



DRILL STEM TEST REPORT

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

250 N. Water Ste 300
Wichita KS. 67202

ATTN: Mike Maune

Simmons-Hunt #1-14

14-17s-36w Wichita,KS

Start Date: 2013.09.15 @ 23:58:00

End Date: 2013.09.16 @ 08:39:10

Job Ticket #: 53020 DST #: 1

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

Printed: 2013.09.23 @ 09:22:52



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc
250 N. Water Ste 300
Wichita KS. 67202
ATTN: Mike Maune

14-17s-36w Wichita,KS

Simmons-Hunt #1-14

Job Ticket: 53020 **DST#: 1**
Test Start: 2013.09.15 @ 23:58:00

GENERAL INFORMATION:

Formation: **Toronto**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:20:10
Time Test Ended: 08:39:10
Interval: **3950.00 ft (KB) To 3990.00 ft (KB) (TVD)**
Total Depth: 3990.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Will MacLean
Unit No: 58
Reference Elevations: 3247.00 ft (KB)
3236.00 ft (CF)
KB to GR/CF: 11.00 ft

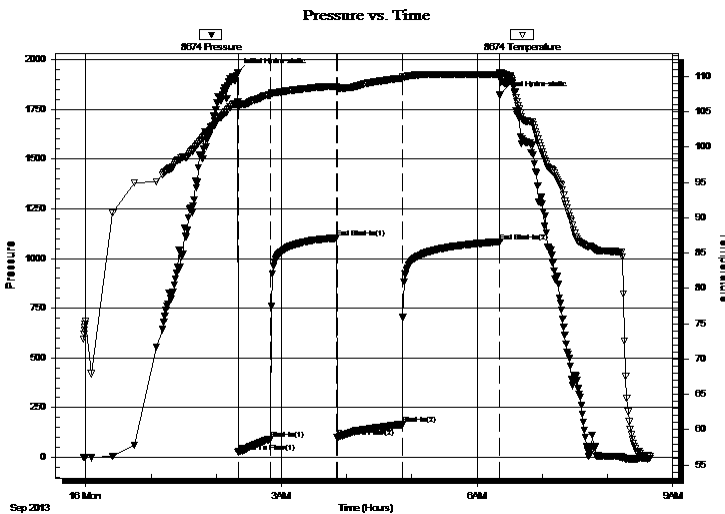
Serial #: 8674

Inside

Press @ Run Depth: 164.56 psig @ 3953.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.09.15 End Date: 2013.09.16 Last Calib.: 2013.09.16
Start Time: 23:58:00 End Time: 08:39:10 Time On Btm: 2013.09.16 @ 02:19:55
Time Off Btm: 2013.09.16 @ 06:20:54

TEST COMMENT: IF- Weak Surface Blow Built to 4"
IS- No Blow
FF- Weak Surface Blow Built to 3/4"
FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1935.10	106.35	Initial Hydro-static
1	26.29	105.66	Open To Flow (1)
30	92.55	107.37	Shut-In(1)
91	1102.91	108.58	End Shut-In(1)
92	98.80	108.16	Open To Flow (2)
152	164.56	109.67	Shut-In(2)
241	1083.94	110.27	End Shut-In(2)
241	1821.05	110.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
177.00	MCW 38%w 62%w	0.87
59.00	WCM 37%w 63%w	0.29
82.00	WCM 12%w 88%w with Oil Spots	1.13

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc
250 N. Water Ste 300
Wichita KS. 67202
ATTN: Mike Maune

14-17s-36w Wichita,KS
Simmons-Hunt #1-14
Job Ticket: 53020 **DST#: 1**
Test Start: 2013.09.15 @ 23:58:00

Tool Information

Drill Pipe:	Length: 3696.00 ft	Diameter: 3.80 inches	Volume: 51.85 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length: 238.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose:	10000.00 lb
			<u>Total Volume: 53.02 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	3950.00 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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Change Over Sub	1.00			3923.00	
Shut In Tool	5.00			3928.00	
Hydraulic tool	5.00			3933.00	
Jars	5.00			3938.00	
Safety Joint	3.00			3941.00	
Packer	5.00			3946.00	28.00 Bottom Of Top Packer
Packer	4.00			3950.00	
Stubb	1.00			3951.00	
Perforations	2.00			3953.00	
Recorder	0.00	8355	Outside	3953.00	
Recorder	0.00	8674	Inside	3953.00	
Perforations	32.00			3985.00	
Bullnose	5.00			3990.00	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: Mike Maune

14-17s-36w Wichita,KS
Simmons-Hunt #1-14
Job Ticket: 53020 **DST#: 1**
Test Start: 2013.09.15 @ 23:58:00

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: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.13 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6400.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
177.00	MCW 38%m 62%w	0.870
59.00	WCM 37%w 63%m	0.290
82.00	WCM 12%w 88%m with Oil Spots	1.132

Total Length: 318.00 ft Total Volume: 2.292 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW is .321 @ 60f = 23,500

