



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

Walter #3-1

1-1s-36w Rawlins,KS

Start Date: 2013.10.12 @ 22:11:15

End Date: 2013.10.13 @ 05:10:15

Job Ticket #: 54950 DST #: 1

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

Printed: 2013.10.18 @ 13:18:44



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

1-1s-36w Rawlins,KS

Walter #3-1

Job Ticket: 54950

DST#: 1

Test Start: 2013.10.12 @ 22:11:15

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:12:45

Time Test Ended: 05:10:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

Interval: 4030.00 ft (KB) To 4080.00 ft (KB) (TVD)

Reference Elevations: 3237.00 ft (KB)

Total Depth: 4080.00 ft (KB) (TVD)

3227.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press @ Run Depth: 17.92 psig @ 4031.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.12

End Date:

2013.10.13

Last Calib.: 2013.10.13

Start Time: 22:11:20

End Time:

05:10:14

Time On Btm: 2013.10.13 @ 00:11:15

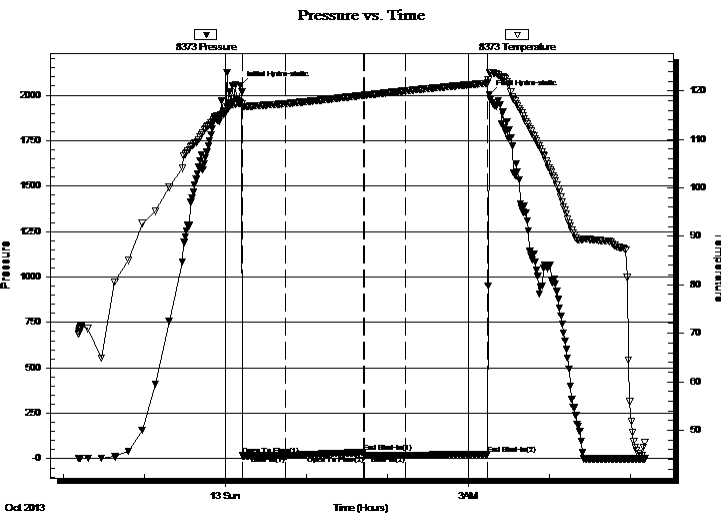
Time Off Btm: 2013.10.13 @ 03:15:15

TEST COMMENT: IF: Surface blow died in 6 min.

IS: No return.

FF: No blow.

FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2052.94	117.45	Initial Hydro-static
2	16.95	116.74	Open To Flow (1)
33	16.86	117.36	Shut-In(1)
91	34.42	119.07	End Shut-In(1)
92	17.33	119.07	Open To Flow (2)
122	17.92	120.00	Shut-In(2)
183	25.75	121.58	End Shut-In(2)
184	2001.39	123.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 54950

DST#: 1

ATTN: Kevin Kessler

Test Start: 2013.10.12 @ 22:11:15

Tool Information

Drill Pipe:	Length: 3782.00 ft	Diameter: 3.80 inches	Volume: 53.05 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose:	68000.00 lb
			<u>Total Volume: 54.20 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4030.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	78.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4003.00	
Shut In Tool	5.00			4008.00	
Hydraulic tool	5.00			4013.00	
Jars	5.00			4018.00	
Safety Joint	3.00			4021.00	
Packer	5.00			4026.00	28.00 Bottom Of Top Packer
Packer	4.00			4030.00	
Stubb	1.00			4031.00	
Recorder	0.00	8373	Inside	4031.00	
Recorder	0.00	8356	Outside	4031.00	
Perforations	10.00			4041.00	
Change Over Sub	1.00			4042.00	
Drill Pipe	32.00			4074.00	
Change Over Sub	1.00			4075.00	
Bullnose	5.00			4080.00	50.00 Bottom Packers & Anchor

Total Tool Length: 78.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 54950

DST#: 1

ATTN: Kevin Kessler

Test Start: 2013.10.12 @ 22:11:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

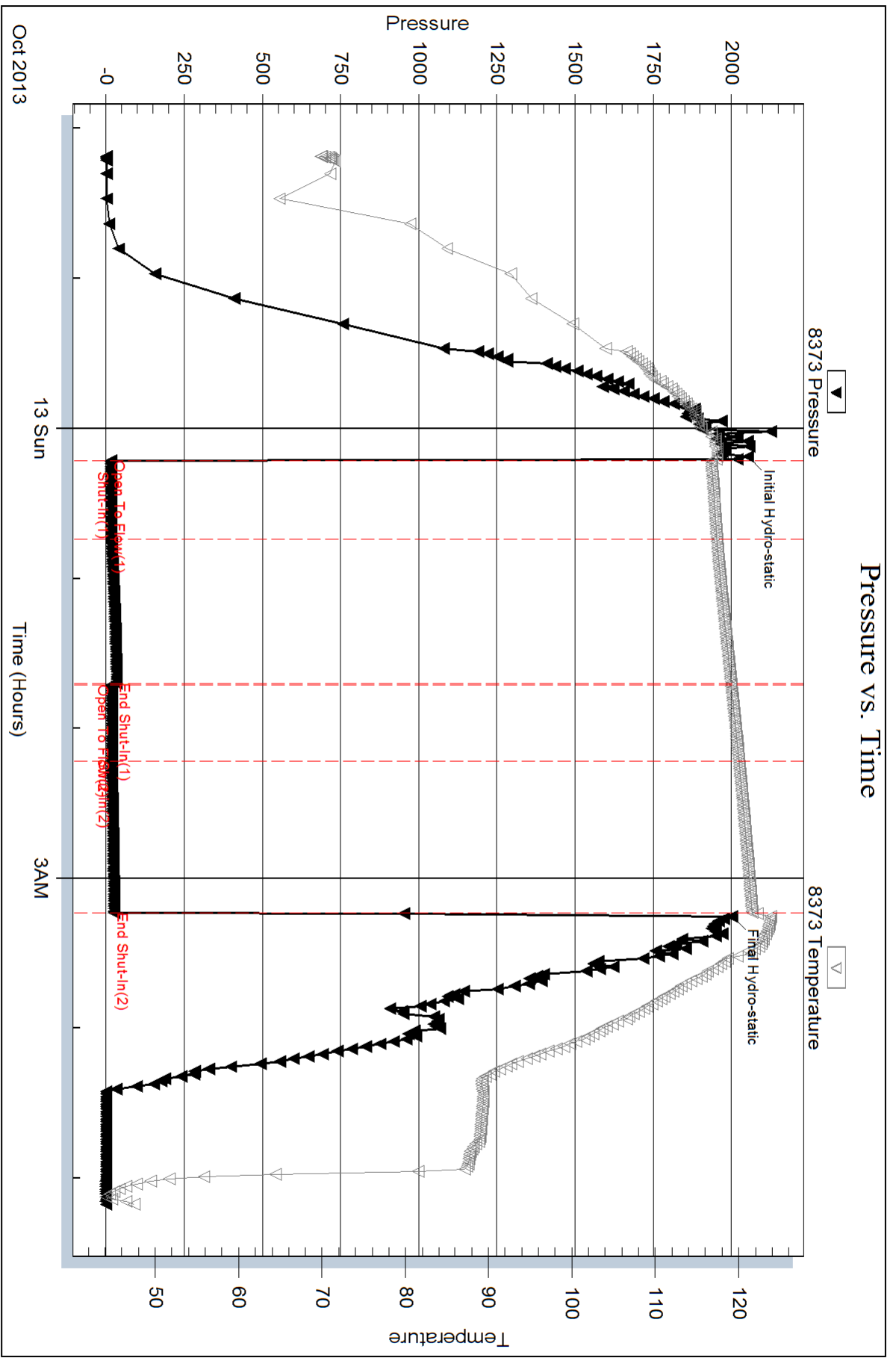
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

