

DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbe #1-23

23-2s-36w Rawlins,KS

Start Date: 2012.11.23 @ 05:56:00

End Date: 2012.11.23 @ 14:06:30

Job Ticket #: 48167 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 09:50:03



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48167

DST#: 1

Test Start: 2012.11.23 @ 05:56:00

GENERAL INFORMATION:

Formation: **Stotler**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:15:30

Time Test Ended: 14:06:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols - James

Unit No: 63

Interval: 3833.00 ft (KB) To 3975.00 ft (KB) (TVD)

Total Depth: 3975.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6719 Inside

Press @ Run Depth: 63.68 psig @ 3834.00 ft (KB)

Start Date: 2012.11.23

End Date:

2012.11.23

Start Time: 05:56:05

End Time:

14:06:29

Capacity: 8000.00 psig

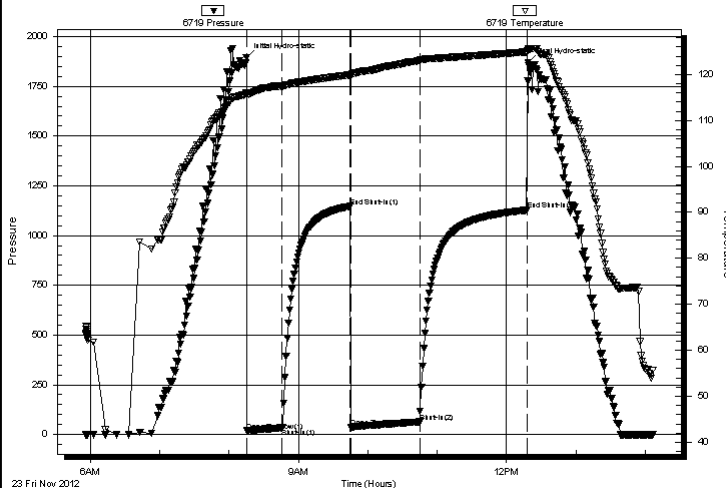
Last Calib.: 2012.11.23

Time On Btm: 2012.11.23 @ 08:15:00

Time Off Btm: 2012.11.23 @ 12:19:00

TEST COMMENT: 30 IF - 1/4" blow built to 2"
60 ISI - No return
60 FF - Surface blow started 27 mins. in built to 1"
90 FSI - No return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1895.51	116.04	Initial Hydro-static
1	18.65	115.91	Open To Flow (1)
31	33.37	117.44	Shut-In(1)
90	1146.79	119.90	End Shut-In(1)
91	37.41	120.03	Open To Flow (2)
150	63.68	123.04	Shut-In(2)
243	1127.49	124.91	End Shut-In(2)
244	1867.79	125.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
92.00	Mud - 100%	0.45

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48167

DST#: 1

Test Start: 2012.11.23 @ 05:56:00

GENERAL INFORMATION:

Formation: **Stotler**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:15:30

Time Test Ended: 14:06:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols - James

Unit No: 63

Interval: 3833.00 ft (KB) To 3975.00 ft (KB) (TVD)

Total Depth: 3975.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8320 Outside

Press @ Run Depth: psig @ 3834.00 ft (KB)

Start Date: 2012.11.23

End Date:

2012.11.23

Start Time: 05:56:05

End Time:

14:05:59

Capacity: 8000.00 psig

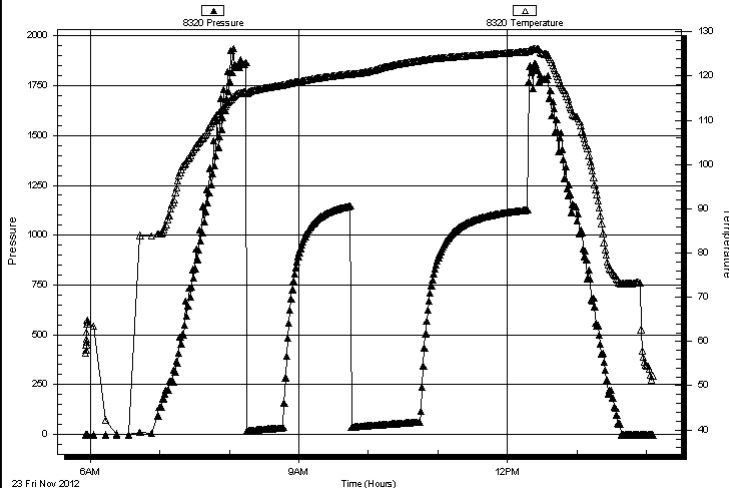
Last Calib.: 2012.11.23

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 IF - 1/4" blow built to 2"
60 ISI - No return
60 FF - Surface blow started 27 mins. in built to 1"
90 FSI - No return

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
92.00	Mud - 100%	0.45

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48167

DST#: 1

ATTN: Rocky Milford

Test Start: 2012.11.23 @ 05:56:00

Tool Information

Drill Pipe:	Length:	3300.00 ft	Diameter:	3.80 inches	Volume:	46.29 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:	534.00 ft	Diameter:	2.25 inches	Volume:	2.63 bbl	Weight to Pull Loose:	70000.00 lb
					Total Volume:	48.92 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		29.00 ft					String Weight: Initial	67000.00 lb
Depth to Top Packer:		3833.00 ft					Final	67000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		142.00 ft						
Tool Length:		170.00 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			3810.00	
Hydraulic tool	5.00			3815.00	
Jars	5.00			3820.00	
Safety Joint	3.00			3823.00	
Packer	5.00			3828.00	28.00 Bottom Of Top Packer
Packer	5.00			3833.00	
Packer - Shale	0.00			3833.00	
Stubb	1.00			3834.00	
Recorder	0.00	6719	Inside	3834.00	
Recorder	0.00	8320	Outside	3834.00	
Perforations	10.00			3844.00	
Blank Spacing	128.00			3972.00	
Bullnose	3.00			3975.00	142.00 Bottom Packers & Anchor

Total Tool Length: 170.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48167

DST#: 1

ATTN: Rocky Milford

Test Start: 2012.11.23 @ 05:56:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 57.00 sec/qt

Water Loss: 5.94 in³

Resistivity: ohm.m

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
92.00	Mud - 100%	0.452

Total Length: 92.00 ft

Total Volume: 0.452 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

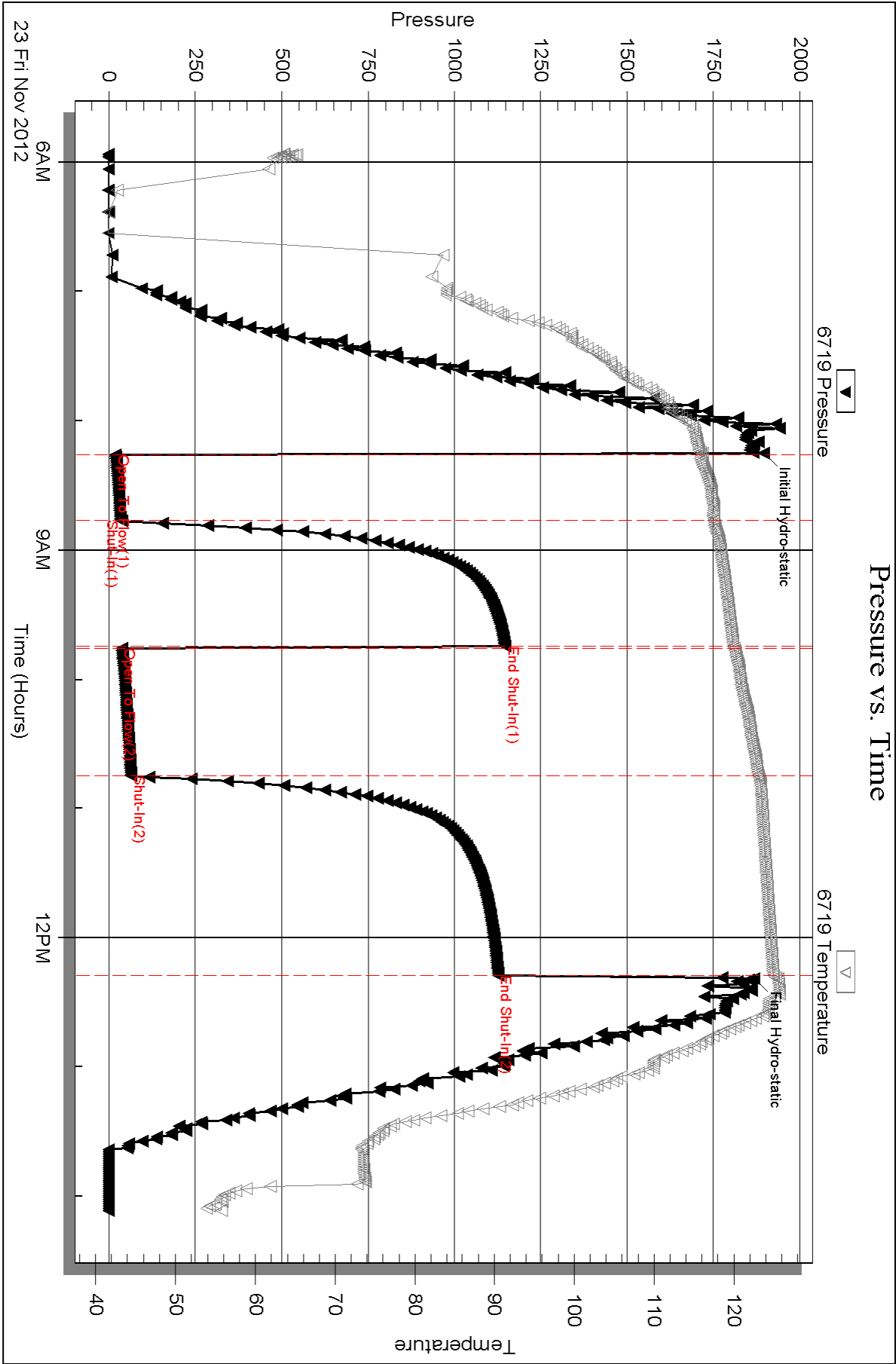
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Inside

Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 1

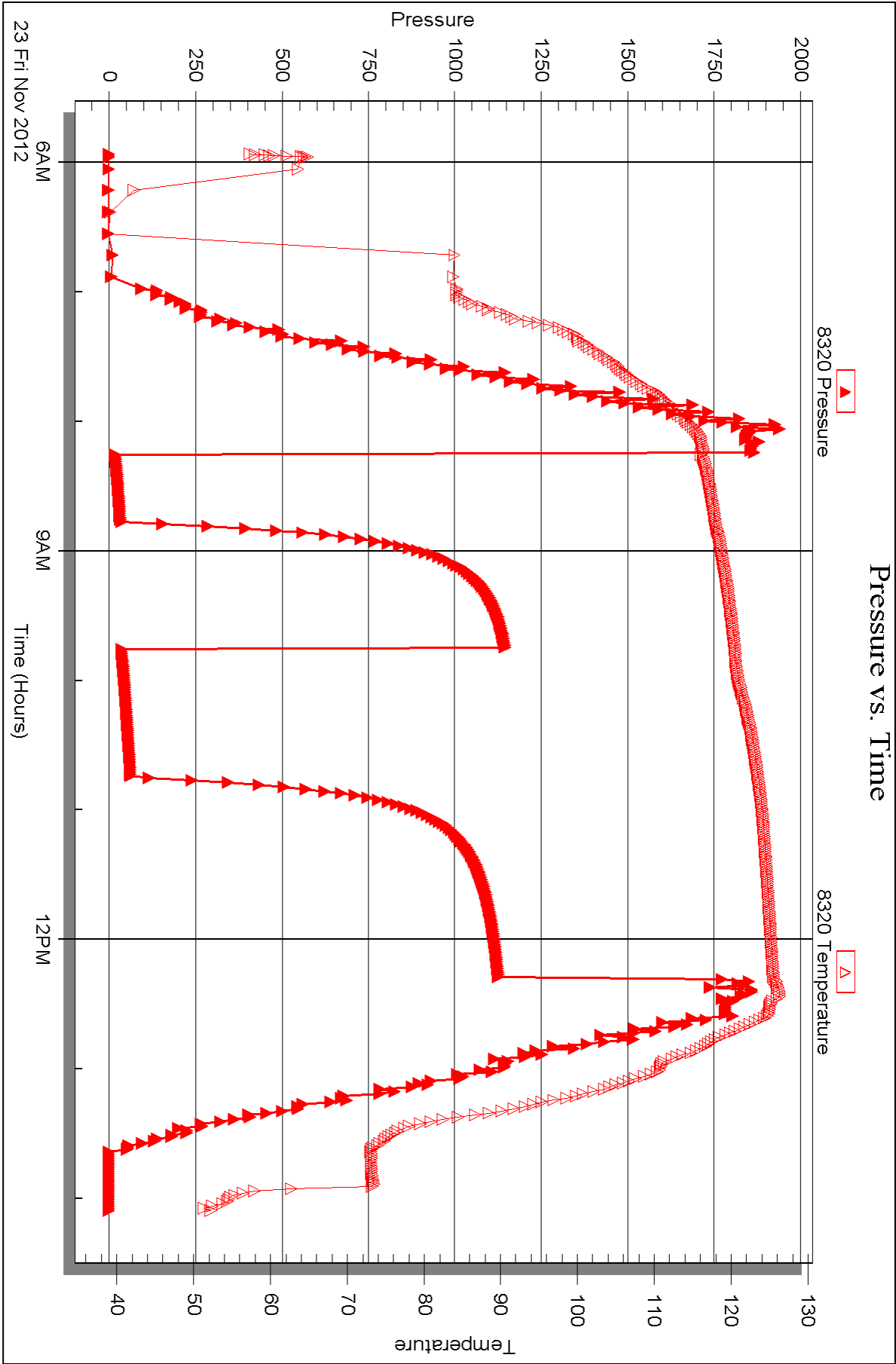


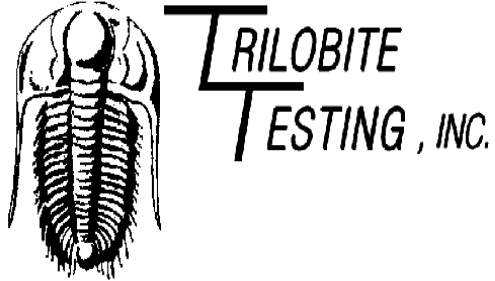
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 1





DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbe #1-23

23-2s-36w Rawlins,KS

Start Date: 2012.11.23 @ 23:15:00

End Date: 2012.11.24 @ 06:54:30

Job Ticket #: 48168 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 09:49:16



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48168

DST#: 2

Test Start: 2012.11.23 @ 23:15:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:05:00

Time Test Ended: 06:54:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols - James

Unit No: 57

Interval: 3970.00 ft (KB) To 4040.00 ft (KB) (TVD)

Total Depth: 4040.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6719 Inside

Press @ Run Depth: 71.77 psig @ 3971.00 ft (KB)

Start Date: 2012.11.23

End Date:

2012.11.24

Start Time: 23:15:05

End Time:

06:54:29

Capacity: 8000.00 psig

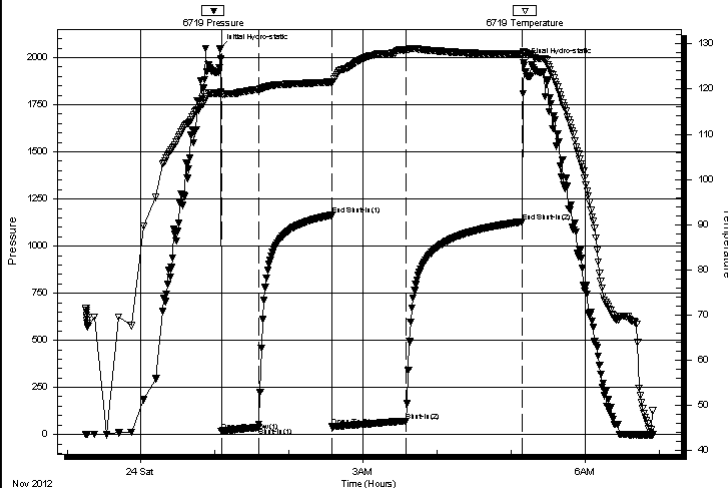
Last Calib.: 2012.11.24

Time On Btm: 2012.11.24 @ 01:04:00

Time Off Btm: 2012.11.24 @ 05:10:00

TEST COMMENT: 30 IF - Surface blow built to 2 1/8"
60 ISI - No return
60 FF - Surface return started @ 10 mins. built to 2 1/8"
90 FSI - No return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2046.01	119.19	Initial Hydro-static
1	17.91	119.01	Open To Flow (1)
31	37.16	119.88	Shut-In (1)
91	1163.65	121.56	End Shut-In (1)
91	41.40	121.48	Open To Flow (2)
151	71.77	128.53	Shut-In (2)
245	1128.41	127.74	End Shut-In (2)
246	1974.69	128.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	WCM W/OS 84%M - 15%W - 1%o	0.44
25.00	WCM W/OS 70%M - 23%W - 5%G - 2%o	0.12

Gas Rates

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



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DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48168

DST#: 2

Test Start: 2012.11.23 @ 23:15:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:05:00

