



DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Ruder Unit #2-36

36-10s-24w Graham,KS

Start Date: 2013.06.07 @ 13:10:00

End Date: 2013.06.07 @ 20:19:30

Job Ticket #: 53892 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.12 @ 10:31:45



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
250 N Water STE 300
Wichita KS 67202
ATTN: Rocky Milford

36-10s-24w Graham,KS

Ruder Unit #2-36

Job Ticket: 53892

DST#: 1

Test Start: 2013.06.07 @ 13:10:00

GENERAL INFORMATION:

Formation: **Toronto - KC "D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:06:00
 Time Test Ended: 20:19:30
 Interval: **3659.00 ft (KB) To 3763.00 ft (KB) (TVD)**
 Total Depth: 3763.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 2331.00 ft (KB)
 2326.00 ft (CF)
 KB to GR/CF: 5.00 ft

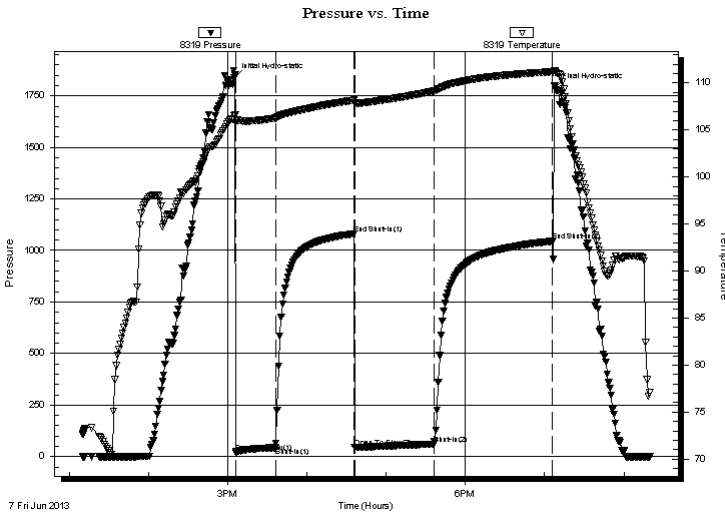
Serial #: 8319

Outside

Press @ RunDepth: 60.79 psig @ 3660.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.07 End Date: 2013.06.07 Last Calib.: 2013.06.07
 Start Time: 13:10:05 End Time: 20:19:29 Time On Btm: 2013.06.07 @ 15:05:00
 Time Off Btm: 2013.06.07 @ 19:08:00

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

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1839.66	106.50	Initial Hydro-static
1	22.23	105.79	Open To Flow (1)
31	43.29	106.27	Shut-In(1)
91	1080.58	108.17	End Shut-In(1)
91	44.23	107.86	Open To Flow (2)
151	60.79	109.14	Shut-In(2)
241	1044.85	111.20	End Shut-In(2)
243	1791.48	111.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	WCM 30%W 70%M	0.98

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
250 N Water STE 300
Wichita KS 67202
ATTN: Rocky Milford

36-10s-24w Graham,KS

Ruder Unit #2-36

Job Ticket: 53892 **DST#: 1**

Test Start: 2013.06.07 @ 13:10:00

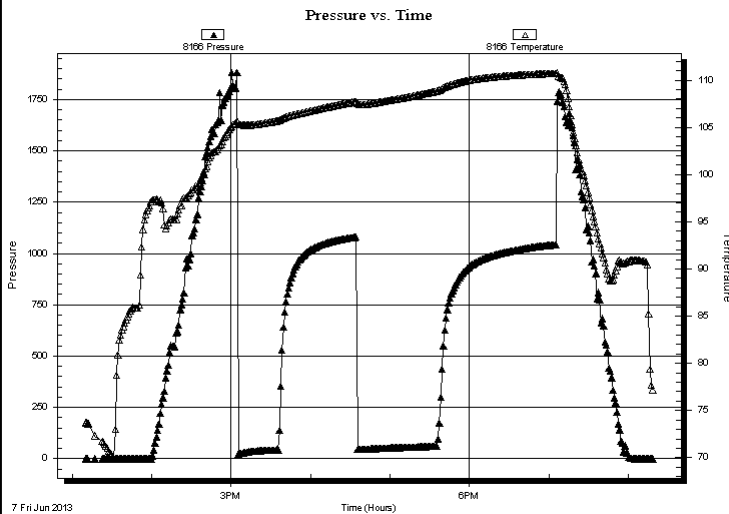
GENERAL INFORMATION:

Formation: **Toronto - KC "D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:06:00
 Time Test Ended: 20:19:30
Interval: 3659.00 ft (KB) To 3763.00 ft (KB) (TVD)
 Total Depth: 3763.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 2331.00 ft (KB)
 2326.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8166 Inside

Press @ RunDepth: psig @ 3660.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.07 End Date: 2013.06.07 Last Calib.: 2013.06.07
 Start Time: 13:10:05 End Time: 20:18:29 Time On Btm:
 Time Off Btm:

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



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
90.00	WCM 30%W 70%M	0.98

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

36-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202

Ruder Unit #2-36

Job Ticket: 53892

DST#: 1

ATTN: Rocky Milford

Test Start: 2013.06.07 @ 13:10:00

Tool Information

Drill Pipe:	Length: 3612.00 ft	Diameter: 3.80 inches	Volume: 50.67 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3659.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	104.00 ft				
Tool Length:	132.00 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			3632.00	
Shut In Tool	5.00			3637.00	
Hydraulic tool	5.00			3642.00	
Jars	5.00			3647.00	
Safety Joint	2.00			3649.00	
Packer	5.00			3654.00	28.00 Bottom Of Top Packer
Packer	5.00			3659.00	
Stubb	1.00			3660.00	
Recorder	0.00	8166	Inside	3660.00	
Recorder	0.00	8319	Outside	3660.00	
Perforations	4.00			3664.00	
Change Over Sub	1.00			3665.00	
Drill Pipe	94.00			3759.00	
Change Over Sub	1.00			3760.00	
Bullnose	3.00			3763.00	104.00 Bottom Packers & Anchor

