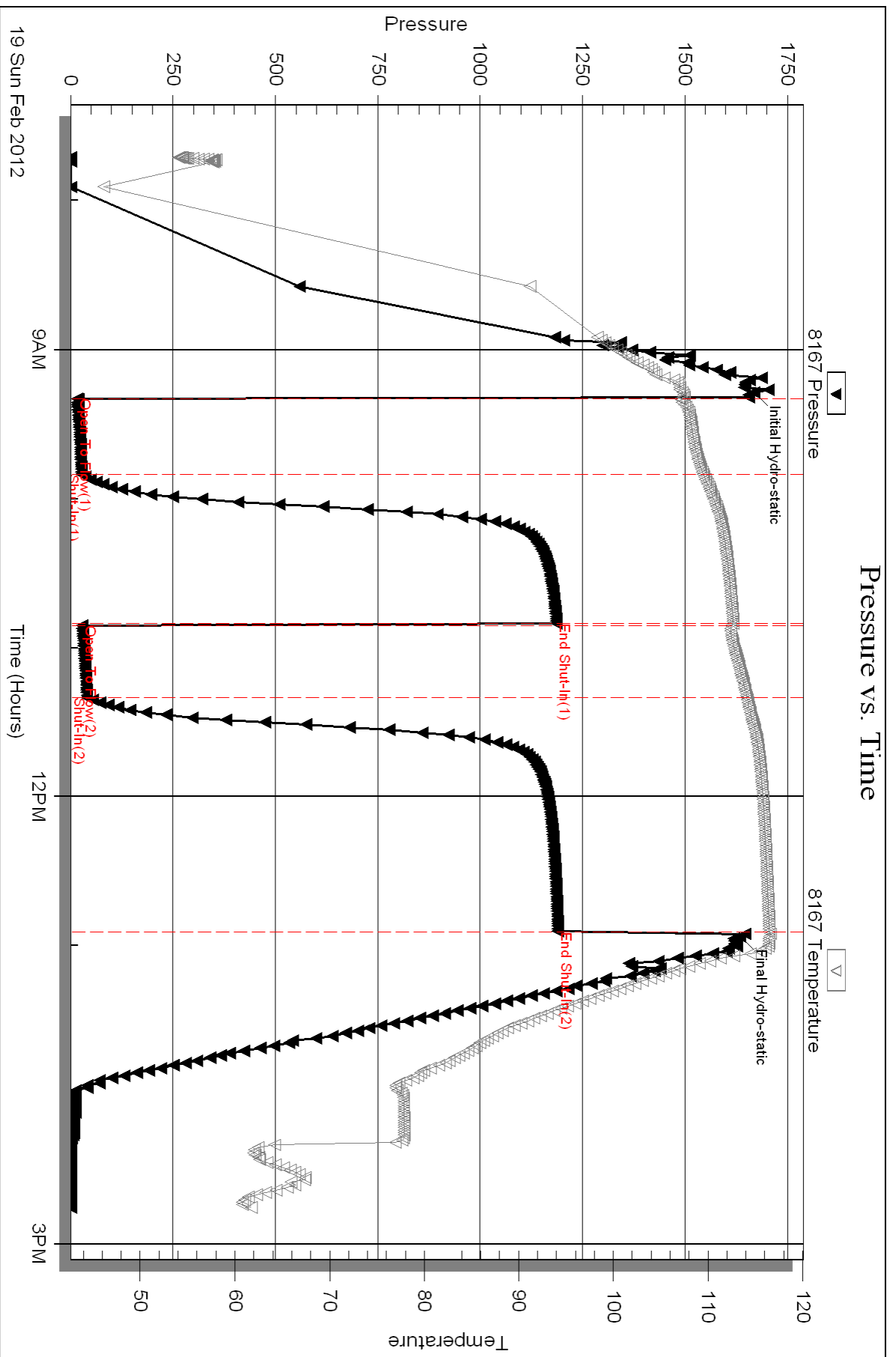
Serial #: 8167

Inside

Murfin Drilling Co. Inc.

Hilger Unit #1-32

DST Test Number: 3

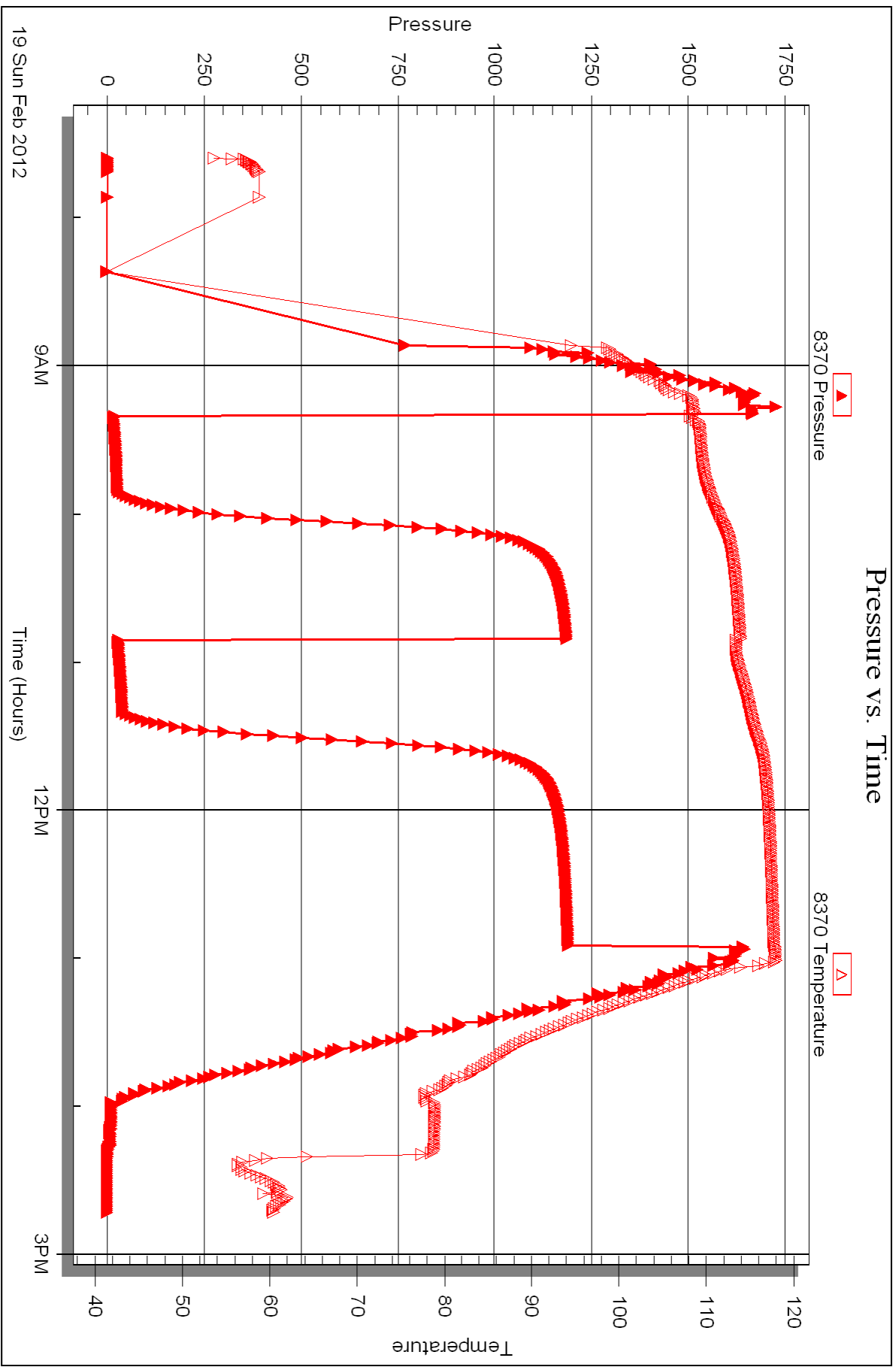


Serial #: 8370

Outside Murfin Drilling Co. Inc.