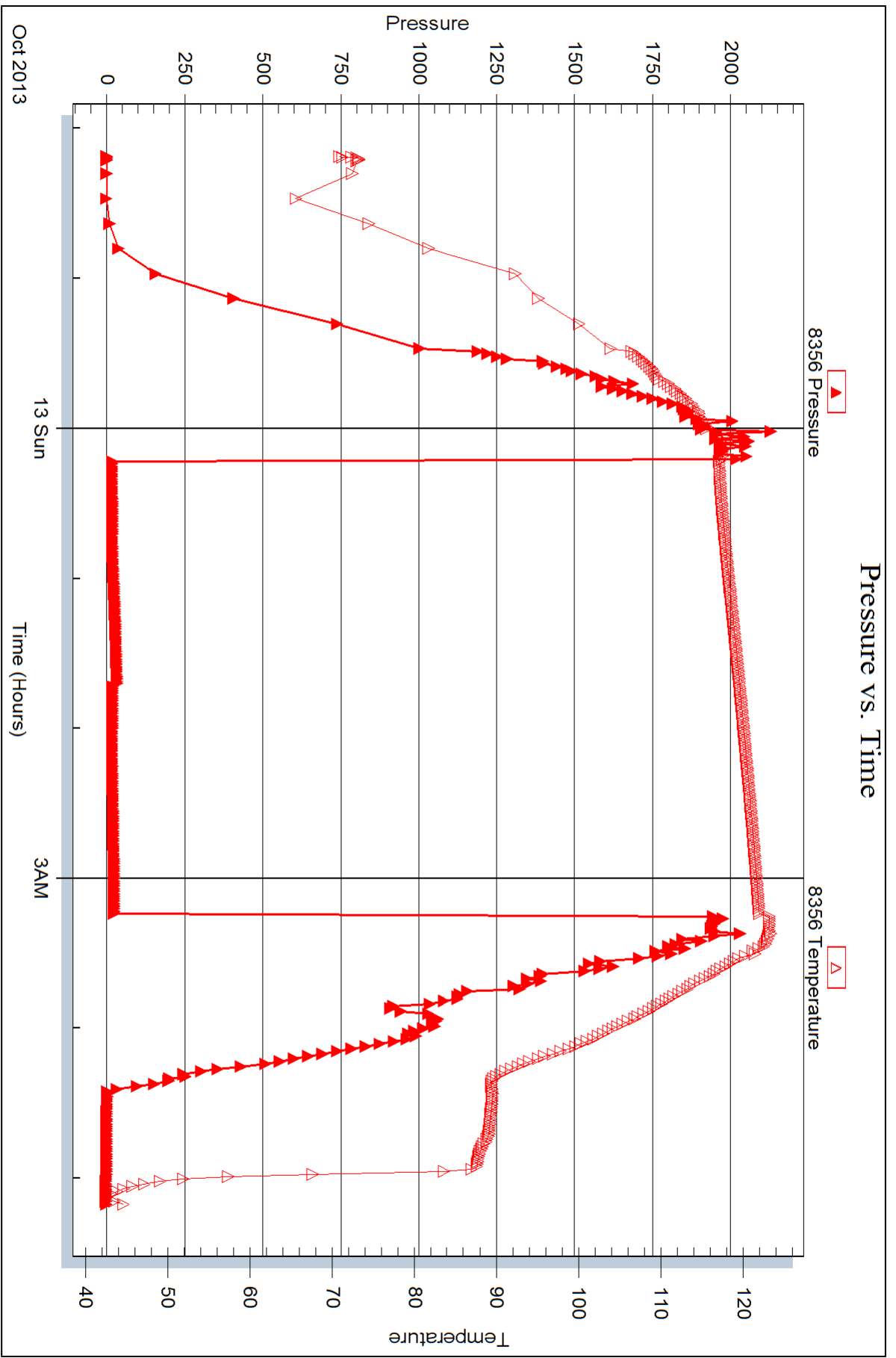


Serial #: 8356

Outside Murfin Drilling Co Inc

Walter #3-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54950

Printed: 2013.10.18 @ 13:18:46



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

Walter #3-1

1-1s-36w Rawlins,KS

Start Date: 2013.10.13 @ 17:22:31

End Date: 2013.10.14 @ 01:11:01

Job Ticket #: 54951 DST #: 2

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

Printed: 2013.10.18 @ 13:18:19



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 54951

DST#: 2

ATTN: Kevin Kessler

Test Start: 2013.10.13 @ 17:22:31

GENERAL INFORMATION:

Formation: **LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:23:01

Time Test Ended: 01:11:01

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4100.00 ft (KB) To 4200.00 ft (KB) (TVD)

Reference Elevations: 3237.00 ft (KB)

Total Depth: 4200.00 ft (KB) (TVD)

3227.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8373 Inside

Press @ Run Depth: 66.33 psig @ 4101.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.13

End Date:

2013.10.14

Last Calib.: 2013.10.14

Start Time: 17:22:36

End Time:

01:11:00

Time On Btm: 2013.10.13 @ 19:21:01

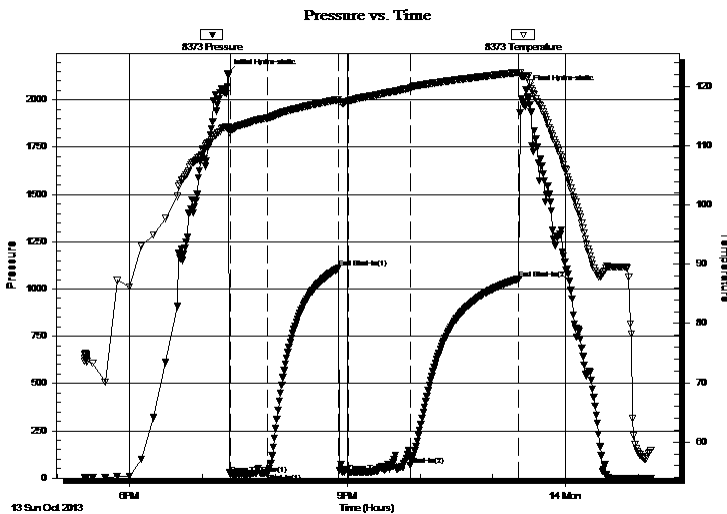
Time Off Btm: 2013.10.13 @ 23:27:31

TEST COMMENT: IF: Surface blow built to 1 1/4"

IS: No return.

FF: Surface blow built to 1/2"

FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2140.73	113.21	Initial Hydro-static
2	19.89	112.81	Open To Flow (1)
33	27.07	114.69	Shut-In(1)
92	1109.99	117.81	End Shut-In(1)
100	30.61	117.55	Open To Flow (2)
151	66.33	119.70	Shut-In(2)
241	1054.83	122.39	End Shut-In(2)
247	2052.85	121.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	ocm 5%o 95%m	0.15

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

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 54951

DST#: 2

ATTN: Kevin Kessler

Test Start: 2013.10.13 @ 17:22:31

Tool Information

Drill Pipe:	Length: 3846.00 ft	Diameter: 3.80 inches	Volume: 53.95 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 55.10 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	64000.00 lb
Depth to Top Packer:	4100.00 ft			Final	64000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	100.00 ft				
Tool Length:	128.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4073.00	
Shut In Tool	5.00			4078.00	
Hydraulic tool	5.00			4083.00	
Jars	5.00			4088.00	
Safety Joint	3.00			4091.00	
Packer	5.00			4096.00	28.00 Bottom Of Top Packer
Packer	4.00			4100.00	
Stubb	1.00			4101.00	
Recorder	0.00	8373	Inside	4101.00	
Recorder	0.00	8356	Outside	4101.00	
Perforations	29.00			4130.00	
Change Over Sub	1.00			4131.00	
Drill Pipe	63.00			4194.00	
Change Over Sub	1.00			4195.00	
Bullnose	5.00			4200.00	100.00 Bottom Packers & Anchor

Total Tool Length: 128.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 54951

DST#: 2

ATTN: Kevin Kessler

Test Start: 2013.10.13 @ 17:22:31

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	ocm 5%o 95%m	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

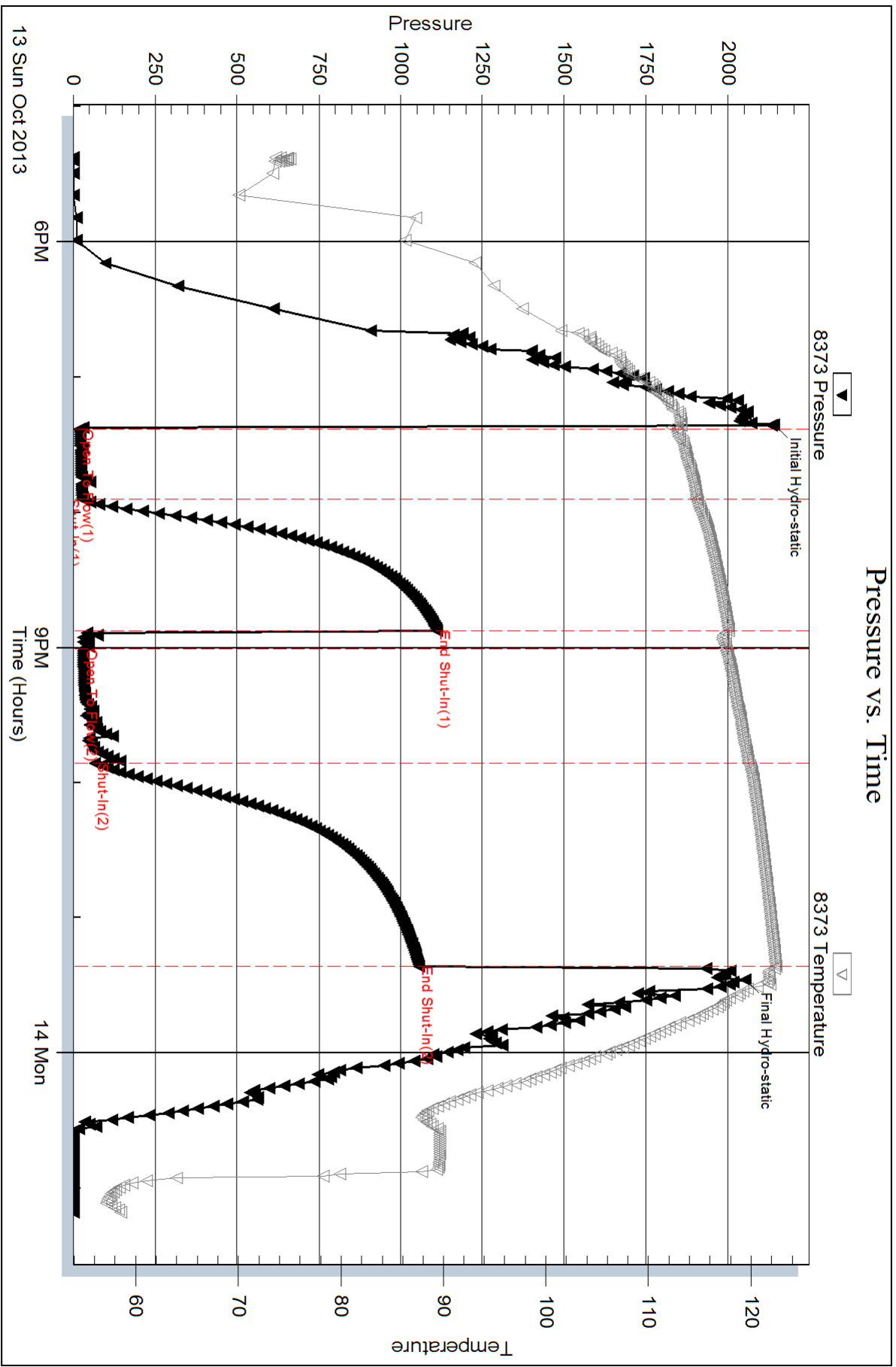
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