Time Test Ended: 06:54:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols - James

Unit No: 57

Interval: 3970.00 ft (KB) To 4040.00 ft (KB) (TVD)

Total Depth: 4040.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8320 Outside

Press @ Run Depth: psig @ 3971.00 ft (KB)

Start Date: 2012.11.23

End Date:

2012.11.24

Start Time: 23:15:05

End Time:

06:54:29

Capacity: 8000.00 psig

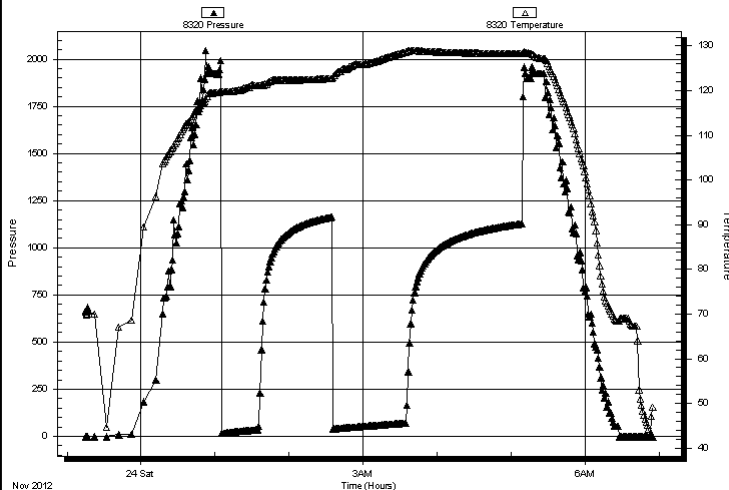
Last Calib.: 2012.11.24

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 IF - Surface blow built to 2 1/8"
60 ISI - No return
60 FF - Surface return started @ 10 mins. built to 2 1/8"
90 FSI - No return

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
90.00	WCM W/OS 84%M - 15%W - 1%o	0.44
25.00	WCM W/OS 70%M - 23%W - 5%G - 2%o	0.12

Gas Rates

	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.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48168

DST#: 2

ATTN: Rocky Milford

Test Start: 2012.11.23 @ 23:15:00

Tool Information

Drill Pipe:	Length: 3427.00 ft	Diameter: 3.80 inches	Volume: 48.07 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 534.00 ft	Diameter: 2.25 inches	Volume: 2.63 bbl	Weight to Pull Loose:	78000.00 lb
		Total Volume:	50.70 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial	65000.00 lb
Depth to Top Packer:	3970.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	70.00 ft				
Tool Length:	98.00 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			3947.00	
Hydraulic tool	5.00			3952.00	
Jars	5.00			3957.00	
Safety Joint	3.00			3960.00	
Packer	5.00			3965.00	28.00 Bottom Of Top Packer
Packer	5.00			3970.00	
Packer - Shale	0.00			3970.00	
Stubb	1.00			3971.00	
Recorder	0.00	6719	Inside	3971.00	
Recorder	0.00	8320	Outside	3971.00	
Perforations	28.00			3999.00	
Blank Spacing	33.00			4032.00	
Perforations	5.00			4037.00	
Bullnose	3.00			4040.00	70.00 Bottom Packers & Anchor

Total Tool Length: 98.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48168

DST#: 2

ATTN: Rocky Milford

Test Start: 2012.11.23 @ 23:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 57.00 sec/qt

Water Loss: 5.94 in³

Resistivity: ohm.m

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity: 17500 ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	WCM W/OS 84%M - 15%W - 1%o	0.443
25.00	WCM W/OS 70%M - 23%W - 5%G - 2%o	0.123

Total Length: 115.00 ft

Total Volume: 0.566 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .427 ohms @ 64.9 Deg F

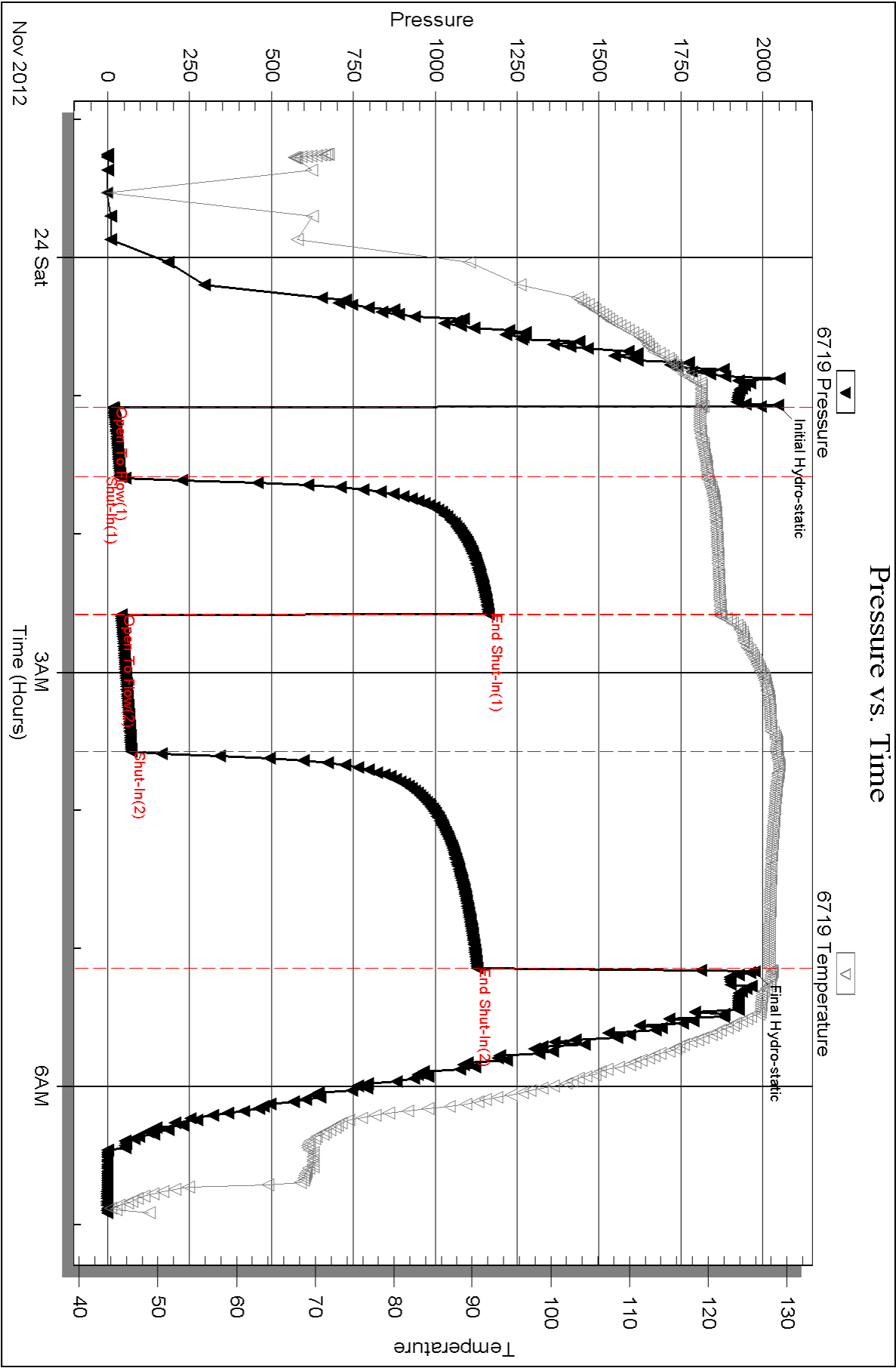
Serial #: 6719

Inside

Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 2

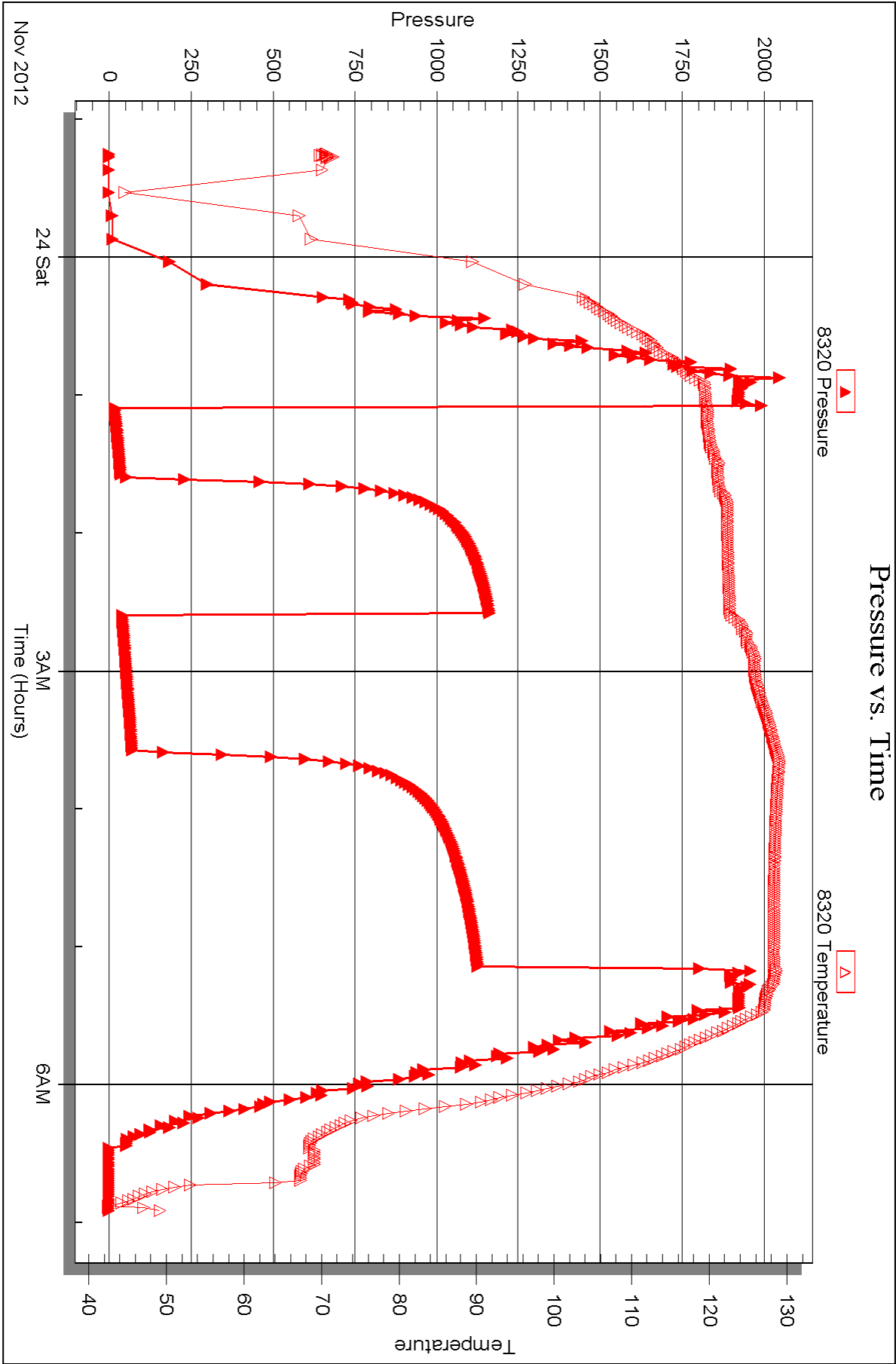


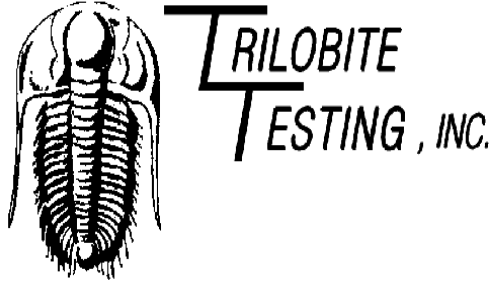
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 2





DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbe #1-23

23-2s-36w Rawlins,KS

Start Date: 2012.11.24 @ 18:50:00

End Date: 2012.11.25 @ 03:04:00

Job Ticket #: 48169 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 09:48:32



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48169

DST#: 3

Test Start: 2012.11.24 @ 18:50:00

GENERAL INFORMATION:

Formation: **Lecompton - Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:02:30

Time Test Ended: 03:04:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4070.00 ft (KB) To 4147.00 ft (KB) (TVD)

Total Depth: 4147.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6719 Inside

Press @ Run Depth: 221.14 psig @ 4071.00 ft (KB)

Start Date: 2012.11.24

End Date:

2012.11.25

Start Time: 18:50:05

End Time:

03:03:59

Capacity: 8000.00 psig

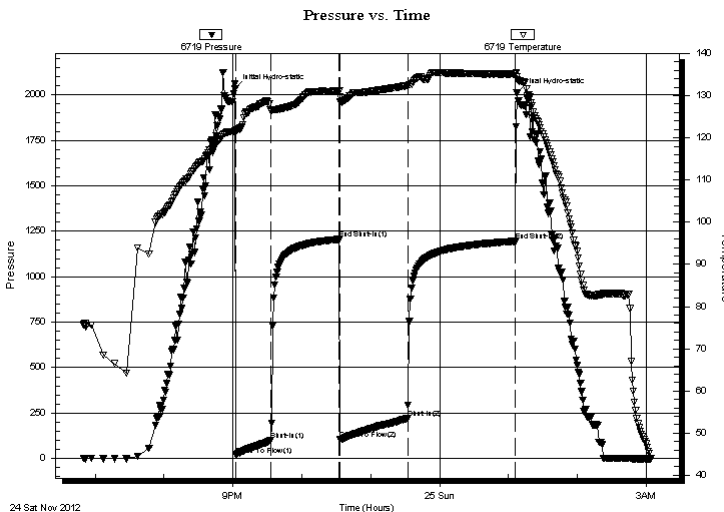
Last Calib.: 2012.11.25

Time On Btm: 2012.11.24 @ 21:02:00

Time Off Btm: 2012.11.25 @ 01:07:00

TEST COMMENT: 30 - IF: Blow built to 6 1/2"
60 - IS: Bled off, No blow back
60 - FF: Blow started at 7 min., built to 8 1/2"
90 - FS: Bled off, No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2034.05	121.63	Initial Hydro-static
1	20.34	121.53	Open To Flow (1)
31	100.50	126.50	Shut-In (1)
91	1206.28	131.08	End Shut-In (1)
91	104.67	129.67	Open To Flow (2)
150	221.14	132.38	Shut-In (2)
244	1194.73	135.23	End Shut-In (2)
245	2012.41	134.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
267.00	WCM w/trace oil 66% m, 32% w, 2% g	1.31
89.00	SOWCM 93% m, 4% w, 2% g, 1% o	0.44
84.00	Mud w/trace oil 100% m	0.41

Gas Rates

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



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TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48169

DST#: 3

Test Start: 2012.11.24 @ 18:50:00

GENERAL INFORMATION:

Formation: **Lecompton - Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:02:30

Time Test Ended: 03:04:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4070.00 ft (KB) To 4147.00 ft (KB) (TVD)

Total Depth: 4147.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8320 Outside

Press @ Run Depth: psig @ 4071.00 ft (KB)

Start Date: 2012.11.24

End Date:

2012.11.25

Start Time: 18:50:05

End Time:

03:03:29

Capacity: 8000.00 psig

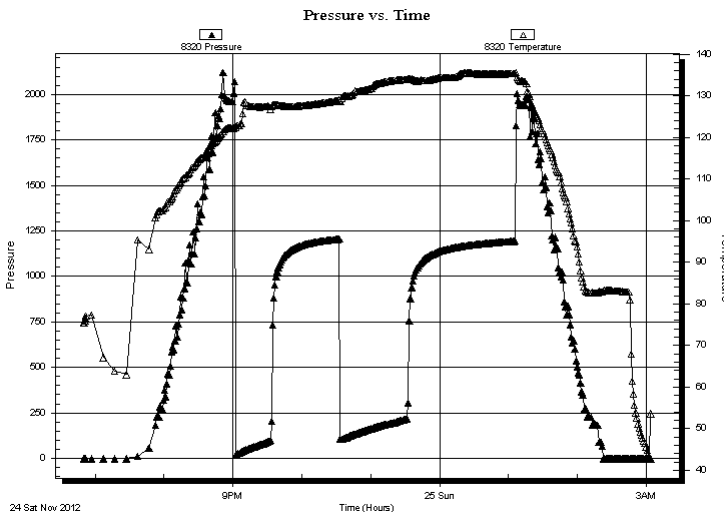
Last Calib.: 2012.11.25

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 6 1/2"
60 - IS: Bled off, No blow back
60 - FF: Blow started at 7 min., built to 8 1/2"
90 - FS: Bled off, No blow back

PRESSURE SUMMARY



Time
(Min.)