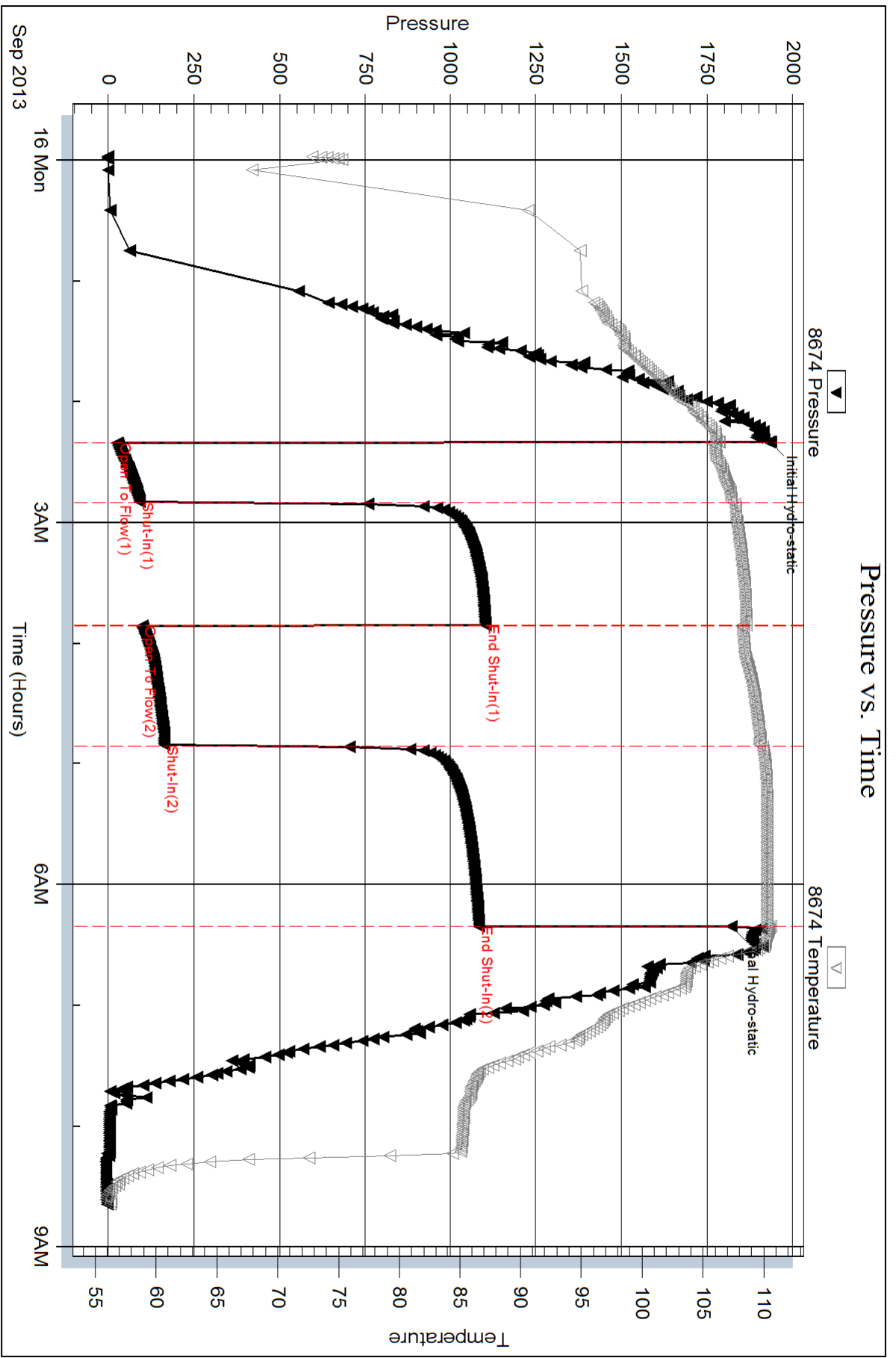
Serial #: 8674

Inside

Murfin Drilling Co. Inc

Simmons-Hunt #1-14

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 53020

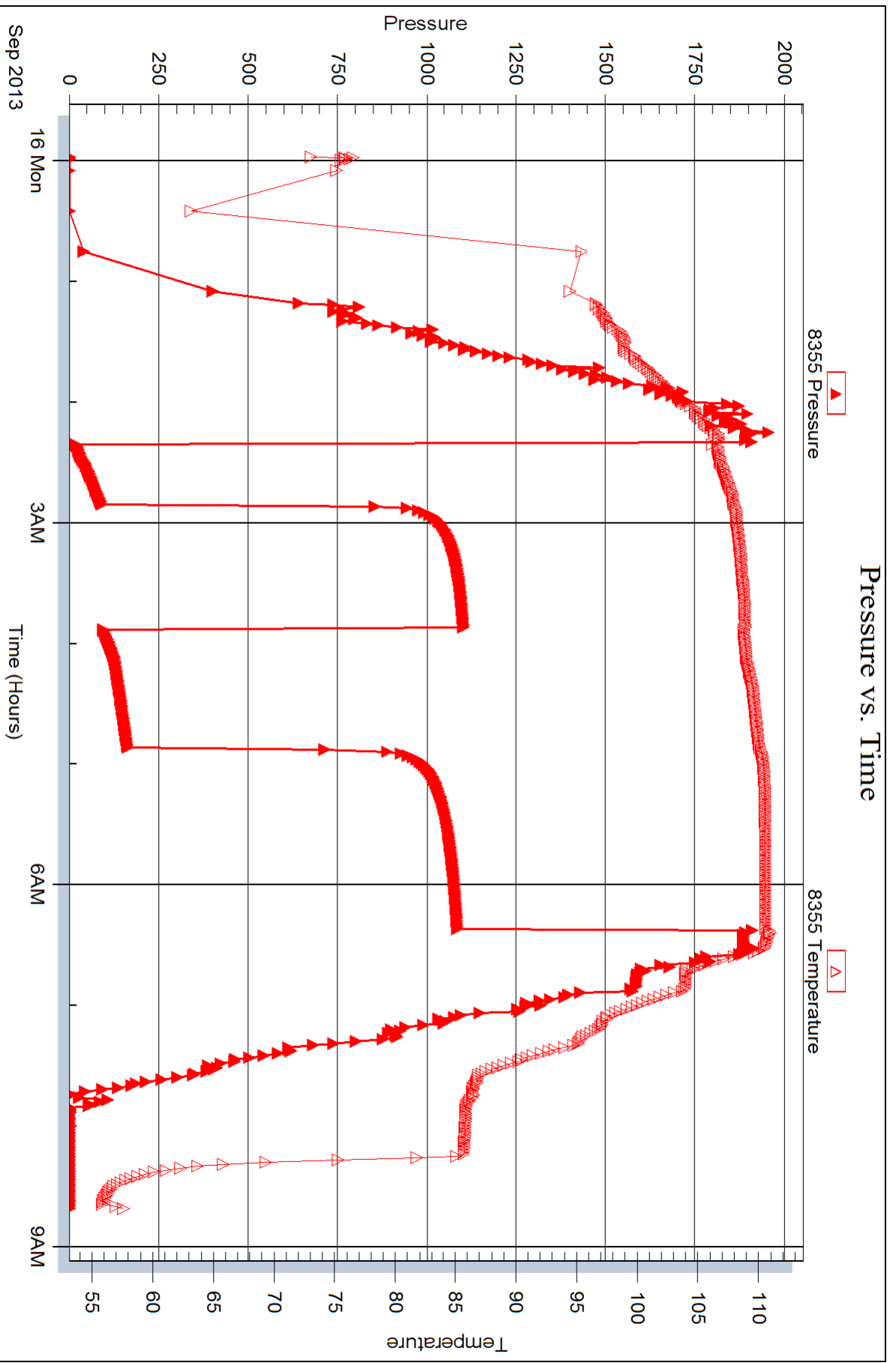
Printed: 2013.09.23 @ 09:22:53

Serial #: 8355

Outside Murfin Drilling Co. Inc

Simmons-Hunt #1-14

DST Test Number: 1





DRILL STEM TEST REPORT

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

250 N. Water Ste 300
Wichita KS. 67202

ATTN: Mike Maune

Simmons-Hunt #1-14

14-17s-36w Wichita,KS

Start Date: 2013.09.16 @ 20:38:00

End Date: 2013.09.17 @ 04:30:09

Job Ticket #: 53021 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.23 @ 09:20:04

Murfin Drilling Co. Inc

14-17s-36w Wichita,KS

Simmons-Hunt #1-14

DST # 2

LKC " B - D "

2013.09.16



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc
 250 N. Water Ste 300
 Wichita KS. 67202
 ATTN: Mike Maune

14-17s-36w Wichita, KS

Simmons-Hunt #1-14

Job Ticket: 53021 **DST#: 2**
 Test Start: 2013.09.16 @ 20:38:00

GENERAL INFORMATION:

Formation: **LKC " B - D "**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 22:23:40 Tester: Will MacLean
 Time Test Ended: 04:30:09 Unit No: 58
 Interval: **4032.00 ft (KB) To 4070.00 ft (KB) (TVD)** Reference Elevations: 3247.00 ft (KB)
 Total Depth: 4070.00 ft (KB) (TVD) 3236.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

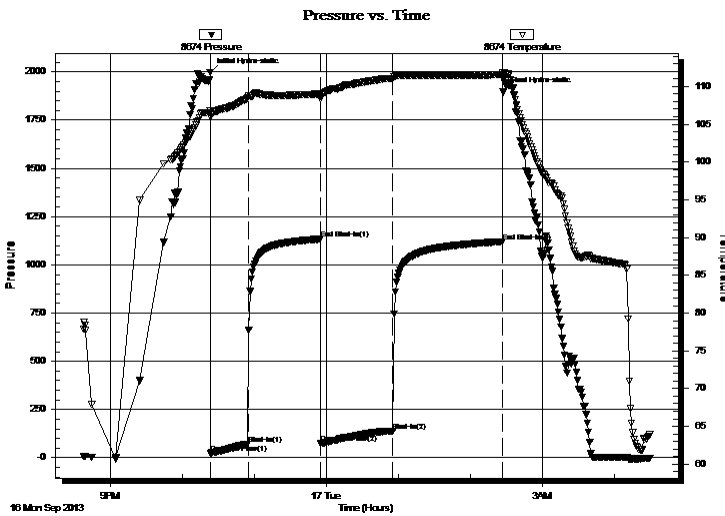
Serial #: 8674

Inside

Press @ Run Depth: 138.06 psig @ 4033.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.16 End Date: 2013.09.17 Last Calib.: 2013.09.17
 Start Time: 20:38:00 End Time: 04:30:09 Time On Btm: 2013.09.16 @ 22:23:25
 Time Off Btm: 2013.09.17 @ 02:27:24

