



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202

ATTN: Andy White

Miller Trust #1-18

18-16s-19w Rush,KS

Start Date: 2014.06.18 @ 02:56:20

End Date: 2014.06.18 @ 09:47:29

Job Ticket #: 58948 DST #: 1

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

Printed: 2014.06.23 @ 09:17:28



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58948

DST#: 1

ATTN: Andy White

Test Start: 2014.06.18 @ 02:56:20

GENERAL INFORMATION:

Formation: **LKC B-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:28:20

Time Test Ended: 09:47:29

Test Type: Conventional Bottom Hole (Initial)

Tester: Tate Lang

Unit No: 49

Interval: 3490.00 ft (KB) To 3540.00 ft (KB) (TVD)

Reference Elevations: 2118.00 ft (KB)

Total Depth: 3540.00 ft (KB) (TVD)

2113.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8898 Outside

Press@RunDepth: 53.81 psig @ 3491.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.18

End Date:

2014.06.18

Last Calib.: 2014.06.18

Start Time: 02:56:21

End Time:

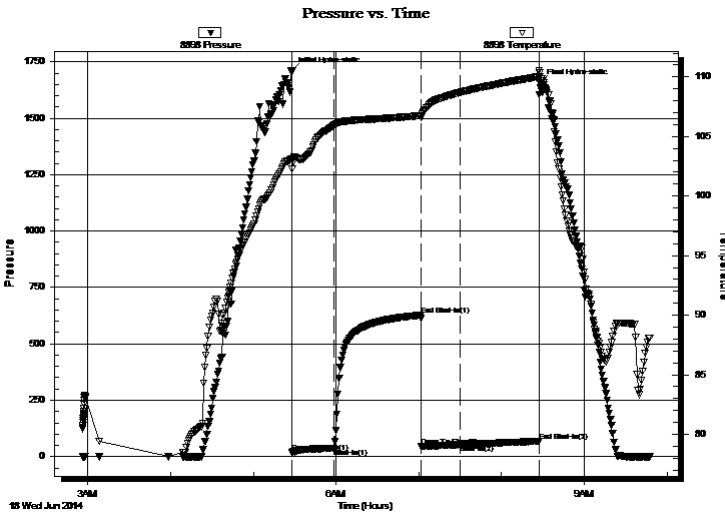
09:47:30

Time On Btm: 2014.06.18 @ 05:28:10

Time Off Btm: 2014.06.18 @ 08:27:40

TEST COMMENT: Weak surface blow built to 3"
Dead no blow back
Weak surface blow built to 1/2"
Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1708.98	103.09	Initial Hydro-static
1	19.95	102.28	Open To Flow (1)
30	37.81	105.93	Shut-In(1)
94	627.05	106.75	End Shut-In(1)
94	47.13	106.61	Open To Flow (2)
122	53.81	108.69	Shut-In(2)
179	67.94	110.03	End Shut-In(2)
180	1655.34	110.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	MCW with skim of oil on top 90%W 10%	10.99

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58948

DST#: 1

ATTN: Andy White

Test Start: 2014.06.18 @ 02:56:20

GENERAL INFORMATION:

Formation: **LKC B-D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:28:20
 Time Test Ended: 09:47:29
 Interval: **3490.00 ft (KB) To 3540.00 ft (KB) (TVD)**
 Total Depth: 3540.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Good

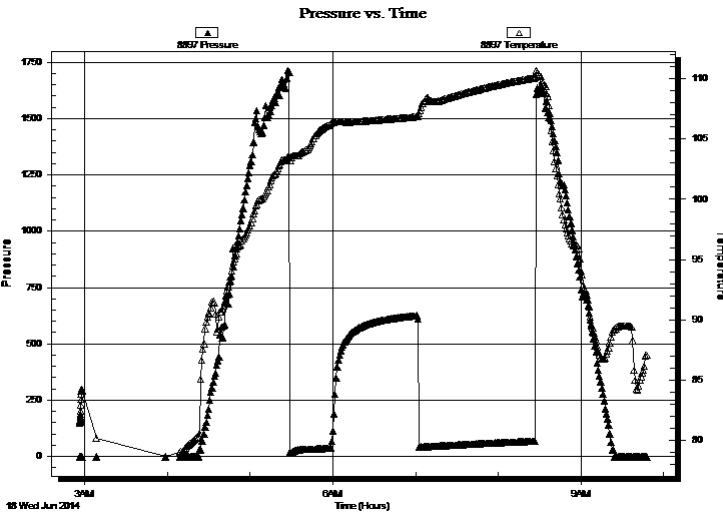
Test Type: Conventional Bottom Hole (Initial)
 Tester: Tate Lang
 Unit No: 49
 Reference Elevations: 2118.00 ft (KB)
 2113.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8897

Inside

Press@RunDepth: psig @ 3491.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.06.18 End Date: 2014.06.18 Last Calib.: 2014.06.18
 Start Time: 02:56:30 End Time: 09:47:39 Time On Btm:
 Time Off Btm:

TEST COMMENT: Weak surface blow built to 3"
 Dead no blow back
 Weak surface blow built to 1/2"
 Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
90.00	MCW with skim of oil on top 90%W 10%	10.99

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58948

DST#: 1

ATTN: Andy White

Test Start: 2014.06.18 @ 02:56:20

Tool Information

Drill Pipe:	Length: 3454.00 ft	Diameter: 3.80 inches	Volume: 48.45 bbl	Tool Weight: 2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 48.60 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3490.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	77.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3468.00	
Hydraulic tool	5.00			3473.00	
Jars	5.00			3478.00	
Safety Joint	2.00			3480.00	
Packer	5.00			3485.00	27.00 Bottom Of Top Packer
Packer	5.00			3490.00	
Stubb	1.00			3491.00	
Recorder	0.00	8897	Inside	3491.00	
Recorder	0.00	8898	Outside	3491.00	
Perforations	13.00			3504.00	
Change Over Sub	1.00			3505.00	
Drill Pipe	31.00			3536.00	
Change Over Sub	1.00			3537.00	
Bullnose	3.00			3540.00	50.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58948