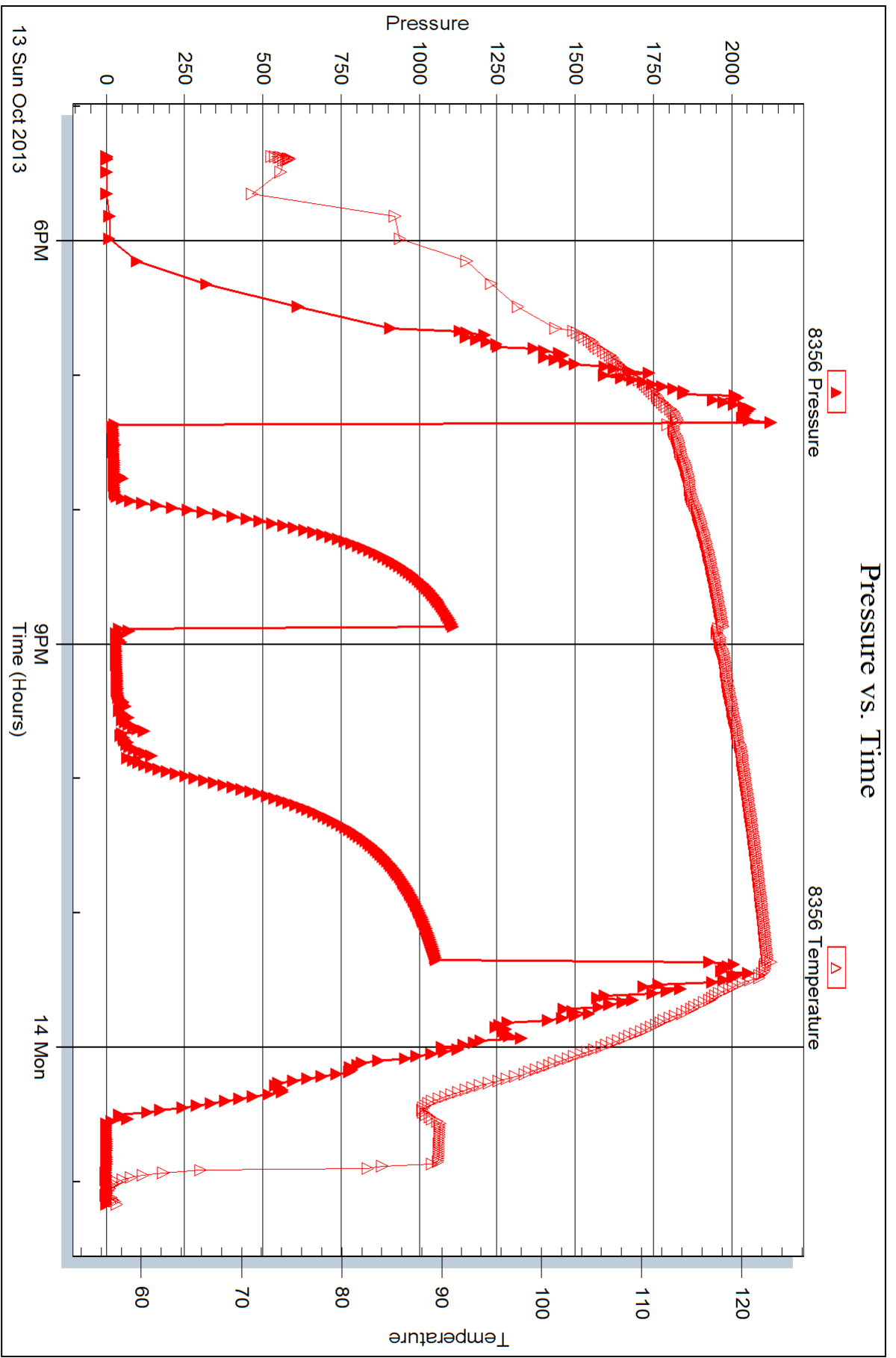


Serial #: 8356

Outside Murfin Drilling Co Inc

Walter #3-1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 54951

Printed: 2013.10.18 @ 13:18:21



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

Walter #3-1

1-1s-36w Rawlins,KS

Start Date: 2013.10.14 @ 08:45:00

End Date: 2013.10.14 @ 16:52:30

Job Ticket #: 53579 DST #: 3

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

Printed: 2013.10.18 @ 13:17:53



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

1-1s-36w Rawlins,KS

Walter #3-1

Job Ticket: 53579

DST#: 3

Test Start: 2013.10.14 @ 08:45:00

GENERAL INFORMATION:

Formation: **LKC-B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:20:00

Time Test Ended: 16:52:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 4180.00 ft (KB) To 4240.00 ft (KB) (TVD)

Total Depth: 4240.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3237.00 ft (KB)

3227.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 311.41 psig @ 4181.00 ft (KB)

Start Date: 2013.10.14

End Date: 2013.10.14

Start Time: 08:45:01

End Time: 16:52:30

Capacity: 8000.00 psig

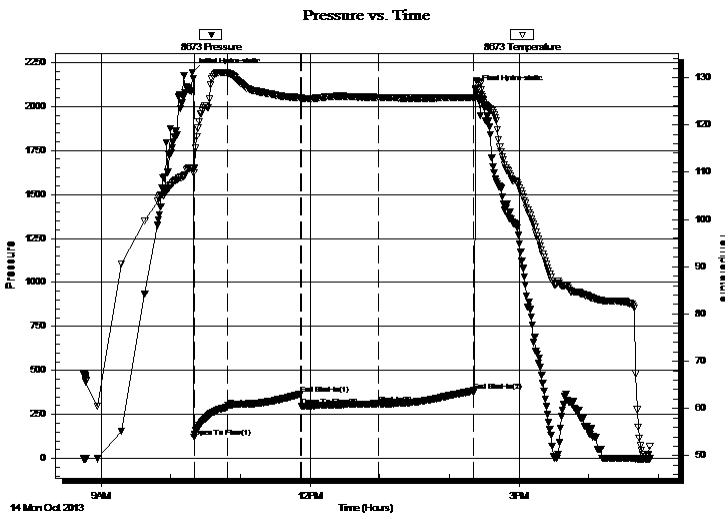
Last Calib.: 2013.10.15

Time On Btm: 2013.10.14 @ 10:18:30

Time Off Btm: 2013.10.14 @ 14:22:30

TEST COMMENT: IF: Strong blow, Built to B.O.B in 3 mins.
IS: Bled off, Blow back after 30 sec. Built to B.O.B in 5 mins.
FF: Took 2 mins to start to blow, Built to B.O.B in 10 min.
FS: Bled off, Blow back built to B.O.B in 10 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2192.75	110.65	Initial Hydro-static
2	119.61	109.93	Open To Flow (1)
31	291.55	130.92	Shut-In(1)
94	364.40	125.69	End Shut-In(1)
95	295.89	125.63	Open To Flow (2)
161	311.41	125.79	Shut-In(2)
243	384.75	125.82	End Shut-In(2)
244	2096.92	127.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	620 ft. of gas in pipe	0.00
251.00	vsocm-4%o96%m	1.23
124.00	ghocm-5%g20%o73%m	1.74
248.00	go-20%g80%o	3.48
186.00	og-30%o70%g	2.61

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 53579

DST#: 3

ATTN: Kevin Kessler

Test Start: 2013.10.14 @ 08:45:00

Tool Information

Drill Pipe:	Length: 3925.00 ft	Diameter: 3.80 inches	Volume: 55.06 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 251.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 56.29 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4180.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	60.00 ft				
Tool Length:	88.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4153.00	
Shut In Tool	5.00			4158.00	
Hydraulic tool	5.00			4163.00	
Jars	5.00			4168.00	
Safety Joint	3.00			4171.00	
Packer	5.00			4176.00	28.00 Bottom Of Top Packer
Packer	4.00			4180.00	
Packer - Shale	0.00			4180.00	
Stubb	1.00			4181.00	
Recorder	0.00	8673	Inside	4181.00	
Recorder	0.00	0	Outside	4181.00	
Perforations	2.00			4183.00	
Change Over Sub	1.00			4184.00	
Drill Pipe	32.00			4216.00	
Change Over Sub	1.00			4217.00	
Perforations	20.00			4237.00	
Bullnose	3.00			4240.00	60.00 Bottom Packers & Anchor
Total Tool Length:	88.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 53579

DST#: 3

ATTN: Kevin Kessler

Test Start: 2013.10.14 @ 08:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.48 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	620 ft. of gas in pipe	0.000
251.00	vsocm-4%o96%m	1.234
124.00	ghocm-5%g20%o73%m	1.739
248.00	go-20%g80%o	3.479
186.00	og-30%o70%g	2.609