Hilger Unit #1-32

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 45740

Printed: 2012.02.28 @ 16:10:15



DRILL STEM TEST REPORT

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

250 N.Water,Ste.300
Wichita KS 67202

ATTN: Jeff Christian

Hilger Unit #1-32

32-30s-3w Sumner,KS

Start Date: 2012.02.21 @ 23:27:48

End Date: 2012.02.22 @ 06:45:33

Job Ticket #: 45741 DST #: 4

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

Printed: 2012.02.28 @ 16:09:24

Murfin Drlg.Co.Inc. 32-30s-3w Sumner,KS Hilger Unit #1-32 DST # 4 Simpson Sd 2012.02.21



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

32-30s-3w Sumner,KS

Hilger Unit #1-32

Job Ticket: 45741

DST#: 4

Test Start: 2012.02.21 @ 23:27:48

GENERAL INFORMATION:

Formation: **Simpson Sd**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:36:33
 Time Test Ended: 06:45:33
 Interval: **4360.00 ft (KB) To 4370.00 ft (KB) (TVD)**
 Total Depth: 4370.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Gary Pevoteaux
 Unit No: 56
 Reference Elevations: 1406.00 ft (KB)
 1397.00 ft (CF)
 KB to GR/CF: 9.00 ft

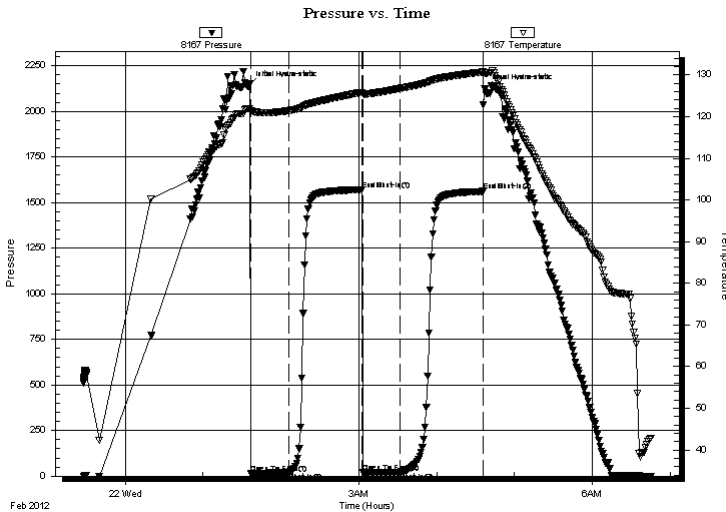
Serial #: 8167

Inside

Press@RunDepth: 22.11 psig @ 4361.00 ft (KB)
 Start Date: 2012.02.21 End Date: 2012.02.22
 Start Time: 23:27:49 End Time: 06:45:33
 Capacity: 8000.00 psig
 Last Calib.: 2012.02.22
 Time On Btm: 2012.02.22 @ 01:35:18
 Time Off Btm: 2012.02.22 @ 04:37:03

TEST COMMENT: IF:Weak blow . 1/2".
 IS:No blow .
 FF:Weak blow . 1/4" decreasing.
 FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2139.61	121.91	Initial Hydro-static
2	15.12	121.37	Open To Flow (1)
31	19.47	121.45	Shut-In(1)
88	1571.44	125.82	End Shut-In(1)
88	19.02	125.45	Open To Flow (2)
117	22.11	126.77	Shut-In(2)
181	1561.87	130.72	End Shut-In(2)
182	2123.30	130.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Drlg.mud	0.21

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45741

DST#: 4

ATTN: Jeff Christian

Test Start: 2012.02.21 @ 23:27:48

Tool Information

Drill Pipe:	Length: 4359.00 ft	Diameter: 3.80 inches	Volume: 61.15 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: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 73000.00 lb
			<u>Total Volume: 61.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4360.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	30.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4341.00	
Shut in tool	5.00			4346.00	
HMV	5.00			4351.00	
Packer	4.00			4355.00	20.00 Bottom Of Top Packer
Packer	5.00			4360.00	
Stubb	1.00			4361.00	
Recorder	0.00	8167	Inside	4361.00	
Recorder	0.00	8370	Outside	4361.00	
Perforations	4.00			4365.00	
Bullnose	5.00			4370.00	10.00 Bottom Packers & Anchor
Total Tool Length:	30.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45741

DST#: 4

ATTN: Jeff Christian

Test Start: 2012.02.21 @ 23:27:48

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:

4000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Drlg.mud	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

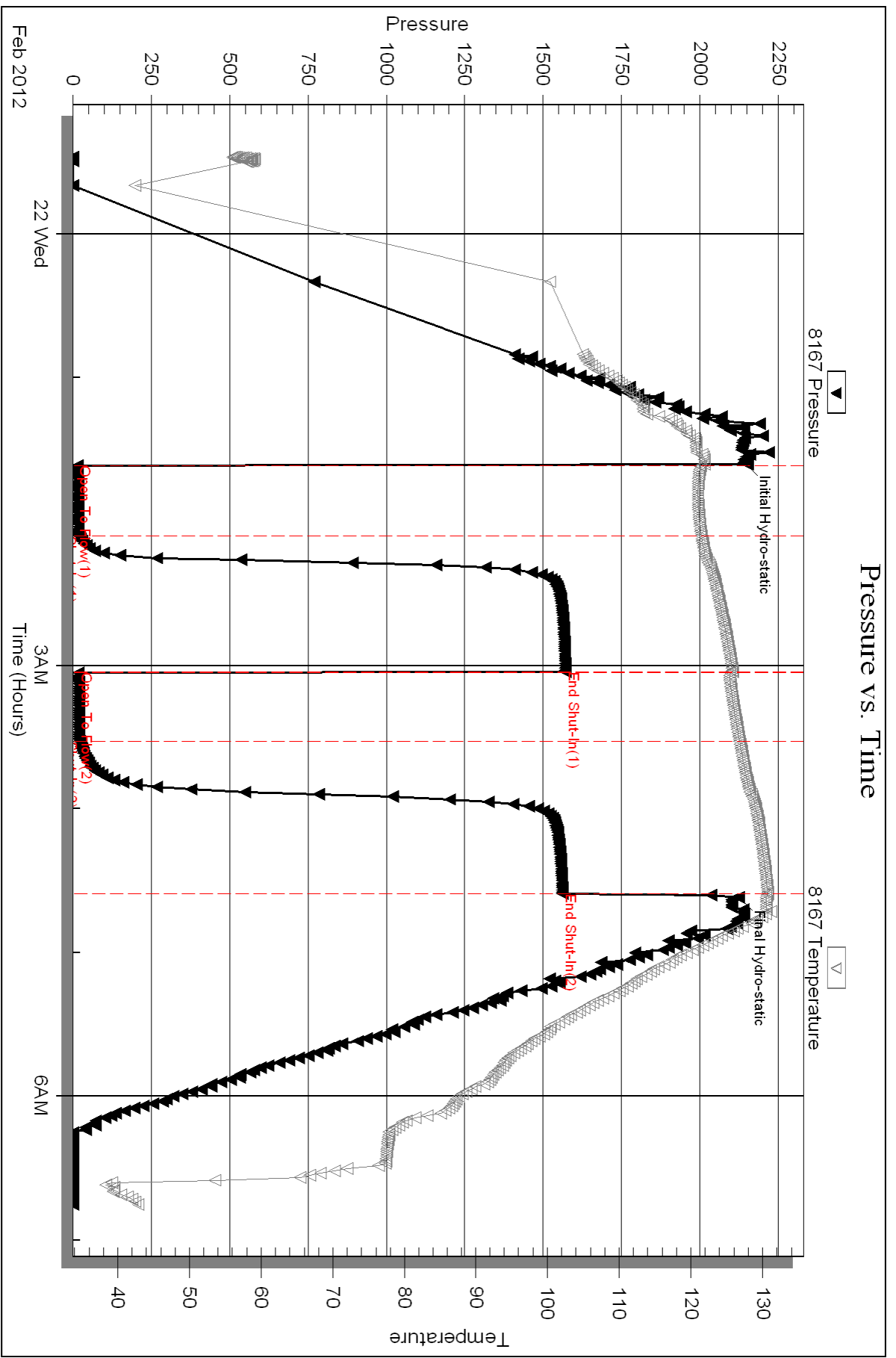
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