DST#: 1

ATTN: Andy White

Test Start: 2014.06.18 @ 02:56:20

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	MCW with skim of oil on top 90%W 10%M	0.989

Total Length: 90.00 ft Total Volume: 0.989 bbl

Num Fluid Samples: 0

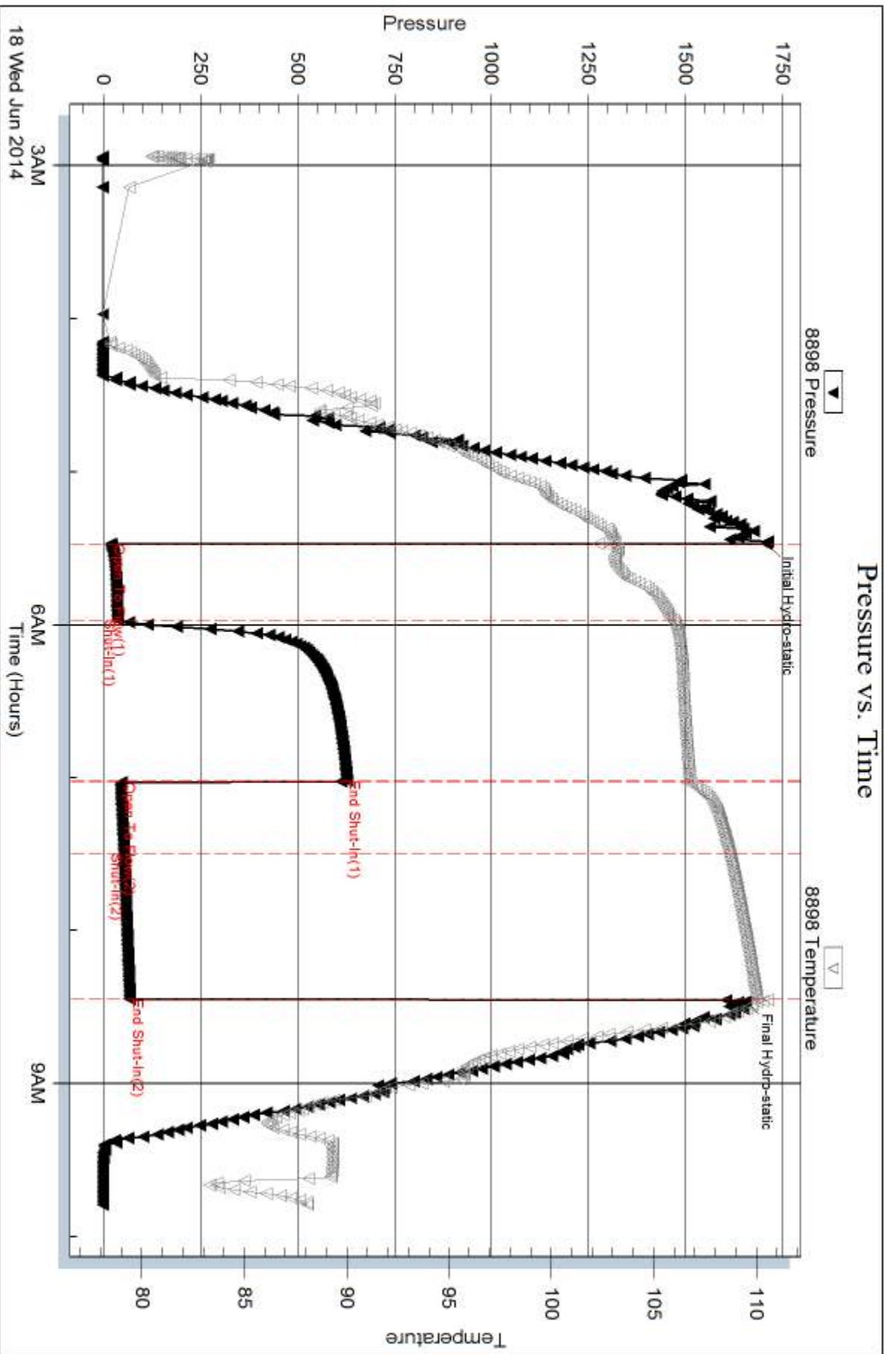
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