Pressure
(psig)

Temp
(deg F)

Annotation

Recovery

Length (ft)	Description	Volume (bbl)
267.00	WCM w/trace oil 66% m, 32% w, 2% g	1.31
89.00	SOWCM 93% m, 4% w, 2% g, 1% o	0.44
84.00	Mud w/trace oil 100% m	0.41

Gas Rates

	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.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48169

DST#: 3

ATTN: Rocky Milford

Test Start: 2012.11.24 @ 18:50:00

Tool Information

Drill Pipe:	Length:	3523.00 ft	Diameter:	3.80 inches	Volume:	49.42 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:	534.00 ft	Diameter:	2.25 inches	Volume:	2.63 bbl	Weight to Pull Loose:	72000.00 lb
					Total Volume:	52.05 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight: Initial	69000.00 lb
Depth to Top Packer:		4070.00 ft					Final	70000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		77.00 ft						
Tool Length:		105.00 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			4047.00	
Hydraulic tool	5.00			4052.00	
Jars	5.00			4057.00	
Safety Joint	3.00			4060.00	
Packer	5.00			4065.00	28.00 Bottom Of Top Packer
Packer	5.00			4070.00	
Packer - Shale	0.00			4070.00	
Stubb	1.00			4071.00	
Recorder	0.00	6719	Inside	4071.00	
Recorder	0.00	8320	Outside	4071.00	
Perforations	10.00			4081.00	
Blank Spacing	33.00			4114.00	
Perforations	30.00			4144.00	
Bullnose	3.00			4147.00	77.00 Bottom Packers & Anchor

Total Tool Length: 105.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48169

DST#: 3

ATTN: Rocky Milford

Test Start: 2012.11.24 @ 18:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 5.94 in³

Resistivity: ohm.m

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity: 29000 ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
267.00	WCM w /trace oil 66%m, 32%w , 2%g	1.313
89.00	SOWCM 93%m, 4%w , 2%g, 1%o	0.438
84.00	Mud w /trace oil 100%m	0.413

Total Length: 440.00 ft Total Volume: 2.164 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .302 ohms @ 55.3 deg F

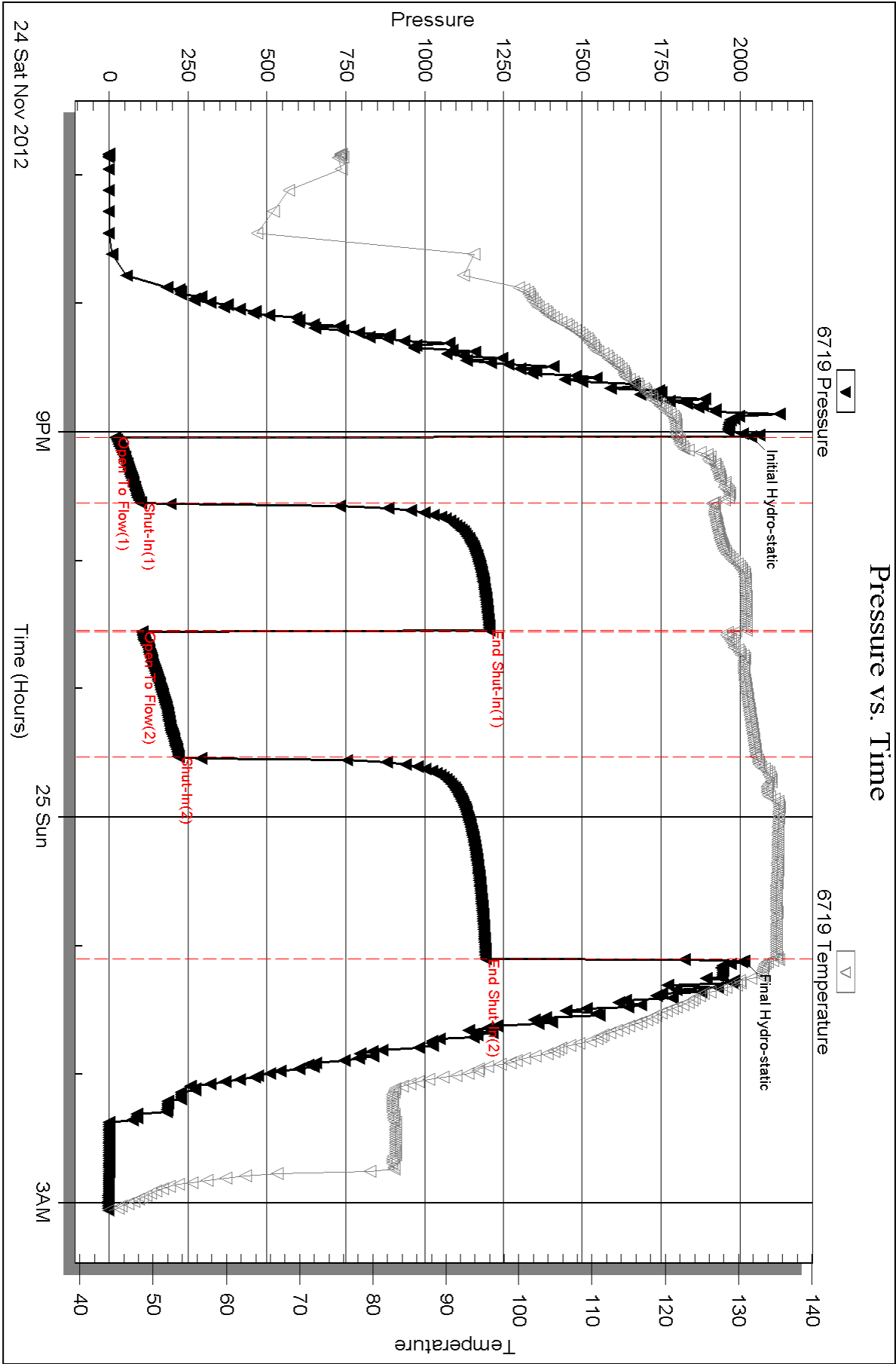
Serial #: 6719

Inside

Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 3

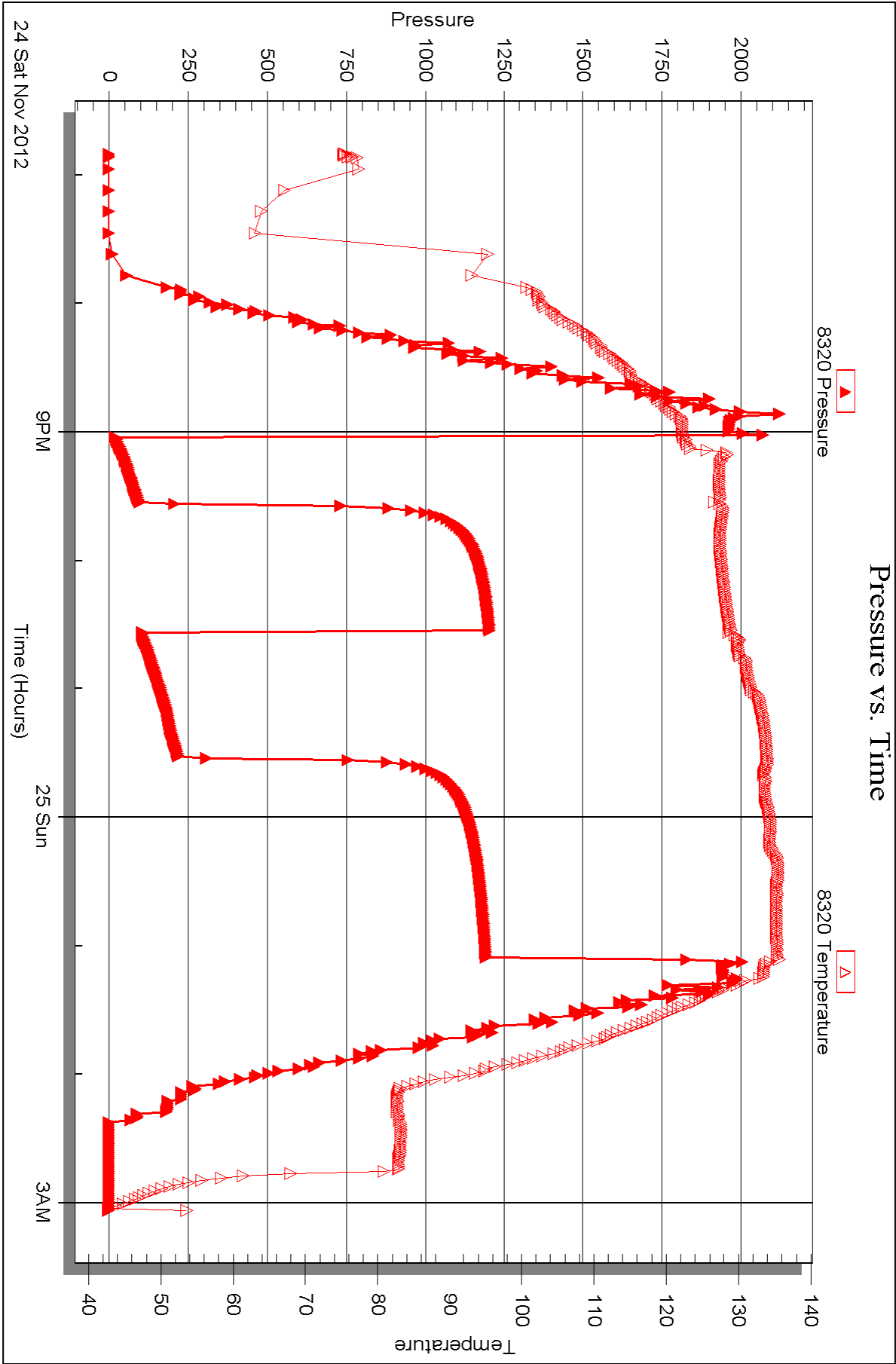


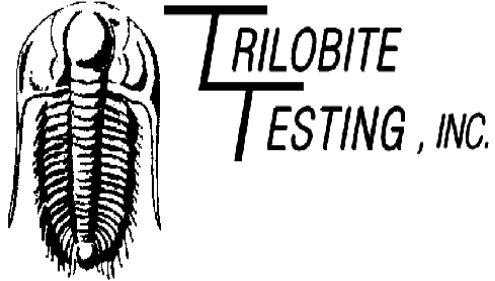
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 3





DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbe #1-23

23-2s-36w Rawlins,KS

Start Date: 2012.11.25 @ 14:26:00

End Date: 2012.11.25 @ 22:16:30

Job Ticket #: 48170 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 09:47:47

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

Frisbe #1-23

DST # 4

Leavenworth - LKC "A

2012.11.25



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48170

DST#: 4

Test Start: 2012.11.25 @ 14:26:00

GENERAL INFORMATION:

Formation: **Leavenworth - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:16:00

Time Test Ended: 22:16:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4163.00 ft (KB) To 4245.00 ft (KB) (TVD)

Total Depth: 4245.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6719 Inside

Press @ Run Depth: 70.27 psig @ 4164.00 ft (KB)

Start Date: 2012.11.25

End Date:

2012.11.25

Start Time: 14:26:05

End Time:

22:16:29

Capacity: 8000.00 psig

Last Calib.: 2012.11.25

Time On Btm: 2012.11.25 @ 16:15:30

Time Off Btm: 2012.11.25 @ 20:18:00

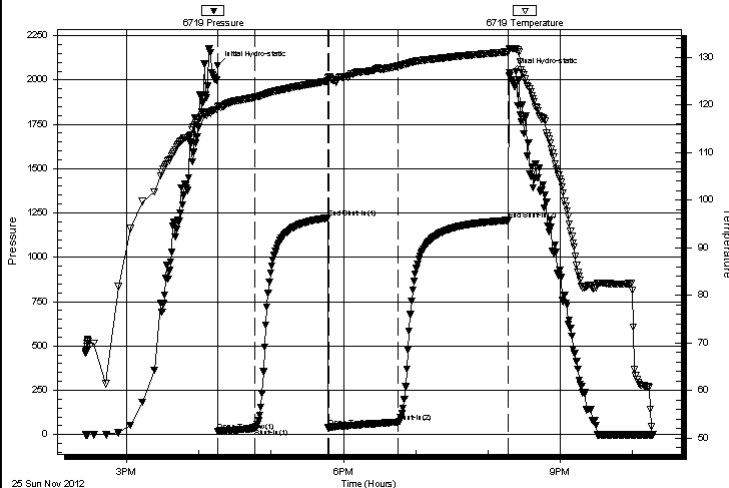
TEST COMMENT: 30 - IF: Blow built to 3 1/2"

60 - IS: Bled off, No blow back

60 - FF: Blow started at 5 min., built to 5"

90 - FS: Bled off, No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2080.41	119.62	Initial Hydro-static
1	18.15	119.63	Open To Flow (1)
31	34.92	121.61	Shut-In(1)
92	1222.00	125.02	End Shut-In(1)
93	41.26	125.94	Open To Flow (2)
150	70.27	128.20	Shut-In(2)
241	1208.55	131.14	End Shut-In(2)
243	2040.65	131.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	GOM 45% m, 44% o, 11% g	0.34
20.00	MCO 60% o, 37% m, 3% g	0.10
30.00	MCO 75% o, 20% m, 5% g	0.15
0.00	GIP = 60'	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48170

DST#: 4

Test Start: 2012.11.25 @ 14:26:00

GENERAL INFORMATION:

Formation: **Leavenworth - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:16:00

Time Test Ended: 22:16:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: **4163.00 ft (KB) To 4245.00 ft (KB) (TVD)**

Total Depth: 4245.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8320 Outside

Press @ Run Depth: psig @ 4164.00 ft (KB)

Start Date: 2012.11.25

End Date:

2012.11.25

Start Time: 14:26:05

End Time:

22:15:59

Capacity: 8000.00 psig

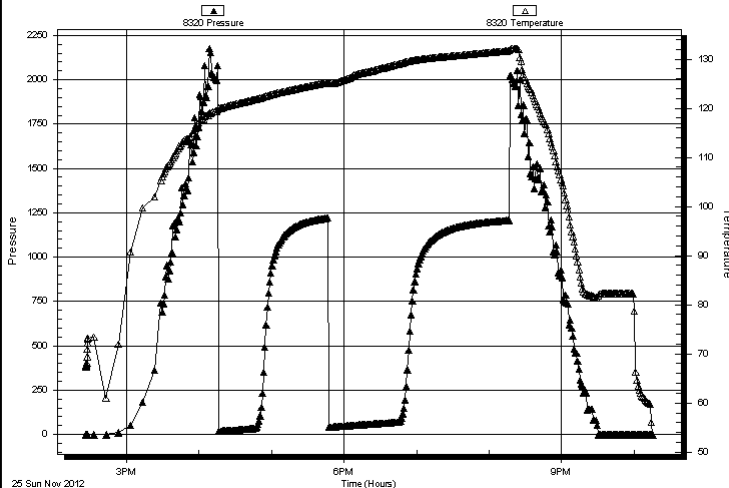
Last Calib.: 2012.11.25

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 3 1/2"
60 - IS: Bled off, No blow back
60 - FF: Blow started at 5 min., built to 5"
90 - FS: Bled off, No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
70.00	GOM 45% _m , 44% _o , 11% _g	0.34
20.00	MCO 60% _o , 37% _m , 3% _g	0.10
30.00	MCO 75% _o , 20% _m , 5% _g	0.15
0.00	GIP = 60'	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.