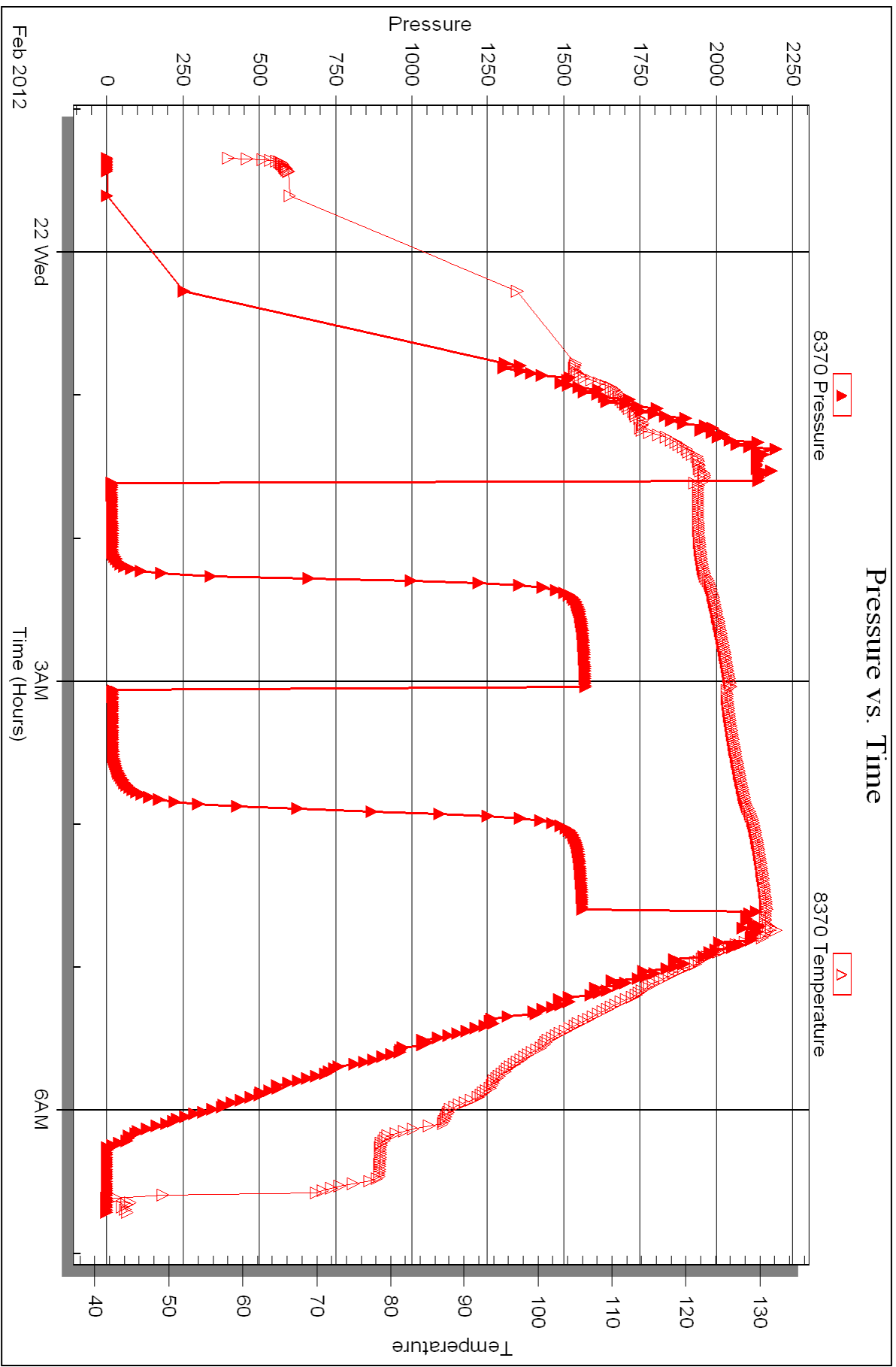


Serial #: 8370

Outside Murfin Drty. Co. Inc.

Hilger Unit #1-32

DST Test Number: 4





DRILL STEM TEST REPORT

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

250 N.Water,Ste.300
Wichita KS 67202

ATTN: Jeff Christian

Hilger Unit #1-32

32-30s-3w Sumner,KS

Start Date: 2012.02.22 @ 15:45:19

End Date: 2012.02.22 @ 22:22:04

Job Ticket #: 45742 DST #: 5

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

Printed: 2012.02.28 @ 16:08:37

Murfin Drlg.Co.Inc. 32-30s-3w Sumner,KS Hilger Unit #1-32 DST # 5 Simpson Sd 2012.02.22



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45742

DST#: 5

ATTN: Jeff Christian

Test Start: 2012.02.22 @ 15:45:19

GENERAL INFORMATION:

Formation: **Simpson Sd**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:24:19

Time Test Ended: 22:22:04

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 56

Interval: 4363.00 ft (KB) To 4373.00 ft (KB) (TVD)

Reference Elevations: 1406.00 ft (KB)

Total Depth: 4373.00 ft (KB) (TVD)

1397.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8167 Inside

Press @ Run Depth: 22.94 psig @ 4364.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.22 End Date: 2012.02.22

Last Calib.: 2012.02.22

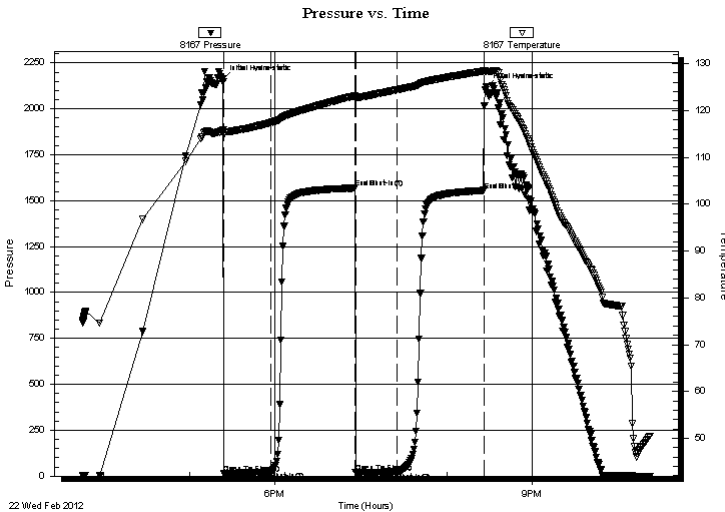
Start Time: 15:45:20 End Time: 22:22:04

Time On Btm: 2012.02.22 @ 17:23:04

Time Off Btm: 2012.02.22 @ 20:27:49

TEST COMMENT: IF:Weak blow . 1/2".
IS:No blow .
FF:Weak blow . (surface)
FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2158.16	115.73	Initial Hydro-static
2	14.03	114.80	Open To Flow (1)
34	23.58	117.42	Shut-In(1)
93	1568.48	123.11	End Shut-In(1)
94	20.64	122.75	Open To Flow (2)
123	22.94	124.42	Shut-In(2)
183	1555.48	128.40	End Shut-In(2)
185	2117.50	128.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
12.00	WM 18%w 82%m	0.17
0.00	Good odor	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 Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45742

DST#: 5

ATTN: Jeff Christian

Test Start: 2012.02.22 @ 15:45:19

Tool Information

Drill Pipe:	Length: 4359.00 ft	Diameter: 3.80 inches	Volume: 61.15 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:	24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 61.15 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	66000.00 lb
Depth to Top Packer:	4363.00 ft			Final	66000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	10.00 ft				
Tool Length:	30.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4344.00	
Shut in tool	5.00			4349.00	
HMV	5.00			4354.00	
Packer	4.00			4358.00	20.00 Bottom Of Top Packer
Packer	5.00			4363.00	
Stubb	1.00			4364.00	
Recorder	0.00	8167	Inside	4364.00	
Recorder	0.00	8370	Outside	4364.00	
Perforations	4.00			4368.00	
Bullnose	5.00			4373.00	10.00 Bottom Packers & Anchor
Total Tool Length:	30.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45742

DST#: 5

ATTN: Jeff Christian

Test Start: 2012.02.22 @ 15:45:19

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:

9400 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
12.00	WM 18%w 82%m	0.168
0.00	Good odor	0.000