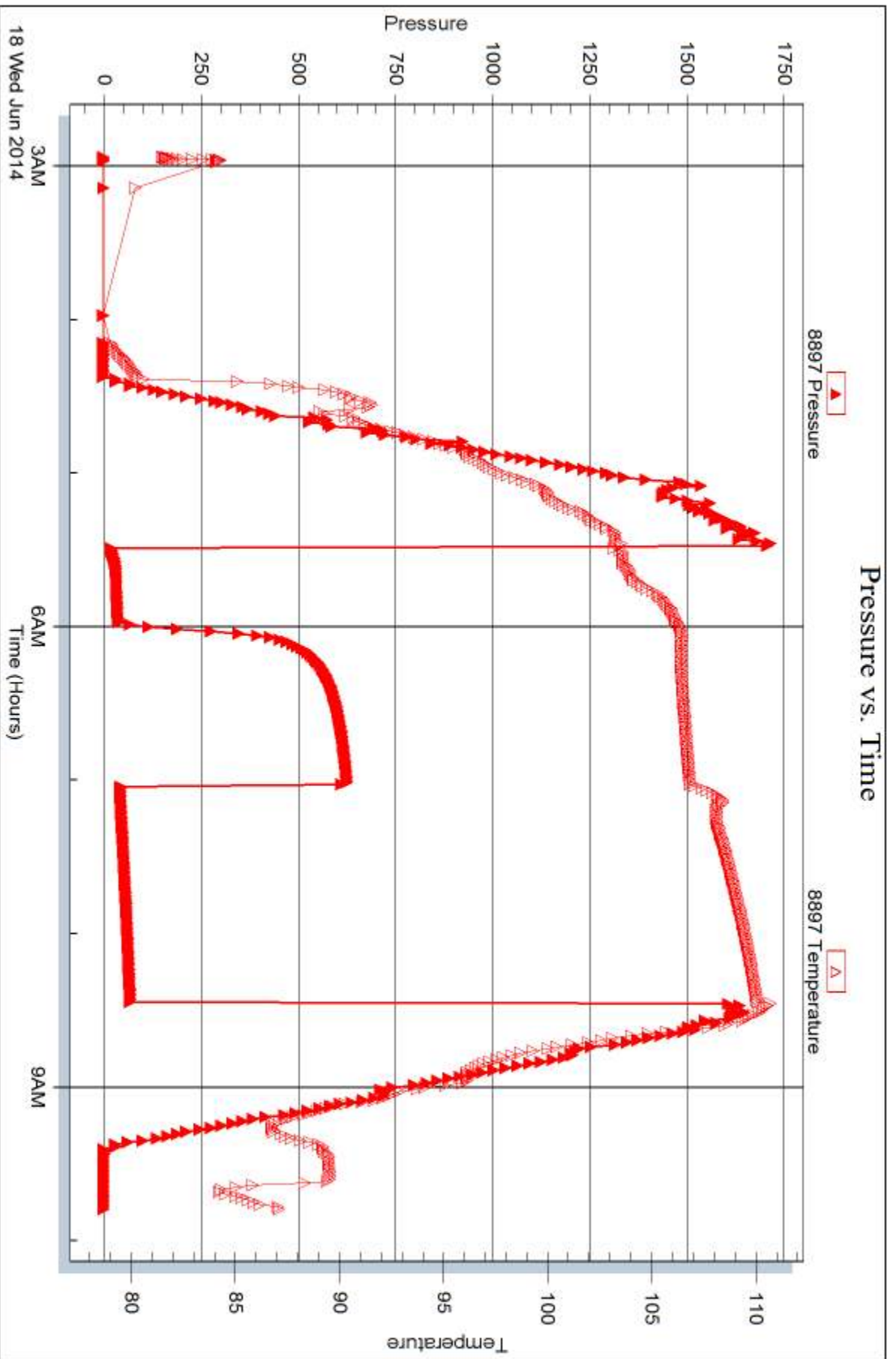
Serial #: 8897

Inside

Murfin Drilling Company

Miller Trust #1-18

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202

ATTN: Andy White

Miller Trust #1-18

18-16s-19w Rush,KS

Start Date: 2014.06.19 @ 13:13:11

End Date: 2014.06.19 @ 19:18:11

Job Ticket #: 58949 DST #: 2

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

Printed: 2014.06.23 @ 09:17:06



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58949

DST#: 2

ATTN: Andy White

Test Start: 2014.06.19 @ 13:13:11

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:05:01

Time Test Ended: 19:18:11

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Interval: 3820.00 ft (KB) To 3874.00 ft (KB) (TVD)

Reference Elevations: 2118.00 ft (KB)

Total Depth: 3874.00 ft (KB) (TVD)

2113.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8898 Outside

Press@RunDepth: 27.80 psig @ 3821.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.19

End Date:

2014.06.19

Last Calib.:

2014.06.19

Start Time: 13:13:12

End Time:

19:18:11

Time On Btm:

2014.06.19 @ 15:04:41

Time Off Btm:

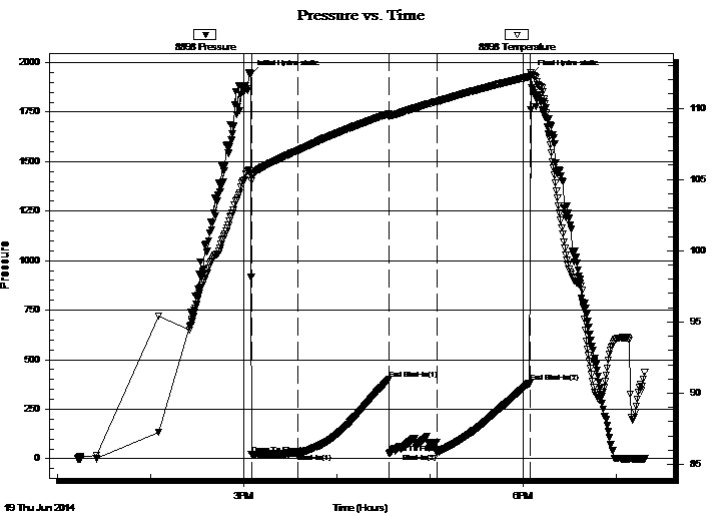
2014.06.19 @ 18:05:11

TEST COMMENT: Weak surface blow built to 1/2"

Dead no blow back

Dead no blow

Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1938.90	105.63	Initial Hydro-static
1	22.75	104.93	Open To Flow (1)
31	26.58	107.04	Shut-In(1)
89	402.64	109.61	End Shut-In(1)
90	28.26	109.42	Open To Flow (2)
120	27.80	110.45	Shut-In(2)
180	384.38	112.22	End Shut-In(2)
181	1939.80	112.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%M	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58949

DST#: 2

ATTN: Andy White

Test Start: 2014.06.19 @ 13:13:11

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:05:01

Time Test Ended: 19:18:11

Interval: 3820.00 ft (KB) To 3874.00 ft (KB) (TVD)

Total Depth: 3874.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Reference Elevations: 2118.00 ft (KB)

2113.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8897 **Inside**

Press@RunDepth: psig @ 3821.00 ft (KB)

Start Date: 2014.06.19

End Date:

2014.06.19

Start Time: 13:14:00

End Time:

19:18:59

Capacity: 8000.00 psig

Last Calib.:

2014.06.19

Time On Btm:

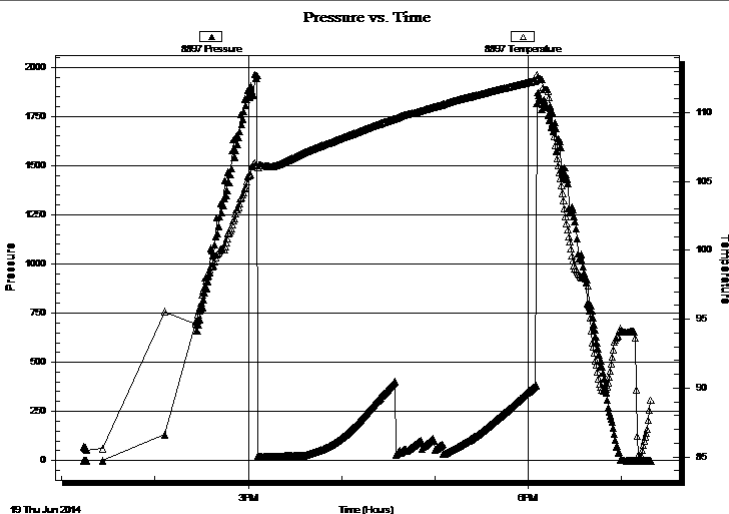
Time Off Btm:

TEST COMMENT: Weak surface blow built to 1/2"

Dead no blow back

Dead no blow

Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%M	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58949

DST#: 2

ATTN: Andy White

Test Start: 2014.06.19 @ 13:13:11

Tool Information

Drill Pipe:	Length: 3769.00 ft	Diameter: 3.80 inches	Volume: 52.87 bbl	Tool Weight: 2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 53.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3820.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3798.00	
Hydraulic tool	5.00			3803.00	
Jars	5.00			3808.00	
Safety Joint	2.00			3810.00	
Packer	5.00			3815.00	27.00 Bottom Of Top Packer
Packer	5.00			3820.00	
Stubb	1.00			3821.00	
Recorder	0.00	8897	Inside	3821.00	
Recorder	0.00	8898	Outside	3821.00	
Perforations	17.00			3838.00	
Change Over Sub	1.00			3839.00	
Drill Pipe	31.00			3870.00	
Change Over Sub	1.00			3871.00	
Bullnose	3.00			3874.00	54.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58949

DST#: 2

ATTN: Andy White

Test Start: 2014.06.19 @ 13:13:11

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100%M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

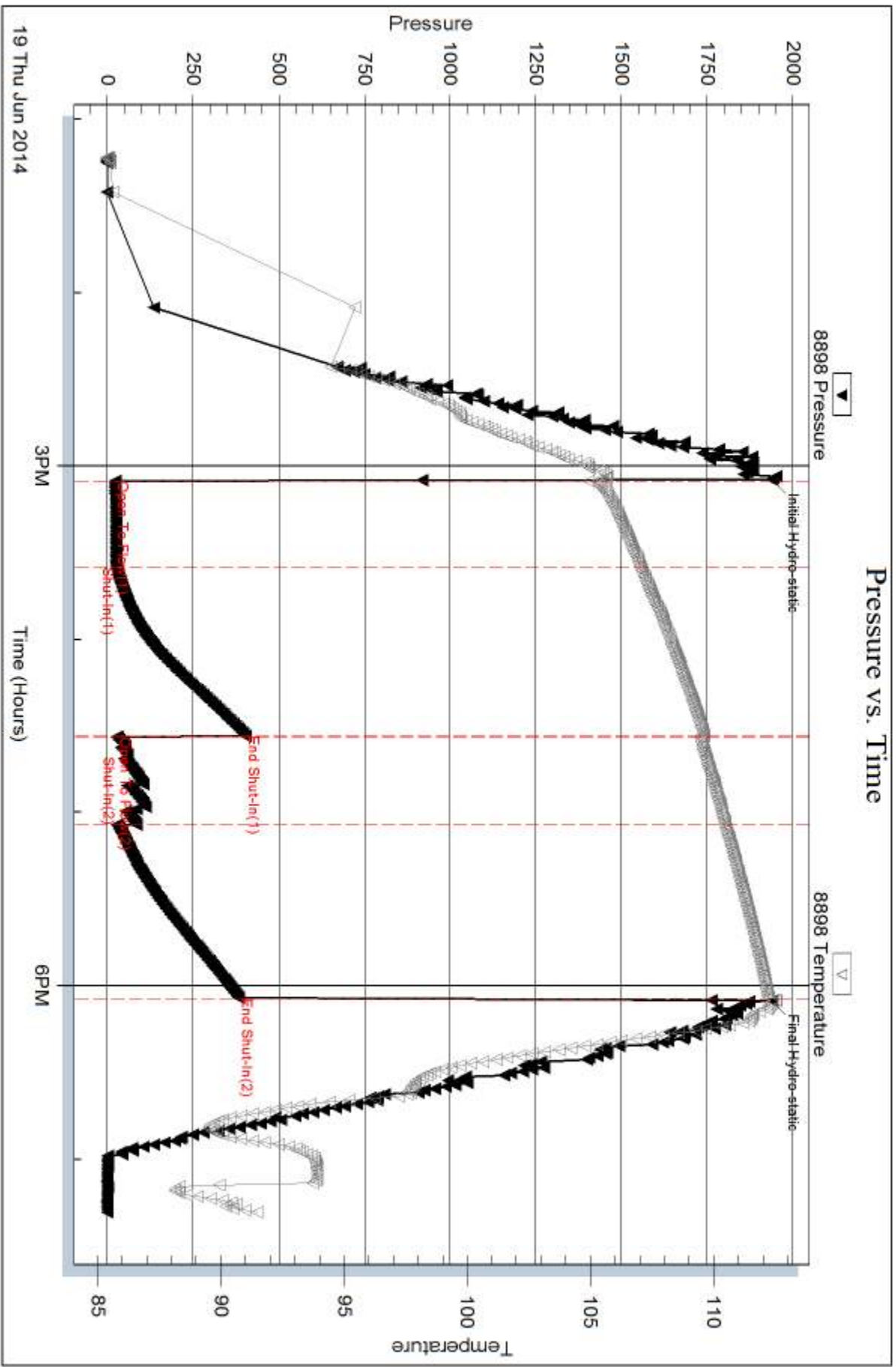
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