23-2s-36w Rawlins, KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48170

DST#: 4

ATTN: Rocky Milford

Test Start: 2012.11.25 @ 14:26:00

Tool Information

Drill Pipe:	Length: 3618.00 ft	Diameter: 3.80 inches	Volume: 50.75 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: 534.00 ft	Diameter: 2.25 inches	Volume: 2.63 bbl	Weight to Pull Loose: 86000.00 lb
		Total Volume:	53.38 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4163.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	82.00 ft			
Tool Length:	110.00 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			4140.00	
Hydraulic tool	5.00			4145.00	
Jars	5.00			4150.00	
Safety Joint	3.00			4153.00	
Packer	5.00			4158.00	28.00 Bottom Of Top Packer
Packer	5.00			4163.00	
Stubb	1.00			4164.00	
Recorder	0.00	6719	Inside	4164.00	
Recorder	0.00	8320	Outside	4164.00	
Perforations	10.00			4174.00	
Blank Spacing	65.00			4239.00	
Perforations	3.00			4242.00	
Bullnose	3.00			4245.00	82.00 Bottom Packers & Anchor

Total Tool Length: 110.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48170

DST#: 4

ATTN: Rocky Milford

Test Start: 2012.11.25 @ 14:26:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 72.00 sec/qt

Water Loss: 5.57 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

26.8 deg API

Water Salinity:

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	GOM 45% _m , 44% _o , 11% _g	0.344
20.00	MCO 60% _o , 37% _m , 3% _g	0.098
30.00	MCO 75% _o , 20% _m , 5% _g	0.148
0.00	GIP = 60'	0.000

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: gravity = 24.8 api @ 40 deg F
Corrected Gravity = 26.8 api

Serial #: 6719

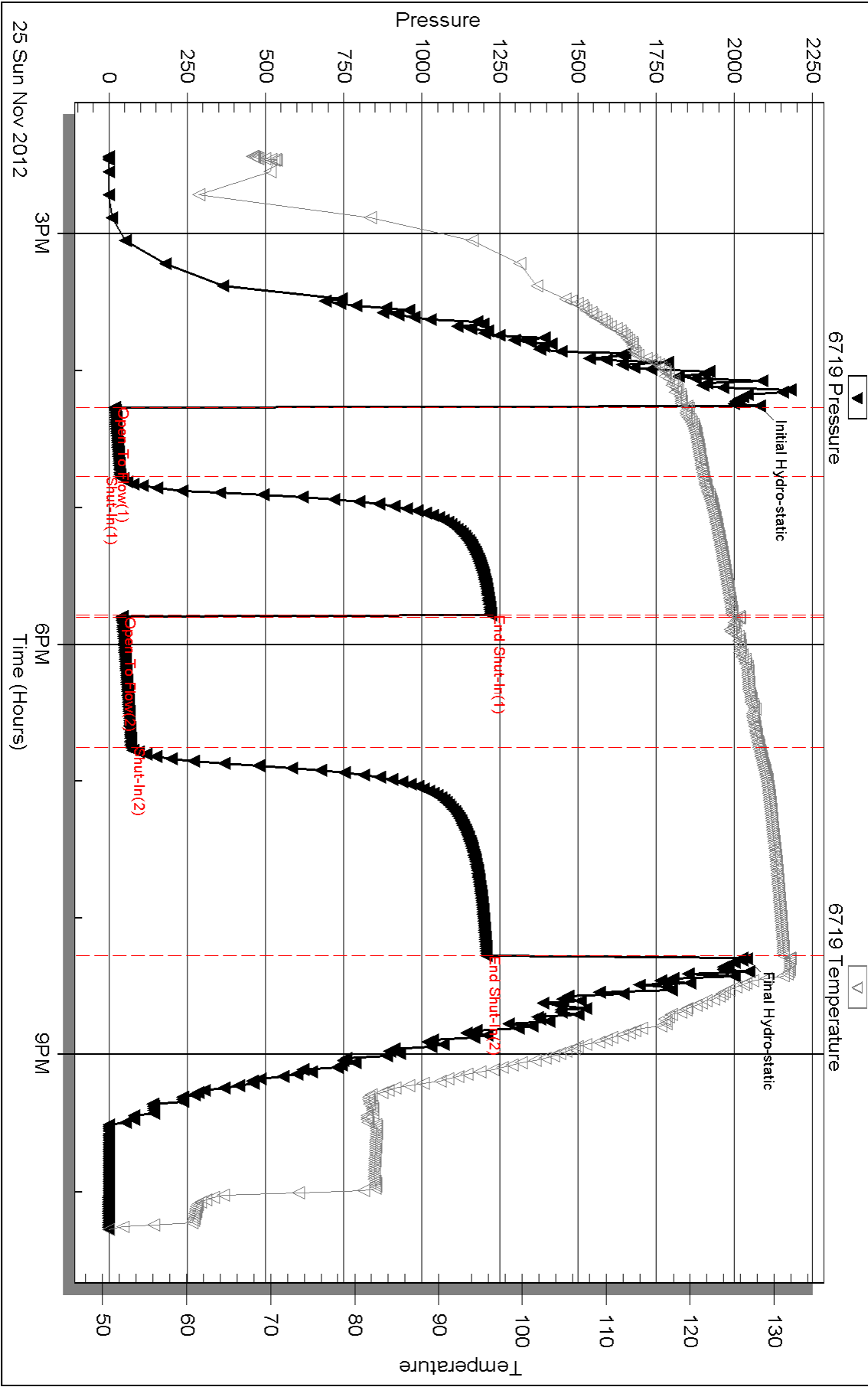
Inside

Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 4

Pressure vs. Time

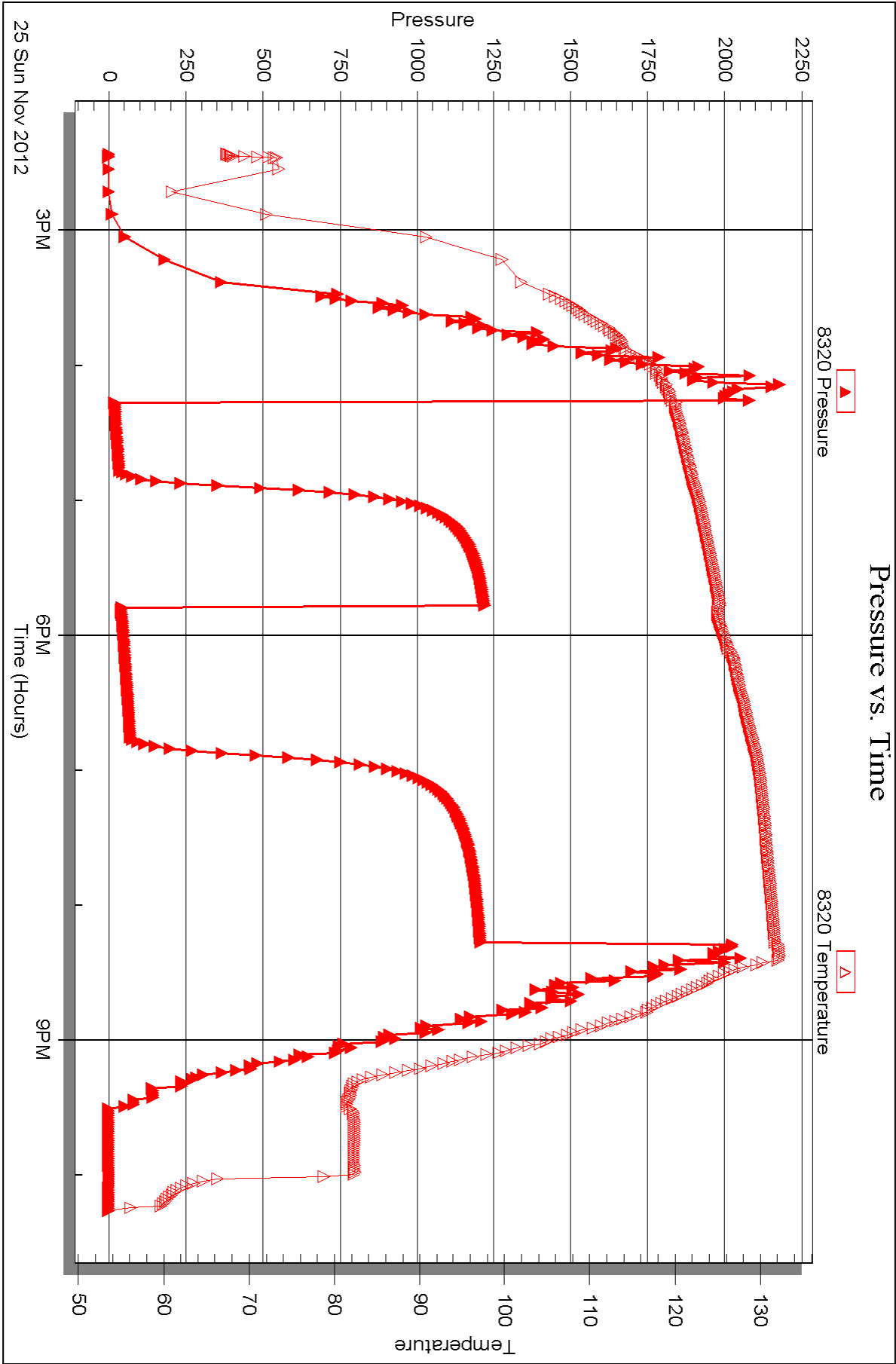


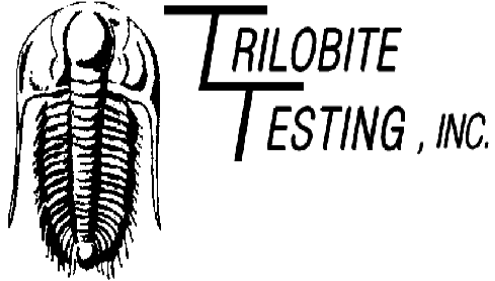
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 4





DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbe #1-23

23-2s-36w Rawlins,KS

Start Date: 2012.11.26 @ 09:25:00

End Date: 2012.11.26 @ 17:44:00

Job Ticket #: 48171 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 09:46:59

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

Frisbe #1-23

DST # 5

LKC "A" sand - "E"

2012.11.26



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48171

DST#: 5

Test Start: 2012.11.26 @ 09:25:00

GENERAL INFORMATION:

Formation: **LKC "A" sand - "E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:27:00

Time Test Ended: 17:44:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4240.00 ft (KB) To 4318.00 ft (KB) (TVD)

Total Depth: 4318.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6719 Inside

Press @ Run Depth: 263.38 psig @ 4241.00 ft (KB)

Start Date: 2012.11.26

End Date:

2012.11.26

Start Time: 09:25:05

End Time:

17:43:59

Capacity: 8000.00 psig

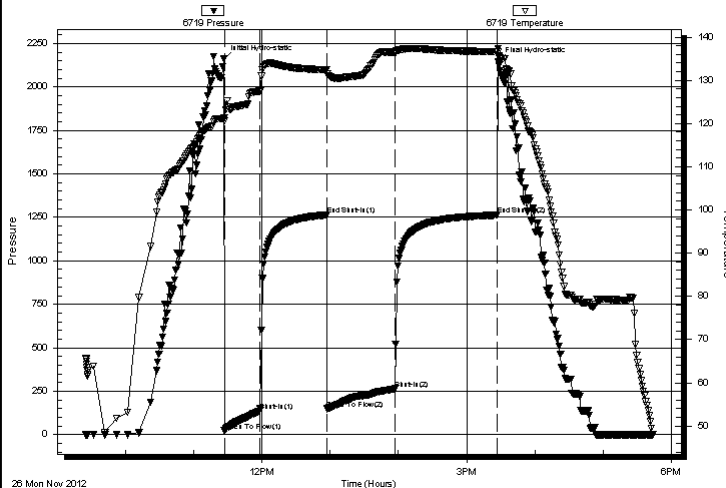
Last Calib.: 2012.11.26

Time On Btm: 2012.11.26 @ 11:26:30

Time Off Btm: 2012.11.26 @ 15:28:00

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 15 1/2 min.
60 - IS: Bled off, Blow back built to 3"
60 - FF: Blow built to BOB in 24 1/2 min.
90 - FS: Bled off, Blow back built to 2"

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2160.47	121.23	Initial Hydro-static
1	21.77	120.61	Open To Flow (1)
32	134.98	127.49	Shut-In(1)
91	1264.35	132.42	End Shut-In(1)
91	148.12	131.55	Open To Flow (2)
151	263.38	136.41	Shut-In(2)
240	1263.37	136.65	End Shut-In(2)
242	2146.32	135.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	GOCM 65% _m , 24% _g , 11% _o	0.74
30.00	MCO 75% _o , 18% _m , 7% _g	0.15
450.00	CGO 77% _o , 20% _g , 3% _m	3.09
10.00	CO 96% _o , 3% _g , 1% _m	0.14
0.00	GIP = 365'	0.00

Gas Rates

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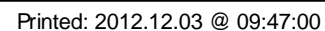
* Recovery from multiple tests



Test Start: 2012.11.26 @ 09:25:00

KB to GR/CF: 10.00 ft

90 - FSI: Bled off, Blow back built to 2"





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

23-2s-36w Rawlins, KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48171

DST#: 5

ATTN: Rocky Milford

Test Start: 2012.11.26 @ 09:25:00

Tool Information

Drill Pipe:	Length:	3713.00 ft	Diameter:	3.80 inches	Volume:	52.08 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:	534.00 ft	Diameter:	2.25 inches	Volume:	2.63 bbl	Weight to Pull Loose:	86000.00 lb
					Total Volume:	54.71 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		35.00 ft					String Weight: Initial	70000.00 lb
Depth to Top Packer:		4240.00 ft					Final	72000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		78.00 ft						
Tool Length:		106.00 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			4217.00	
Hydraulic tool	5.00			4222.00	
Jars	5.00			4227.00	
Safety Joint	3.00			4230.00	
Packer	5.00			4235.00	28.00 Bottom Of Top Packer
Packer	5.00			4240.00	
Stubb	1.00			4241.00	
Recorder	0.00	6719	Inside	4241.00	
Recorder	0.00	8320	Outside	4241.00	
Perforations	9.00			4250.00	
Blank Spacing	65.00			4315.00	
Bullnose	3.00			4318.00	78.00 Bottom Packers & Anchor

Total Tool Length: 106.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48171

DST#: 5

ATTN: Rocky Milford

Test Start: 2012.11.26 @ 09:25:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 69.00 sec/qt

Water Loss: 5.93 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

29.2 deg API

Water Salinity:

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	GOCM 65%m, 24%g, 11%o	0.738
30.00	MCO 75%o, 18%m, 7%g	0.148
450.00	CGO 77%o, 20%g, 3%m	3.088
10.00	CO 96%o, 3%g, 1%m	0.140
0.00	GIP = 365'	0.000

Total Length: 640.00 ft Total Volume: 4.114 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: gravity = 27 api @ 38 deg F

Corrected Gravity = 29.2 api

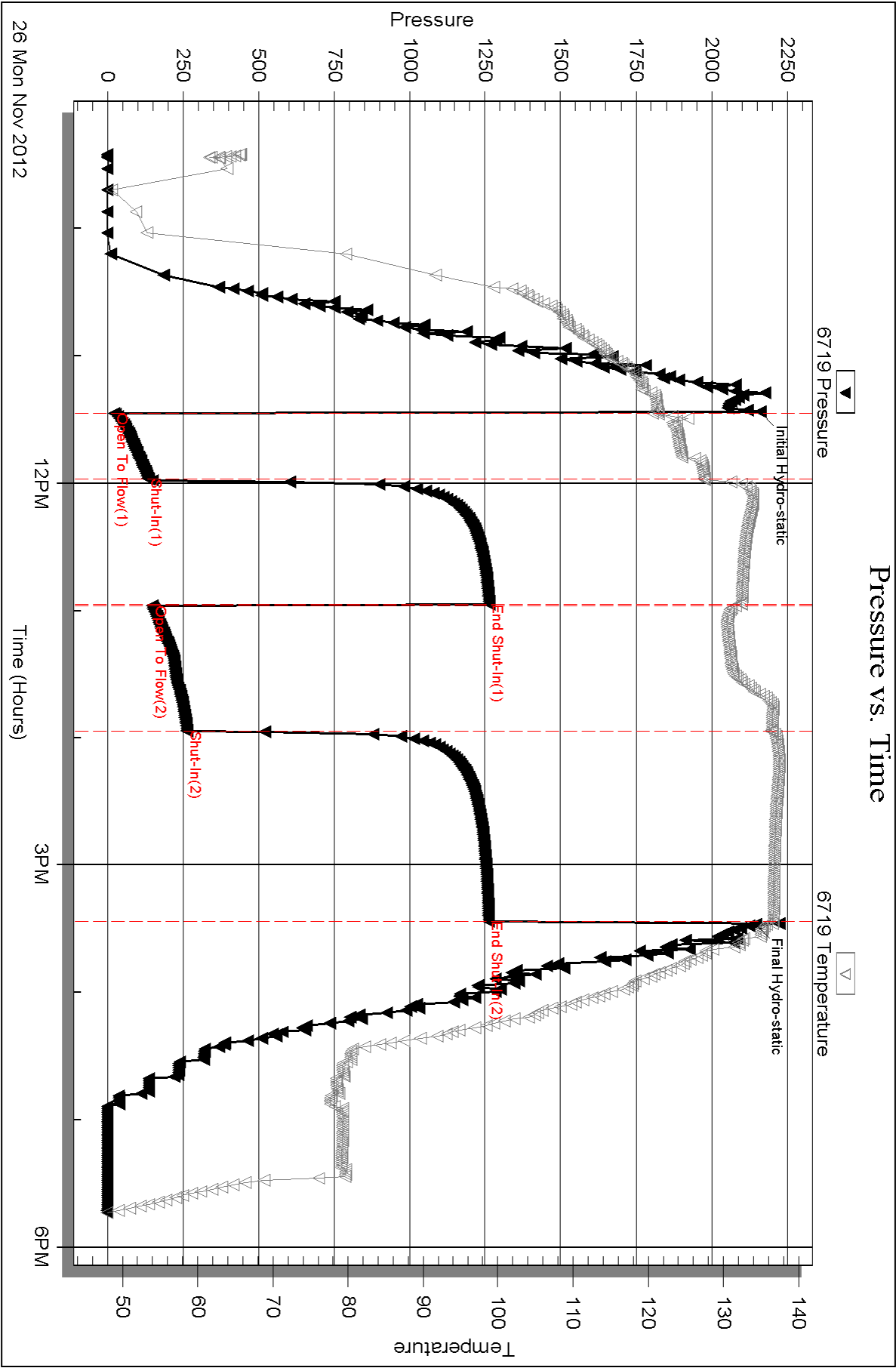
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Inside

Murfin Drilling Co., Inc.

