



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Frisbie 'B' #1-6

6-2s/-5w Rawlins KS

Start Date: 2015.07.04 @ 06:28:00

End Date: 2015.07.04 @ 14:53:45

Job Ticket #: 62193 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.09 @ 08:50:53



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62193

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.07.04 @ 06:28:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:48:30

Time Test Ended: 14:53:45

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: 4040.00 ft (KB) To 4102.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4102.00 ft (KB) (TVD)

3260.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8791

Inside

Press@RunDepth: 131.40 psig @ 4041.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.04

End Date:

2015.07.04

Last Calib.:

2015.07.04

Start Time: 06:28:05

End Time:

14:53:44

Time On Btm:

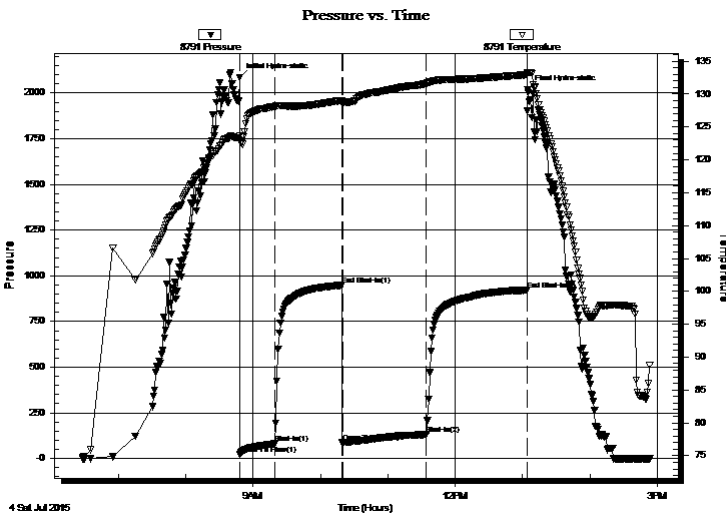
2015.07.04 @ 08:48:15

Time Off Btm:

2015.07.04 @ 13:04:45

TEST COMMENT: 30 - IF: Blow built to 6"
60 - IS: No blow back
75 - FF: No blow, flushed tool at 17 min., Blow built to 3"
90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2084.28	123.65	Initial Hydro-static
1	21.89	122.94	Open To Flow (1)
31	81.45	128.11	Shut-In(1)
91	948.51	129.02	End Shut-In(1)
92	87.90	128.80	Open To Flow (2)
166	131.40	131.61	Shut-In(2)
256	923.05	132.94	End Shut-In(2)
257	2017.47	133.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
121.00	SOC/MW 48%w, 47%m, 3%o, 2%g	0.60
121.00	SO/WCM 73%m, 25%w, 2%o	0.60
10.00	OM 55%m, 45%o	0.14
10.00	SMCO 92%o, 8%m	0.14

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: Robert Hendrix

6-2s/-5w Rawlins KS
Frisbie 'B' #1-6
Job Ticket: 62193 **DST#: 1**
Test Start: 2015.07.04 @ 06:28:00

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:48:30
Time Test Ended: 14:53:45

Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 83

Interval: 4040.00 ft (KB) To 4102.00 ft (KB) (TVD)
Total Depth: 4102.00 ft (KB) (TVD)
Hole Diameter: 7.88 inchesHole Condition: Fair

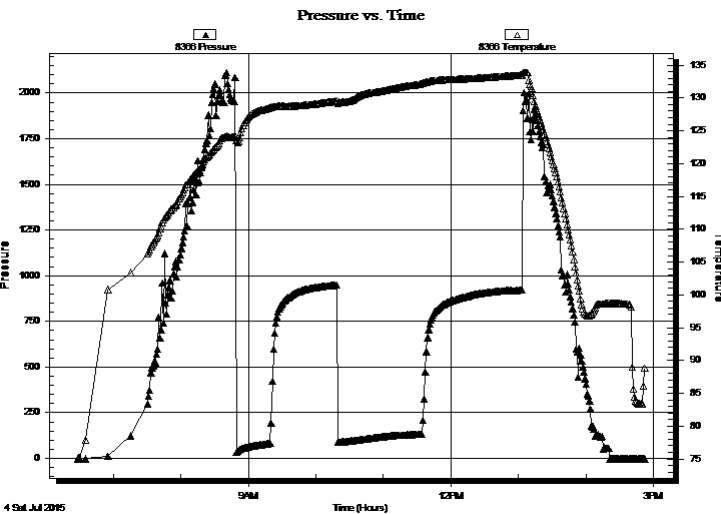
Reference Elevations: 3271.00 ft (KB)
3260.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8366 Outside

Press@RunDepth: psig @ 4041.00 ft (KB)
Start Date: 2015.07.04 End Date: 2015.07.04
Start Time: 06:28:05 End Time: 14:52:59