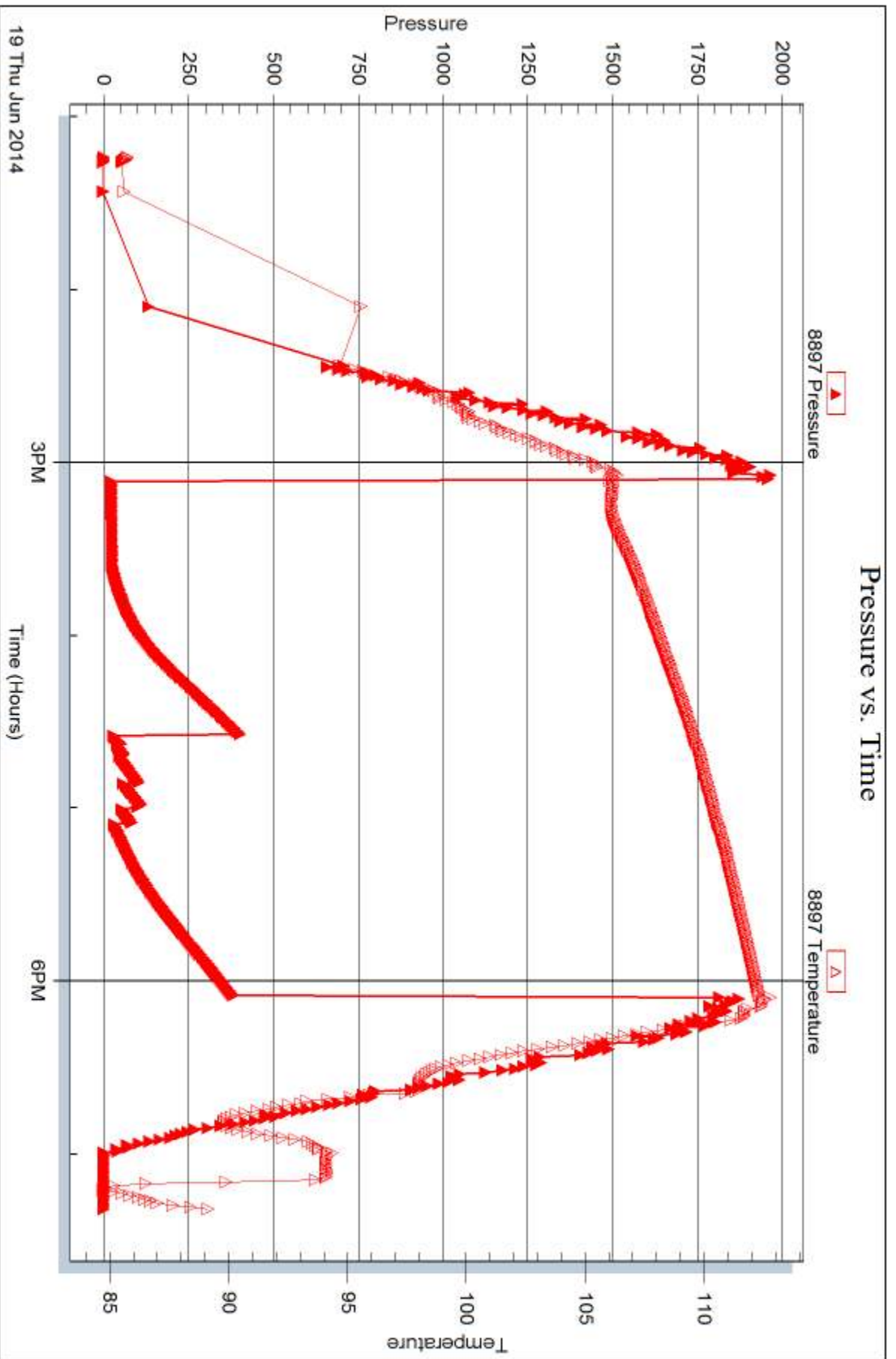
Serial #: 8897

Inside

Murfin Drilling Company

Miller Trust #1-18

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 58949

Printed: 2014.06.23 @ 09:17:07



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202

ATTN: Andy White

Miller Trust #1-18

18-16s-19w Rush,KS

Start Date: 2014.06.20 @ 01:03:27

End Date: 2014.06.20 @ 08:43:47

Job Ticket #: 58950 DST #: 3

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

Printed: 2014.06.23 @ 09:16:35



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58950

DST#: 3

ATTN: Andy White

Test Start: 2014.06.20 @ 01:03:27

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:56:57

Time Test Ended: 08:43:47

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Interval: 3820.00 ft (KB) To 3884.00 ft (KB) (TVD)

Reference Elevations: 2118.00 ft (KB)

Total Depth: 3884.00 ft (KB) (TVD)

2113.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8898 Outside

Press@RunDepth: 133.19 psig @ 3821.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.20

End Date:

2014.06.20

Last Calib.:

2014.06.20

Start Time: 01:03:28

End Time:

08:43:47

Time On Btm:

2014.06.20 @ 02:56:47

Time Off Btm:

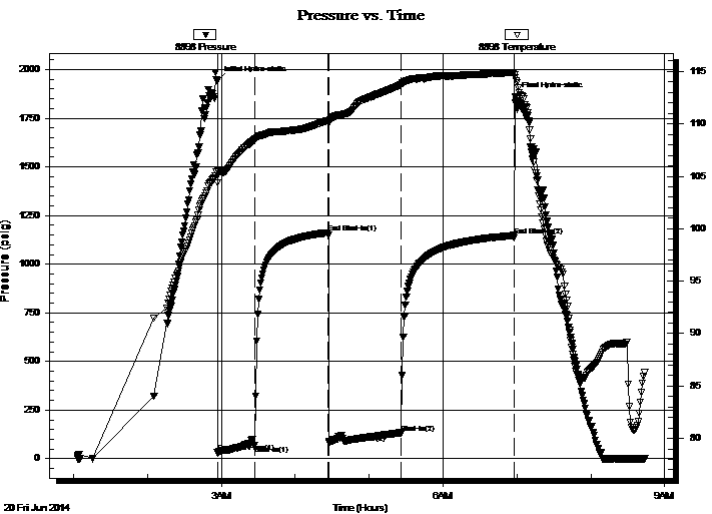
2014.06.20 @ 06:58:47

TEST COMMENT: Strong blow built to 8"

Dead no blow back

B.O.B. in 35 mins

Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1943.72	105.59	Initial Hydro-static
1	31.16	104.37	Open To Flow (1)
31	69.80	108.45	Shut-In(1)
90	1161.64	110.30	End Shut-In(1)
91	80.77	110.13	Open To Flow (2)
150	133.19	113.73	Shut-In(2)
241	1147.49	114.91	End Shut-In(2)
242	1860.72	114.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MCW 35%M 65%W	2.25
60.00	100%M	0.84

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Murfin Drilling Company
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Andy White

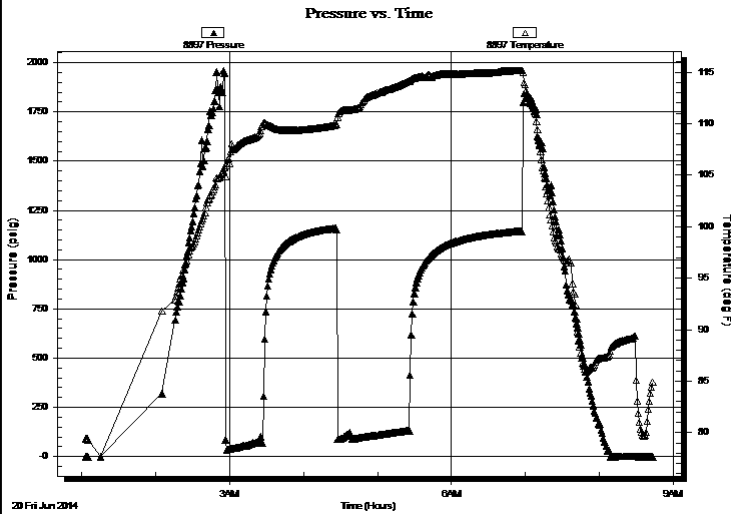
18-16s-19w Rush, KS
Miller Trust #1-18
 Job Ticket: 58950 **DST#: 3**
 Test Start: 2014.06.20 @ 01:03:27

GENERAL INFORMATION:

Formation: Arbuckle			Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock:	ft (KB)		Tester: Tate Lang
Time Tool Opened: 02:56:57			Unit No: 49
Time Test Ended: 08:43:47			
Interval: 3820.00 ft (KB) To 3884.00 ft (KB) (TVD)		Reference Elevations:	2118.00 ft (KB)
Total Depth: 3884.00 ft (KB) (TVD)			2113.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Good	KB to GR/CF:	5.00 ft

Serial #: 8897	Inside			Capacity:	8000.00 psig
Press@RunDepth:	psig @	3821.00 ft (KB)		Last Calib.:	2014.06.20
Start Date:	2014.06.20	End Date:	2014.06.20	Time On Btm:	
Start Time:	01:03:03	End Time:	08:43:32	Time Off Btm:	

TEST COMMENT: Strong blow built to 8"
 Dead no blow back
 B.O.B. in 35 mins
 Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MCW 35%M 65%W	2.25
60.00	100%M	0.84

* 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 Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58950

DST#: 3

ATTN: Andy White

Test Start: 2014.06.20 @ 01:03:27

Tool Information

Drill Pipe:	Length: 3769.00 ft	Diameter: 3.80 inches	Volume: 52.87 bbl	Tool Weight:	2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 53.02 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	3820.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	77.00 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			3798.00	
Hydraulic tool	5.00			3803.00	
Jars	5.00			3808.00	
Safety Joint	2.00			3810.00	
Packer	5.00			3815.00	27.00 Bottom Of Top Packer
Packer	5.00			3820.00	
Stubb	1.00			3821.00	
Recorder	0.00	8897	Inside	3821.00	
Recorder	0.00	8898	Outside	3821.00	
Perforations	13.00			3834.00	
Change Over Sub	1.00			3835.00	
Drill Pipe	31.00			3866.00	
Change Over Sub	1.00			3867.00	
Bullnose	3.00			3870.00	50.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

18-16s-19w Rush, KS

250 N Water STE 300
Wichita KS 67202

Miller Trust #1-18

Job Ticket: 58950

DST#: 3

ATTN: Andy White

Test Start: 2014.06.20 @ 01:03:27

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	MCW 35%M 65%W	2.252
60.00	100%M	0.842