TEST COMMENT: IF- Weak Surface Blow Built to 3"
 IS- No Blow
 FF- Weak Surface Blow Built to 1"
 FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1997.00	106.72	Initial Hydro-static
1	24.42	105.95	Open To Flow (1)
32	71.95	108.48	Shut-In(1)
92	1133.55	109.01	End Shut-In(1)
92	73.84	108.33	Open To Flow (2)
153	138.06	111.09	Shut-In(2)
244	1120.00	111.56	End Shut-In(2)
244	1895.26	111.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
118.00	WCM 31%w 69%m	0.58
59.00	WCM 19%w 81%m	0.29
74.00	WCM 4%w 96%m (Few Oil Spots in	T0.48

* 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
250 N. Water Ste 300
Wichita KS. 67202
ATTN: Mike Maune

14-17s-36w Wichita,KS
Simmons-Hunt #1-14
Job Ticket: 53021 **DST#: 2**
Test Start: 2013.09.16 @ 20:38:00

Tool Information

Drill Pipe:	Length: 3790.00 ft	Diameter: 3.80 inches	Volume: 53.16 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: 30000.00 lb
Drill Collar:	Length: 238.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 54.33 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4032.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4005.00	
Shut In Tool	5.00			4010.00	
Hydraulic tool	5.00			4015.00	
Jars	5.00			4020.00	
Safety Joint	3.00			4023.00	
Packer	5.00			4028.00	28.00 Bottom Of Top Packer
Packer	4.00			4032.00	
Stubb	1.00			4033.00	
Recorder	0.00	8355	Outside	4033.00	
Recorder	0.00	8674	Inside	4033.00	
Perforations	32.00			4065.00	
Bullnose	5.00			4070.00	38.00 Bottom Packers & Anchor

Total Tool Length: 66.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc
250 N. Water Ste 300
Wichita KS. 67202
ATTN: Mike Maune

14-17s-36w Wichita,KS
Simmons-Hunt #1-14
Job Ticket: 53021 **DST#: 2**
Test Start: 2013.09.16 @ 20:38:00

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:	25000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.91 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 9000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
118.00	WCM 31%w 69%m	0.580
59.00	WCM 19%w 81%m	0.290
74.00	WCM 4%w 96%m (Few Oil Spots in Tool	0.482

Total Length: 251.00 ft Total Volume: 1.352 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: RW is .309 @ 60f = 25000