Total Tool Length: 132.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

36-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202

Ruder Unit #2-36

Job Ticket: 53892

DST#: 1

ATTN: Rocky Milford

Test Start: 2013.06.07 @ 13:10:00

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:

42000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	WCM 30%W 70%M	0.980

Total Length: 90.00 ft Total Volume: 0.980 bbl

Num Fluid Samples: 0

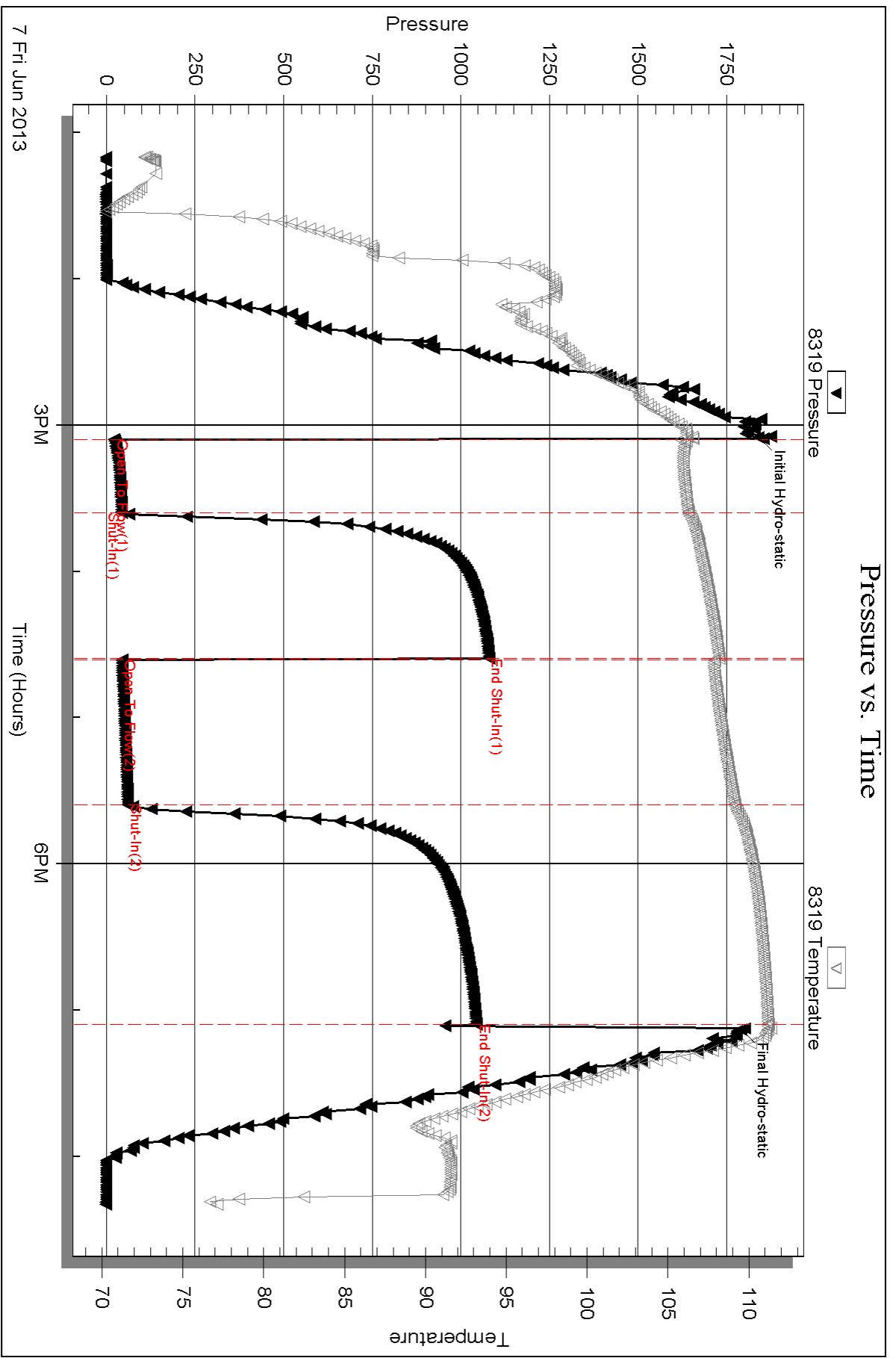
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