Total Length: 12.00 ft Total Volume: 0.168 bbl

Num Fluid Samples: 0

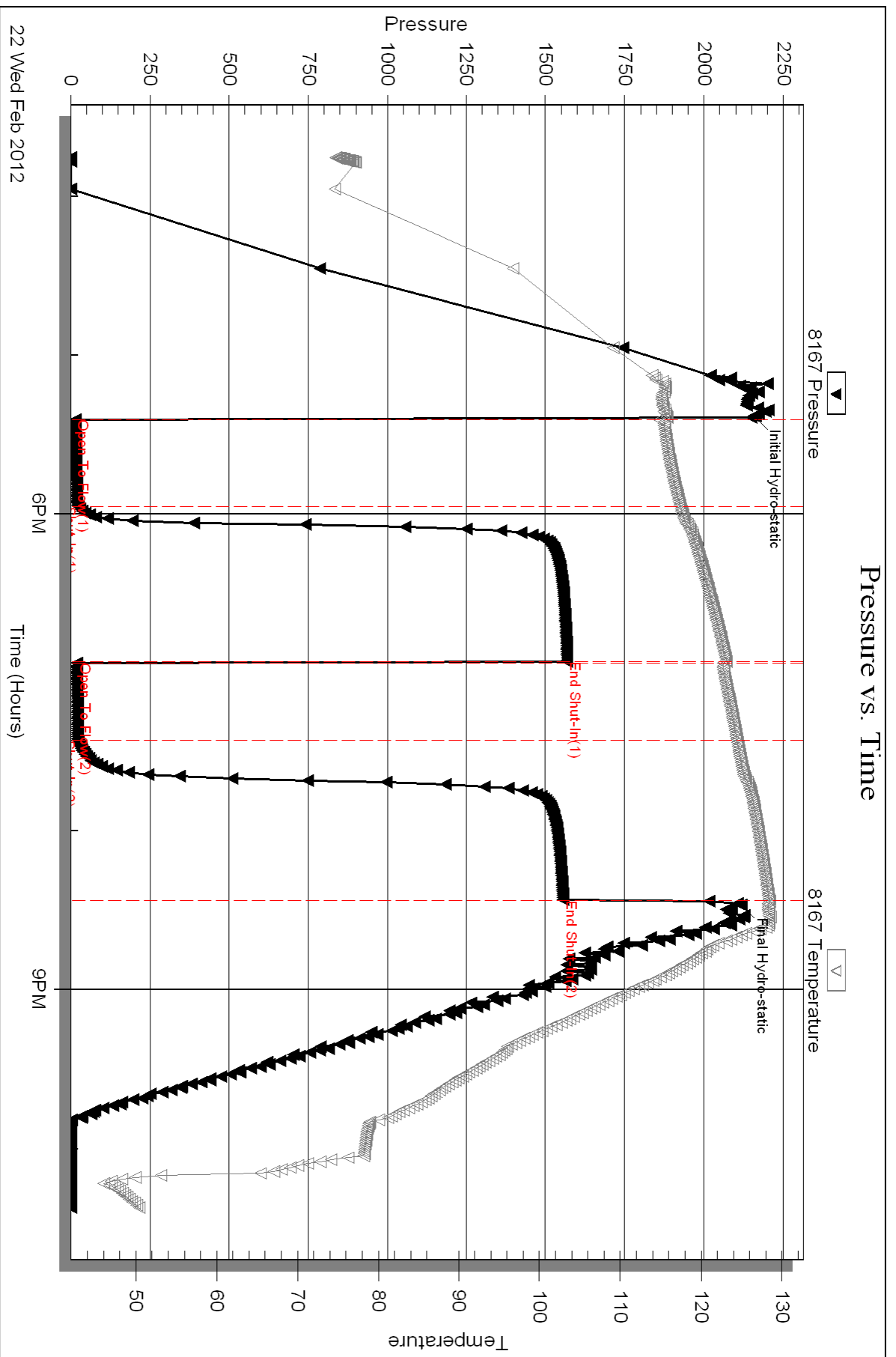
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .75ohms @60deg

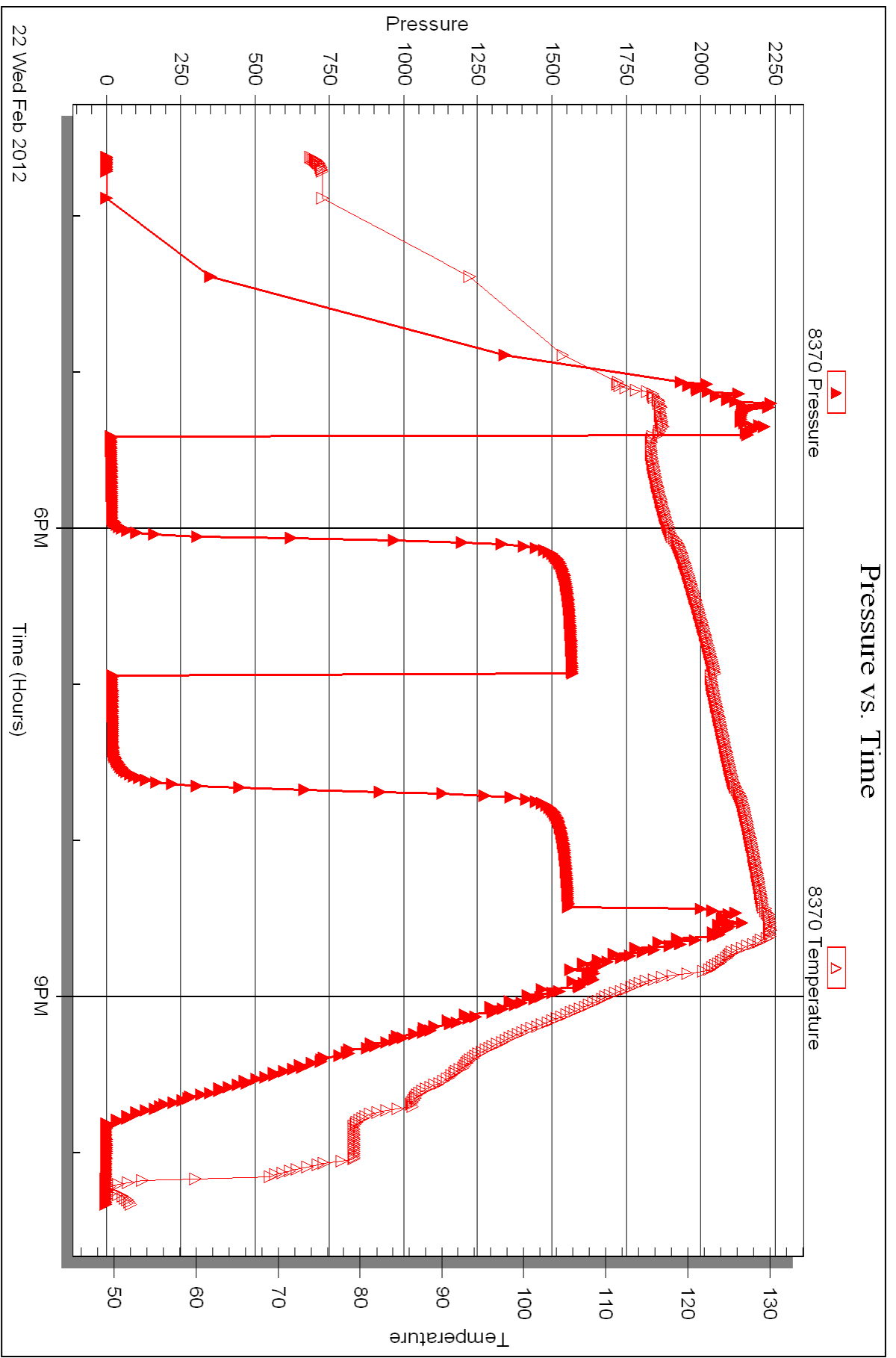


Serial #: 8370

Outside Murfin Drtg. Co. Inc.