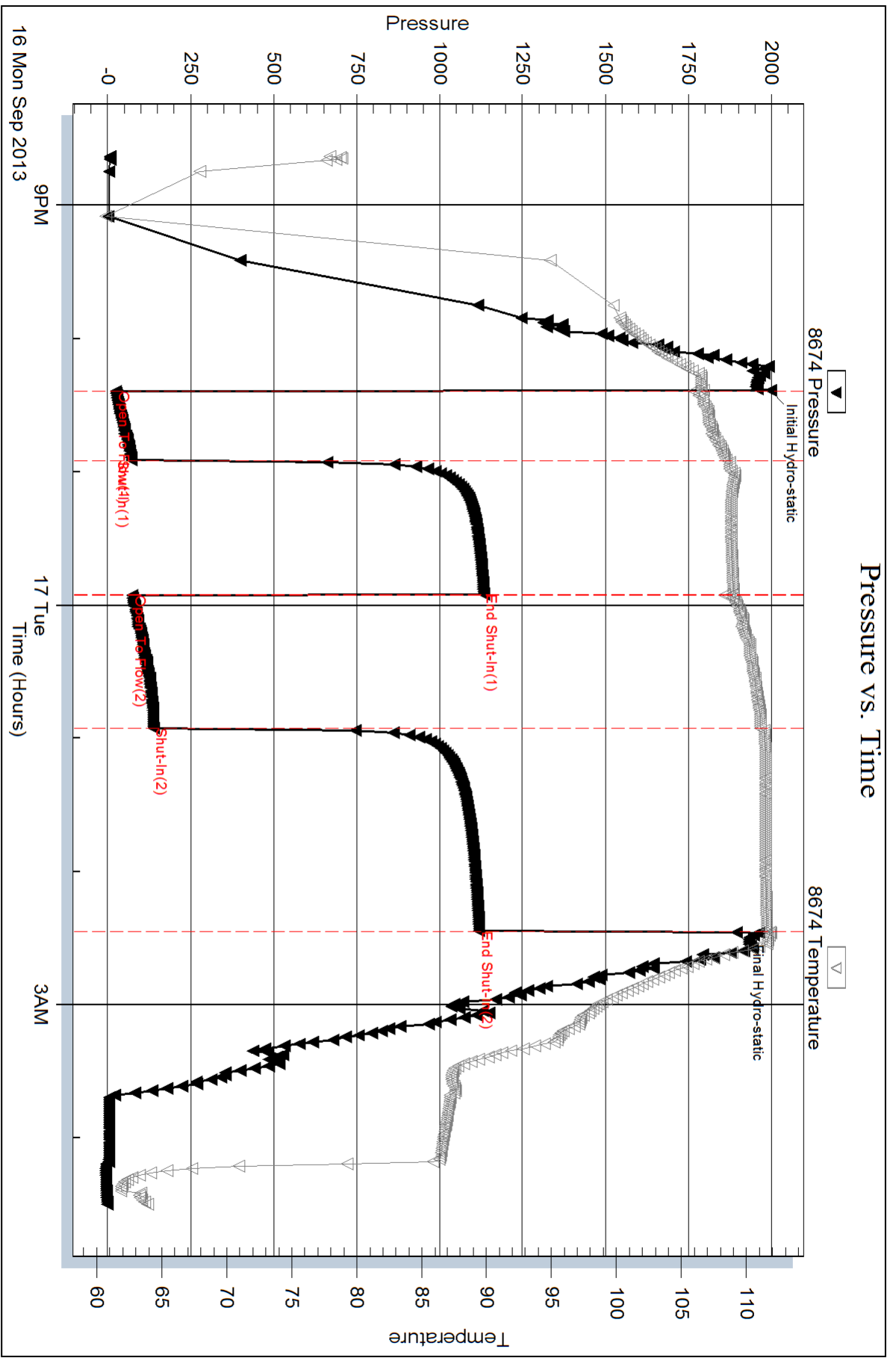
Serial #: 8674

Inside

Murfin Drilling Co. Inc

Simmons-Hunt #1-14

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 53021

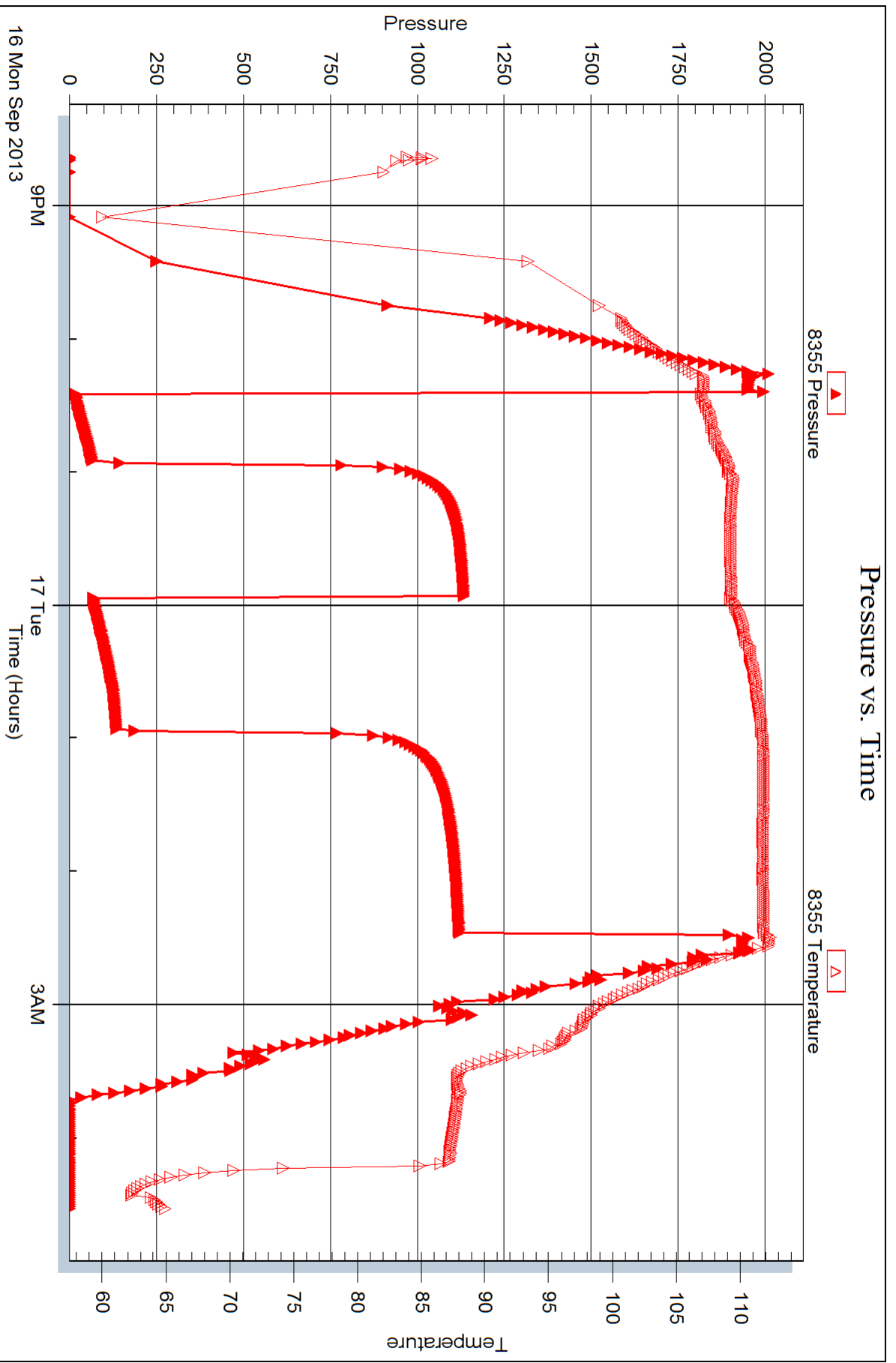
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Serial #: 8355

Outside Murfin Drilling Co. Inc

Simmons-Hunt #1-14

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 53021

Printed: 2013.09.23 @ 09:20:06



DRILL STEM TEST REPORT

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

250 N. Water Ste 300
Wichita KS. 67202

ATTN: Mike Maune

Simmons-Hunt #1-14

14-17s-36w Wichita,KS

Start Date: 2013.09.17 @ 14:42:00

End Date: 2013.09.17 @ 22:40:39

Job Ticket #: 53022 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.23 @ 09:19:34

Murfin Drilling Co. Inc

14-17s-36w Wichita,KS

Simmons-Hunt #1-14

DST # 3

LKC " E - F "

2013.09.17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc
 250 N. Water Ste 300
 Wichita KS. 67202
 ATTN: Mike Maune

14-17s-36w Wichita, KS

Simmons-Hunt #1-14

Job Ticket: 53022 **DST#: 3**
 Test Start: 2013.09.17 @ 14:42:00

GENERAL INFORMATION:

Formation: **LKC " E - F "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:28:10
 Time Test Ended: 22:40:39
 Interval: **4078.00 ft (KB) To 4120.00 ft (KB) (TVD)**
 Total Depth: 4120.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Will MacLean
 Unit No: 58
 Reference Elevations: 3247.00 ft (KB)
 3236.00 ft (CF)
 KB to GR/CF: 11.00 ft

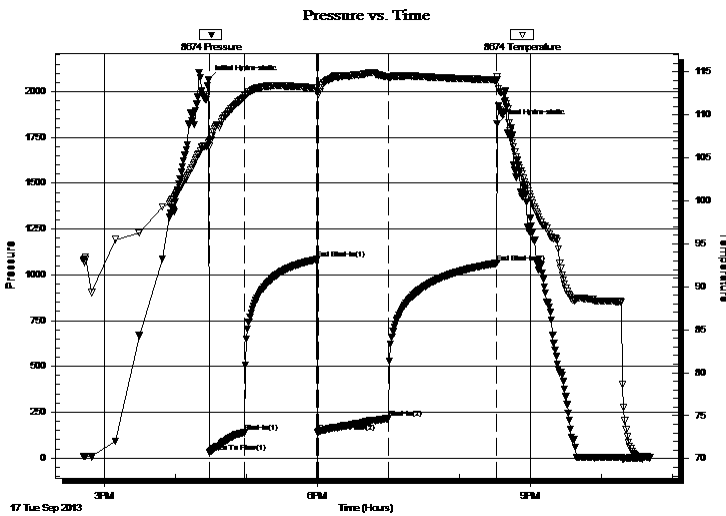
Serial #: 8674

Inside

Press @ Run Depth: 216.29 psig @ 4079.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.17 End Date: 2013.09.17 Last Calib.: 2013.09.17
 Start Time: 14:42:00 End Time: 22:40:39 Time On Btm: 2013.09.17 @ 16:27:40
 Time Off Btm: 2013.09.17 @ 20:31:39

TEST COMMENT: IF- Weak Surface Blow Built to 8"
 IS- No Blow
 FF- Weak Surface Blow Built to BOB in 55 min
 FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2063.42	106.72	Initial Hydro-static
1	29.24	106.34	Open To Flow (1)
31	138.07	112.02	Shut-In(1)
92	1083.81	113.12	End Shut-In(1)
93	140.87	112.33	Open To Flow (2)
153	216.29	114.29	Shut-In(2)
244	1063.27	114.03	End Shut-In(2)
244	1823.09	114.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
238.00	MCW 16%m 84%w	1.17
124.00	MCW 26%m 74%w	1.74
91.00	MCW 48%m 52%w with Skim of Oil on	1.28
1.00	100%oil	0.01

* 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
250 N. Water Ste 300
Wichita KS. 67202
ATTN: Mike Maune

14-17s-36w Wichita,KS
Simmons-Hunt #1-14
Job Ticket: 53022 **DST#: 3**
Test Start: 2013.09.17 @ 14:42:00

Tool Information

Drill Pipe:	Length: 3822.00 ft	Diameter: 3.80 inches	Volume: 53.61 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:	28000.00 lb
Drill Collar:	Length: 238.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose:	16000.00 lb
			<u>Total Volume: 54.78 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4078.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	42.00 ft				
Tool Length:	70.00 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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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4051.00	
Shut In Tool	5.00			4056.00	
Hydraulic tool	5.00			4061.00	
Jars	5.00			4066.00	
Safety Joint	3.00			4069.00	
Packer	5.00			4074.00	28.00 Bottom Of Top Packer
Packer	4.00			4078.00	
Stubb	1.00			4079.00	
Recorder	0.00	8355	Outside	4079.00	
Recorder	0.00	8674	Inside	4079.00	
Perforations	36.00			4115.00	
Bullnose	5.00			4120.00	42.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc
250 N. Water Ste 300
Wichita KS. 67202
ATTN: Mike Maune