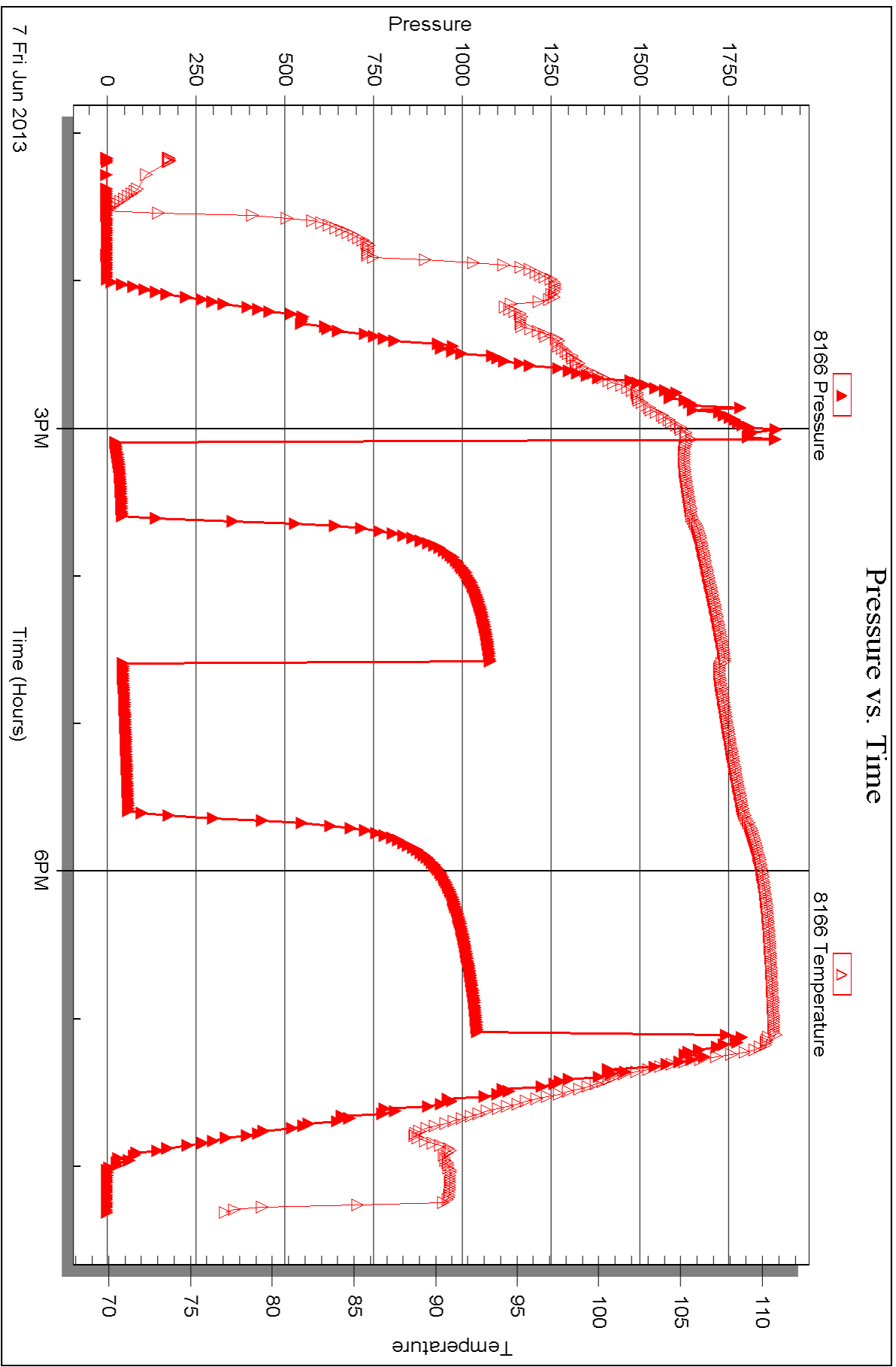
Serial #: 8166

Inside

Murfin Drilling Co. Inc.

Ruder Unit #2-36

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 53892

Printed: 2013.06.12 @ 10:31:48



DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Ruder Unit #2-36

36-10s-24w Graham,KS

Start Date: 2013.06.08 @ 02:55:00

End Date: 2013.06.08 @ 10:34:00

Job Ticket #: 53893 DST #: 2

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

Printed: 2013.06.12 @ 10:31:12

Murfin Drilling Co. Inc. 36-10s-24w Graham,KS Ruder Unit #2-36 DST # 2 KC "E-F" 2013.06.08



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Rocky Milford

36-10s-24w Graham,KS

Ruder Unit #2-36

Job Ticket: 53893

DST#: 2

Test Start: 2013.06.08 @ 02:55:00

GENERAL INFORMATION:

Formation: **KC "E-F"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 05:04:00
 Tester: Brett Dickinson
 Time Test Ended: 10:34:00
 Unit No: 59
 Interval: **3760.00 ft (KB) To 3787.00 ft (KB) (TVD)**
 Reference Elevations: 2331.00 ft (KB)
 Total Depth: 3787.00 ft (KB) (TVD)
 2326.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 5.00 ft

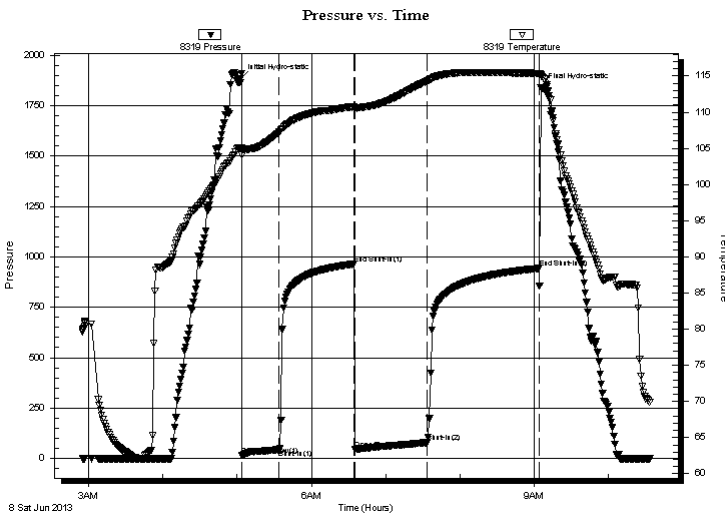
Serial #: 8319

Outside

Press @ Run Depth: 78.38 psig @ 3761.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.06.08 End Date: 2013.06.08 Last Calib.: 2013.06.08
 Start Time: 02:55:05 End Time: 10:33:59 Time On Btm: 2013.06.08 @ 05:03:00
 Time Off Btm: 2013.06.08 @ 09:06:00