Frisbie #1-23

DST Test Number: 5

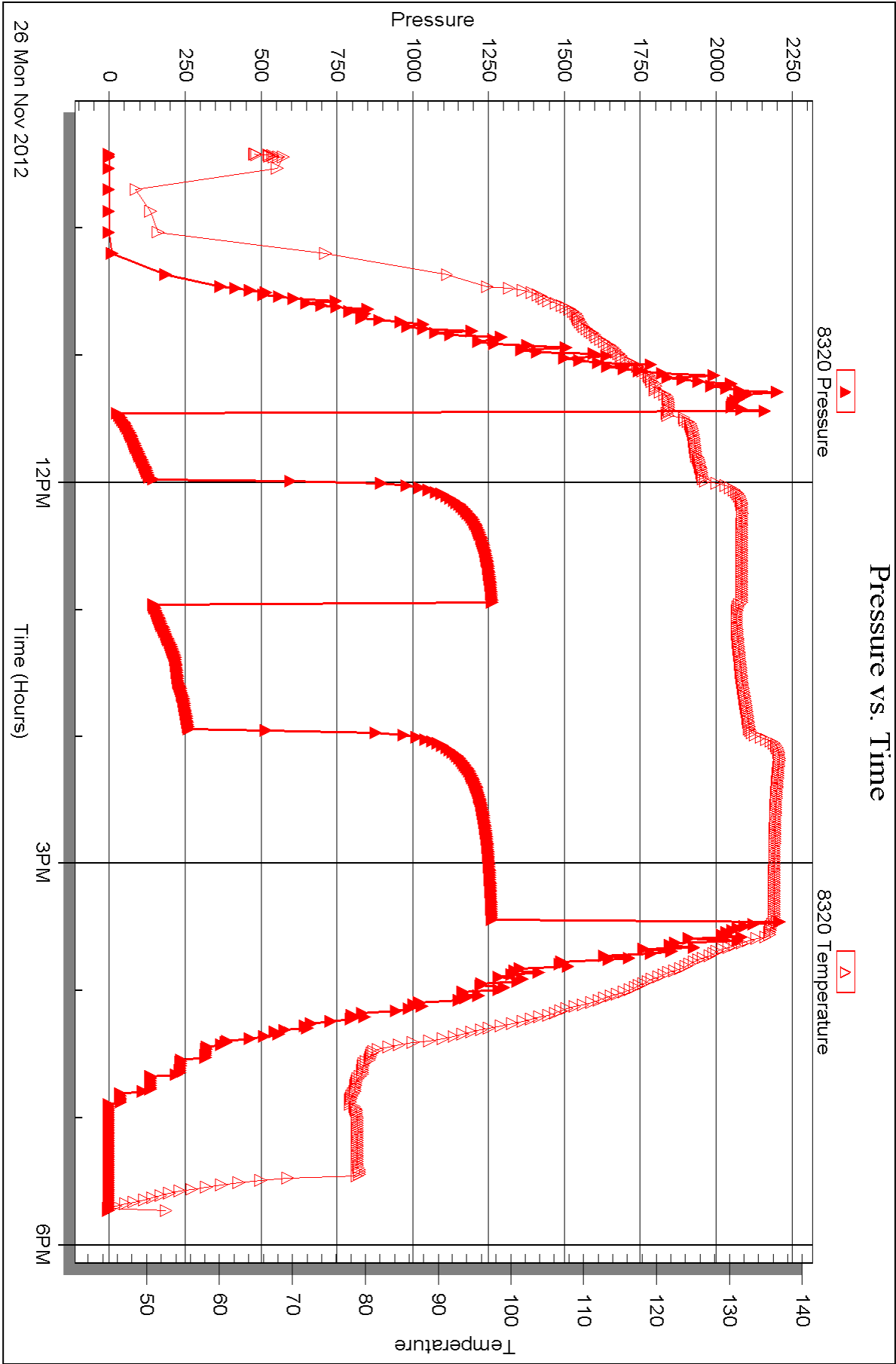


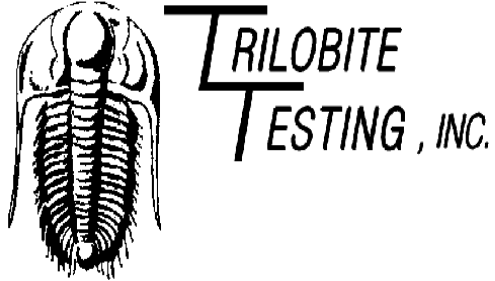
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Outside Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 5





DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbe #1-23

23-2s-36w Rawlins,KS

Start Date: 2012.11.27 @ 00:55:00

End Date: 2012.11.27 @ 09:46:30

Job Ticket #: 48172 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 09:46:15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48172

DST#: 6

Test Start: 2012.11.27 @ 00:55:00

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:21:30

Time Test Ended: 09:46:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4298.00 ft (KB) To 4345.00 ft (KB) (TVD)

Total Depth: 4345.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6719 Inside

Press @ Run Depth: 123.23 psig @ 4299.00 ft (KB)

Start Date: 2012.11.27

End Date:

2012.11.27

Start Time: 00:55:05

End Time:

09:46:30

Capacity: 8000.00 psig

Last Calib.: 2012.11.27

Time On Btm: 2012.11.27 @ 03:21:00

Time Off Btm: 2012.11.27 @ 07:25:00

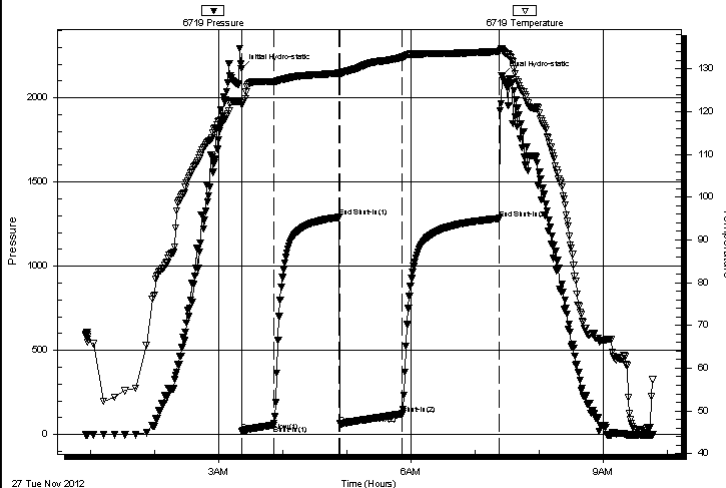
TEST COMMENT: 30 - IF: Blow built to BOB (11") at 30 min. (Diesel in bucket)

60 - IS: Bled off, Blow back built to 1/4"

60 - FF: Blow built to BOB in 35 min.

90 - FS: Bled off, Blow back built to 1/4"

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2172.71	122.08	Initial Hydro-static
1	20.69	121.97	Open To Flow (1)
30	56.25	126.99	Shut-In(1)
92	1290.71	129.00	End Shut-In(1)
93	63.32	128.81	Open To Flow (2)
151	123.23	132.77	Shut-In(2)
242	1283.58	134.09	End Shut-In(2)
244	2132.41	134.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	GOCM 65%o, 20%o, 15%g	0.22
45.00	MCO 77%o, 20%o, 3%g	0.22
180.00	CGO 73%o, 25%g, 2%o	0.89
30.00	CO 94%o, 5%g, 1%o	0.15
0.00	GIP = 240'	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48172

DST#: 6

Test Start: 2012.11.27 @ 00:55:00

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:21:30

Time Test Ended: 09:46:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4298.00 ft (KB) To 4345.00 ft (KB) (TVD)

Total Depth: 4345.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8320 Outside

Press @ Run Depth: psig @ 4299.00 ft (KB)

Start Date: 2012.11.27

End Date:

2012.11.27

Start Time: 00:55:05

End Time:

09:47:00

Capacity: 8000.00 psig

Last Calib.: 2012.11.27

Time On Btm:

Time Off Btm:

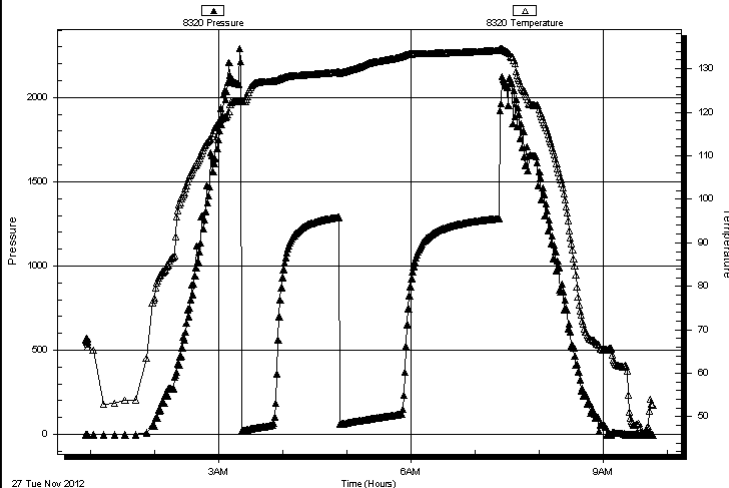
TEST COMMENT: 30 - IF: Blow built to BOB (11") at 30 min. (Diesel in bucket)

60 - IS: Bled off, Blow back built to 1/4"

60 - FF: Blow built to BOB in 35 min.

90 - FS: Bled off, Blow back built to 1/4"

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
45.00	GOCM 65% _m , 20% _o , 15% _g	0.22
45.00	MCO 77% _o , 20% _m , 3% _g	0.22
180.00	CGO 73% _o , 25% _g , 2% _m	0.89
30.00	CO 94% _o , 5% _g , 1% _m	0.15
0.00	GIP = 240'	0.00

Gas Rates

	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.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48172

DST#: 6

ATTN: Rocky Milford

Test Start: 2012.11.27 @ 00:55:00

Tool Information

Drill Pipe:	Length:	3744.00 ft	Diameter:	3.80 inches	Volume:	52.52 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:	534.00 ft	Diameter:	2.25 inches	Volume:	2.63 bbl	Weight to Pull Loose:	74000.00 lb
					Total Volume:	55.15 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		8.00 ft					String Weight: Initial	70000.00 lb
Depth to Top Packer:		4298.00 ft					Final	71000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		47.00 ft						
Tool Length:		75.00 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			4275.00	
Hydraulic tool	5.00			4280.00	
Jars	5.00			4285.00	
Safety Joint	3.00			4288.00	
Packer	5.00			4293.00	28.00 Bottom Of Top Packer
Packer	5.00			4298.00	
Packer - Shale	0.00			4298.00	
Stubb	1.00			4299.00	
Recorder	0.00	6719	Inside	4299.00	
Recorder	0.00	8320	Outside	4299.00	
Perforations	9.00			4308.00	
Blank Spacing	33.00			4341.00	
Perforations	1.00			4342.00	
Bullnose	3.00			4345.00	47.00 Bottom Packers & Anchor

Total Tool Length: 75.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48172

DST#: 6

ATTN: Rocky Milford

Test Start: 2012.11.27 @ 00:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 69.00 sec/qt

Water Loss: 5.94 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

31.2 deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	GOCM 65%m, 20%o, 15%g	0.221
45.00	MCO 77%o, 20%m, 3%g	0.221
180.00	CGO 73%o, 25%g, 2%m	0.885
30.00	CO 94%o, 5%g, 1%m	0.148
0.00	GIP = 240'	0.000

Total Length: 300.00 ft Total Volume: 1.475 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 30 api @ 48 deg F

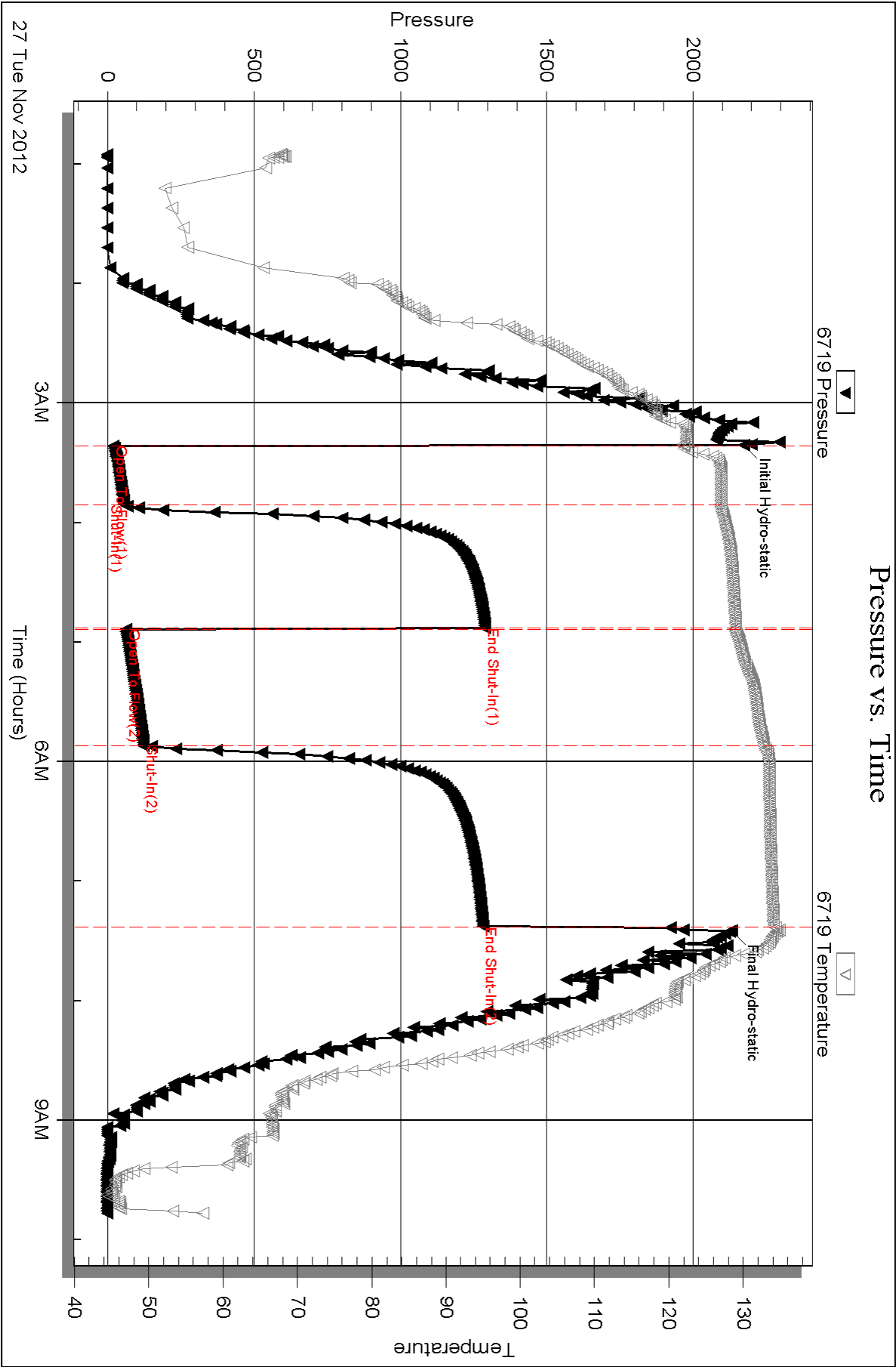
Serial #: 6719

Inside

Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 6

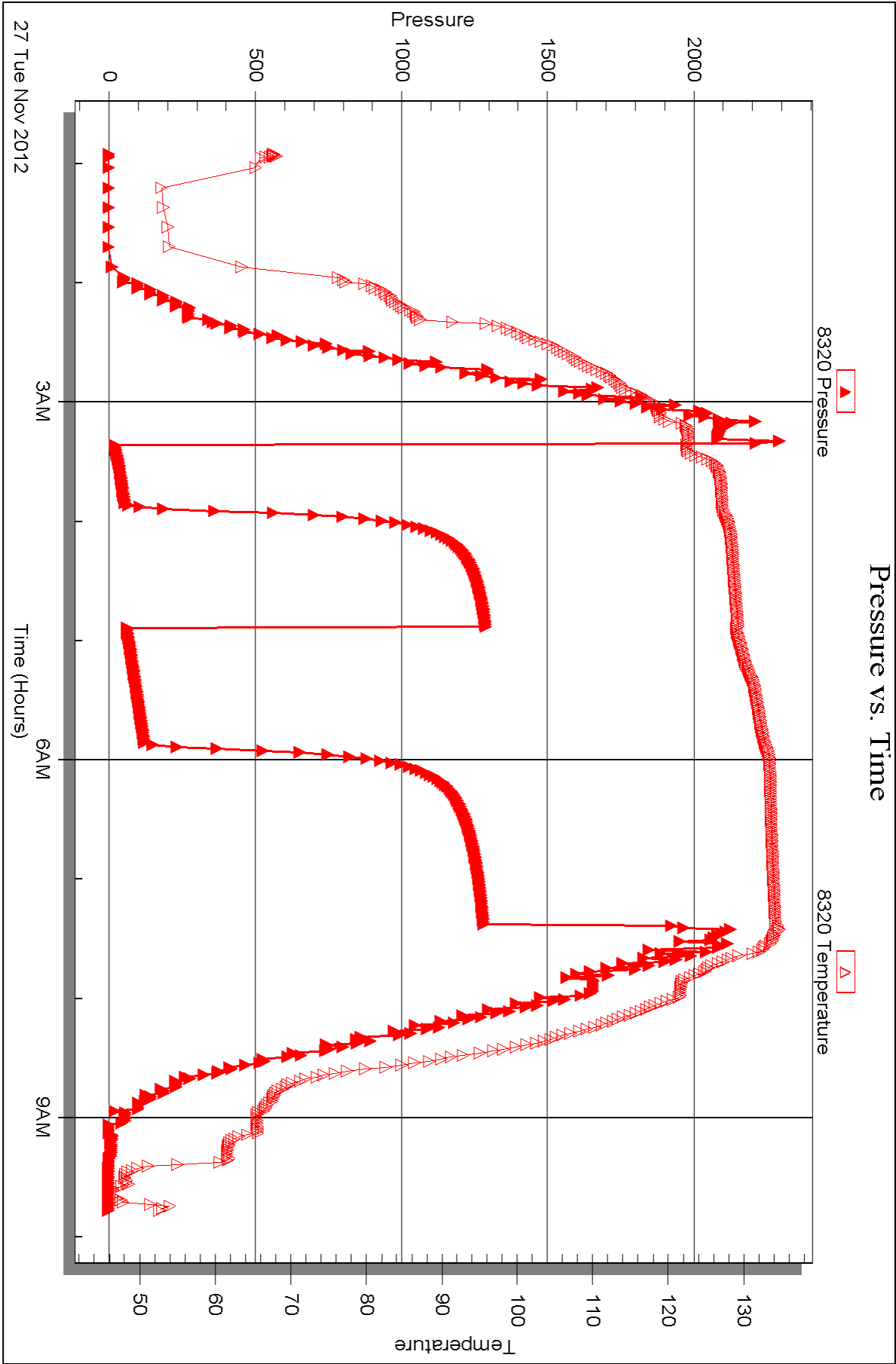


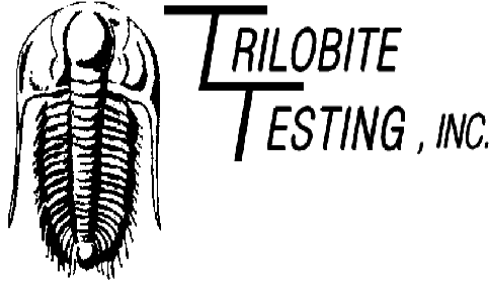
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Outside Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 6





DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbe #1-23

23-2s-36w Rawlins,KS

Start Date: 2012.11.28 @ 00:10:00

End Date: 2012.11.28 @ 09:18:30

Job Ticket #: 48173 DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 09:45:32



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48173

DST#: 7

Test Start: 2012.11.28 @ 00:10:00

GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:36:30

Time Test Ended: 09:18:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4396.00 ft (KB) To 4443.00 ft (KB) (TVD)

Total Depth: 4443.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6719 Inside

Press @ Run Depth: 751.99 psig @ 4397.00 ft (KB)

Start Date: 2012.11.28

End Date:

2012.11.28

Start Time: 00:10:05

End Time:

09:18:30

Capacity: 8000.00 psig

Last Calib.: 2012.11.28

Time On Btm: 2012.11.28 @ 02:35:30

Time Off Btm: 2012.11.28 @ 06:11:00

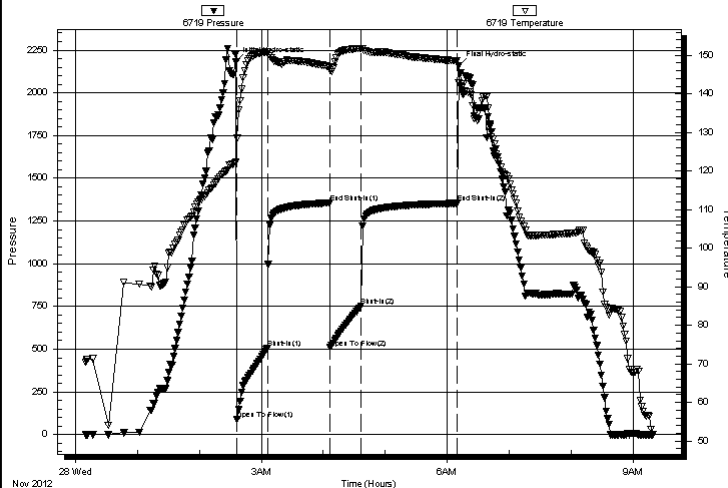
TEST COMMENT: 30 - IF: Blow built to BOB (11") in 2 1/2 min. (Diesel in bucket)

60 - IS: Bled off, Blow back built to 8 1/2"

30 - FF: Blow built to BOB in 2 3/4 min.

90 - FS: Bled off, Blow back built to 6"

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2182.77	122.49	Initial Hydro-static
1	90.25	128.51	Open To Flow (1)
31	507.31	150.88	Shut-In (1)
91	1355.47	147.07	End Shut-In (1)
91	508.37	146.16	Open To Flow (2)
121	751.99	151.78	Shut-In (2)
214	1353.31	148.60	End Shut-In (2)
216	2157.54	142.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	SO/MCW 76%w, 22%m, 2%o (below circ 0.44)	
1587.00	Rev Out: 7 bbl samples every 5 min.	18.22
0.00	5 - 15 min. GMOW 36%w, 24%o, 21%m, 0.00g	
0.00	20 min. 60%o, 38%w, 22%m	0.00
33.00	GMWCO 44%o, 20%g, 18%w, 8%m	0.46
0.00	GIP = 345'	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins,KS

Frisbe #1-23

Job Ticket: 48173

DST#: 7

Test Start: 2012.11.28 @ 00:10:00

GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:36:30

Time Test Ended: 09:18:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4396.00 ft (KB) To 4443.00 ft (KB) (TVD)

Total Depth: 4443.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8320 Outside

Press @ Run Depth: psig @ 4397.00 ft (KB)

Start Date: 2012.11.28

End Date:

2012.11.28

Start Time: 00:10:05

End Time:

09:18:00

Capacity: 8000.00 psig

Last Calib.: 2012.11.28

Time On Btm:

Time Off Btm:

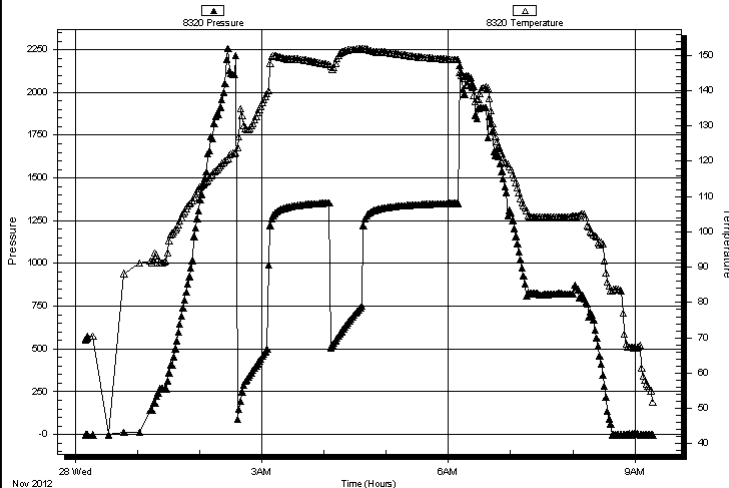
TEST COMMENT: 30 - IF: Blow built to BOB (11") in 2 1/2 min. (Diesel in bucket)

60 - IS: Bled off, Blow back built to 8 1/2"

30 - FF: Blow built to BOB in 2 3/4 min.

90 - FS: Bled off, Blow back built to 6"

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
90.00	SO/MCW 76%w , 22%m, 2%o (below circ0.44)	
1587.00	Rev Out: 7 bbl samples every 5 min.	18.22
0.00	5 - 15 min. GMOW 36%w , 24%o, 21%m, 0.00g	
0.00	20 min. 60%o, 38%w , 22%m	0.00
33.00	GMWCO 44%o, 20%g, 18%w , 8%m	0.46
0.00	GIP = 345'	0.00

Gas Rates

	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.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48173

DST#: 7

ATTN: Rocky Milford

Test Start: 2012.11.28 @ 00:10:00

Tool Information

Drill Pipe:	Length: 3839.00 ft	Diameter: 3.80 inches	Volume: 53.85 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: 534.00 ft	Diameter: 2.25 inches	Volume: 2.63 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume:	56.48 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	4396.00 ft			Final 90000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	75.00 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			4373.00	
Hydraulic tool	5.00			4378.00	
Jars	5.00			4383.00	
Safety Joint	3.00			4386.00	
Packer	5.00			4391.00	28.00 Bottom Of Top Packer
Packer	5.00			4396.00	
Packer - Shale	0.00			4396.00	
Stubb	1.00			4397.00	
Recorder	0.00	6719	Inside	4397.00	
Recorder	0.00	8320	Outside	4397.00	
Perforations	9.00			4406.00	
Blank Spacing	33.00			4439.00	
Perforations	1.00			4440.00	
Bullnose	3.00			4443.00	47.00 Bottom Packers & Anchor

Total Tool Length: 75.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48173

DST#: 7

ATTN: Rocky Milford

Test Start: 2012.11.28 @ 00:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 6.38 in³

Resistivity: ohm.m

Salinity: 1100.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

39 deg API

Water Salinity:

22500 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	SO/MCW 76%w , 22%m, 2%o (below circ sul	0.443
1587.00	Rev Out: 7 bbl samples every 5 min.	18.217
0.00	5 - 15 min. GMOW 36%w , 24%o, 21%m, 19%	0.000
0.00	20 min. 60%o, 38%w , 22%m	0.000
33.00	GMWCO 44%o, 20%g, 18%w , 8%m	0.463
0.00	GIP = 345'	0.000

Total Length: 1710.00 ft

Total Volume: 19.123 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 36.2 api @ 32 deg F RW = .358 ohms @ 60 deg F
Truck driver estimated 7 bbl in his truck after reversing out

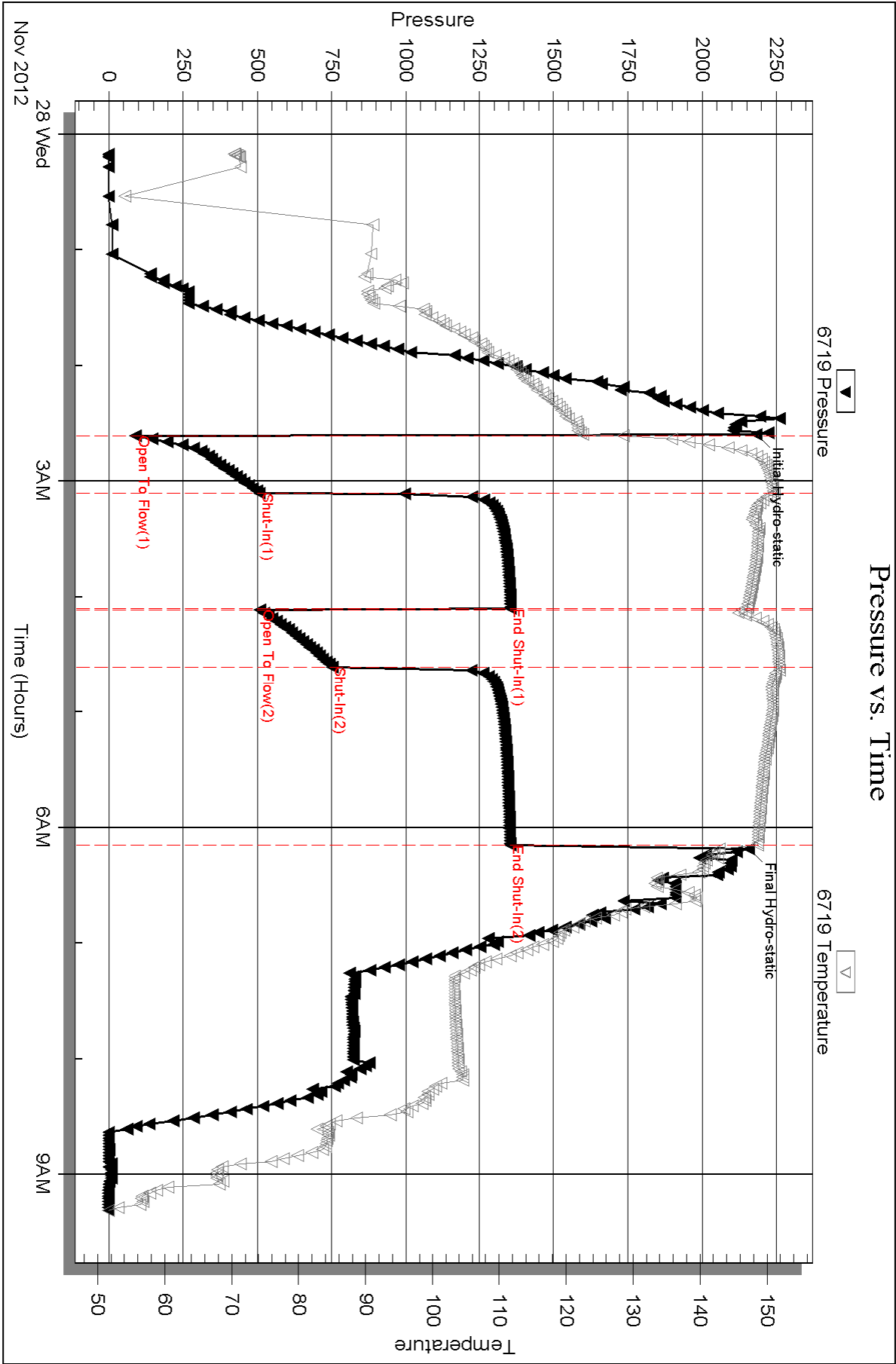
Serial #: 6719

Inside

Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 7

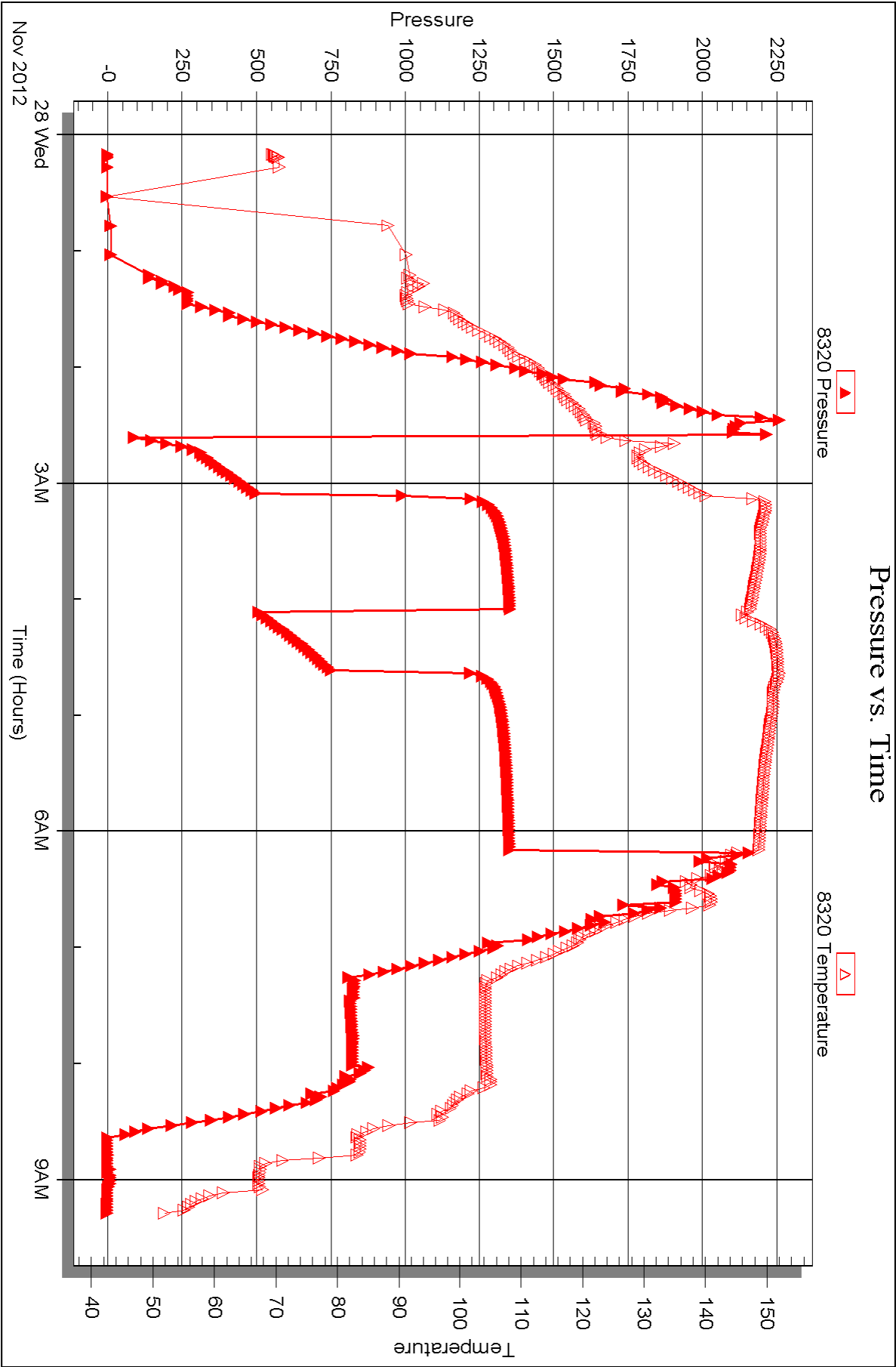


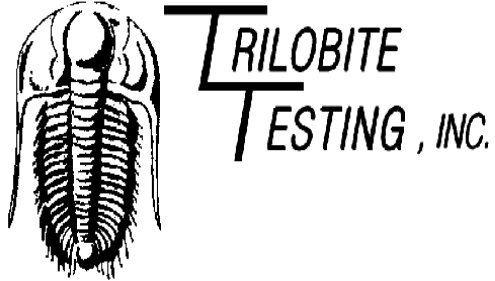
Serial #: 8320

Outside Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 7





DRILL STEM TEST REPORT

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

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbe #1-23

23-2s-36w Rawlins,KS

Start Date: 2012.11.29 @ 05:12:00

End Date: 2012.11.29 @ 13:01:30

Job Ticket #: 48174 DST #: 8

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 09:44:42



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48174

DST#: 8

Test Start: 2012.11.29 @ 05:12:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:14:00