14-17s-36w Wichita,KS
Simmons-Hunt #1-14
Job Ticket: 53022 **DST#: 3**
Test Start: 2013.09.17 @ 14:42:00

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:	24500 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.94 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 9000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
238.00	MCW 16%m 84%w	1.170
124.00	MCW 26%m 74%w	1.739
91.00	MCW 48%m 52%w with Skim of Oil on Top	1.276
1.00	100%oil	0.014

Total Length: 454.00 ft Total Volume: 4.199 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW is .252 @ 78f = 24,500

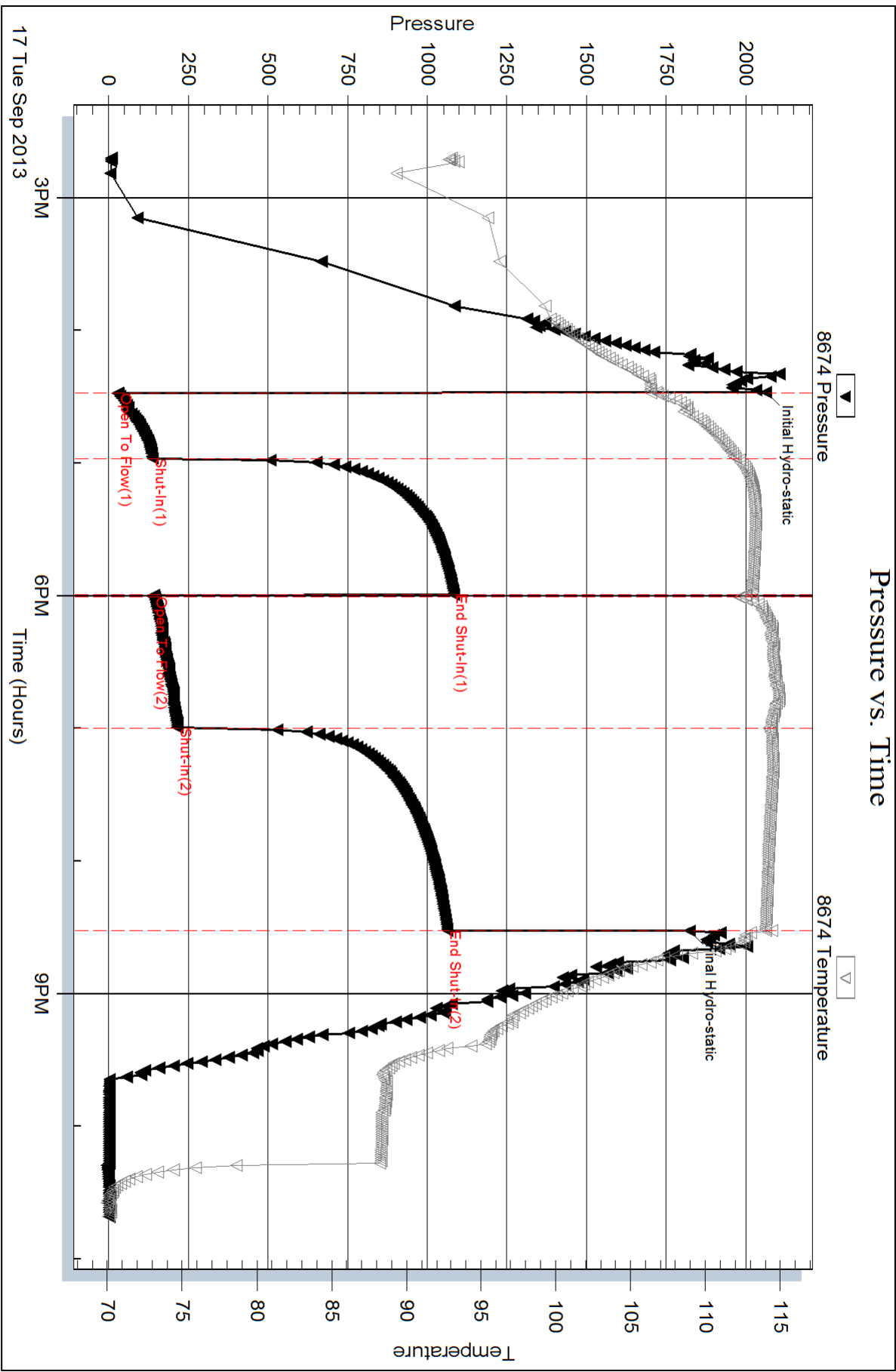
Serial #: 8674

Inside

Murfin Drilling Co. Inc

Simmons-Hunt #1-14

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 53022

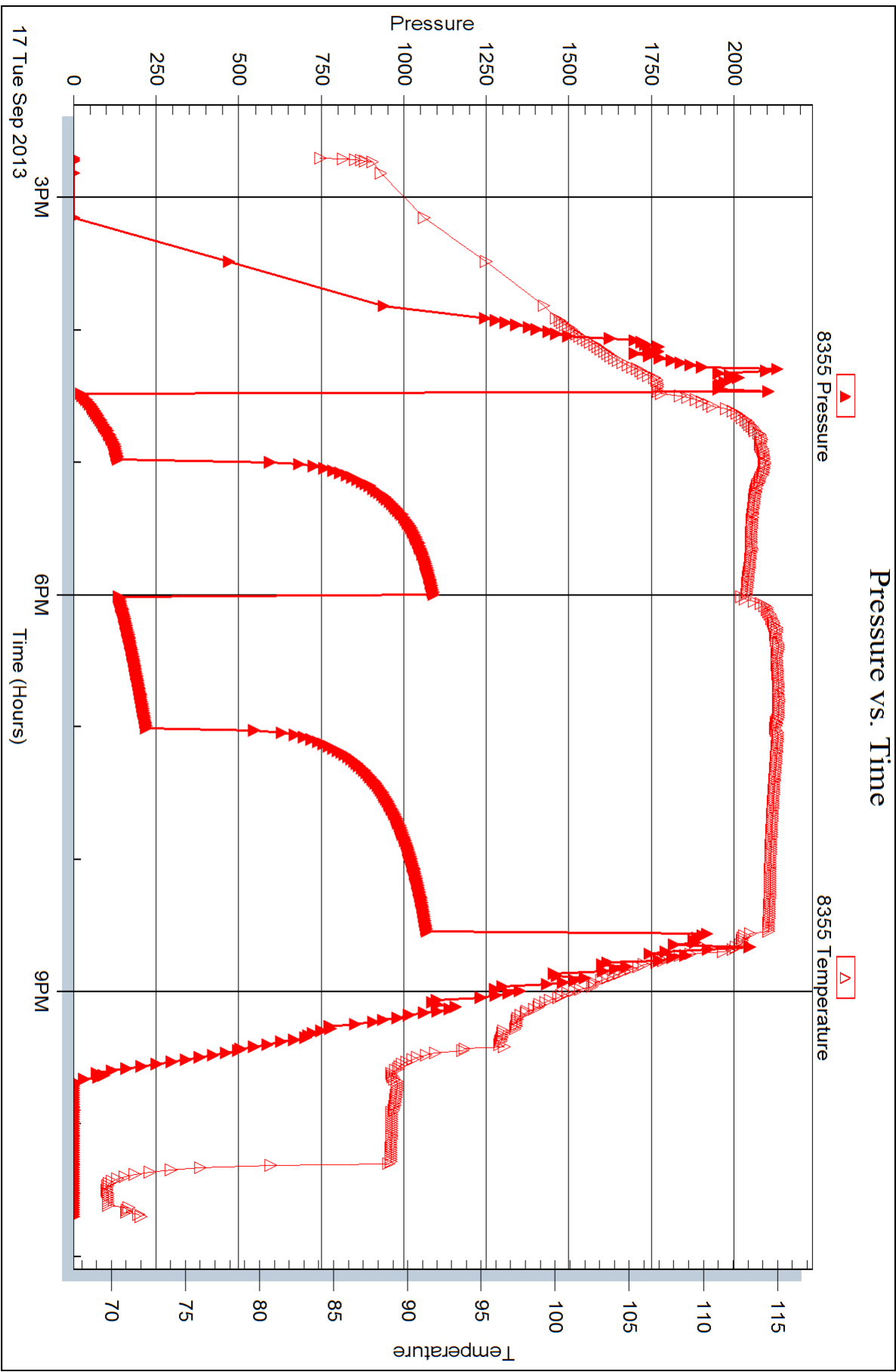
Printed: 2013.09.23 @ 09:19:36

Serial #: 8355

Outside Murfin Drilling Co. Inc

Simmons-Hunt #1-14

DST Test Number: 3





DRILL STEM TEST REPORT

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

250 N. Water Ste 300
Wichita KS. 67202

ATTN: Mike Maune

Simmons-Hunt #1-14

14-17s-36w Wichita,KS

Start Date: 2013.09.20 @ 04:12:00

End Date: 2013.09.20 @ 11:41:24

Job Ticket #: 53023 DST #: 4

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

Printed: 2013.09.23 @ 09:18:57



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc
 250 N. Water Ste 300
 Wichita KS. 67202
 ATTN: Mike Maune

14-17s-36w Wichita, KS

Simmons-Hunt #1-14

Job Ticket: 53023 **DST#: 4**
 Test Start: 2013.09.20 @ 04:12:00

GENERAL INFORMATION:

Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:20:10
 Time Test Ended: 11:41:24
 Interval: **4500.00 ft (KB) To 4540.00 ft (KB) (TVD)**
 Total Depth: 4540.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Will MacLean
 Unit No: 58
 Reference Elevations: 3247.00 ft (KB)
 3236.00 ft (CF)
 KB to GR/CF: 11.00 ft

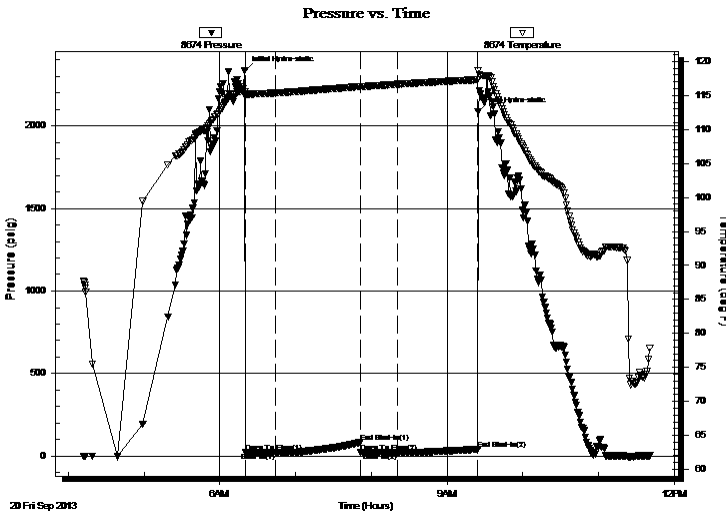
Serial #: 8674

Inside

Press @ Run Depth: 22.78 psig @ 4502.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.20 End Date: 2013.09.20 Last Calib.: 2013.09.20