TEST COMMENT: IF-4 1/2" blow
 IS- No blow
 FF-5" blow
 FS- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1885.99	105.05	Initial Hydro-static
1	15.07	104.11	Open To Flow (1)
31	44.66	107.27	Shut-In(1)
92	964.53	110.75	End Shut-In(1)
93	46.78	110.50	Open To Flow (2)
151	78.38	114.28	Shut-In(2)
241	943.28	115.37	End Shut-In(2)
243	1838.29	115.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	VSMCW 5%M 95%W	1.40
15.00	Oil spotted MCW 40%M 60%W	0.21

* 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.

36-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202

Ruder Unit #2-36

Job Ticket: 53893

DST#: 2

ATTN: Rocky Milford

Test Start: 2013.06.08 @ 02:55:00

Tool Information

Drill Pipe:	Length: 3738.00 ft	Diameter: 3.80 inches	Volume: 52.43 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3760.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	27.00 ft				
Tool Length:	48.00 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			3740.00	
Shut In Tool	5.00			3745.00	
Hydraulic tool	5.00			3750.00	
Packer	5.00			3755.00	21.00 Bottom Of Top Packer
Packer	5.00			3760.00	
Stubb	1.00			3761.00	
Recorder	0.00	8166	Inside	3761.00	
Recorder	0.00	8319	Outside	3761.00	
Perforations	23.00			3784.00	
Bullnose	3.00			3787.00	27.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.
250 N Water STE 300
Wichita KS 67202
ATTN: Rocky Milford

36-10s-24w Graham,KS
Ruder Unit #2-36
Job Ticket: 53893 **DST#: 2**
Test Start: 2013.06.08 @ 02:55:00

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: 66000 ppm	
Viscosity: 63.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3700.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

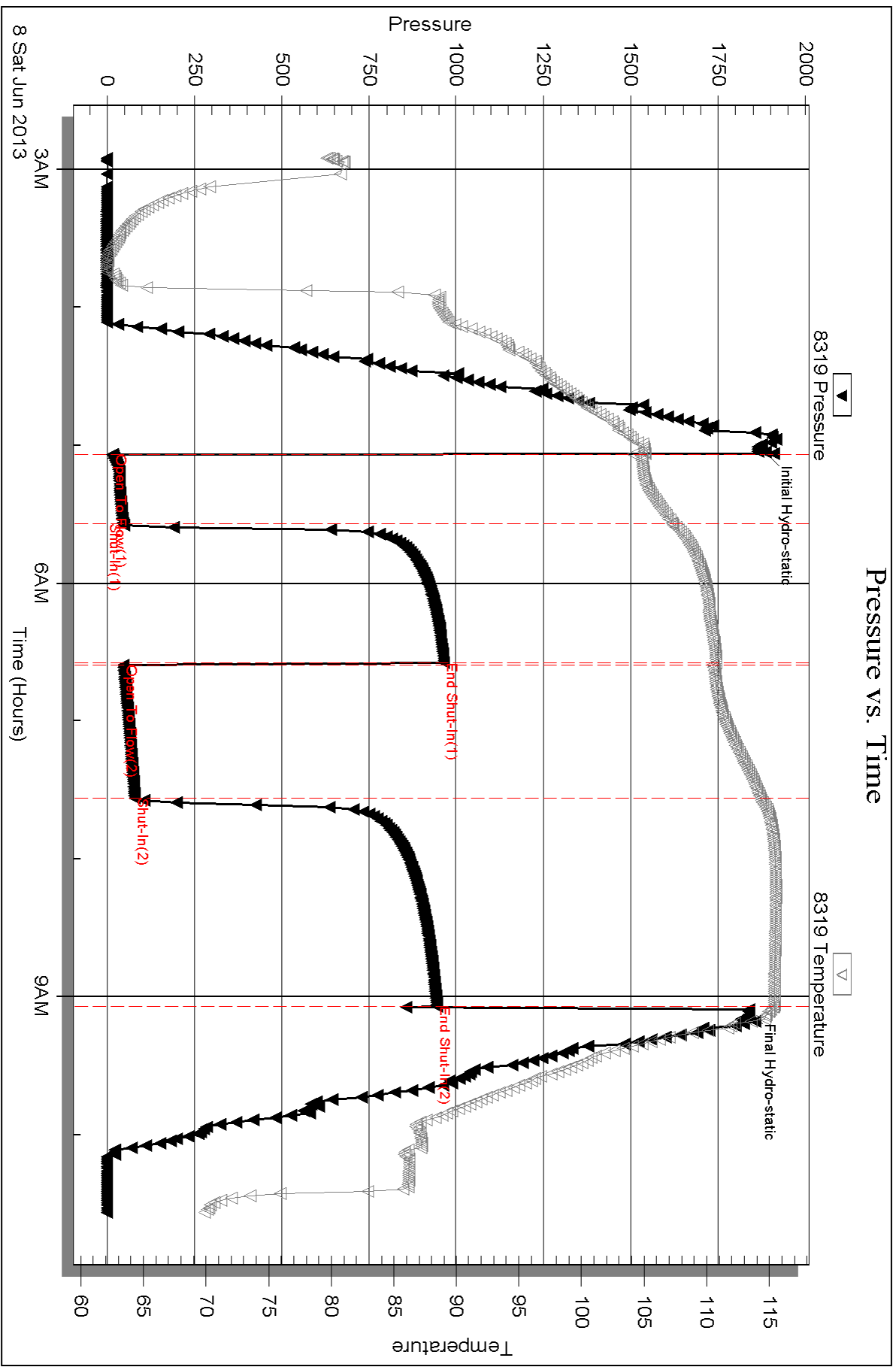
Length ft	Description	Volume bbl
120.00	VSMCW 5%M 95%W	1.401
15.00	Oil spotted MCW 40%M 60%W	0.210