Hilger Unit #1-32

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 45742

Printed: 2012.02.28 @ 16:08:40



DRILL STEM TEST REPORT

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

250 N.Water,Ste.300
Wichita KS 67202

ATTN: Jeff Christian

Hilger Unit #1-32

32-30s-3w Sumner,KS

Start Date: 2012.02.23 @ 04:48:11

End Date: 2012.02.23 @ 12:14:56

Job Ticket #: 45743 DST #: 6

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

Printed: 2012.02.28 @ 16:07:59



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

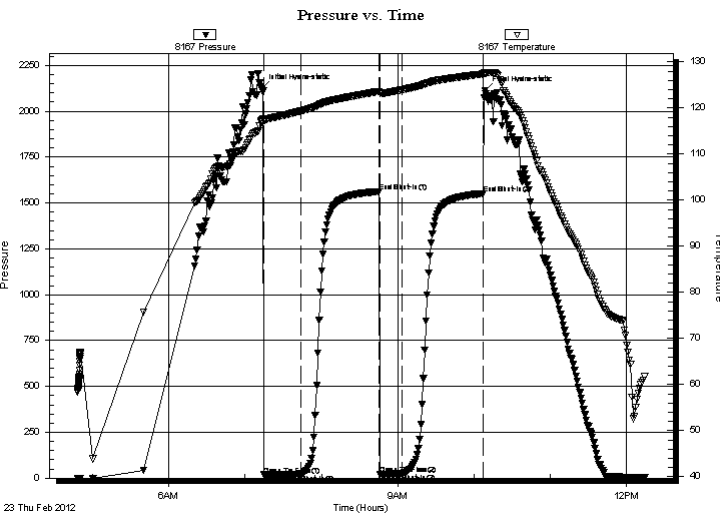
32-30s-3w Sumner,KS
Hilger Unit #1-32
 Job Ticket: 45743 **DST#: 6**
 Test Start: 2012.02.23 @ 04:48:11

GENERAL INFORMATION:

Formation: **Simpson Sd**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 07:14:26 Tester: Gary Pevoteaux
 Time Test Ended: 12:14:56 Unit No: 56
 Interval: **4366.00 ft (KB) To 4376.00 ft (KB) (TVD)** Reference Elevations: 1406.00 ft (KB)
 Total Depth: 4376.00 ft (KB) (TVD) 1397.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

Serial #: 8167 Inside
 Press @ Run Depth: 24.18 psig @ 4367.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.02.23 End Date: 2012.02.23 Last Calib.: 2012.02.23
 Start Time: 04:48:12 End Time: 12:14:56 Time On Btm: 2012.02.23 @ 07:12:41
 Time Off Btm: 2012.02.23 @ 10:08:41

TEST COMMENT: IF:Weak blow . 1/4 - 1/2".
 IS:No blow .
 FF:No blow .
 FS:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2124.58	117.16	Initial Hydro-static
2	17.55	117.16	Open To Flow (1)
31	20.35	119.31	Shut-In(1)
93	1562.49	123.62	End Shut-In(1)
94	21.34	123.25	Open To Flow (2)
111	24.18	123.94	Shut-In(2)
175	1551.63	127.39	End Shut-In(2)
176	2111.44	127.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	WM28%w 72%m	0.14

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45743

DST#: 6

ATTN: Jeff Christian

Test Start: 2012.02.23 @ 04:48:11

Tool Information

Drill Pipe:	Length: 4359.00 ft	Diameter: 3.80 inches	Volume: 61.15 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: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 61.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4366.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	30.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4347.00	
Shut in tool	5.00			4352.00	
HMV	5.00			4357.00	
Packer	4.00			4361.00	20.00 Bottom Of Top Packer
Packer	5.00			4366.00	
Stubb	1.00			4367.00	
Recorder	0.00	8167	Inside	4367.00	
Recorder	0.00	8370	Outside	4367.00	
Perforations	4.00			4371.00	
Bullnose	5.00			4376.00	10.00 Bottom Packers & Anchor
Total Tool Length:	30.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45743

DST#: 6

ATTN: Jeff Christian

Test Start: 2012.02.23 @ 04:48:11

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:

33000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	WM28%w 72%m	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

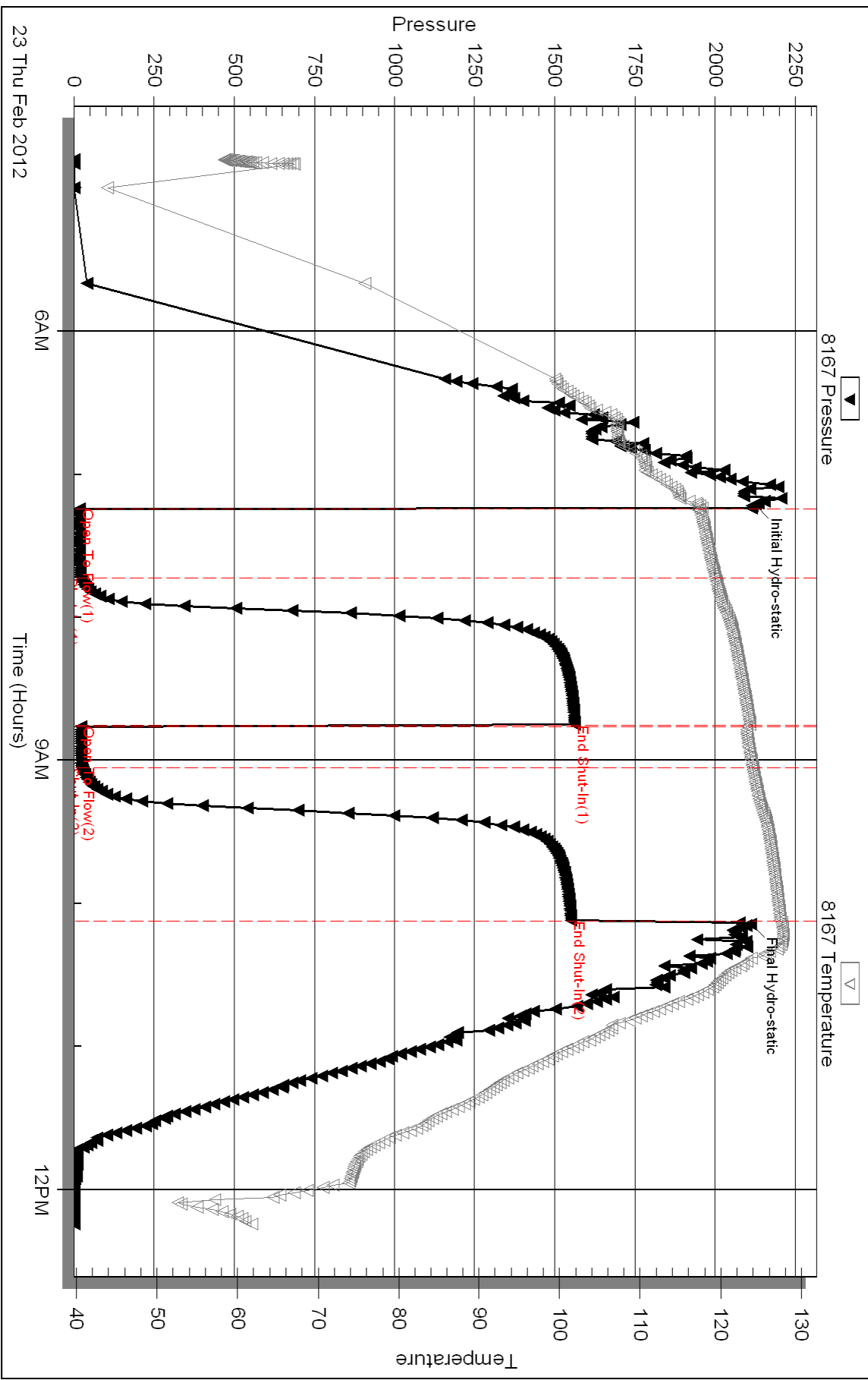
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .25ohms @61deg