 Start Time: 04:12:00 End Time: 11:41:24 Time On Btm: 2013.09.20 @ 06:19:55
 Time Off Btm: 2013.09.20 @ 09:24:39

TEST COMMENT: IF- Weak Surface Blow
 IS- No Blow
 FF- No Blow
 FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2336.01	115.66	Initial Hydro-static
1	21.63	114.81	Open To Flow (1)
24	21.41	115.36	Shut-In(1)
92	83.11	116.31	End Shut-In(1)
92	22.38	116.28	Open To Flow (2)
121	22.78	116.65	Shut-In(2)
185	41.17	117.33	End Shut-In(2)
185	2087.56	118.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	OCM 3%oil 97% m	0.01

* 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
250 N. Water Ste 300
Wichita KS. 67202
ATTN: Mike Maune

14-17s-36w Wichita,KS
Simmons-Hunt #1-14
Job Ticket: 53023 **DST#: 4**
Test Start: 2013.09.20 @ 04:12:00

Tool Information

Drill Pipe:	Length: 4256.00 ft	Diameter: 3.80 inches	Volume: 59.70 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: 24000.00 lb
Drill Collar:	Length: 238.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose: 8000.00 lb
			<u>Total Volume: 60.87 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4500.00 ft			Final 72000.00 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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Change Over Sub	1.00			4473.00	
Shut In Tool	5.00			4478.00	
Hydraulic tool	5.00			4483.00	
Jars	5.00			4488.00	
Safety Joint	3.00			4491.00	
Packer	5.00			4496.00	28.00 Bottom Of Top Packer
Packer	4.00			4500.00	
Stubb	1.00			4501.00	
Perforations	1.00			4502.00	
Recorder	0.00	8355	Outside	4502.00	
Recorder	0.00	8674	Inside	4502.00	
Perforations	33.00			4535.00	
Bullnose	5.00			4540.00	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: Mike Maune

14-17s-36w Wichita,KS
Simmons-Hunt #1-14
Job Ticket: 53023 **DST#: 4**
Test Start: 2013.09.20 @ 04:12:00

Mud and Cushion Information

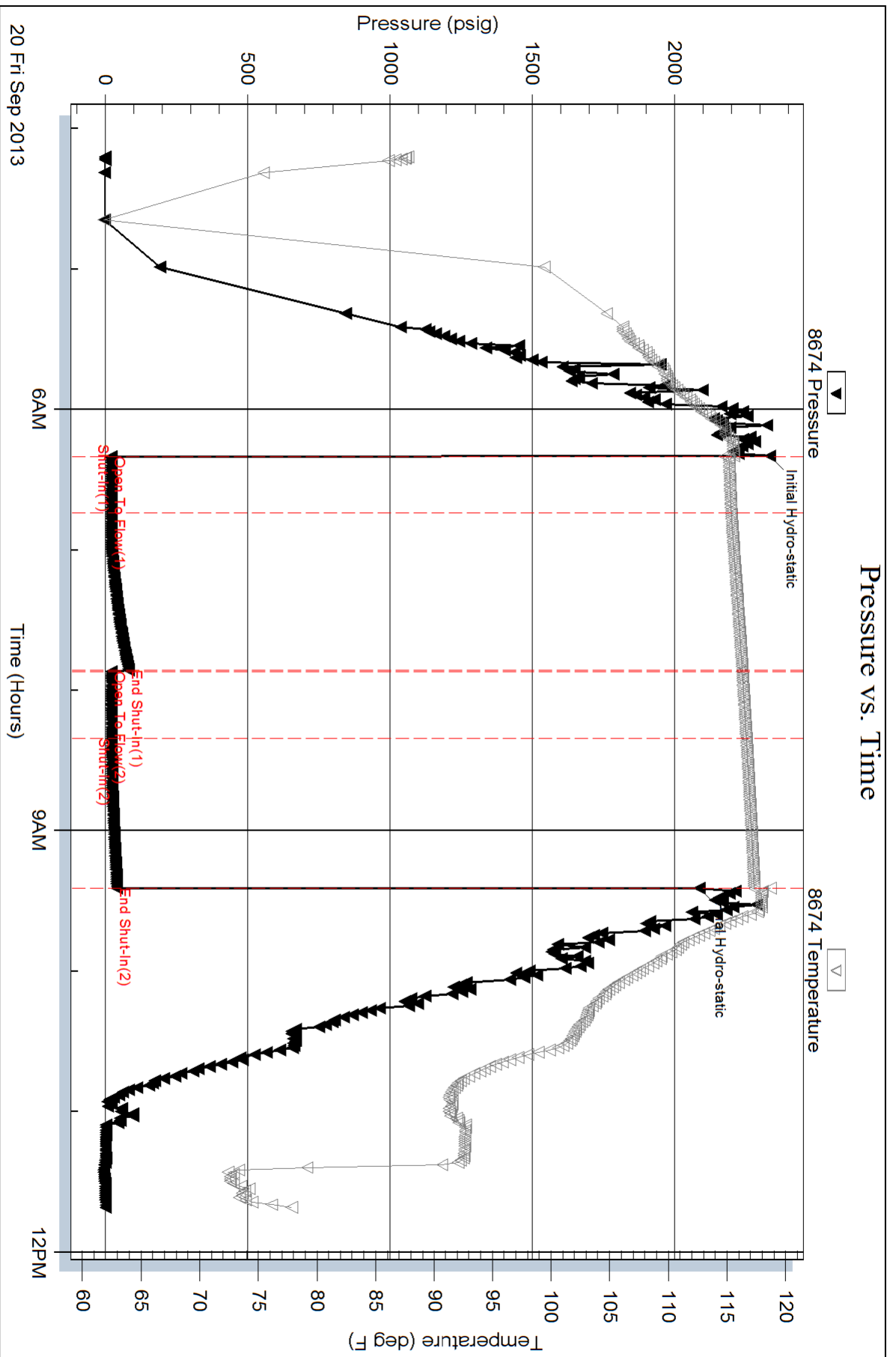
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.58 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 10400.00 ppm			
Filter Cake: 2.00 inches			