Total Length: 135.00 ft Total Volume: 1.611 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



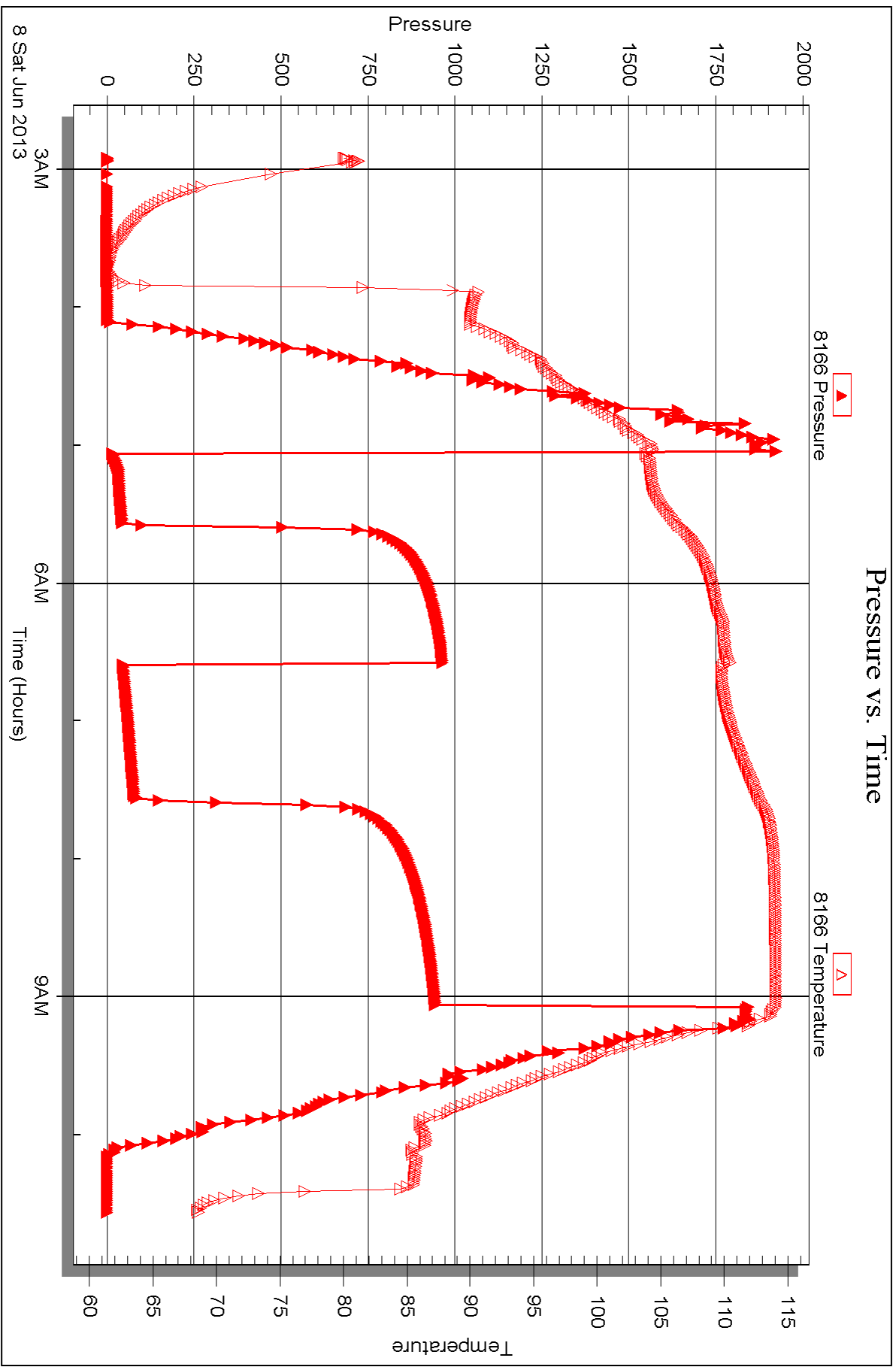
Serial #: 8166

Inside

Murfin Drilling Co. Inc.