Pressure vs. Time

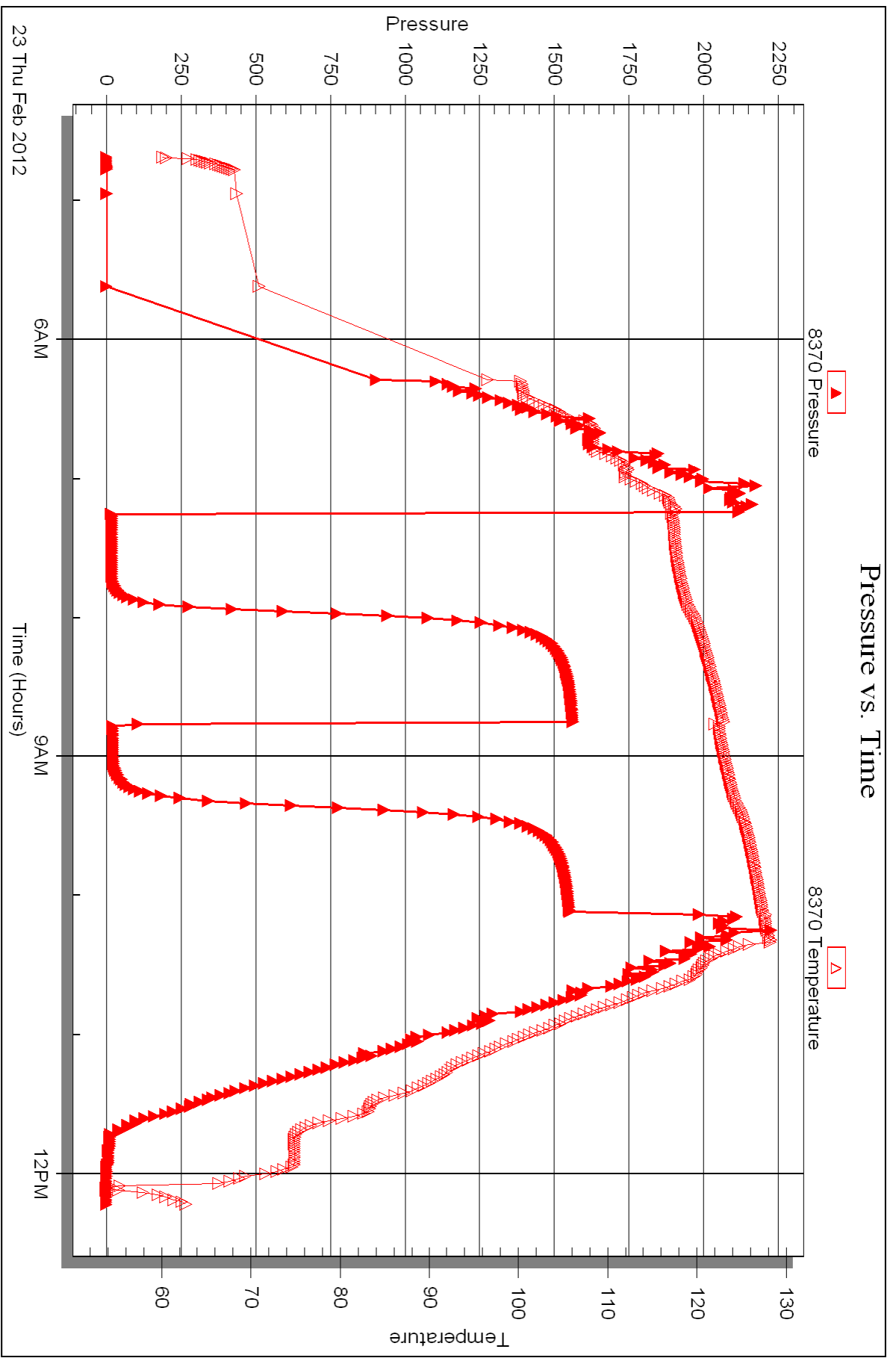


Serial #: 8370

Outside Murfin Drty.Co.Inc.

Hilger Unit #1-32

DST Test Number: 6





DRILL STEM TEST REPORT

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

250 N.Water,Ste.300
Wichita KS 67202

ATTN: Jeff Christian

Hilger Unit #1-32

32-30s-3w Sumner,KS

Start Date: 2012.02.23 @ 20:54:54

End Date: 2012.02.24 @ 03:31:54

Job Ticket #: 45744 DST #: 7

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

Printed: 2012.02.28 @ 16:07:11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

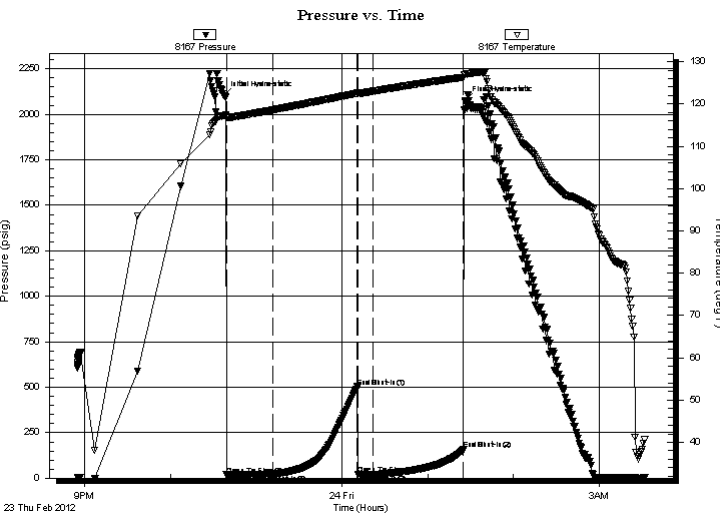
32-30s-3w Sumner,KS
Hilger Unit #1-32
 Job Ticket: 45744 **DST#: 7**
 Test Start: 2012.02.23 @ 20:54:54

GENERAL INFORMATION:

Formation: **Simpson Sd**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 22:38:54 Tester: Gary Pevoteaux
 Time Test Ended: 03:31:54 Unit No: 56
 Interval: **4376.00 ft (KB) To 4386.00 ft (KB) (TVD)** Reference Elevations: 1406.00 ft (KB)
 Total Depth: 4386.00 ft (KB) (TVD) 1397.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

Serial #: 8167 Inside
 Press @ Run Depth: 18.36 psig @ 4377.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.02.23 End Date: 2012.02.24 Last Calib.: 2012.02.24
 Start Time: 20:54:55 End Time: 03:31:54 Time On Btm: 2012.02.23 @ 22:36:54
 Time Off Btm: 2012.02.24 @ 01:26:09

TEST COMMENT: IF:Weak blow . 1/4".
 IS:No blow .
 FF:No blow .
 FS:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2101.92	117.26	Initial Hydro-static
2	17.93	116.79	Open To Flow (1)
35	21.10	118.60	Shut-In(1)
94	502.28	122.54	End Shut-In(1)
95	19.94	122.41	Open To Flow (2)
105	18.36	123.01	Shut-In(2)
168	156.23	126.32	End Shut-In(2)
170	2074.62	126.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drlg.mud	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 Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45744

DST#: 7

ATTN: Jeff Christian

Test Start: 2012.02.23 @ 20:54:54

Tool Information

Drill Pipe:	Length: 4359.00 ft	Diameter: 3.80 inches	Volume: 61.15 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: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 61.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4376.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	30.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

C.O. Sub	1.00			4357.00	
Shut in tool	5.00			4362.00	
HMV	5.00			4367.00	
Packer	4.00			4371.00	20.00 Bottom Of Top Packer
Packer	5.00			4376.00	
Stubb	1.00			4377.00	
Recorder	0.00	8167	Inside	4377.00	
Recorder	0.00	8370	Outside	4377.00	
Perforations	4.00			4381.00	
Bullnose	5.00			4386.00	10.00 Bottom Packers & Anchor
Total Tool Length:	30.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg.Co.Inc.

32-30s-3w Sumner,KS

250 N.Water,Ste.300
Wichita KS 67202

Hilger Unit #1-32

Job Ticket: 45744

DST#: 7

ATTN: Jeff Christian

Test Start: 2012.02.23 @ 20:54:54

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:

4000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	Drlg.mud	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8167