Total Length: 240.00 ft Total Volume: 3.094 bbl

Num Fluid Samples: 0

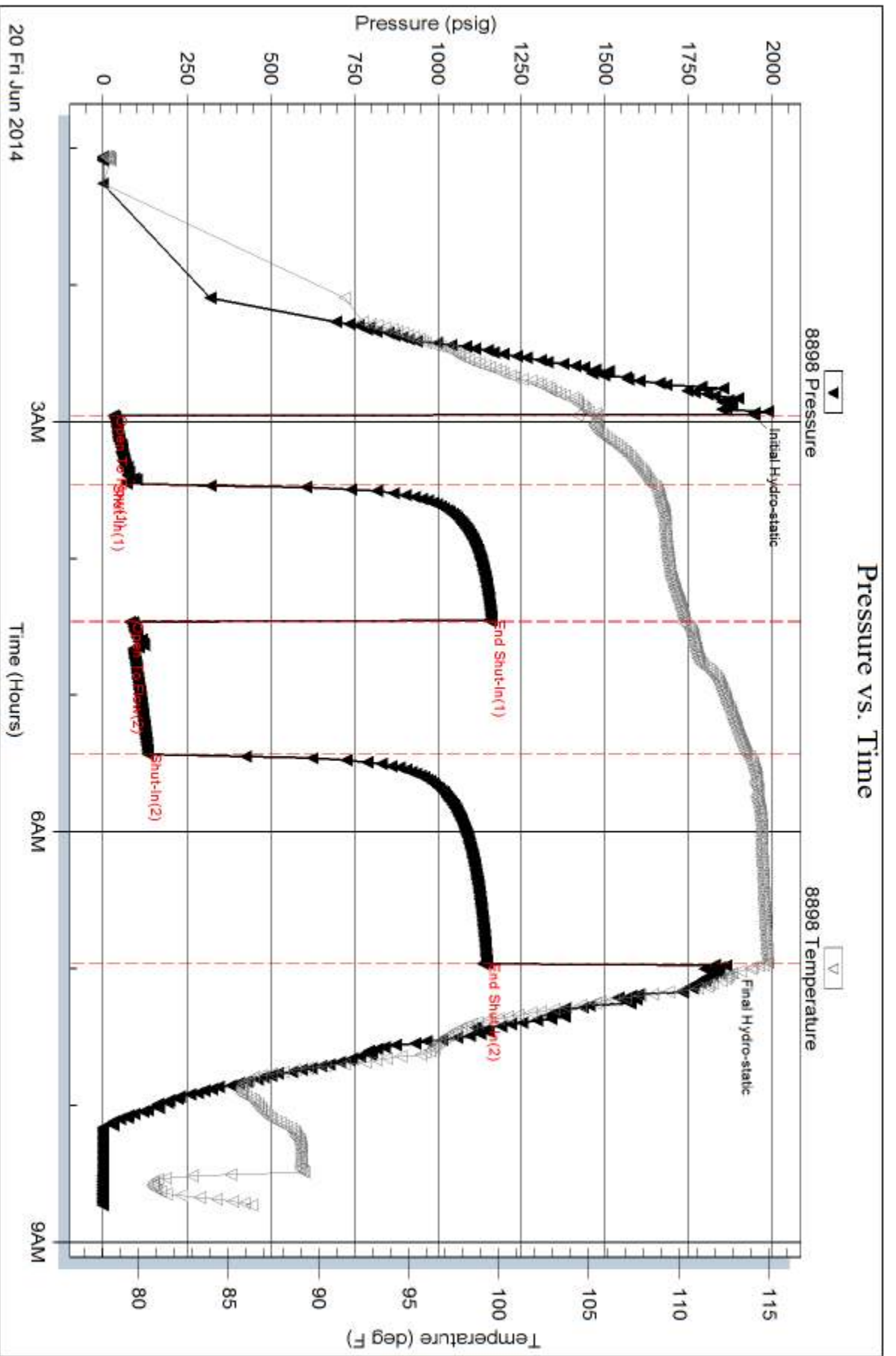
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