Total Length: 809.00 ft

Total Volume: 9.061 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8673

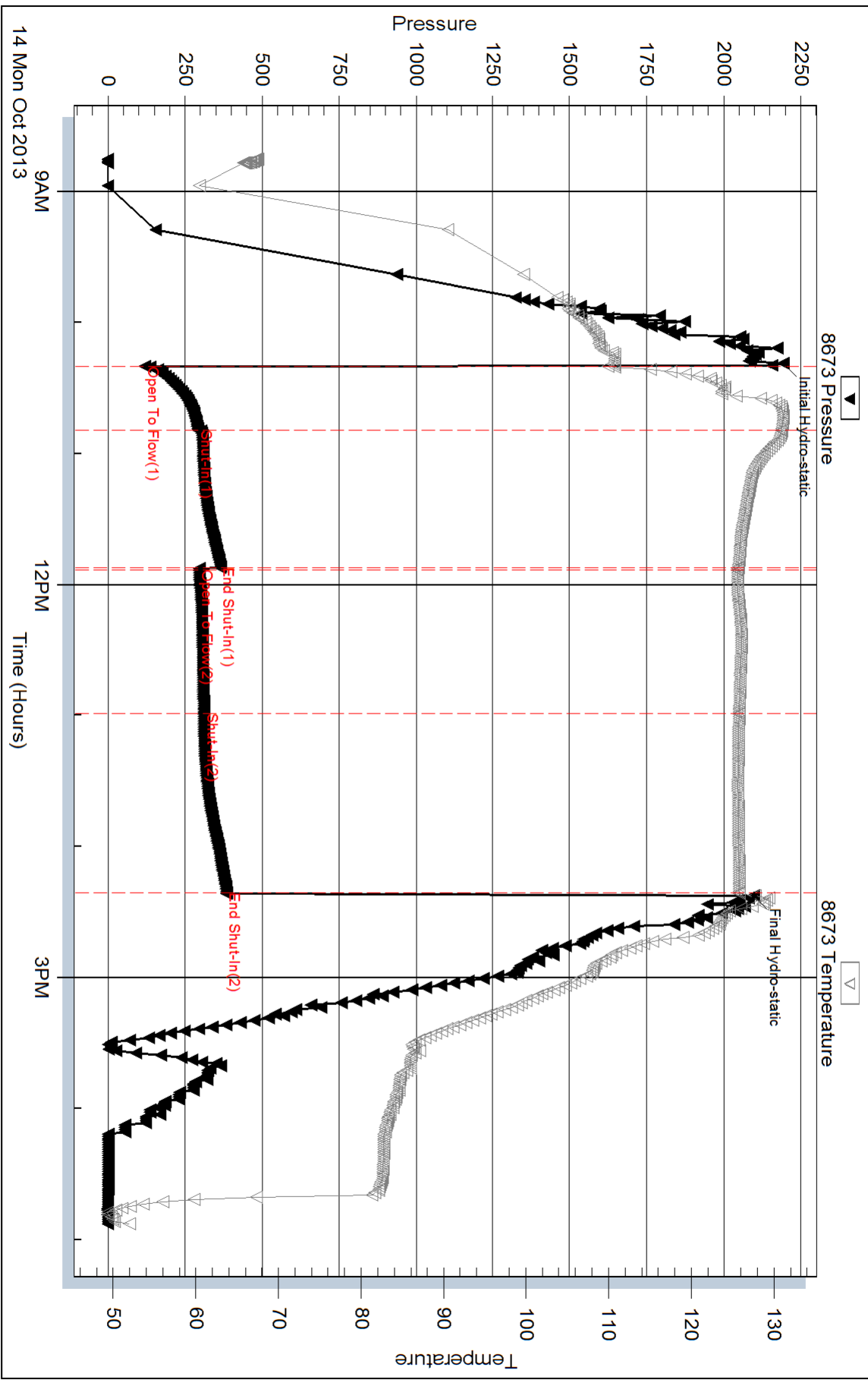
Inside

Murfin Drilling Co Inc

Walter #3-1

DST Test Number: 3

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

Walter #3-1

1-1s-36w Rawlins,KS

Start Date: 2013.10.15 @ 02:05:00

End Date: 2013.10.15 @ 11:02:30

Job Ticket #: 53580 DST #: 4

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

Printed: 2013.10.18 @ 13:17:27



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

1-1s-36w Rawlins,KS

Walter #3-1

Job Ticket: 53580

DST#: 4

Test Start: 2013.10.15 @ 02:05:00

GENERAL INFORMATION:

Formation: **LKC-G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:37:00

Time Test Ended: 11:02:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer

Unit No: 61

Interval: 4235.00 ft (KB) To 4290.00 ft (KB) (TVD)

Reference Elevations: 3237.00 ft (KB)

Total Depth: 4290.00 ft (KB) (TVD)

3227.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 331.48 psig @ 4236.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.15

End Date:

2013.10.15

Last Calib.:

2013.10.15

Start Time:

02:05:01

End Time:

11:02:30

Time On Btm:

2013.10.15 @ 04:27:00

Time Off Btm:

2013.10.15 @ 08:31:00

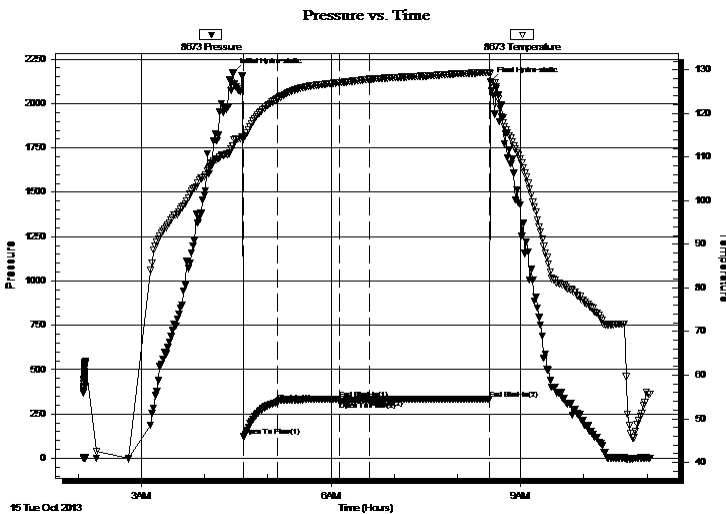
TEST COMMENT: IF: Strong blow, Built to B.O.B in 45 secs. gas to surface in 11 mins.

IS: Bled off, Blow back after 30 secs. Built to B.O.B in 50 mins.

FF: Fair blow after 5 mins. Built to B.O.B in 20 mins.

FS: Bled off. Blow back after 30 secs. Built to B.O.B in 10 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2172.45	112.64	Initial Hydro-static
10	121.85	114.32	Open To Flow (1)
43	315.61	123.45	Shut-In(1)
101	331.73	127.03	End Shut-In(1)
101	320.75	127.03	Open To Flow (2)
130	331.48	127.82	Shut-In(2)
243	331.60	129.40	End Shut-In(2)
244	2123.61	129.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
116.00	ghocm-5%g10%o85%m	0.57
126.00	go-25%g75%o	0.62
252.00	go-50%g50%o	3.45
370.00	go-30%g70%o	5.19
0.00	GTS	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 53580

DST#: 4

ATTN: Kevin Kessler

Test Start: 2013.10.15 @ 02:05:00

Tool Information

Drill Pipe:	Length: 3971.00 ft	Diameter: 3.80 inches	Volume: 55.70 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 251.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 56.93 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4235.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	55.00 ft				
Tool Length:	83.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

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

Stubb	1.00			4208.00	
Shut In Tool	5.00			4213.00	
Hydraulic tool	5.00			4218.00	
Jars	5.00			4223.00	
Safety Joint	3.00			4226.00	
Packer	5.00			4231.00	28.00 Bottom Of Top Packer
Packer	4.00			4235.00	
Packer - Shale	0.00			4235.00	
Stubb	1.00			4236.00	
Recorder	0.00	8673	Inside	4236.00	
Recorder	0.00	8651	Outside	4236.00	
Perforations	2.00			4238.00	
Change Over Sub	1.00			4239.00	
Drill Pipe	32.00			4271.00	
Change Over Sub	1.00			4272.00	
Perforations	15.00			4287.00	
Bullnose	3.00			4290.00	55.00 Bottom Packers & Anchor
Total Tool Length:	83.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 53580

DST#: 4

ATTN: Kevin Kessler

Test Start: 2013.10.15 @ 02:05:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
116.00	ghocm-5%g10%o85%m	0.570
126.00	go-25%g75%o	0.620
252.00	go-50%g50%o	3.453
370.00	go-30%g70%o	5.190
0.00	GTS	0.000