Ruder Unit #2-36

DST Test Number: 2





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Ruder Unit #2-36

36-10s-24w Graham,KS

Start Date: 2013.06.08 @ 20:03:00

End Date: 2013.06.09 @ 02:26:00

Job Ticket #: 53894 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.06.12 @ 10:27:57

Murfin Drilling Co. Inc. 36-10s-24w Graham,KS Ruder Unit #2-36 DST # 3 KC "H-J" 2013.06.08



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

36-10s-24w Graham,KS

Ruder Unit #2-36

Job Ticket: 53894

DST#: 3

Test Start: 2013.06.08 @ 20:03:00

GENERAL INFORMATION:

Formation: **KC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:56:30

Time Test Ended: 02:26:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3815.00 ft (KB) To 3888.00 ft (KB) (TVD)

Reference Elevations: 2331.00 ft (KB)

Total Depth: 3888.00 ft (KB) (TVD)

2326.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8166

Inside

Press @ Run Depth: 26.95 psig @ 3816.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.08

End Date:

2013.06.09

Last Calib.:

2013.06.09

Start Time: 20:03:05

End Time:

02:25:59

Time On Btm:

2013.06.08 @ 21:55:00

Time Off Btm:

2013.06.09 @ 00:59:00

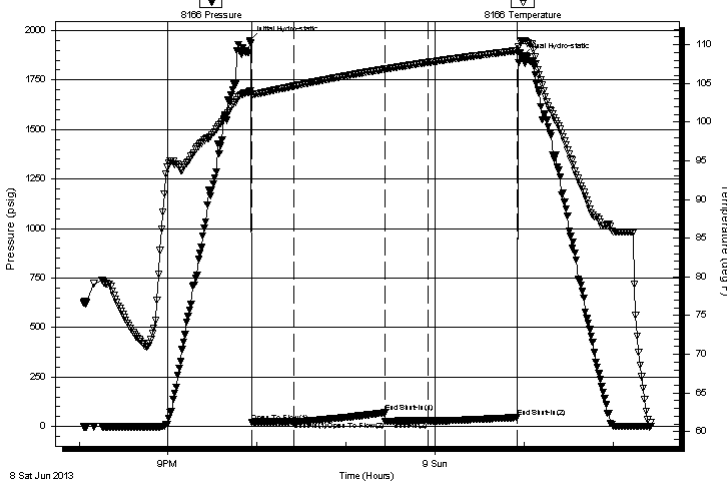
TEST COMMENT: IF-1/4" blow died back to 1/8"

ISI-No blow

FF-No blow

FSI-No blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1949.84	103.93	Initial Hydro-static
2	22.84	103.67	Open To Flow (1)
30	24.88	104.66	Shut-In(1)
91	70.33	106.85	End Shut-In(1)
92	26.14	106.85	Open To Flow (2)
121	26.95	107.71	Shut-In(2)
181	45.93	109.22	End Shut-In(2)
184	1865.72	110.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	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.

36-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202

Ruder Unit #2-36

Job Ticket: 53894

DST#: 3

ATTN: Rocky Milford

Test Start: 2013.06.08 @ 20:03:00

Tool Information

Drill Pipe:	Length: 3770.00 ft	Diameter: 3.80 inches	Volume: 52.88 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3815.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	73.00 ft				
Tool Length:	101.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3788.00	
Shut In Tool	5.00			3793.00	
Hydraulic tool	5.00			3798.00	
Jars	5.00			3803.00	
Safety Joint	2.00			3805.00	
Packer	5.00			3810.00	28.00 Bottom Of Top Packer
Packer	5.00			3815.00	
Stubb	1.00			3816.00	
Recorder	0.00	8166	Inside	3816.00	
Recorder	0.00	8319	Outside	3816.00	
Perforations	4.00			3820.00	
Change Over Sub	1.00			3821.00	
Drill Pipe	63.00			3884.00	
Change Over Sub	1.00			3885.00	
Bullnose	3.00			3888.00	73.00 Bottom Packers & Anchor