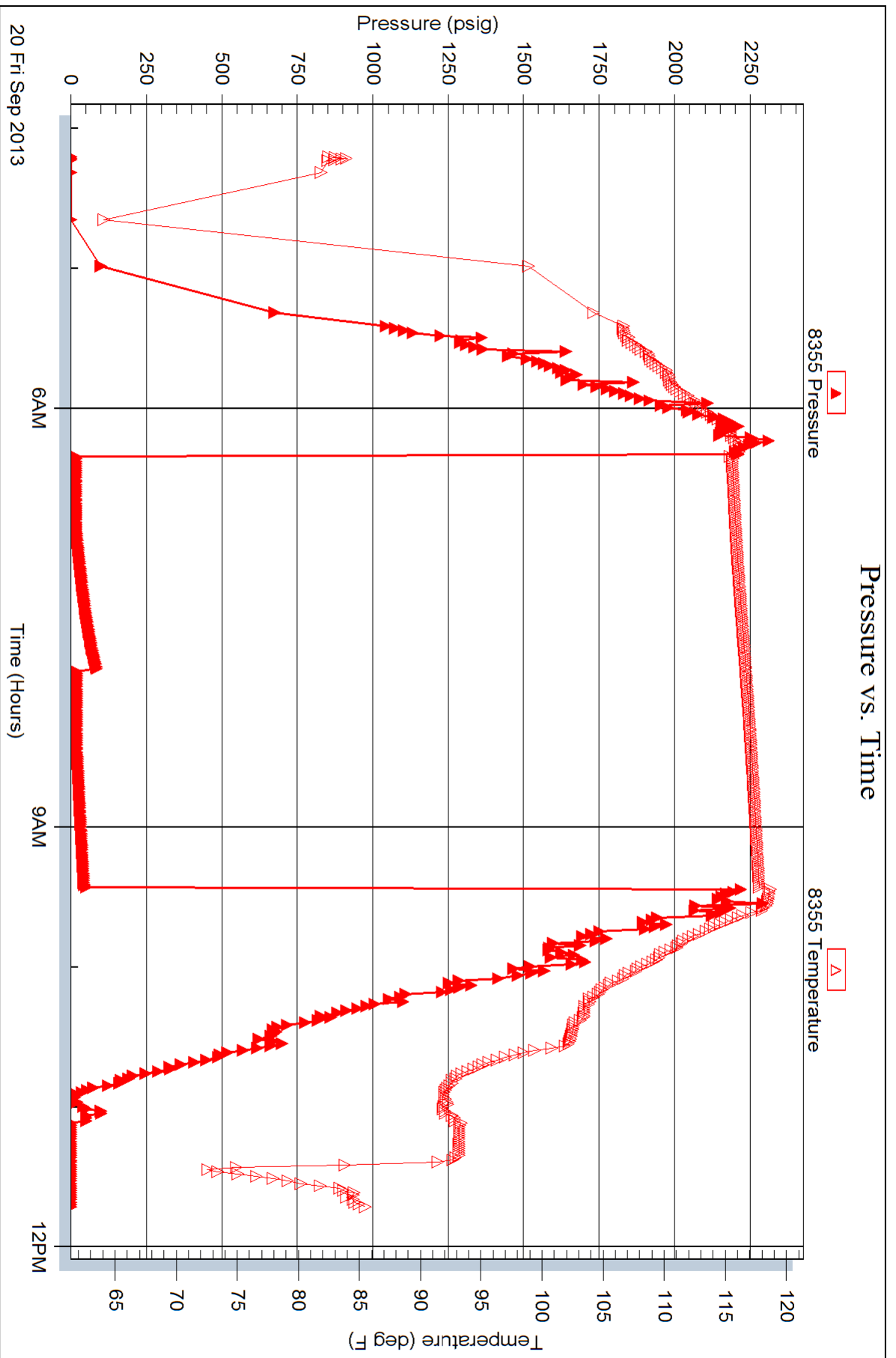
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	OCM 3%oil 97%m	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:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53020

Well Name & No. Simmons Farms - Hunt Unit #1-14 Test No. DST #1 Date 9-15-13
 Company Murfin Drilling Co. Inc Elevation 3236 KB 3247 GL
 Address 250 N. Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Mike Maune Rig Murfin Rys #22
 Location: Sec. 14 Twp. 17s Rge. 36w Co. Wichita State KS

Interval Tested 3950 - 3990 Zone Tested Toronto
 Anchor Length 40 Drill Pipe Run 3696 Mud Wt. 9.0
 Top Packer Depth 3946 Drill Collars Run 238 Vis 50
 Bottom Packer Depth 3950 Wt. Pipe Run 0 WL 7.02
 Total Depth 3990 Chlorides 6400 ppm System LCM 3/6
 Blow Description IF- Weak Surface Blow Built to 4"
ISJ- No Blow
FF- Weak Surface Blow Built to 3/4"
FSI- No Blow

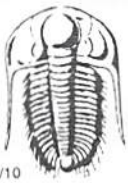
Rec	Feet of	%gas	%oil	%water	%mud
<u>82</u>	<u>WCM with Oil Spots</u>		<u>12</u>	<u>88</u>	
<u>59</u>	<u>WCM</u>		<u>37</u>	<u>63</u>	
<u>177</u>	<u>MCM</u>		<u>62</u>	<u>38</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 318 BHT 110 Gravity API RW .321 @ 60 °F Chlorides 23500 ppm
 (A) Initial Hydrostatic 1935 Test 1150 T-On Location (20:06) 23:04
 (B) First Initial Flow 26 Jars 250 T-Started 23:58
 (C) First Final Flow 92 Safety Joint 75 T-Open 2:20
 (D) Initial Shut-In 1102 Circ Sub NIC T-Pulled 6:20
 (E) Second Initial Flow 98 Hourly Standby T-Out 8:39
 (F) Second Final Flow 164 Mileage 60 R/T x 2 186 Comments
 (G) Final Shut-In 1083 Sampler
 (H) Final Hydrostatic 1821 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 0
 Total 1661
 MP/DST Disc't