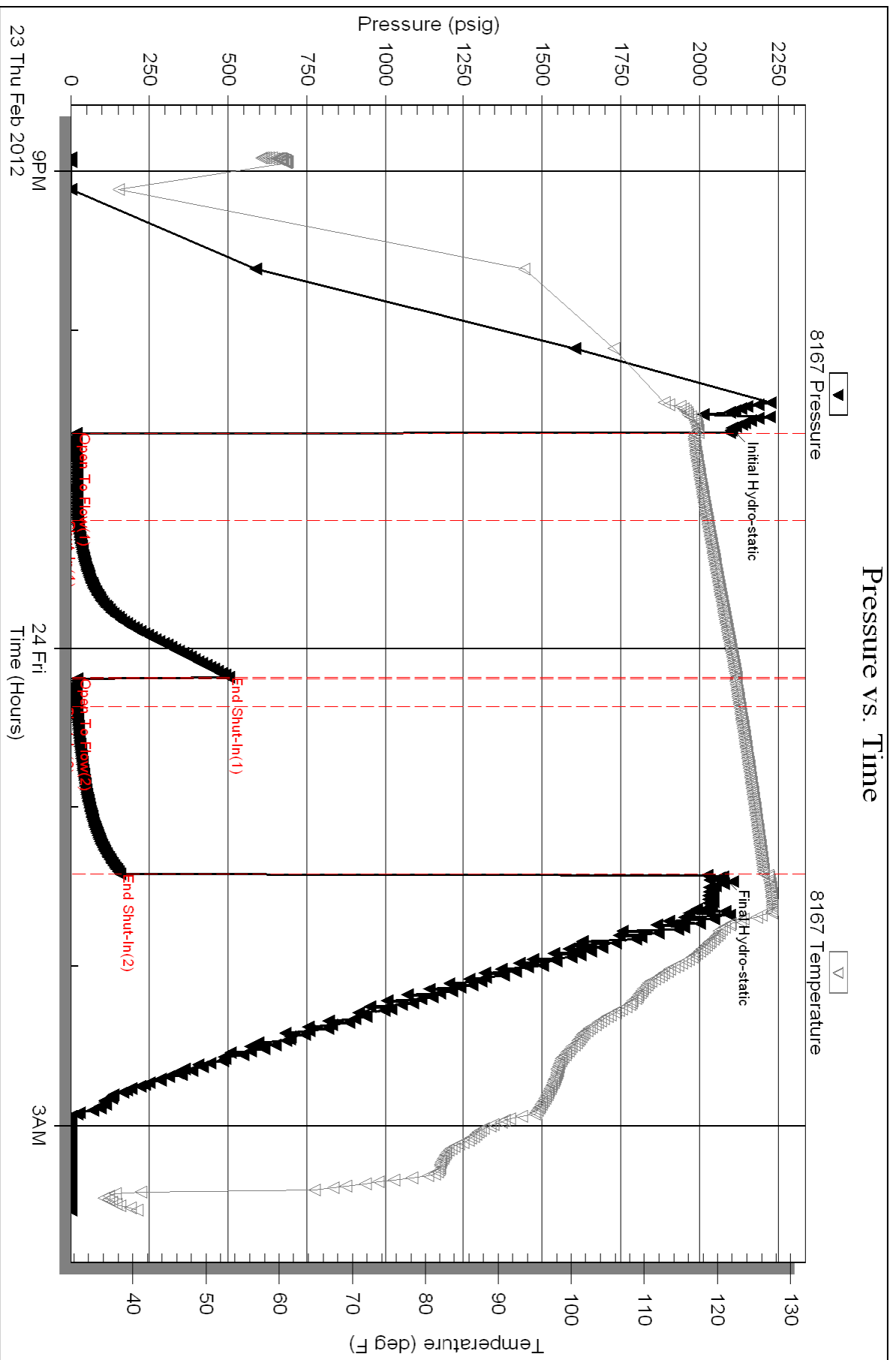
Inside

Murfin Drilg. Co. Inc.

Hilger Unit #1-32

DST Test Number: 7

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 45744

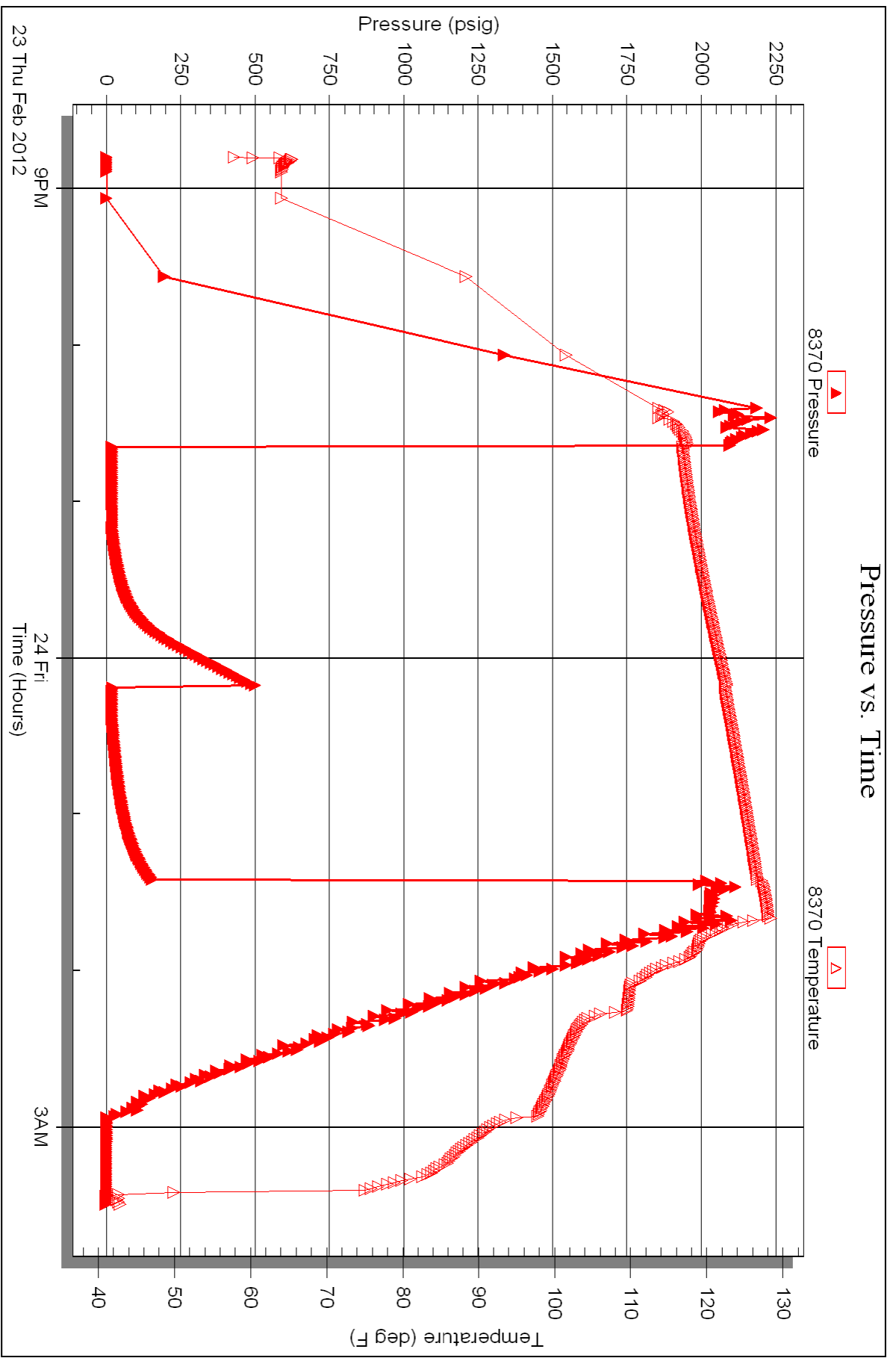
Printed: 2012.02.28 @ 16:07:13

Serial #: 8370

Outside Murfin Drig. Co. Inc.

Hilger Unit #1-32

DST Test Number: 7





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
FEB 27 2012
BY: _____

Test Ticket

NO. 45738

Well Name & No. HILGER Unit # 1-32 Test No. 1 Date 2-17-12
 Company MURFEN DRUG CO INC. Elevation 1406 KB 1397 GL
 Address 250 N. WATER, STE 300, WICHITA KS. 67202
 Co. Rep / Geo. JEFF CHRISTIAN Rig MAVERICK DRUG #106
 Location: Sec. 32 Twp. 30S Rge. 3W Co. SUMNER State Ks.

Interval Tested 3040 ~ 3055' Zone Tested STALNAKER
 Anchor Length 15' Drill Pipe Run 3050' Mud Wt. 9.1
 Top Packer Depth 3035' Drill Collars Run 0 Vis 50
 Bottom Packer Depth 3040' Wt. Pipe Run 0 WL 9.2cc
 Total Depth 3055' Chlorides 4000 ppm System LCM 0
 Blow Description IF: Strong blow. B.O.B. in 1 min. ISF: Weak blow 1/2 - 1 1/2".