Capacity: 8000.00 psig
Last Calib.: 2015.07.04
Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 6"
60 - IS! No blow back
75 - FF: No blow , flushed tool at 17 min., Blow built to 3"
90 - FS! No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
121.00	SOC/MW 48%w , 47%m, 3%o, 2%g	0.60
121.00	SO/WCM 73%m, 25%w , 2%o	0.60
10.00	OM 55%m, 45%o	0.14
10.00	SMCO 92%o, 8%m	0.14

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62193

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.07.04 @ 06:28:00

Tool Information

Drill Pipe:	Length: 3803.00 ft	Diameter: 3.80 inches	Volume: 53.35 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 54.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4040.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	90.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: picked it up to flushed tool @ 17 min. (didn't feel tool reopen - and doesn't show on chart) but surface blow started

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4017.00	
Hydraulic tool	5.00			4022.00	
Jars	5.00			4027.00	
Safety Joint	3.00			4030.00	
Packer	5.00			4035.00	28.00 Bottom Of Top Packer
Packer	5.00			4040.00	
Stubb	1.00			4041.00	
Recorder	0.00	8791	Inside	4041.00	
Recorder	0.00	8366	Outside	4041.00	
Perforations	24.00			4065.00	
Blank Spacing	34.00			4099.00	
Bullnose	3.00			4102.00	62.00 Bottom Packers & Anchor

Total Tool Length: 90.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62193

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.07.04 @ 06:28:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

23.4 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

12000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
121.00	SOC/MW 48%w , 47%m, 3%o, 2%g	0.595
121.00	SO/WCM 73%m, 25%w , 2%o	0.595
10.00	OM 55%m, 45%o	0.140
10.00	SMCO 92%o, 8%m	0.140

Total Length: 262.00 ft

Total Volume: 1.470 bbl

Num Fluid Samples: 0

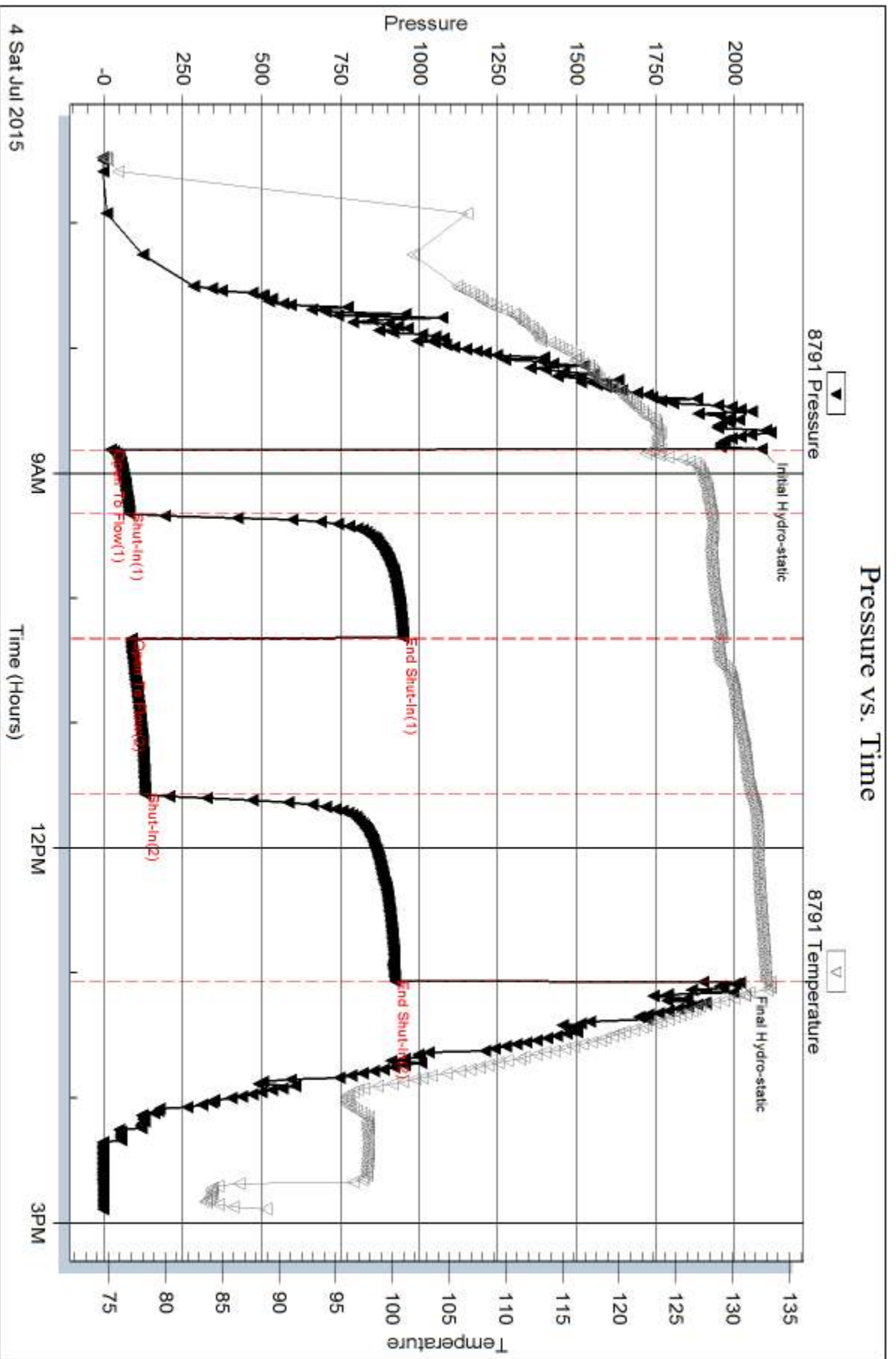
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 27.2 api @ 98 deg F Corrected Gravity = 23.4 api
RW = .393 ohms @ 95.7 deg F Chlorides = 12,000 ppm