Total Length: 864.00 ft

Total Volume: 9.833 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8673

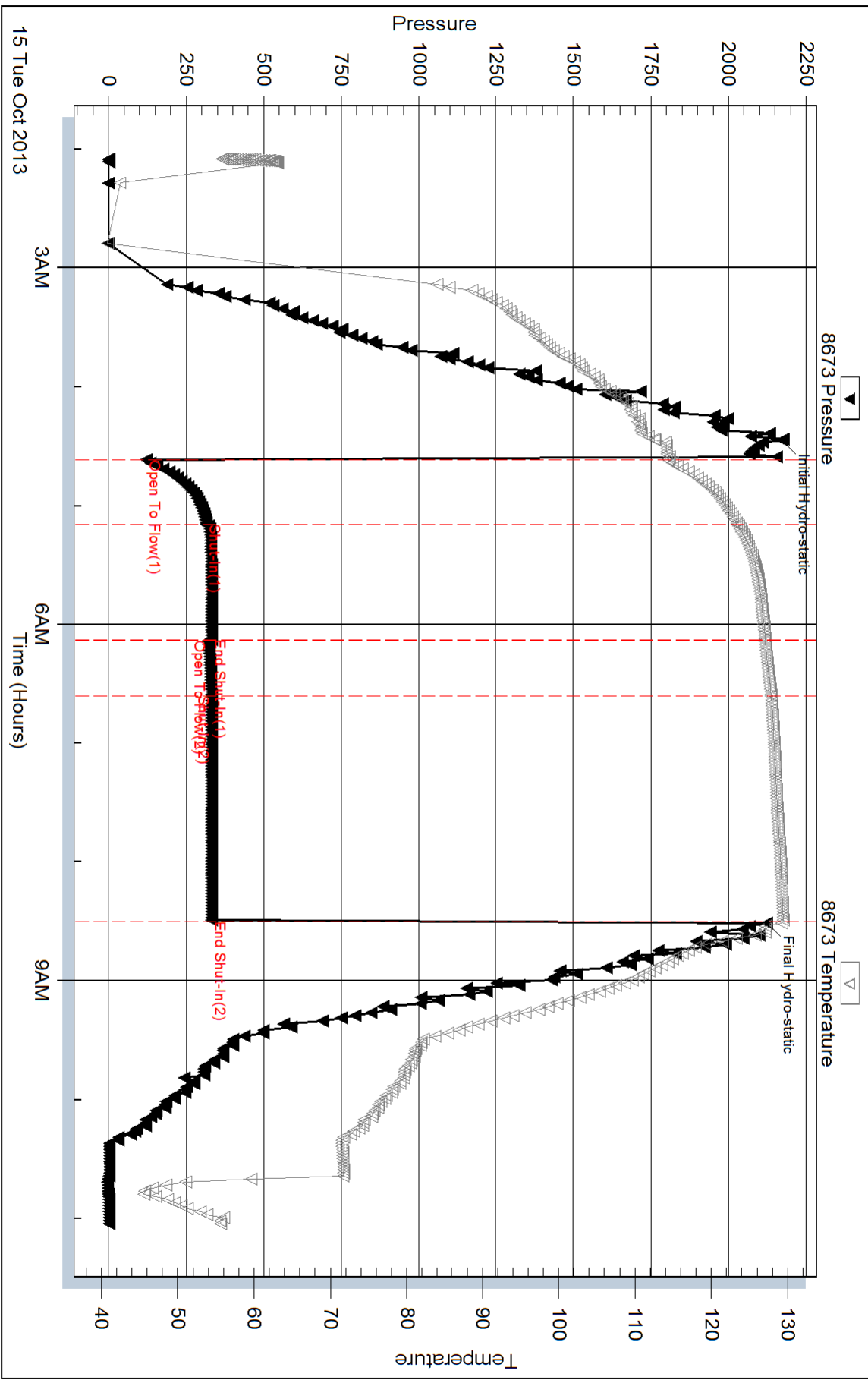
Inside

Murfin Drilling Co Inc

Walter #3-1

DST Test Number: 4

Pressure vs. Time

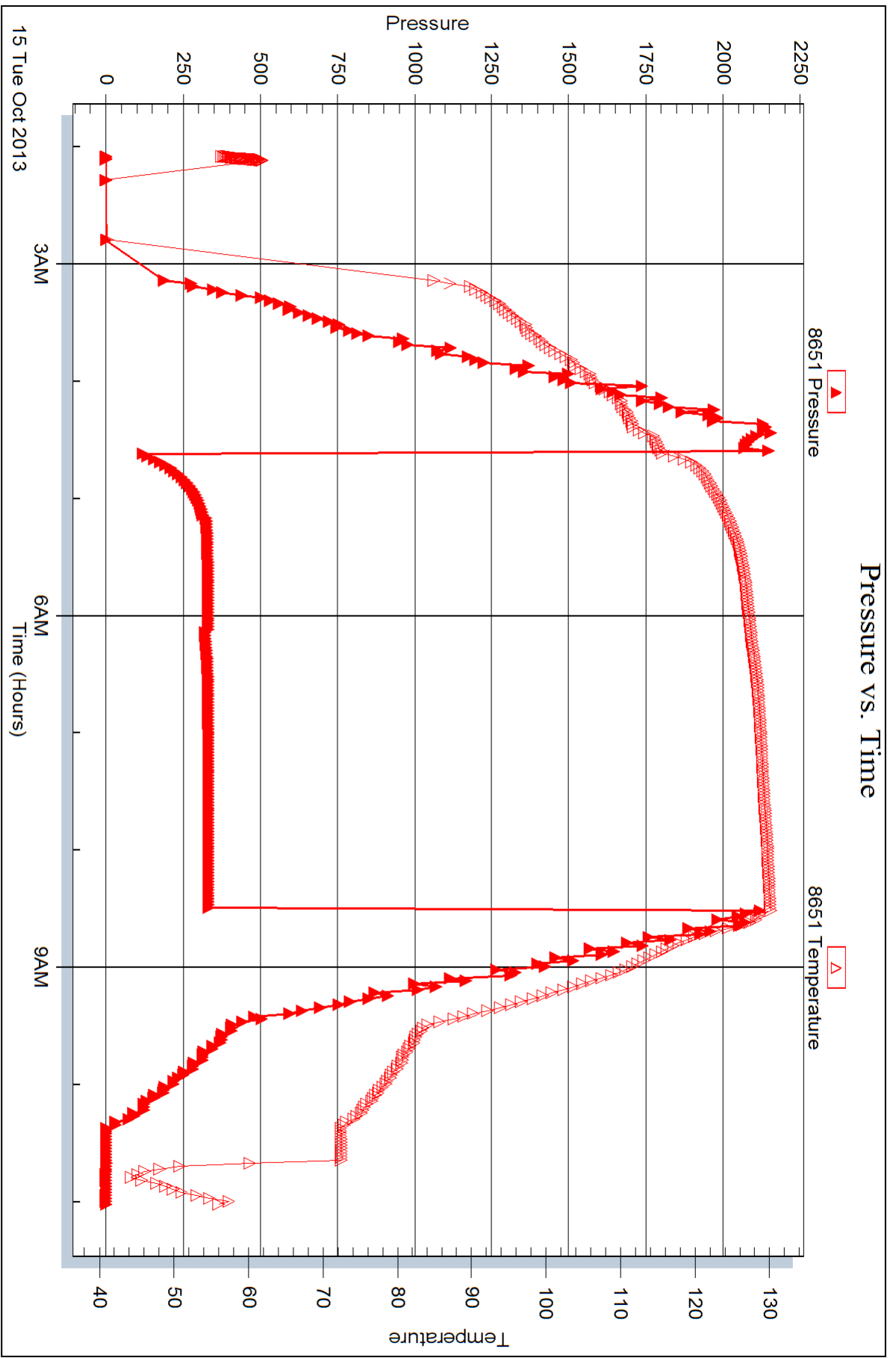


Serial #: 8651

Outside Murfin Drilling Co Inc

Walter #3-1

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

Walter #3-1

1-1s-36w Rawlins,KS

Start Date: 2013.10.15 @ 20:30:00

End Date: 2013.10.16 @ 05:14:00

Job Ticket #: 53581 DST #: 5

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

Printed: 2013.10.18 @ 13:17:02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

1-1s-36w Rawlins,KS

Walter #3-1

Job Ticket: 53581

DST#: 5

Test Start: 2013.10.15 @ 20:30:00

GENERAL INFORMATION:

Formation: **LKC-H,I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:38:30

Time Test Ended: 05:14:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 4285.00 ft (KB) To 4360.00 ft (KB) (TVD)

Total Depth: 4360.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3237.00 ft (KB)

3227.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8651

Outside

Press @ Run Depth: 64.34 psig @ 4286.00 ft (KB)

Start Date: 2013.10.15

End Date:

2013.10.16

Start Time: 20:30:01

End Time:

05:14:00

Capacity: 8000.00 psig

Last Calib.: 2013.10.15

Time On Btm: 2013.10.15 @ 22:36:30

Time Off Btm: 2013.10.16 @ 02:55:00

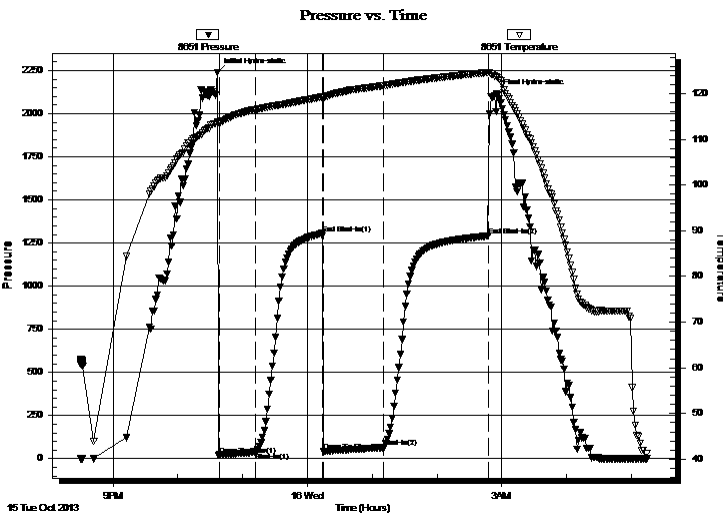
TEST COMMENT:

IF: Fair blow, Built to B.O.B in 25 mins.

IS: Blow back after 5 mins. Built to 1 & 1/2 in. over 20 mins. blow started to die at 25 mins. dead in 50 mins.

FF: Fair blow, Built to B.O.B in 35 mins.

FS: Blow back after 2 mins. Built to 3 in. over 45 mins. Started to die, Dead in 75 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2238.79	113.83	Initial Hydro-static
2	22.56	113.69	Open To Flow (1)
36	36.94	116.54	Shut-In(1)
97	1305.04	119.25	End Shut-In(1)
99	41.12	119.12	Open To Flow (2)
154	64.34	121.75	Shut-In(2)
251	1291.38	124.65	End Shut-In(2)
259	2116.85	123.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GHOCM-5%g20%o75%m	0.30
117.00	go-30%g70%o	0.58
0.00	365 ft. of gas	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

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 53581

DST#: 5

ATTN: Kevin Kessler

Test Start: 2013.10.15 @ 20:30:00

Tool Information

Drill Pipe:	Length: 4012.00 ft	Diameter: 3.80 inches	Volume: 56.28 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 251.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose:	64000.00 lb
			<u>Total Volume: 57.51 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4285.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	75.00 ft				
Tool Length:	103.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4258.00	
Shut In Tool	5.00			4263.00	
Hydraulic tool	5.00			4268.00	
Jars	5.00			4273.00	
Safety Joint	3.00			4276.00	
Packer	5.00			4281.00	28.00 Bottom Of Top Packer
Packer	4.00			4285.00	
Stubb	1.00			4286.00	
Recorder	0.00	8673	Inside	4286.00	
Recorder	0.00	8651	Outside	4286.00	
Perforations	6.00			4292.00	
Change Over Sub	1.00			4293.00	
Drill Pipe	63.00			4356.00	
Change Over Sub	1.00			4357.00	
Bullnose	3.00			4360.00	75.00 Bottom Packers & Anchor

Total Tool Length: 103.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 53581

DST#: 5

ATTN: Kevin Kessler

Test Start: 2013.10.15 @ 20:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GHOCM-5%g20%o75%m	0.295
117.00	go-30%g70%o	0.575
0.00	365 ft. of gas	0.000

Total Length: 177.00 ft Total Volume: 0.870 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