Time Test Ended: 13:01:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4586.00 ft (KB) To 4665.00 ft (KB) (TVD)

Total Depth: 4665.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6719 Inside

Press @ Run Depth: 20.34 psig @ 4587.00 ft (KB)

Start Date: 2012.11.29

End Date:

2012.11.29

Start Time: 05:12:05

End Time:

13:01:29

Capacity: 8000.00 psig

Last Calib.: 2012.11.29

Time On Btm: 2012.11.29 @ 08:13:30

Time Off Btm: 2012.11.29 @ 11:17:30

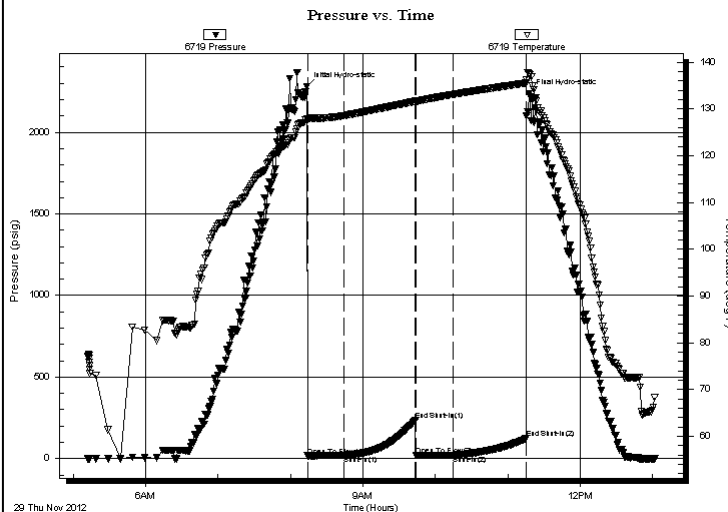
TEST COMMENT: 30 - IF: 3/4" blow at open, built to 1 1/4", dying back at 25 min., 3/4" blow at close

60 - IS: Bled off, No blow back

30 - FF: No blow

60 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2278.89	127.94	Initial Hydro-static
1	17.01	127.77	Open To Flow (1)
31	19.07	128.59	Shut-In (1)
90	235.02	131.67	End Shut-In (1)
91	19.29	131.62	Open To Flow (2)
121	20.34	133.11	Shut-In (2)
182	123.03	135.56	End Shut-In (2)
184	2236.86	137.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	SOCM 94% m, 4% o, 2% g	0.01

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfyn Drilling Co., Inc.

250 N Water Ste 300
Wichita KS 67202

ATTN: Rocky Milford

23-2s-36w Rawlins, KS

Frisbe #1-23

Job Ticket: 48174

DST#: 8

Test Start: 2012.11.29 @ 05:12:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:14:00

Time Test Ended: 13:01:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 4586.00 ft (KB) To 4665.00 ft (KB) (TVD)

Total Depth: 4665.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3305.00 ft (KB)

3295.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8320 Outside

Press @ Run Depth: psig @ 4587.00 ft (KB)

Start Date: 2012.11.29

End Date:

2012.11.29

Start Time: 05:12:05

End Time:

13:00:59

Capacity: 8000.00 psig

Last Calib.:

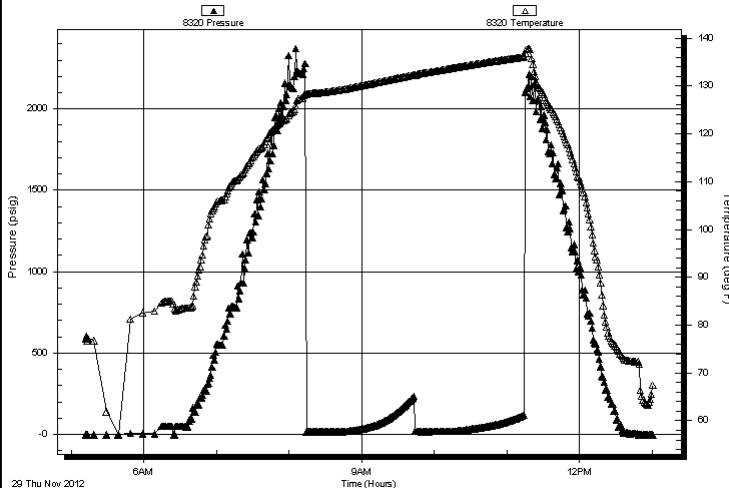
2012.11.29

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: 3/4" blow at open, built to 1 1/4", dying back at 25 min., 3/4" blow at close
60 - IS: Bled off, No blow back
30 - FF: No blow
60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
2.00	SOCM 94% m, 4% o, 2% g	0.01

Gas Rates

	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.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48174

DST#: 8

ATTN: Rocky Milford

Test Start: 2012.11.29 @ 05:12:00

Tool Information

Drill Pipe:	Length:	4029.00 ft	Diameter:	3.80 inches	Volume:	56.52 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:	534.00 ft	Diameter:	2.25 inches	Volume:	2.63 bbl	Weight to Pull Loose:	100000.0 lb
					Total Volume:	59.15 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		5.00 ft					String Weight: Initial	80000.00 lb
Depth to Top Packer:		4586.00 ft					Final	80000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		79.00 ft						
Tool Length:		107.00 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			4563.00	
Hydraulic tool	5.00			4568.00	
Jars	5.00			4573.00	
Safety Joint	3.00			4576.00	
Packer	5.00			4581.00	28.00 Bottom Of Top Packer
Packer	5.00			4586.00	
Packer - Shale	0.00			4586.00	
Stubb	1.00			4587.00	
Recorder	0.00	6719	Inside	4587.00	
Recorder	0.00	8320	Outside	4587.00	
Perforations	9.00			4596.00	
Blank Spacing	65.00			4661.00	
Perforations	1.00			4662.00	
Bullnose	3.00			4665.00	79.00 Bottom Packers & Anchor

Total Tool Length: 107.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

23-2s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202

Frisbe #1-23

Job Ticket: 48174

DST#: 8

ATTN: Rocky Milford

Test Start: 2012.11.29 @ 05:12:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 62.00 sec/qt

Water Loss: 5.59 in³

Resistivity: ohm.m

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	SOCM 94%m, 4%o, 2%g	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6719

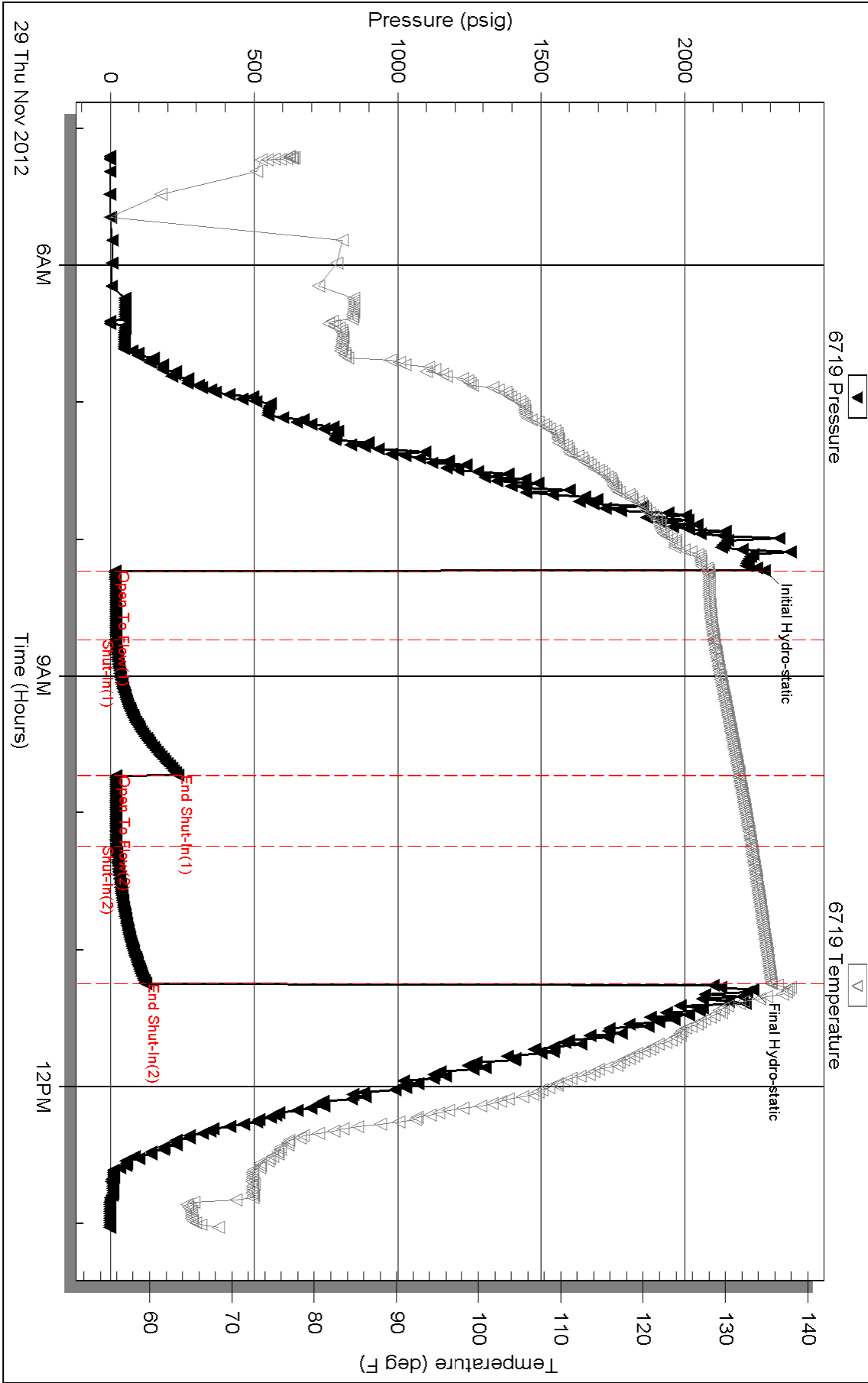
Inside

Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 8

Pressure vs. Time

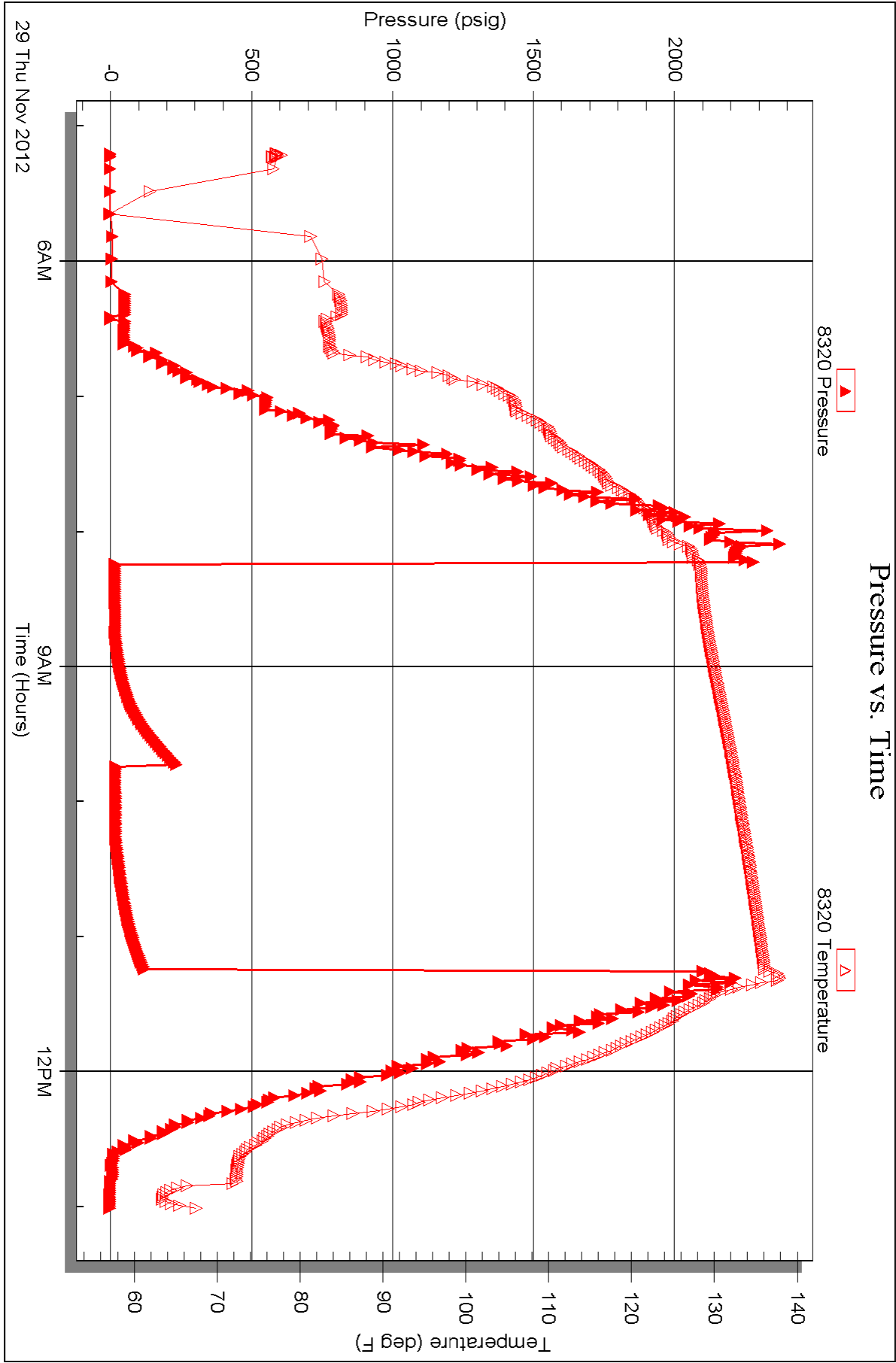


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Frisbe #1-23

DST Test Number: 8





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48167

Well Name & No. Frisbe # 1-23 Test No. 1 Date 11/23/12
 Company Martin Drilling Co. Inc Elevation 3305 KB 3295 GL
 Address 250 N Walter St 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Martin 14
 Location: Sec. 23 Twp. 25 Rge. 36W Co. Rawlins State KS

Interval Tested 3833-3975 Zone Tested Stotter
 Anchor Length 142' Anchor Drill Pipe Run 3300 Mud Wt. 9.1
 Top Packer Depth 3828 Drill Collars Run 534 Vis 57
 Bottom Packer Depth 3833 Shale Wt. Pipe Run 0 WL 6.0
 Total Depth 3975 Chlorides 700 ppm System LCM 5
 Blow Description IF - 1/4" blow built to 2"
ISI - No return
FF - 27 mins. in Surface blow, built to 1"
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
92'	Mud			100	
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 92' BHT 125° Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic	<u>1896</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location	<u>5:15 AM</u>
(B) First Initial Flow	<u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started	<u>5:56 AM</u>
(C) First Final Flow	<u>33</u>	<input checked="" type="checkbox"/> Safety <u>75</u>	T-Open	<u>08:15</u>
(D) Initial Shut-In	<u>1147</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled	<u>12:17</u>
(E) Second Initial Flow	<u>37</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out	<u>014:05</u>
(F) Second Final Flow	<u>64</u>	<input checked="" type="checkbox"/> Mileage <u>102 RT</u> 158.10	Comments	
(G) Final Shut-In	<u>1127</u>	<input checked="" type="checkbox"/> Sampler		
(H) Final Hydrostatic	<u>1868</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer	

Initial Open	<u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input checked="" type="checkbox"/> Ruined Packer
Initial Shut-In	<u>60</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Extra Copies
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>1883.10</u>
		<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't <u>Spl: 50/50</u>
		Sub Total <u>1883.10</u>	

Approved By Rocky Milford Our Representative Rocky Milford
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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48168

Well Name & No. Frisbe # 1-23 Test No. 2 Date 11/23/12
 Company Martin Drilling Co. Inc Elevation 3305 KB 3295 GL
 Address 250 N Walter Ste 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Martin #14
 Location: Sec. 23 Twp. 25 Rge. 36W Co. Rawlins State KS