Total Tool Length: 101.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

36-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202

Ruder Unit #2-36

Job Ticket: 53894

DST#: 3

ATTN: Rocky Milford

Test Start: 2013.06.08 @ 20:03:00

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8166

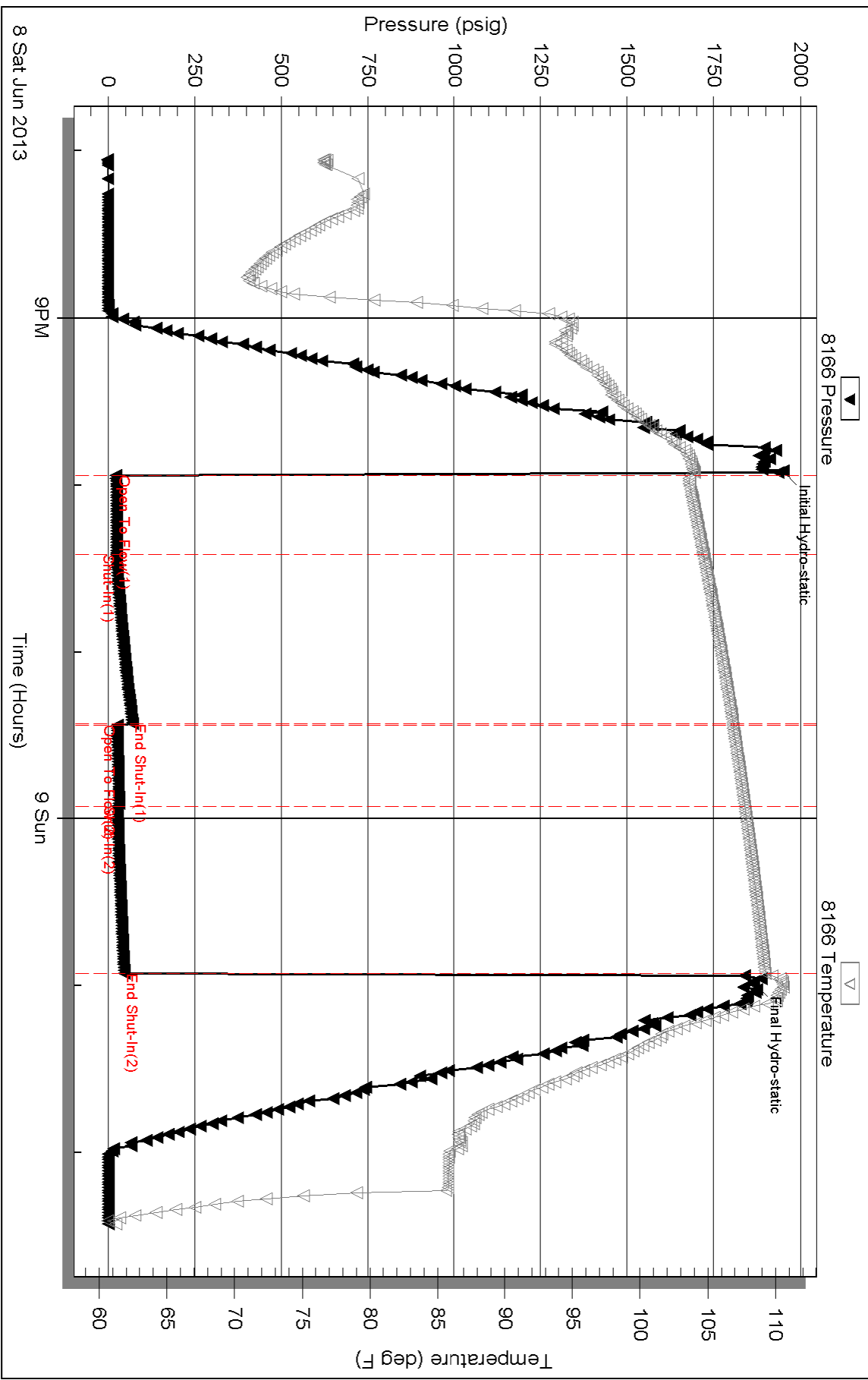
Inside

Murfin Drilling Co. Inc.

Ruder Unit #2-36

DST Test Number: 3

Pressure vs. Time

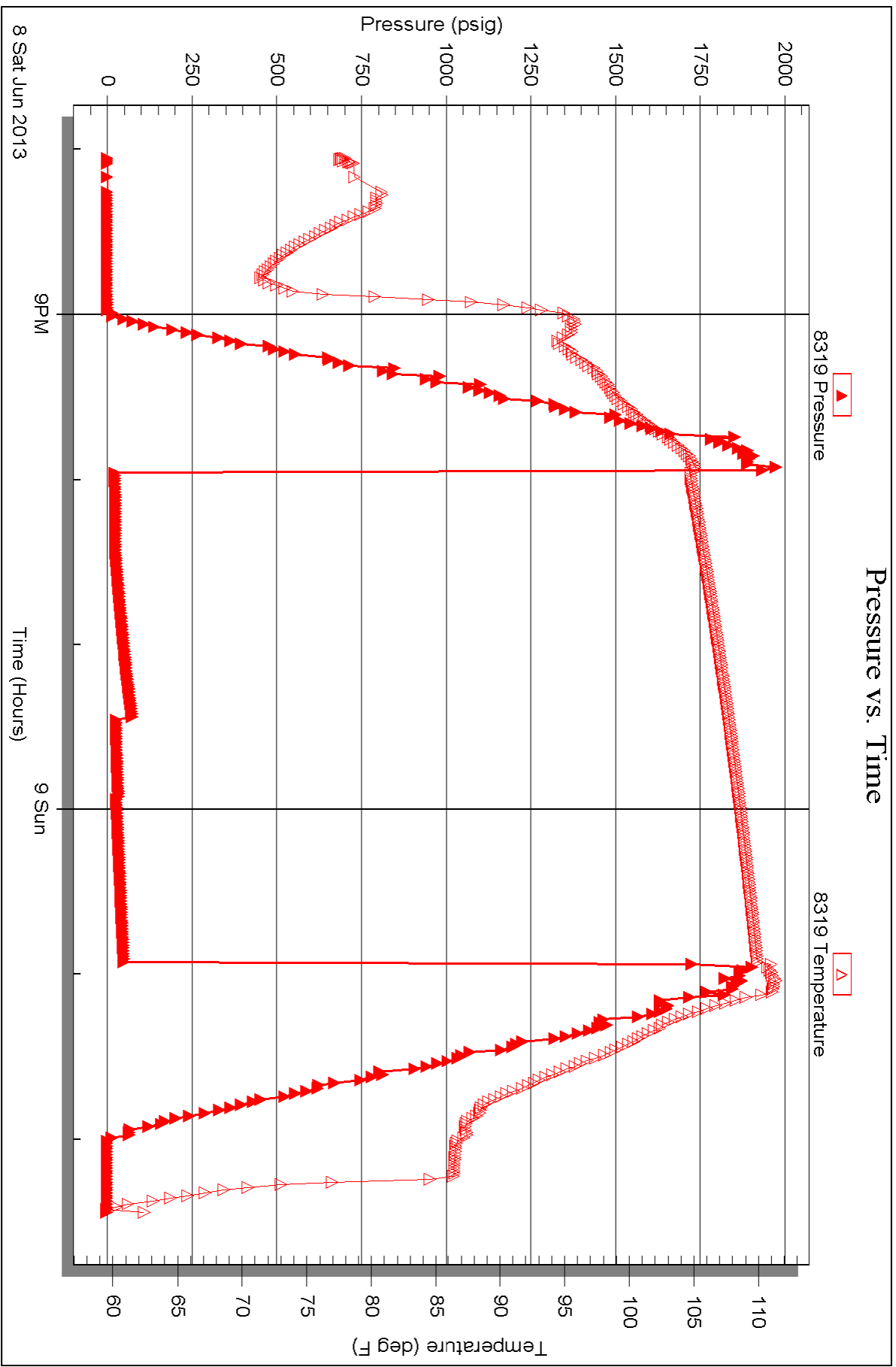


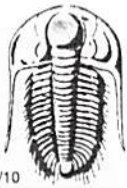
Serial #: 8319

Outside Murfin Drilling Co. Inc.