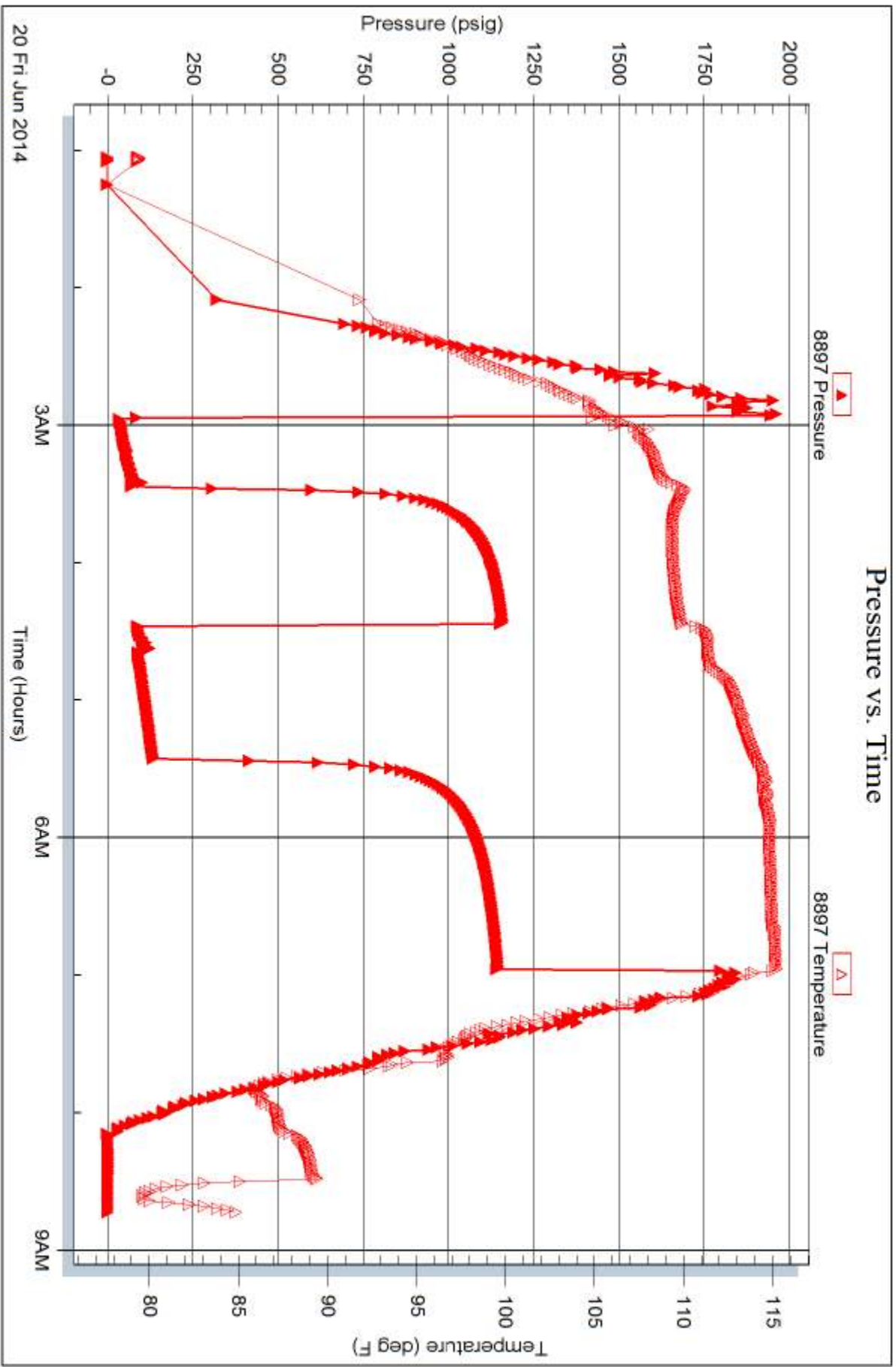
Serial #: 8897

Inside

Murfin Drilling Company

Miller Trust #1-18

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58948

Well Name & No. Miller Trust #1-18 Test No. 1 Date 6-18-14
 Company Murfin Drilling Company Elevation 2118 KB 2113 GL
 Address 250 N Water St #300 Wichita KS 67202
 Co. Rep / Geo. Andy White Rig Murfin #12
 Location: Sec. 18 Twp. 16S Rge. 19W Co. Rush State KS

Interval Tested 3490 3540 Zone Tested LKCB-D
 Anchor Length 50 Drill Pipe Run 3454 Mud Wt. 8.5
 Top Packer Depth 3485 Drill Collars Run 30 Vis 64
 Bottom Packer Depth 3490 Wt. Pipe Run 0 WL 7.2
 Total Depth 3540 Chlorides 2000 ppm System LCM 1#

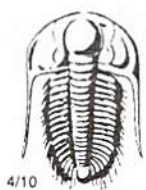
Blow Description Wealth surface blow built to 3in.
Dead no blow back
Wealth surface blow built to 1/2 in
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>90</u>	Feet of <u>MLW skin of oil on top</u>	%gas	%oil	<u>90</u> %water	<u>10</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 90 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1709</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1245</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0256</u>
(C) First Final Flow <u>38</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0528</u>
(D) Initial Shut-In <u>627</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>0828</u>
(E) Second Initial Flow <u>47</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>0947</u>
(F) Second Final Flow <u>34</u>	<input checked="" type="checkbox"/> Mileage <u>52rt 80.60</u>	Comments _____
(G) Final Shut-In <u>68</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1655</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1555.60</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1555.60</u>	

Approved By _____ 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. 58949

Well Name & No. Miller Trust #1-18 Test No. 2 Date 6-19-14
 Company Murfin Drilling Company Elevation 2118 KB 2113 GL
 Address _____
 Co. Rep / Geo. Andy White Rig Murfin #6
 Location: Sec. 18 Twp. 16S Rge. 19W Co. _____ State KS

Interval Tested 3820 3874 Zone Tested Arbuckle
 Anchor Length 54 Drill Pipe Run _____ Mud Wt. 9.1
 Top Packer Depth 3815 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3820 Wt. Pipe Run 0 WL 9.6
 Total Depth 3874 Chlorides 8000 ppm System LCM 1#

Blow Description Weak surface blow soil to 1/2 in
Dead no slow back
Dead no slow
Dead no slow back

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

Rec Total 5 BHT 112 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1939</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1310</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1313</u>
(C) First Final Flow <u>27</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1506</u>
(D) Initial Shut-In <u>403</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1906</u>
(E) Second Initial Flow <u>28</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>1918</u>
(F) Second Final Flow <u>28</u>	<input checked="" type="checkbox"/> Mileage <u>80.60</u>	Comments _____
(G) Final Shut-In <u>384</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1940</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 60 Day Standby +3 1/2 hrs
 Accessibility _____

Sub Total 1555.60

Approved By _____ Our Representative [Signature]

Sub Total 116.67
 Total 1672.27
 MP/DST Disc't _____

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58950

Well Name & No. Miller Trust #1-18 Test No. 3 Date 6-20-14
 Company Murfin Drilling Company Elevation 2149 KB 215 GL
 Address _____
 Co. Rep / Geo. Andy White Rig Murfin #16
 Location: Sec. 18 Twp. 16S Rge. 19W Co. Kan State KS

Interval Tested 3820 3884 Zone Tested Arbuchite
 Anchor Length _____ Drill Pipe Run _____ Mud Wt. 9.6
 Top Packer Depth 3815 Drill Collars Run 30 Vis 5.0
 Bottom Packer Depth 3820 Wt. Pipe Run 800 WL 39.6
 Total Depth 3884 Chlorides _____ ppm System LCM 1.4

Blow Description Strong blow built to 5in
Dead no blow back
B.O.B. In 35 min
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
186	Feet of <u>MCLW</u>			<u>65</u>	<u>35</u>
60	Feet of <u>MUD</u>				<u>100</u>
	Feet of _____				
	Feet of _____				

Rec Total 240 BHT 114 Gravity _____ API RW 295 @ 71° F Chlorides 24000 ppm
 (A) Initial Hydrostatic 1943 Test 1150 T-On Location 0045
 (B) First Initial Flow 31 Jars 250 T-Started 0103
 (C) First Final Flow 70 Safety Joint 75 T-Open 0257
 (D) Initial Shut-In 1162 Circ Sub _____ T-Pulled 0657
 (E) Second Initial Flow 81 Hourly Standby _____ T-Out 0943
 (F) Second Final Flow 133 Mileage 80.60 Comments _____
 (G) Final Shut-In 1147 Sampler _____
 (H) Final Hydrostatic 1861 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60 90
 Final Shut-In _____
 Sub Total 1555.60
 Total 1555.60
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]
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