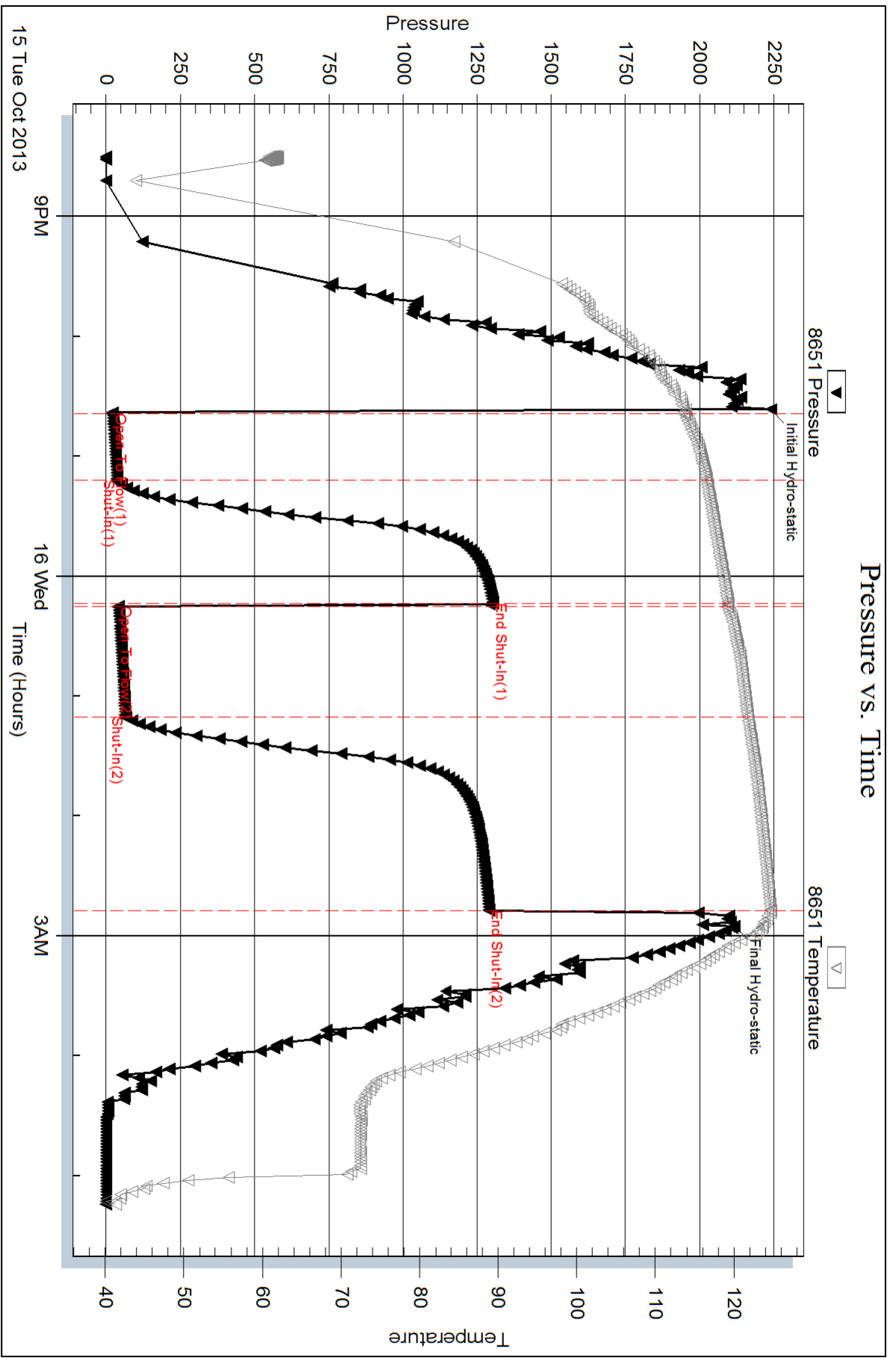
Recovery Comments:

Serial #: 8651

Outside Murfin Drilling Co Inc

Walter #3-1

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water ste 300
Wichita, KS 67202

ATTN: Kevin Kessler

Walter #3-1

1-1s-36w Rawlins,KS

Start Date: 2013.10.16 @ 13:15:00

End Date: 2013.10.16 @ 20:40:00

Job Ticket #: 53582 DST #: 6

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

Printed: 2013.10.18 @ 13:16:32



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

ATTN: Kevin Kessler

Job Ticket: 53582

DST#: 6

Test Start: 2013.10.16 @ 13:15:00

GENERAL INFORMATION:

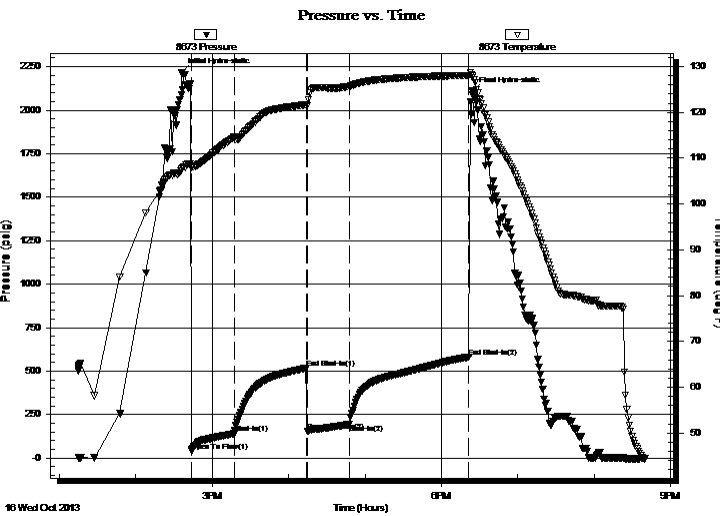
Formation: **LKC-J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:44:00
 Time Test Ended: 20:40:00
 Interval: **4350.00 ft (KB) To 4390.00 ft (KB) (TVD)**
 Total Depth: 4390.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 3237.00 ft (KB)
 3227.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 193.67 psig @ 4351.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.10.16 End Date: 2013.10.16 Last Calib.: 2013.10.16
 Start Time: 13:15:01 End Time: 20:40:00 Time On Btm: 2013.10.16 @ 14:36:00
 Time Off Btm: 2013.10.16 @ 18:24:00

TEST COMMENT: IF: Strong bnlow , Built yo B.O.B in 5 mins. gas to surface in 15 mins.
 IS: Bled off, Blow back after 3 mins. Built to 2 in. over 60 mins.
 FF: Strong blow , Built to B.O.B in 6 mins.
 FS: Bled off, Blow back after 1 min. built to B.O.B in 3 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2217.10	107.58	Initial Hydro-static
8	42.62	108.09	Open To Flow (1)
41	140.66	114.57	Shut-In(1)
98	517.71	121.67	End Shut-In(1)
99	155.13	121.48	Open To Flow (2)
132	193.67	125.66	Shut-In(2)
226	580.78	128.09	End Shut-In(2)
228	2109.50	127.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
175.00	GHOCM-10%g25%o65%m	0.86
247.00	go-30%g70%o	2.77
0.00	GTS	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water ste 300
Wichita, KS 67202

Walter #3-1

Job Ticket: 53582

DST#: 6

ATTN: Kevin Kessler

Test Start: 2013.10.16 @ 13:15:00

Tool Information

Drill Pipe:	Length: 4075.00 ft	Diameter: 3.80 inches	Volume: 57.16 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 251.00 ft	Diameter: 2.25 inches	Volume: 1.23 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 58.39 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4350.00 ft			Final	68000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	40.00 ft				
Tool Length:	68.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4323.00	
Shut In Tool	5.00			4328.00	
Hydraulic tool	5.00			4333.00	
Jars	5.00			4338.00	
Safety Joint	3.00			4341.00	
Packer	5.00			4346.00	28.00 Bottom Of Top Packer
Packer	4.00			4350.00	
Stubb	1.00			4351.00	
Recorder	0.00	8673	Inside	4351.00	
Recorder	0.00	8651	Outside	4351.00	
Perforations	2.00			4353.00	
Change Over Sub	1.00			4354.00	
Drill Pipe	32.00			4386.00	
Change Over Sub	1.00			4387.00	
Bullnose	3.00			4390.00	40.00 Bottom Packers & Anchor

Total Tool Length: 68.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water ste 300
Wichita, KS 67202
ATTN: Kevin Kessler

1-1s-36w Rawlins,KS
Walter #3-1
Job Ticket: 53582 **DST#: 6**
Test Start: 2013.10.16 @ 13:15:00