Ruder Unit #2-36

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53892

Well Name & No. Rader Unit #2-36 Test No. 1 Date 6/7/13
 Company Murfin Drilling Co. Inc. Elevation 2331 KB 2326 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #16
 Location: Sec. 36 Twp. 10s Rge. 24w Co. Graham State KS

Interval Tested 3659 - 3763 Zone Tested Toronto - KC¹¹
 Anchor Length 104 Drill Pipe Run 3612 Mud Wt. 8.7
 Top Packer Depth 3654 Drill Collars Run 30 Vis 63
 Bottom Packer Depth 3659 Wt. Pipe Run — WL 7.2
 Total Depth 3763 Chlorides 3,700 ppm System LCM
 Blow Description IF - 2 1/4 in blow
ISI - No blow
FF - 2 in blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>wcm</u>			<u>30</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 90 BHT 111 Gravity _____ API RW .18 @ 20 ° F Chlorides 42,000 ppm

(A) Initial Hydrostatic <u>1,840</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>11:50</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>13:10</u>
(C) First Final Flow <u>43</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>15:03</u>
(D) Initial Shut-In <u>1,081</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>19:03</u>
(E) Second Initial Flow <u>44</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>20:15</u>
(F) Second Final Flow <u>61</u>	<input checked="" type="checkbox"/> Mileage <u>94 ft</u> 145.70	Comments _____
(G) Final Shut-In <u>1,045</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1,291</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>60</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1620.70</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1620.70</u>	

Approved By _____ Our Representative Bruce D... [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. 53893

Well Name & No. Ruder Unit #2-36 Test No. 2 Date 6/8/13
 Company Murfin Drilling Co. Inc. Elevation 2331 KB 2326 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #16
 Location: Sec. 36 Twp. 10s Rge. 24w Co. Graham State KS

Interval Tested 3260 - 3787 Zone Tested KC "E, F"
 Anchor Length 27 Drill Pipe Run _____ Mud Wt. 8.7
 Top Packer Depth 3755 Drill Collars Run 31 Vis 63
 Bottom Packer Depth 3260 Wt. Pipe Run - WL 7.2
 Total Depth 3787 Chlorides 3,700 ppm System LCM _____

Blow Description IF - 4 1/2 in blow
ISI - No blow
EF - 5 in blow
FSI - No blow

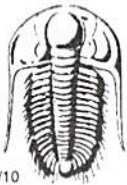
Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>oil spotted mcn</u>			<u>60</u>	<u>40</u>
<u>120</u>	<u>vsmcn</u>			<u>95</u>	<u>5</u>
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 135 BHT _____ Gravity _____ API RW .12 @ 70 °F Chlorides 66,000 ppm

(A) Initial Hydrostatic <u>1,986</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2:35</u>
(B) First Initial Flow <u>15</u>	<input type="checkbox"/> Jars _____	T-Started <u>2:55</u>
(C) First Final Flow <u>45</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>5:02</u>
(D) Initial Shut-In <u>965</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>9:02</u>
(E) Second Initial Flow <u>47</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>10:02</u>
(F) Second Final Flow <u>78</u>	<input checked="" type="checkbox"/> Mileage <u>94rt</u> 145.70	Comments _____
(G) Final Shut-In <u>943</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1,838</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>1295.70</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1295.70</u>	

Approved By _____ Our Representative Beth Dickman

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53894

Well Name & No. Ruder Unit #2-36 Test No. 3 Date 6/8/13
 Company Murfin Drilling Co Inc Elevation 2331 KB 2326 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #16
 Location: Sec. 36 Twp. 10s Rge. 24 Co. Graham State KS

Interval Tested 3815-3888 Zone Tested KC" 14-0"
 Anchor Length 73 Drill Pipe Run 3770 Mud Wt. 9.4
 Top Packer Depth 3810 Drill Collars Run 31 Vis 56
 Bottom Packer Depth 3815 Wt. Pipe Run — WL 8.4
 Total Depth 3888 Chlorides 4,000 ppm System LCM —

Blow Description IF - 1/4 in blow died back to 1/8 in blow
ISI - No blow
FF - No blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Mud</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 <u>2</u>	BHT <u>109</u>	Gravity	API RW	@	° F Chlorides

(A) Initial Hydrostatic 4,950 Test 1150 T-On Location 19:45
 (B) First Initial Flow 23 Jars 250 T-Started 20:03
 (C) First Final Flow 25 Safety Joint 75 T-Open 21:55
 (D) Initial Shut-In 70 Circ Sub T-Pulled 00:55
 (E) Second Initial Flow 26 Hourly Standby T-Out 2:25
 (F) Second Final Flow 27 Mileage 94RT 291.40 Comments loaded tools 6/9 12:00
 (G) Final Shut-In 46 Sampler Ruined Shale Packer
 (H) Final Hydrostatic 4,866 Straddle Ruined Packer

Initial Open 30 Extra Packer Extra Copies
 Initial Shut-In 60 Extra Recorder Sub Total 0
 Final Flow 30 Day Standby Total 1766.40
 Final Shut-In 60 Accessibility MP/DST Disc't
 Sub Total 1766.40

Approved By _____ Our Representative Bob Dickinson

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