FF: Strong blow. B.O.B. in 65 secs. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>180</u>	<u>MW</u>			<u>80%</u>	<u>20</u>
<u>2285</u>	<u>SW</u>				

Rec Total 2465 BHT 116° Gravity N/A API RW 009 @ 54 °F Chlorides 119,000 ppm

(A) Initial Hydrostatic 1445 Test 1125' T-On Location 0853
 (B) First Initial Flow 542 Jars _____ T-Started 1010
 (C) First Final Flow 995 Safety Joint _____ T-Open 1150
 (D) Initial Shut-In 1278 Circ Sub _____ T-Pulled 1525
 (E) Second Initial Flow 919 Hourly Standby 1/4 hr 25' T-Out 1822
 (F) Second Final Flow 1209 Mileage 1647 229.60 Comments _____
 (G) Final Shut-In 1283 Sampler _____
 (H) Final Hydrostatic 1435 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250' Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 11629.60
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 11629.60

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
FEB 27 2012

Test Ticket

NO. 45739

Well Name & No. HELGER UNIT # 1-32 BY: Test No. 2 Date 2-18-12
 Company MURFIN DRILLING CO. INC. Elevation 1406 KB 1397 GL
 Address 250 N. WATER, STE. 300, WICHITA KS. 67202
 Co. Rep / Geo. JEFF CHRISTIAN Rig MAVERICK DRILL # 106
 Location: Sec. 32 Twp. 30^s Rge. 3^w Co. SUMNER State KS.

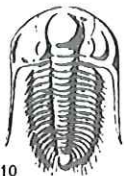
Interval Tested 3334 - 3356' Zone Tested LKC 'H'
 Anchor Length 22' Drill Pipe Run 3334' Mud Wt. 9.2
 Top Packer Depth 3329' Drill Collars Run 0 Vis 49
 Bottom Packer Depth 3334' Wt. Pipe Run 0 WL 9.0cc
 Total Depth 3356' Chlorides 4000 ppm System LCM 0
 Blow Description FF: Strong blow. B.O.B. in 2 1/4 mins. ISI: Weak blow. 1/2 - 1"

FF: Strong blow. B.O.B. in 2 1/2 mins. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>125</u>	<u>Feet of MW</u>		<u>63</u>	<u>37</u>	
<u>1500</u>	<u>Feet of SW</u>				

Rec Total 1625 Fluid BHT 121 Gravity N/A API RW :10 @ 49 °F Chlorides 122000 ppm
 (A) Initial Hydrostatic 1614 Test 1125' T-On Location 1038
 (B) First Initial Flow 87 Jars T-Started 1134
 (C) First Final Flow 542 Safety Joint T-Open 1302
 (D) Initial Shut-In 1097 Circ Sub T-Pulled 1634
 (E) Second Initial Flow 352 Hourly Standby T-Out 1917
 (F) Second Final Flow 822 Mileage (164) 229.60 Comments
 (G) Final Shut-In 1113 Sampler
 (H) Final Hydrostatic 1598 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1354.60
 Accessibility MP/DST Disc't
 Sub Total 1354.60

Approved By Our Representative Gay Pivota
 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.



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P.O. Box 1733 • Hays, Kansas 67601

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FEB 27 2012

Test Ticket

NO. 45740

Well Name & No. HILGER UNIT # 1-32 BY: _____ Test No. 3 Date 2-19-12
 Company MURFIN DRILG. Co. Inc. Elevation 1406 KB 1397 GL
 Address 950N, WATER, STE. 300, WICHITA KS.
 Co. Rep / Geo. JEFF CHRISTIAN Rig MAVERICK DRILG. #106
 Location: Sec. 32 Twp. 30^S Rge. 3W Co. SUMNER State Ks.

Interval Tested 3460 - 3487' Zone Tested L-KC "K"
 Anchor Length 27' Drill Pipe Run 3458' Mud Wt. 9.2
 Top Packer Depth 3455' Drill Collars Run 0 Vis 49
 Bottom Packer Depth 3460' Wt. Pipe Run 0 WL 9.2 cc
 Total Depth 3487 Chlorides 5,000 ppm System LCM 0
 Blow Description IF: Strong blow. B.O.B. in 14 mins. FSI: No blow.

EF: Strong blow. B.O.B. in 12 mins. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>430</u>	<u>Gas in pipe</u>				
<u>61</u>	<u>GOCWM</u>	<u>20</u>	<u>18</u>	<u>20</u>	<u>42</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 61 Fluid BHT 128 Gravity N/A API RW 38 @ 52 °F Chlorides 23,500 ppm
 (A) Initial Hydrostatic 1669 Test 1125 T-On Location 0711
 (B) First Initial Flow 16 Jars T-Started 0742
 (C) First Final Flow 26 Safety Joint T-Open 0919
 (D) Initial Shut-In 1187 Circ Sub T-Pulled 1252
 (E) Second Initial Flow 28 Hourly Standby T-Out 1445
 (F) Second Final Flow 40 Mileage 164 229.160 Comments _____
 (G) Final Shut-In 1190 Sampler _____
 (H) Final Hydrostatic 1635 Straddle _____
 Ruined 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 1354.160
 Final Shut-In 90 Accessibility _____ MP/DST Disc't _____
 Sub Total 1354.160

Approved By Jeff Christian Our Representative Gary Pivotaux

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RECEIVED
FEB 27 2012
BY: _____

Test Ticket

NO. 45742

Well Name & No. HILGER UNIT # 1-32 Test No. 5 Date 2-22-12
 Company MURFIN DRUG. CO. INC. Elevation 1406 KB 1397 GL
 Address WICHITA KS, 67202
 Co. Rep / Geo. JEFF CHRISTIAN Rig MAVERICK DRUG. #106
 Location: Sec. 32 Twp. 30S Rge. 3W Co. SUMNER State KS

Interval Tested 4363 ~ 4373' Zone Tested SIMPSON SD.
 Anchor Length 10' Drill Pipe Run 4359' Mud Wt. 9.1
 Top Packer Depth 4358' Drill Collars Run 0 Vis 47
 Bottom Packer Depth 4363' Wt. Pipe Run 0 WL 9.0
 Total Depth 4373' Chlorides 4000 ppm System LCM 4#
 Blow Description FF: Weak below, 1/2". FSI: No blow.

FF: Weak below, (surface) FSI: No blow.

Rec	Feet of	WM	Good	ORDER!	%gas	%oil	%water	%mud
12							18	82
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 12 BHT 128° Gravity N/A API RW .75 @ 60 °F Chlorides 9400 ppm
 (A) Initial Hydrostatic 2158 Test 1225' T-On Location 1445
 (B) First Initial Flow 14 Jars _____ T-Started 1545
 (C) First Final Flow 24 Safety Joint _____ T-Open 1724
 (D) Initial Shut-In 1568 Circ Sub _____ T-Pulled 2030
 (E) Second Initial Flow 21 Hourly Standby _____ T-Out 2222
 (F) Second Final Flow 23 Mileage (111) 229.60 Comments _____
 (G) Final Shut-In 1555 Sampler _____
 (H) Final Hydrostatic 2118 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250' Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1704.60
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 1704.60

Approved By _____ Our Representative Cory Piotrowski
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TRILOBITE TESTING INC.

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RECEIVED
FEB 27 2012

Test Ticket

NO. 45743

4/10

BY: _____

Well Name & No. HILGER UNIT # 1-32 Test No. 6 Date 2-23-12
 Company MUREN DRLG. Co. Inc. Elevation 1406 KB 1397 GL
 Address WICHITA Ks. 67202
 Co. Rep / Geo. JEFF CHRISTIAN Rig MAVERICK DRLG. #106
 Location: Sec. 32 Twp. 30^S Rge. 3^W Co. SUMNER State Ks.

Interval Tested 4366 - 4376' Zone Tested SIMPSON SD.
 Anchor Length 10' Drill Pipe Run 4359' Mud Wt. 9.4
 Top Packer Depth 4361' Drill Collars Run 0 Vis 53
 Bottom Packer Depth 4366' Wt. Pipe Run 0 WL 88
 Total Depth 4376 Chlorides 4000 ppm System LCM 4[#]
 Blow Description IF: Weak blow. 1/4 - 1/2". FSI: No blow.

FF: No blow. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>WM</u>		<u>28</u>	<u>72</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 127° Gravity N/A API RW 25 @ 61 °F Chlorides 33,000 ppm

(A) Initial Hydrostatic 2125 Test 1225' T-On Location 0420
 (B) First Initial Flow 18 Jars _____ T-Started 0448
 (C) First Final Flow 20 Safety Joint _____ T-Open 0714
 (D) Initial Shut-In 1562 Circ Sub _____ T-Pulled 1008
 (E) Second Initial Flow 21 Hourly Standby _____ T-Out 1214
 (F) Second Final Flow 24 Mileage 1104 229.60 Comments _____
 (G) Final Shut-In 1552 Sampler _____
 (H) Final Hydrostatic 2111 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1454.60
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1454.60

Approved By _____ Our Representative Cory Pivota

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.