Interval Tested 3970-4040 Zone Tested Topeka
 Anchor Length 70' Anchor Drill Pipe Run 3427 Mud Wt. 9.1
 Top Packer Depth 3965 Drill Collars Run 534 Vis 57
 Bottom Packer Depth 3970 Shale Wt. Pipe Run 0 WL 6.0
 Total Depth 4040 Chlorides 700 ppm System LCM 5
 Blow Description IF - Surface blow built to 2 1/8"
ISI - No return
FF - Surface blow started @ 10 mins built to 2 1/8"
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>WCM w/ trace oil spots</u>	<u>5</u>	<u>2</u>	<u>23</u>	<u>70</u>
<u>90</u>	<u>WCM w/ trace oil spots</u>	<u>-</u>	<u>1</u>	<u>15</u>	<u>84</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 115 BHT 128 Gravity - API RW .427 @ 84.9° F Chlorides 17,500 ppm

(A) Initial Hydrostatic	<u>2046</u>	<input type="checkbox"/> Test <u>1250</u>	T-On Location	<u>23:00</u>
(B) First Initial Flow	<u>18</u>	<input type="checkbox"/> Jars <u>250</u>	T-Started	<u>23:15</u>
(C) First Final Flow	<u>37</u>	<input type="checkbox"/> Safety Joint <u>75</u>	T-Open	<u>01:05</u>
(D) Initial Shut-In	<u>1164</u>	<input checked="" type="checkbox"/> Circ Sub <u>NA</u>	T-Pulled	<u>05:05</u>
(E) Second Initial Flow	<u>41</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out	<u>6:55</u> <u>1/24</u>
(F) Second Final Flow	<u>72</u>	<input type="checkbox"/> Mileage <u>102 RT</u> <u>158.10</u>	Comments	
(G) Final Shut-In	<u>1128</u>	<input checked="" type="checkbox"/> Sampler		
(H) Final Hydrostatic	<u>1975</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer	

Initial Open	<u>30</u>	<input type="checkbox"/> Shale Packer <u>250</u>	<input checked="" type="checkbox"/> Ruined Packer	
Initial Shut-In	<u>60</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Extra Copies	
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>1983.10</u>
		<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't	<u>split 50/50</u>
		Sub Total		<u>1983.10</u>

Approved By Rocky Milford Our Representative James Winkler
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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48169

Well Name & No. Frisbe # 1-23 Test No. 3 Date 11-24-12
 Company Murfin Drilling Co. Inc Elevation 3305 KB 3295 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #14
 Location: Sec. 23 Twp. 2s Rge. 36w Co. Rawlins State KS

Interval Tested 4070 - 4147 Zone Tested Lecompton - Oread
 Anchor Length 77 Drill Pipe Run 3523 Mud Wt. 9.2
 Top Packer Depth 4065 Drill Collars Run 534 Vis 56
 Bottom Packer Depth 4070 (shale) Wt. Pipe Run - WL 6.0
 Total Depth 4147 Chlorides 800 ppm System LCM 4

Blow Description IF: Blow built to 6 1/2"
ISI: Bled off, No blowback
FF: Blow started at 7 min., built to 8 1/2"
FSI: Bled off, No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>84</u>	<u>Mud w/trace oil</u>	<u>-</u>	<u>trace</u>	<u>-</u>	<u>100</u>
<u>89</u>	<u>sowcm</u>	<u>2</u>	<u>1</u>	<u>4</u>	<u>93</u>
<u>267</u>	<u>wcm w/trace oil</u>	<u>2</u>	<u>trace</u>	<u>32</u>	<u>66</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 440 BHT 135 Gravity - API RW .302 @ 55.3 °F Chlorides 29,000 ppm

(A) Initial Hydrostatic <u>2034</u>	<input type="checkbox"/> Test <u>*</u> 1250	T-On Location <u>18:25</u>
(B) First Initial Flow <u>20</u>	<input type="checkbox"/> Jars <u>*</u> 250	T-Started <u>18:50</u>
(C) First Final Flow <u>101</u>	<input type="checkbox"/> Safety Joint <u>*</u> 75	T-Open <u>21:02</u>
(D) Initial Shut-In <u>1206</u>	<input checked="" type="checkbox"/> Circ Sub <u>XNA</u>	T-Pulled <u>1:06</u>
(E) Second Initial Flow <u>105</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>3:00 11/25</u>
(F) Second Final Flow <u>221</u>	<input type="checkbox"/> Mileage <u>102 RT</u> 158.10	Comments
(G) Final Shut-In <u>1195</u>	<input checked="" type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2012</u>	<input checked="" type="checkbox"/> Straddle	
	<input type="checkbox"/> Shale Packer <u>*</u> 250	<input checked="" type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Ruined Packer
	<input checked="" type="checkbox"/> Extra Recorder	<input checked="" type="checkbox"/> Extra Copies
	<input checked="" type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input checked="" type="checkbox"/> Accessibility	Total <u>1983.10</u>
	Sub Total <u>1983.10</u>	MP/DST Disc't

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

Approved By Rocky Milford Our Representative James Winder

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TRILOBITE TESTING INC.

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Test Ticket

NO. 48170

Well Name & No. Frisbe #1-23 Test No. 4 Date 11-25-12
Company Murfin Drilling Co. Inc Elevation 3305 KB 3295 GL
Address 250 N. Water Suite 300 Wichita, KS 67202
Co. Rep / Geo. Rocky Milford Rig Murfin #14
Location: Sec. 23 Twp. 2s Rge. 36w Co. Rawlins State KS

Interval Tested 4163 - 4245 Zone Tested Leavenworth - LKC "A"
Anchor Length 82 Drill Pipe Run 3618 Mud Wt. 9.1
Top Packer Depth 4158 Drill Collars Run 534 Vis 99 72
Bottom Packer Depth 4163 Wt. Pipe Run - WL 5.6
Total Depth 4245 Chlorides 1000 ppm System LCM 6.0

Blow Description IF: Blow built to 3 1/2"
ISI: Bled off, No blowback
FF: Blow started at 5 min., built to 5"
FSI: Bled off, No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Feet of 20m mco</u>	<u>5</u>	<u>75</u>	<u>-</u>	<u>20</u>
<u>20</u>	<u>Feet of <u>mco</u></u>	<u>3</u>	<u>60</u>	<u>-</u>	<u>37</u>
<u>70</u>	<u>Feet of <u>GOM</u></u>	<u>11</u>	<u>44</u>	<u>-</u>	<u>45</u>
<u>Rec</u>	<u>Feet of <u>GIP = 60'</u></u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

Rec Total 120 BHT 131 Gravity 26.8 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic	(B) First Initial Flow	(C) First Final Flow	(D) Initial Shut-In	(E) Second Initial Flow	(F) Second Final Flow	(G) Final Shut-In	(H) Final Hydrostatic
<u>2080</u>	<u>18</u>	<u>35</u>	<u>1222</u>	<u>41</u>	<u>70</u>	<u>1209</u>	<u>2041</u>

□ Test <u>★</u> 1250	T-On Location <u>13:55</u>
□ Jars <u>★</u> 250	T-Started <u>14:26</u>
□ Safety Joint <u>★</u> 75	T-Open <u>16:16</u>
☑ Circ Sub <u>★ NA</u>	T-Pulled <u>20:16</u>
☑ Hourly Standby	T-Out <u>22:10</u>
□ Mileage <u>102 RT</u> 158.10	Comments
☑ Sampler	
☑ Straddle	
☑ Shale Packer	
☑ Extra Packer	
☑ Extra Recorder	
☑ Day Standby	
☑ Accessibility	

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

Sub Total 1733.10

MP/DST Disc't

Approved By Rocky Milford Our Representative James Winder

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48171

Well Name & No. Frisbe #1-23 Test No. 5 Date 11-26-12
 Company Murfin Drilling Co. Inc Elevation 3305 KB 3295 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #14
 Location: Sec. 23 Twp. 2s Rge. 36w Co. Rawlins State KS

Interval Tested 4240 - 4318 Zone Tested LKC "A sand" - "E"
 Anchor Length 78 Drill Pipe Run 3713 Mud Wt. 9.2
 Top Packer Depth 4235 Drill Collars Run 534 Vis 69
 Bottom Packer Depth 4240 Wt. Pipe Run - WL 6.0
 Total Depth 4318 Chlorides 1000 ppm System LCM 6

Blow Description IF: Blow built to BOB (11") in 15 1/2 min.
ISI: Bled off, Blowback built to 3"
FF: Blow built to BOB in 24 1/2 min.
FSI: Bled off, Blowback built to 2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>CO</u>	<u>3</u>	<u>96</u>	<u>-</u>	<u>1</u>
<u>450</u>	<u>CGO</u>	<u>20</u>	<u>77</u>	<u>-</u>	<u>3</u>
<u>30</u>	<u>MCO</u>	<u>7</u>	<u>75</u>	<u>-</u>	<u>18</u>
<u>150</u>	<u>GOCM</u>	<u>24</u>	<u>11</u>	<u>-</u>	<u>65</u>
<u>Rec</u>	<u>Feet of GIP = 365'</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

Rec Total 640 Fluid 365 Gas BHT 137 Gravity 29.2 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>2160</u>	<input type="checkbox"/> Test <u>★</u> 1250	T-On Location <u>9:00</u>
(B) First Initial Flow <u>22</u>	<input type="checkbox"/> Jars <u>★</u> 250	T-Started <u>9:25</u>
(C) First Final Flow <u>135</u>	<input type="checkbox"/> Safety Joint <u>★</u> 75	T-Open <u>11:27</u>
(D) Initial Shut-In <u>1264</u>	<input checked="" type="checkbox"/> Circ Sub <u>★</u>	T-Pulled <u>15:26</u>
(E) Second Initial Flow <u>148</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>17:40</u>
(F) Second Final Flow <u>263</u>	<input type="checkbox"/> Mileage <u>102</u> 158.10	Comments
(G) Final Shut-In <u>1263</u>	<input checked="" type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2146</u>	<input checked="" type="checkbox"/> Straddle	

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	<input checked="" type="checkbox"/> Extra Copies
Final Shut-In <u>90</u>	<input checked="" type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input checked="" type="checkbox"/> Accessibility	Total <u>1733.10</u>
	Sub Total <u>1733.10</u>	MP/DST Disc't

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48172

Well Name & No. Frisbe #1-23 Test No. 6 Date 11-27-12
 Company Murfin Drilling Co. INC Elevation 3305 KB 3295 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #14
 Location: Sec. 23 Twp. 2s Rge. 36w Co. Rawlins State KS

Interval Tested 4298 - 4345 Zone Tested LKC "G"
 Anchor Length 47 Drill Pipe Run 3744 Mud Wt. 9.2
 Top Packer Depth 4293 Drill Collars Run 534 Vis 69
 Bottom Packer Depth 4298 (shale) Wt. Pipe Run - WL 6.0
 Total Depth 4345 Chlorides 1000 ppm System LCM 6

Blow Description IF: Blow built to BOB(11") at 30 min. (Diesel in bucket)
ISF: Bled off, Blowback built to 1/4"
FF: Blow built to BOB in 35 min.
FSI: Bled off, Blowback built to 1/4"

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>CO</u>	<u>5</u>	<u>94</u>	<u>-</u>	<u>1</u>
<u>180</u>	<u>CGO</u>	<u>25</u>	<u>73</u>	<u>-</u>	<u>2</u>
<u>45</u>	<u>MCO</u>	<u>3</u>	<u>77</u>	<u>-</u>	<u>20</u>
<u>45</u>	<u>GOCM</u>	<u>15</u>	<u>20</u>	<u>-</u>	<u>65</u>
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

Rec Total 300 fluid 240 GIP BHT 134 Gravity 31.2 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2173
 (B) First Initial Flow 21
 (C) First Final Flow 56
 (D) Initial Shut-In 1291
 (E) Second Initial Flow 63
 (F) Second Final Flow 123
 (G) Final Shut-In 1284
 (H) Final Hydrostatic 2132

☐ Test ★ 1250
☐ Jars ★ 250
☐ Safety Joint ★ 75
☒ Circ Sub ★NA
☒ Hourly Standby
☐ Mileage 102 RT 158.10
☒ Sampler
☒ Straddle
☐ Shale Packer ★ 250
☒ Extra Packer
☒ Extra Recorder
☒ Day Standby
☒ Accessibility
 Sub Total 1983.10

T-On Location 00:05
 T-Started 00:55
 T-Open 3:21
 T-Pulled 7:23
 T-Out 9:30
 Comments

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

☒ Ruined Shale Packer
☒ Ruined Packer
☒ Extra Copies
 Sub Total 0
 Total 1983.10
 MP/DST Disc't

Approved By Rocky Milford

Our Representative James Winder

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48173

Well Name & No. Frisbe #1-23 Test No. 7 Date 11-28-12
 Company Murfin Drilling Co. Inc Elevation 3305 KB 3295 GL
 Address 250 N. Water Suite 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #14
 Location: Sec. 23 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4396 - 4443 Zone Tested LKC "J"
 Anchor Length 47 Drill Pipe Run 3839 Mud Wt. 9.2
 Top Packer Depth ~~4396~~ 4391 Drill Collars Run 534 Vis 56
 Bottom Packer Depth 4396 (shale) Wt. Pipe Run - WL 6.4
 Total Depth 4443 Chlorides 1100 ppm System LCM 7
 Blow Description IF: Blow built to BOB (11") in 2 1/2 min. (Diesel in bucket)
ISI: Bled off, Blowback built to ~~2 3/4~~ min 8 1/2"
FF: Blow built to BOB in 2 3/4 min.
FSI: Bled off, Blowback built to 6"

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>33</u>	Feet of <u>GMWCO</u>	<u>20</u>	<u>44</u>	<u>18</u>	<u>8</u>
Rec <u>1587</u> ^{Rev out for 20 min}	Feet of <u>Samples Every 5 min (5-15 = 6mow)</u>	<u>19</u>	<u>24</u>	<u>36</u>	<u>21</u>
Rec <u>20 min</u>	Feet of <u>20 min Sample Truck drive said 7661 Total</u>	<u>-</u>	<u>60</u>	<u>38</u>	<u>22</u>
Rec <u>90 Below Circ Sub</u>	Feet of <u>SG/MCW</u>	<u>-</u>	<u>2</u>	<u>76</u>	<u>22</u>
Rec <u>6IP = 345'</u>	Feet of <u>6IP = 345'</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

Rec Total 1710 Fluid BHT 149 Gravity 39 API RW 358 @ 60 °F Chlorides 22,500 ppm
 (A) Initial Hydrostatic 2183 ☐ Test 1250 T-On Location 23:40 11/27
 (B) First Initial Flow 90 ☐ Jars 250 T-Started 00:10 11/28
 (C) First Final Flow 507 ☐ Safety Joint 75 T-Open 2:36
 (D) Initial Shut-In 1355 ☐ Circ Sub dropped Bar 50 T-Pulled 6:09
 (E) Second Initial Flow 508 ☒ Hourly Standby T-Out 9:15
 (F) Second Final Flow 752 ☐ Mileage 102 RT 158.10
 (G) Final Shut-In 1353 ☒ Sampler
 (H) Final Hydrostatic 2158 ☒ Straddle
☐ Shale Packer 250
☒ Extra Packer
☒ Extra Recorder
☒ Day Standby
☒ Accessibility

☒ Ruined Shale Packer
☒ Ruined Packer
☒ Extra Copies
 Sub Total 0
 Total 2033.10
 MP/DST Disc't

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

Sub Total 2033.10

Approved By Rocky Milford

Our Representative James Windes

Triobite 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

Test Ticket

NO. 48174

Well Name & No. Frisbe #1-23 Test No. 8 Date 11-29-12
 Company Murfin Drilling Co. Inc Elevation 3305 KB 3295 GL
 Address 250 N. Water Suite 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #14
 Location: Sec. 23 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4586 - 4665 Zone Tested Pawnee
 Anchor Length 79 Drill Pipe Run 4029 Mud Wt. 9.2
 Top Packer Depth 4581 Drill Collars Run 534 Vis 62
 Bottom Packer Depth 4586 (shale) Wt. Pipe Run - WL 5.6
 Total Depth 4665 Chlorides 1400 ppm System LCM 6
 Blow Description IF: 3/4" blow at open, built to 1 1/4", dieing back at 25 min., 3/4" at close
ISI: Bled off, No blowback, (Diesel in bucket)
FF: No blow
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>50cm</u>	<u>2</u>	<u>4</u>	<u>-</u>	<u>94</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 2 BHT 136 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2279
 (B) First Initial Flow 17
 (C) First Final Flow 19
 (D) Initial Shut-In 235
 (E) Second Initial Flow 19
 (F) Second Final Flow 20
 (G) Final Shut-In 123
 (H) Final Hydrostatic 2237

☐ Test ★ 1250
☐ Jars ★ 250
☐ Safety Joint ★ 75
☒ Circ Sub ★ NA
☒ Hourly Standby
☐ Mileage 102 RTx2 158.10
☒ Sampler
☒ Straddle
☐ Shale Packer ★ 250
☒ Extra Packer
☒ Extra Recorder
☒ Day Standby
☒ Accessibility
 Sub Total 1983.10

T-On Location 4:30
 T-Started 5:12
 T-Open 8:14
 T-Pulled 11:15
 T-Out 12:55
 Comments
☒ Ruined Shale Packer
☒ Ruined Packer
☒ Extra Copies
 Sub Total 0
 Total 1983.10
 MP/DST Disc't

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

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Our Representative James Winder

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