Mud and Cushion Information

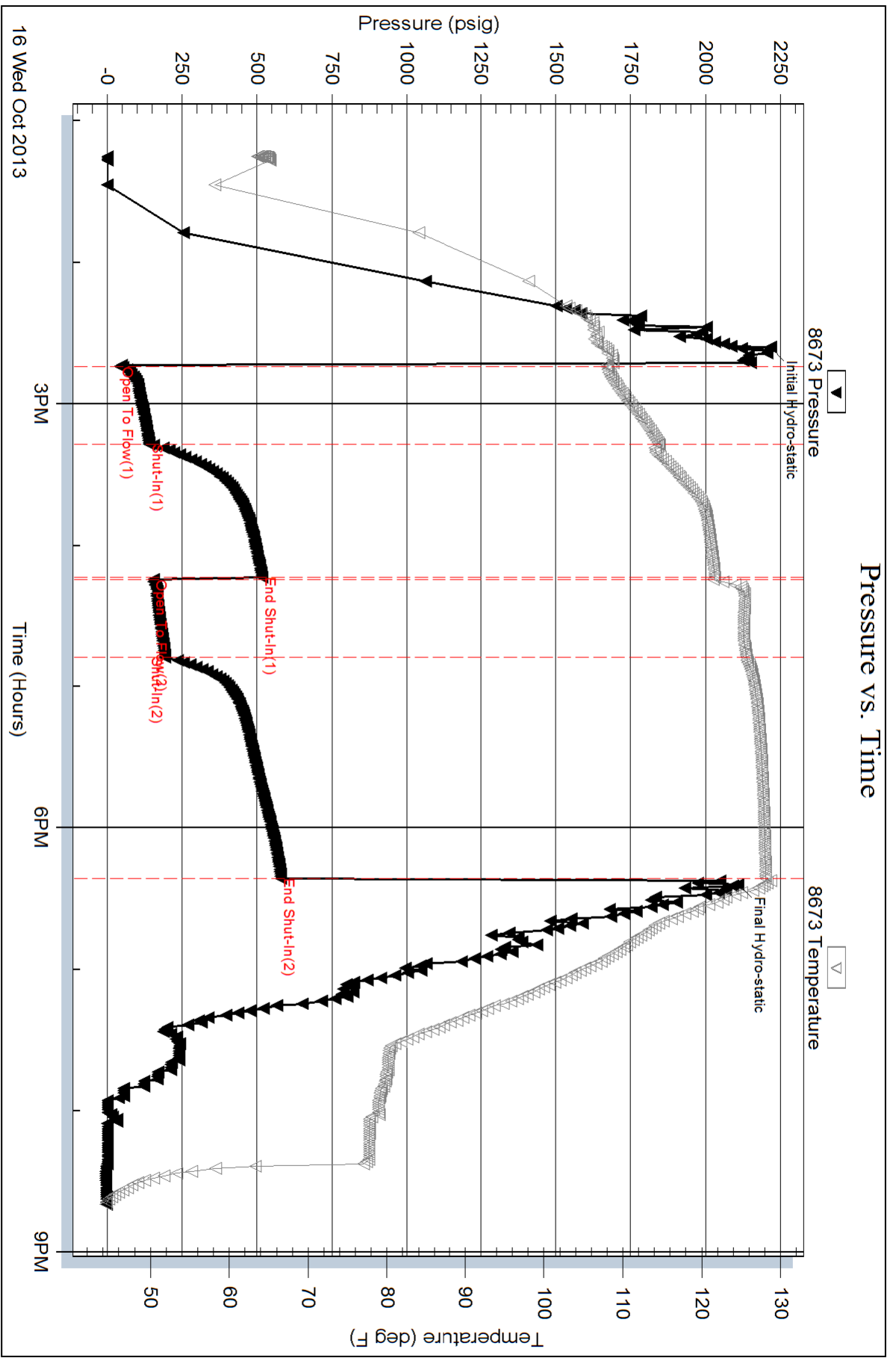
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 44.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.59 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 700.00 ppm			
Filter Cake: 2.00 inches			

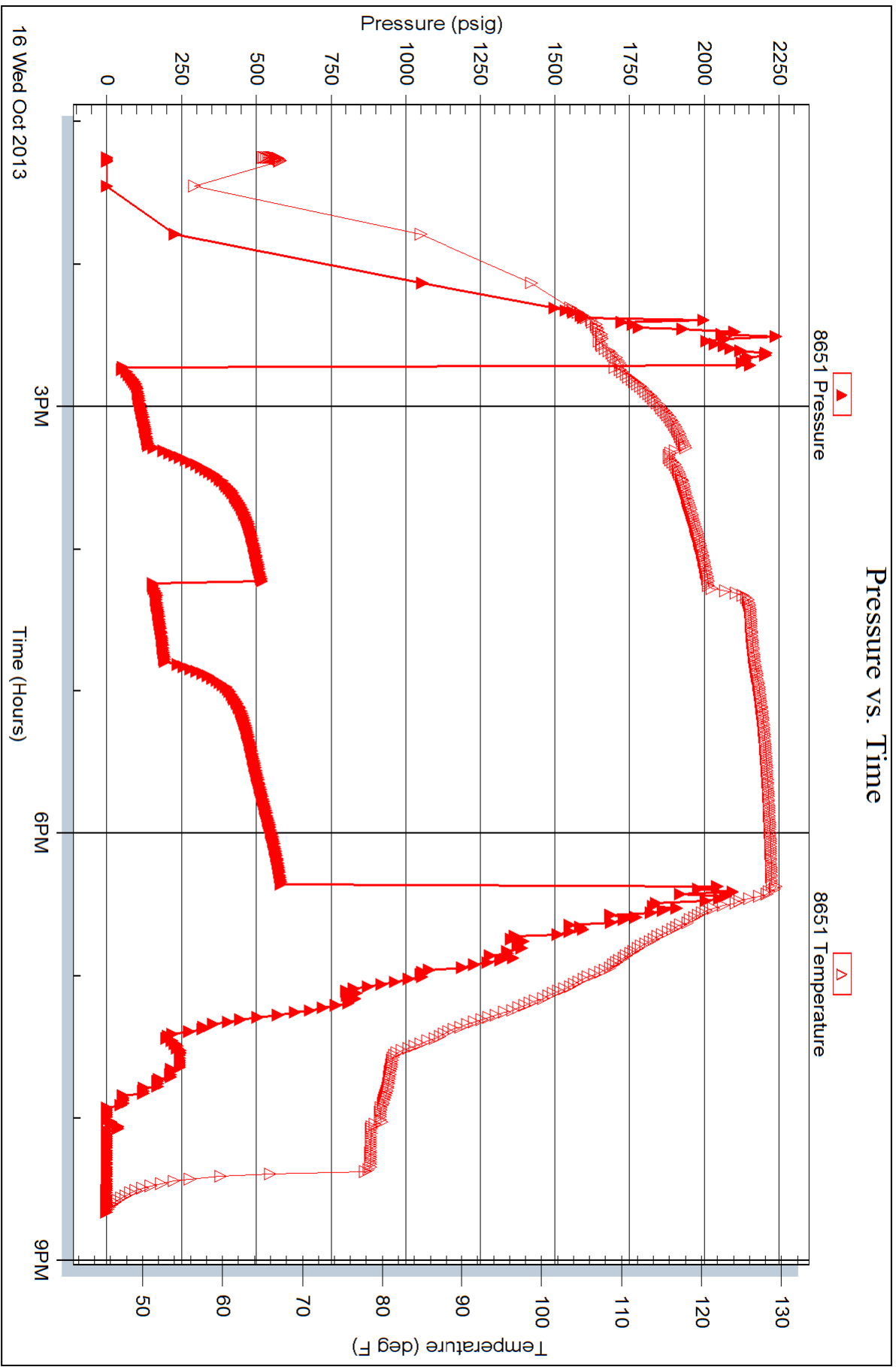
Recovery Information

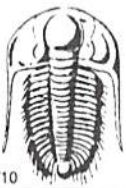
Recovery Table

Length ft	Description	Volume bbl
175.00	GHOCM-10%g25%o65%m	0.861
247.00	go-30%g70%o	2.772
0.00	GTS	0.000

Total Length: 422.00 ft Total Volume: 3.633 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54950

Well Name & No. walter #3-1 Test No. 1 Date 10-12-13
 Company Murfin Drilling Co Inc Elevation 3237 KB 3227 GL
 Address 250 N Water Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Kevin Kessler Rig Murfin 2
 Location: Sec. 1 Twp. 15 Rge. 36W Co. Rawlins State KS

Interval Tested 4030 4080 Zone Tested oread
 Anchor Length 50 Drill Pipe Run 3782 Mud Wt. 9.0
 Top Packer Depth 4025 Drill Collars Run 234 Vis 64
 Bottom Packer Depth 4030 Wt. Pipe Run WL 7.0
 Total Depth 4080 Chlorides 6000 ppm System LCM 4

Blow Description IF: surface blow died in 6 min.
IS: No return,
FF: No blow.
FB: No return,

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

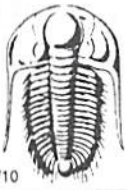
Rec Total 5 BHT 121 Gravity API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 2052 Test 1250.00 T-On Location 20:00
 (B) First Initial Flow 16 Jars 250.00 T-Started 22:11
 (C) First Final Flow 16 Safety Joint 75.00 T-Open 00:12
 (D) Initial Shut-In 34 Circ Sub N/L T-Pulled 3:12
 (E) Second Initial Flow 17 Hourly Standby 100.00 T-Out 5:10
 (F) Second Final Flow 17 Mileage 280-434.00 Comments out of town pay,
 (G) Final Shut-In 25 Sampler 108rt 167.40
 (H) Final Hydrostatic 2001 Straddle Ruined Shale Packer Ruined Packer Extra Copies

Initial Open 30 Extra Packer Extra Recorder Day Standby Accessibility
 Initial Shut-In 60 Sub Total 0
 Final Flow 30 Total 1742.40
 Final Shut-In 60 MP/DST Disc't
 Sub Total 1742.40

Approved By Kevin Kessler Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54951

Well Name & No. Walter #3-1 Test No. 2 Date 10-13-13
 Company Martin Drilling Co Inc Elevation 3237 KB 3227 GL
 Address _____
 Co. Rep / Geo. Kevin Kessler Rig Martin 2
 Location: Sec. 1 Twp. 15 Rge. 36W Co. R9WJins State KS

Interval Tested 4100 4200 Zone Tested Lansing-A
 Anchor Length 100 ~~4095~~ Drill Pipe Run 3846 Mud Wt. 9.0
 Top Packer Depth 4095 Drill Collars Run 234 Vis 64
 Bottom Packer Depth 4100 Wt. Pipe Run _____ WL 7.0
 Total Depth 4200 Chlorides 6000 ppm System LCM 4
 Blow Description IF: Surface blow built to 1 1/4.
IS: No return.
FF: Surface blow built to 1/2.
FB: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>ocm</u>	<u>5</u>		<u>95</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

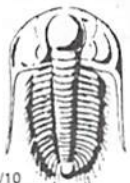
Rec Total 30 BHT 122 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2140</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>16:00</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>15:22</u>
(C) First Final Flow <u>27</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>19:21</u>
(D) Initial Shut-In <u>1109</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIL</u>	T-Pulled <u>23:21</u>
(E) Second Initial Flow <u>30</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1:10</u>
(F) Second Final Flow <u>66</u>	<input checked="" type="checkbox"/> Mileage <u>280 - 434.00</u>	Comments <u>out of town pay</u>
(G) Final Shut-In <u>1054</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2052</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> Ruined Packer 320
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>2062.40</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1742.40</u>	

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

Approved By Kevin Kessler Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53579

Well Name & No. 3-1 Walter Test No. B Date 10-14-2013
 Company Murfin Drilling Co. Elevation 3238 KB 3228 GL
 Address 250 N. water ste. 300 wichita Ks 6
 Co. Rep / Geo. Kevin Kessler Rig Murfin #2
 Location: Sec. 1 Twp. 15 Rge. 36W Co. Rawlins State Ks.