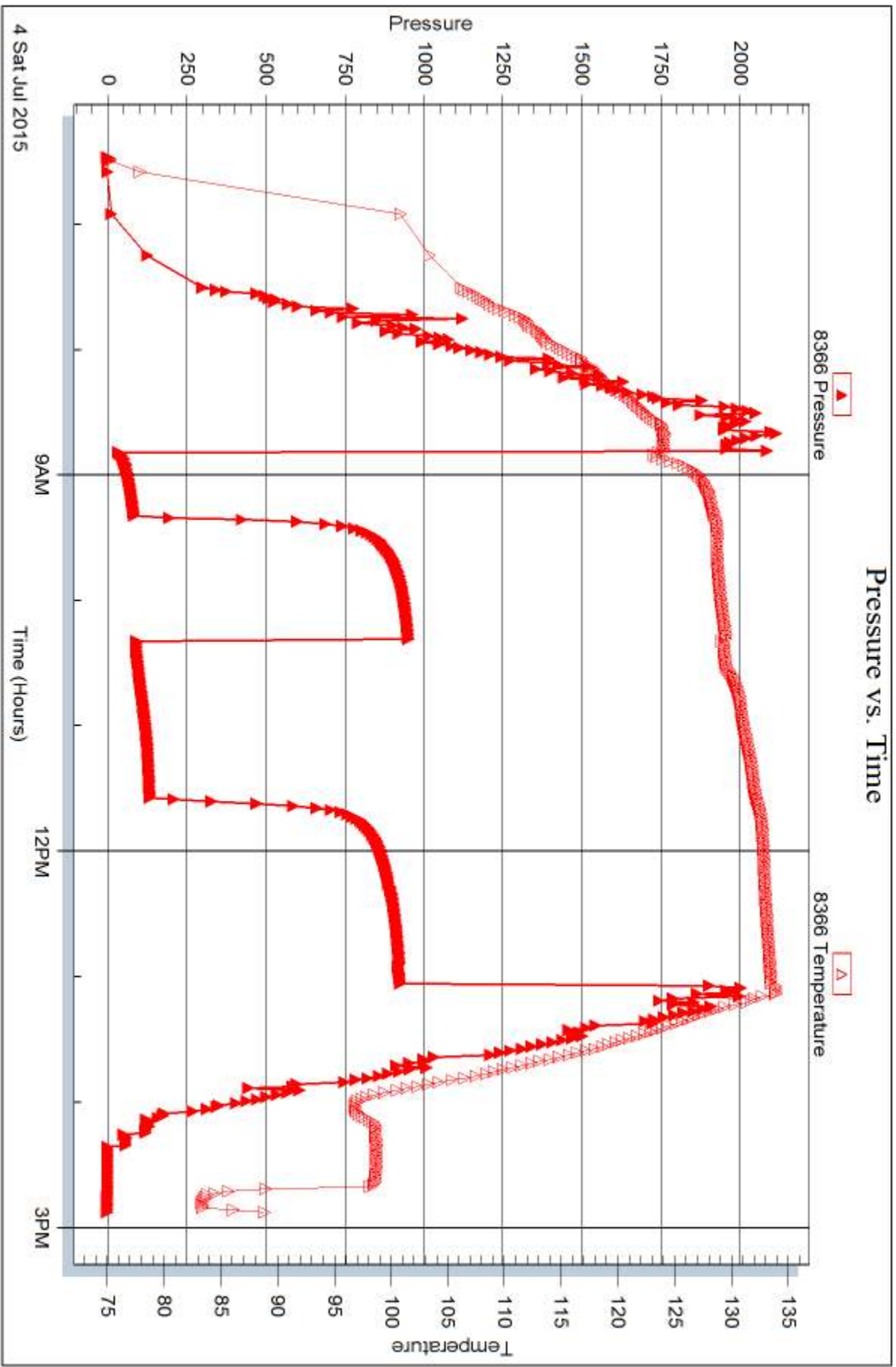


Serial #: 8366

Outside Murfin Drilling Co., Inc.