Approved By Mike Maune Our Representative Jim Maune

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. 53021

Well Name & No. Simmons Farms-Hunt Unit #1-14 Test No. DST#2 Date 9-16-13
 Company Murfin Drilling Co. Inc Elevation 3247 KB 3236 GL
 Address 250 N. Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Mike Maune Rig Murfin Rigs #22
 Location: Sec. 14 Twp. 17S Rge. 36W Co. Wichita State KS

Interval Tested 4032-4070 Zone Tested LRC "B-D"
 Anchor Length 38 Drill Pipe Run 3790 Mud Wt. 9.1
 Top Packer Depth 4028 Drill Collars Run 238 Vis 50
 Bottom Packer Depth 4032 Wt. Pipe Run 0 WL 8.0
 Total Depth 4070 Chlorides 9000 ppm System LCM 516

Blow Description IF- Weak Surface Blow Built to 3"
ISI- No Blow
FF- Weak Surface Blow Built to 1"
FSL- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>74</u>	<u>WCM</u>			<u>4</u>	<u>96</u>
<u>59</u>	<u>WCM</u>			<u>19</u>	<u>81</u>
<u>118</u>	<u>WCM Few Oil Spots in Tool</u>			<u>39</u>	<u>69</u>
____	____	%gas	%oil	%water	%mud
____	____	%gas	%oil	%water	%mud

Rec Total 251 BHT 112 Gravity _____ API RW 309 @ 60 °F Chlorides 25000 ppm

- (A) Initial Hydrostatic 1997 Test 1250
- (B) First Initial Flow 24 Jars 250
- (C) First Final Flow 71 Safety Joint 75
- (D) Initial Shut-In 1133 Circ Sub NIC
- (E) Second Initial Flow 73 Hourly Standby _____
- (F) Second Final Flow 138 Mileage 60 R/T 93
- (G) Final Shut-In 1120 Sampler _____
- (H) Final Hydrostatic 1895 Straddle _____

T-On Location 20:08
 T-Started 20:38
 T-Open 22:23
 T-Pulled 2:27
 T-Out 4:30

Comments _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1668
 MP/DST Disc't _____

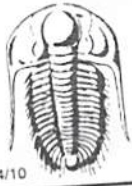
Sub Total 1668

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

Approved By Mike Maune

Our Representative Will Mar

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53022

Well Name & No. Simmons Farms - Hunt Unit #1-14 Test No. DST #3 Date 9-17-13
 Company Martin Drilling Co Inc Elevation 3247 KB 3236 GL
 Address 250 N. Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Mike Maune Rig Martin Rg #22
 Location: Sec. 14 Twp. 17s Rge. 36w Co. Wichita State KS

Interval Tested 4078 - 4120 Zone Tested LKC "E4F"
 Anchor Length 42 Drill Pipe Run 3822 Mud Wt. 9.1
 Top Packer Depth 4074 Drill Collars Run 238 Vis 50
 Bottom Packer Depth 4078 Wt. Pipe Run 0 WL 8.0
 Total Depth 4120 Chlorides 9000 ppm System LCM 516
 Blow Description IF - Weak Surface Blow Built to 8"
IS1 - No Blow
FF - Weak Surface Blow Built to BOBIN 55mm
FS1 - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
1	Oil	100			
91	MCW with skin of oil		52	48	
124	MCW		74	26	
238	MCW		84	16	

Rec Total 454 BHT 114 Gravity _____ API RW 252 @ 78 °F Chlorides 24500 ppm
 (A) Initial Hydrostatic 2063 Test 1250 T-On Location 14:18
 (B) First Initial Flow 29 Jars 250 T-Started 14:42
 (C) First Final Flow 138 Safety Joint 75 T-Open 16:28
 (D) Initial Shut-In 1083 Circ Sub NIC T-Pulled 20:31
 (E) Second Initial Flow 190 Hourly Standby _____ T-Out 22:40
 (F) Second Final Flow 216 Mileage 60 R/T 93 Comments _____
 (G) Final Shut-In 1063 Sampler _____
 (H) Final Hydrostatic 1823 Straddle _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 60 Extra Recorder _____
 Final Shut-In 90 Day Standby _____
 Accessibility _____
 Sub Total 1668 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1668
 MP/DST Disc't _____

Approved By Michael R. Maune Our Representative Neil Maune
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53023

Well Name & No. Simmons Farms - Hunt Unit #1-14 Test No. DST #4 Date 9-20-13
 Company Murfin Drilling Co. Inc Elevation 3247 KB 3236 GL
 Address 250 N. Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Mike Maune Rig Murfin R-5 #22
 Location: Sec. 14 Twp. 17s Rge. 36w Co. Wichita State KS

Interval Tested 4500 - 4540 Zone Tested Pawnee
 Anchor Length 40 Drill Pipe Run 4256 Mud Wt. 9.2
 Top Packer Depth 4496 Drill Collars Run 238 Vis 59
 Bottom Packer Depth 4500 Wt. Pipe Run 0 WL 7.6
 Total Depth 4540 Chlorides 10,400 ppm System LCM 516

Blow Description IF - Near Surface Blow
ISI - No Blow
FF - No Blow
FSI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>OCM</u>		<u>3</u>		<u>97</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 117 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2336 Test 1250 T-On Location 3:22
 (B) First Initial Flow 21 Jars 250 T-Started 4:12
 (C) First Final Flow 21 Safety Joint 75 T-Open 6:20
 (D) Initial Shut-In 83 Circ Sub NIC T-Pulled 9:24
 (E) Second Initial Flow 22 Hourly Standby _____ T-Out 11:41
 (F) Second Final Flow 22 Mileage 60 R/T 93 Comments _____
 (G) Final Shut-In 41 Sampler _____
 (H) Final Hydrostatic 2087 Straddle _____

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 950
 Total 2618
 MP/DST Disc't _____

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

Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby 1 day 3 1/2 hours 1d 28.5h
 Accessibility _____
 Sub Total 1668

Approved By Mike Maune Our Representative Will Mae

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54509

Well Name & No. Simmons Farms - Hunt Unit #1-14 Test No. _____ Date 9-22-13
 Company Murfin Drilling Co. Inc. Elevation _____ KB _____ GL _____
 Address 250 N Water Ste 300 - Wichita, KS 67202
 Co. Rep / Geo. Mike Maune Rig Murfin #22
 Location: Sec. 17 Twp. 17S Rge. 36W Co. Wichita State KS

Interval Tested _____ Zone Tested _____
 Anchor Length _____ Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth _____ Drill Collars Run _____ Vis _____
 Bottom Packer Depth _____ Wt. Pipe Run _____ WL _____
 Total Depth _____ Chlorides _____ ppm System _____ LCM _____
 Blow Description _____

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	Feet of	%gas	%oil	%water	%mud

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

(A) Initial Hydrostatic _____ Test _____ T-On Location ~~_____~~ 16:40
 (B) First Initial Flow _____ Jars _____ T-Started _____
 (C) First Final Flow _____ Safety Joint _____ T-Open _____
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 17:00 - Back to shop ^{17:40}
 (F) Second Final Flow _____ Mileage 60 RIT ₉₃ Comments last test 9-20-13
 (G) Final Shut-In _____ Sampler _____ 11:41 - Picked up tools 9-22-13
 (H) Final Hydrostatic _____ Straddle _____ Ruined Shale Packer _____
 _____ Shale Packer _____ Ruined Packer _____
 _____ Extra Packer _____ Extra Copies _____
 Initial Open _____ Extra Recorder _____ Sub Total 1600
 Initial Shut-In _____ Day Standby 1d 29h Total 1693
 Final Flow _____ Accessibility _____ MP/DST Disc't _____
 Final Shut-In _____ Sub Total 93

Approved By _____ Our Representative [Signature] CL-101

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