Interval Tested 4180 4240 Zone Tested LKC-B
 Anchor Length 60 Drill Pipe Run 3925 Mud Wt. 9.2
 Top Packer Depth 4175 Drill Collars Run 251 Vis 44
 Bottom Packer Depth 4186 Wt. Pipe Run -0- WL 6.5
 Total Depth 4240 Chlorides 700 ppm System LCM 4#

Blow Description IF: Strong blow, Built to B.O.B in 3mins.
ISF: Bled off, Blow Back after 30secs. Built to B.O.B in 5mins
FF: took 2mins to start to blow, Built to B.O.B in 10mins
FSF: Bled off, Blow Back built to B.O.B in 10mins.

Rec	Feet of	%gas	%oil	%water	%mud
186	og	70	30		
248	go	20	80		
124	640cm	5	20		75
251	vs0cm		4		96
0	620ft of gas in pipe				

Rec Total 809 BHT 725 Gravity 32.8 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic	<u>2193</u>	<input checked="" type="checkbox"/> Test	<u>1250</u>	T-On Location	<u>6:30</u>
(B) First Initial Flow	<u>120</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>8:45</u>
(C) First Final Flow	<u>292</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>10:20</u>
(D) Initial Shut-In	<u>365</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>14:20</u>
(E) Second Initial Flow	<u>296</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>16:52</u>
(F) Second Final Flow	<u>311</u>	<input checked="" type="checkbox"/> Mileage	<u>60x2 = 120x1.55</u>	Comments	<u>Stayed at Apartment in Berlin</u>
(G) Final Shut-In	<u>385</u>	<input type="checkbox"/> Sampler	<u>167.40</u>		<u>14</u>
(H) Final Hydrostatic	<u>2697</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	

Initial Open	<u>30</u>	<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	
Initial Shut-In	<u>60</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Final Flow	<u>60</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Shut-In	<u>90</u>	<input type="checkbox"/> Day Standby		Total	<u>1742.40</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1742.40</u>		

Approved By _____ Our Representative Kevin Kessler

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53580

4/10

Well Name & No. 3-1 Walter Test No. 4 Date 10-15-2013
 Company Murfin Drilling Co. Elevation 3238 KB 3228 GL
 Address 250 N. Water Ste. 300 Wichita Ks.
 Co. Rep / Geo. Kevin Kessler Rig Murfin #2
 Location: Sec. 1 Twp. 15 Rge. 36W Co. Rawlins State Ks.

Interval Tested 4235 4290 Zone Tested LKC-G
 Anchor Length 55 Drill Pipe Run 3971 Mud Wt. 9.2
 Top Packer Depth 4230 Drill Collars Run 251 Vis 44
 Bottom Packer Depth 4235 Wt. Pipe Run 0- WL 6.6
 Total Depth 4290 Chlorides 700 ppm System LCM 4#

Blow Description IF: Strong blow, Built to B.O.B in 45 sec. gas to surface in 11 mins
ISF: Bled off, Blow back after 30 secs. Built to B.O.B in 50 mins.
FF: Fair blow after 5 mins. Built to B.O.B in 20 mins.
FSI: Bled off. Blow back after 30 sec. Built to B.O.B in 10 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>3348 ft. of gas in pipe</u>	<u>100</u>			
<u>370</u>	<u>90</u>	<u>30</u>	<u>70</u>		
<u>252</u>	<u>90</u>	<u>50</u>	<u>50</u>		
<u>126</u>	<u>90</u>	<u>25</u>	<u>75</u>		
<u>116</u>	<u>910cm</u>	<u>5</u>	<u>10</u>		<u>85</u>

Rec Total 864 BHT 128 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

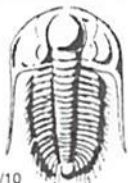
(A) Initial Hydrostatic	<u>2172</u>	<input checked="" type="checkbox"/> Test	<u>1250</u>	T-On Location	<u>2:00</u>
(B) First Initial Flow	<u>122</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>2:05</u>
(C) First Final Flow	<u>316</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>4:37</u>
(D) Initial Shut-In	<u>332</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>8:20</u>
(E) Second Initial Flow	<u>321</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>11:02</u>

(F) Second Final Flow 331 Mileage 60x2=120x1.55= 167.40
 (G) Final Shut-In 332
 (H) Final Hydrostatic 2124

<input type="checkbox"/> Sampler		<input checked="" type="checkbox"/> Ruined Shale Packer	<u>350</u>
<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Packer	
<input checked="" type="checkbox"/> Shale Packer	<u>250</u>	<input type="checkbox"/> Extra Copies	
<input type="checkbox"/> Extra Packer		Sub Total	<u>0</u>
<input type="checkbox"/> Extra Recorder		Total	<u>2342.40</u>
<input type="checkbox"/> Day Standby		MP/DST Disc't	
<input type="checkbox"/> Accessibility			
Sub Total	<u>1992.40</u>		

Approved By _____ Our Representative Chuck Kessler

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53581

Well Name & No. 3-1 Walter Test No. 5 Date 10-15-2013
 Company Murfin Drilling Co Elevation 3238 KB 3228 GL
 Address 250 N. Water Wichita Ks.
 Co. Rep / Geo. Kevin Kessler Rig Murfin #2
 Location: Sec. 1 Twp. 15 Rge. 36W Co. Rawlins State Ks

Interval Tested 4285 4360 Zone Tested LKC-H,I
 Anchor Length 75 Drill Pipe Run 4012 Mud Wt. 9.2
 Top Packer Depth 4280 Drill Collars Run 251 Vis 44
 Bottom Packer Depth 4285 Wt. Pipe Run -0- WL 6.6
 Total Depth 4360 Chlorides 700 ppm System LCM 4H

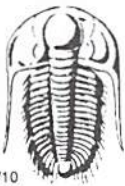
Blow Description IF: Fair blow, Built to B. O. B in 25 mins.
ISI: Blow back after 5 mins. Built to 1 1/2 in. over 20 mins. started to die ~~at~~ At 25 mins. Dead in 50 mins
FF: Fair blow, Built to B. O. B in 35 mins
FSI: Blow back after 2 mins. Built to 3 in over 45 mins. started to die Dead in 75 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>365 ft of gas in pipe</u>				
<u>117</u>	<u>90</u>	<u>30</u>	<u>70</u>		
<u>60</u>	<u>gHOCM</u>	<u>5</u>	<u>20</u>		<u>75</u>

Rec Total 177 BHT 2239 Gravity 1.250 API RW 1250 @ 19.45 ° F Chlorides 700 ppm
 (A) Initial Hydrostatic 2239 Test 1250 T-On Location 19:45
 (B) First Initial Flow 23 Jars 250 T-Started 20:30
 (C) First Final Flow 37 Safety Joint 75 T-Open 22:38
 (D) Initial Shut-In 1305 Circ Sub _____ T-Pulled 2:40
 (E) Second Initial Flow 41 Hourly Standby _____ T-Out 5:14
 (F) Second Final Flow 64 Mileage 60x2=120x1.55= 167.40 Comments Stayed in Benkman Apt.
 (G) Final Shut-In 1291 Sampler _____ From 15-16
 (H) Final Hydrostatic 2117 Straddle _____
 Shale Packer _____
 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 1742.40
 Total 1742.40
 MP/DST Disc't _____

Approved By _____ Our Representative Charles May Jr.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53582

4/10

Well Name & No. 3-1 walter Test No. 6 Date 10-16-13
 Company Murfin Drilling Co Elevation 3228 KB 3228 GL
 Address 250 N. Water Ste. 300 Wichita Ks.
 Co. Rep / Geo. Kevin Kessler Rig Murfin Drilling Co
 Location: Sec. 1 Twp. 15 Rge. 36w Co. Rawlins State Ks

Interval Tested 4350 4390 Zone Tested LKC-J
 Anchor Length 40 Drill Pipe Run 4075 Mud Wt. 9.2
 Top Packer Depth 4345 Drill Collars Run 251 Vis 44
 Bottom Packer Depth 4350 Wt. Pipe Run 0 WL 6.6
 Total Depth 4390 Chlorides 700 ppm System LCM 44

Blow Description IF: strong blow, built to B.O.B in 5 mins Gas to surface in 15 mins.
ISI: Bleed off, Blow back after 3mins. Built to 2 in over 60 mins.
FF: strong blow, built to B.O.B in 6 mins.
FSS: Bleed off, Blow back after 1 min. Built to B.O.B in 3 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>3908 ft of gas in pipe</u>				
<u>247</u>	<u>90</u>	<u>30</u>	<u>70</u>		
<u>175</u>	<u>6 HOCM</u>	<u>10</u>	<u>25</u>		<u>65</u>

Rec Total 422 BHT 126 Gravity 37 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 2217 Test 1250 T-On Location 13:00
 (B) First Initial Flow 43 Jars 250 T-Started 13:15
 (C) First Final Flow 141 Safety Joint 75 T-Open 14:44
 (D) Initial Shut-In 518 Circ Sub T-Pulled 18:15
 (E) Second Initial Flow 155 Hourly Standby T-Out 20:40
 (F) Second Final Flow 194 Mileage 60 x 2 = 120 x 1.55 = 186 x 2 = 372 Comments stayed in Bartlesville Apr
 (G) Final Shut-In 581 Sampler 334.80 landed tool at 4:00 pm on 10-17
 (H) Final Hydrostatic 2180 Straddle Ruined Shale Packer

Shale Packer stayed at Bartlesville Ruined Packer
From 10-16-10-17 Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1909.80
 Accessibility MP/DST Disc't
 Sub Total 1909.80

Approved By _____ Our Representative Chris Meyer

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.