Frisbie B' #1-6

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 62193

Printed: 2015.07.09 @ 08:50:54



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Frisbie 'B' #1-6

6-2s/-5w Rawlins KS

Start Date: 2015.07.05 @ 03:37:00

End Date: 2015.07.05 @ 10:35:00

Job Ticket #: 62194 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.09 @ 08:50:31



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62194

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 03:37:00

GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:30:30

Time Test Ended: 10:35:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4129.00 ft (KB) To 4220.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4220.00 ft (KB) (TVD)

3260.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8791

Inside

Press@RunDepth: 506.31 psig @ 4130.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.05

End Date:

2015.07.05

Last Calib.:

2015.07.05

Start Time:

03:37:05

End Time:

10:34:59

Time On Btm:

2015.07.05 @ 05:30:00

Time Off Btm:

2015.07.05 @ 08:33:30

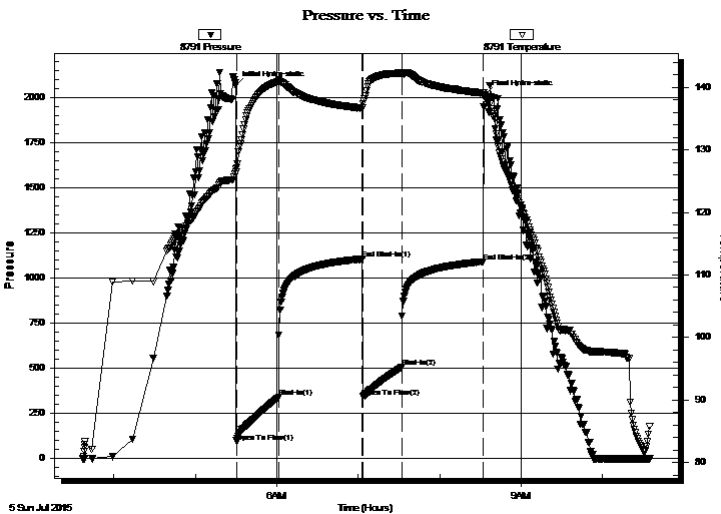
TEST COMMENT: 30 - IF: Blow built to BOB (11") at 4 3/4 min.

60 - IS!: No blow back

30 - FF: Blow built to BOB at 6 1/4 min.

60 - FS!: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2063.17	126.92	Initial Hydro-static
1	91.85	127.09	Open To Flow (1)
32	338.38	140.99	Shut-In(1)
93	1104.83	136.64	End Shut-In(1)
94	342.03	137.36	Open To Flow (2)
123	506.31	142.25	Shut-In(2)
182	1089.41	139.04	End Shut-In(2)
184	2014.01	138.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
869.00	SMCW w/trace oil 94%w , 6%m	9.99
205.00	MW w /oil spots 54%w , 45%m, 1%o	2.88
1.00	Free oil	0.01

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62194 **DST#: 2**

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 03:37:00

GENERAL INFORMATION:

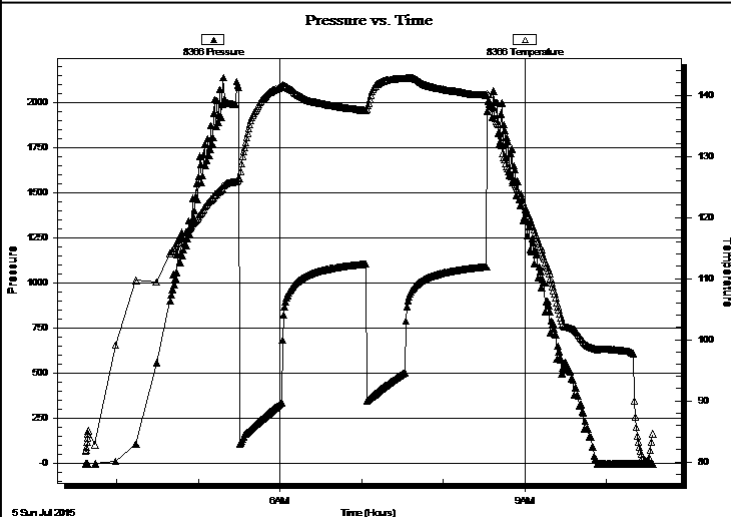
Formation:	LKC "A"		Test Type:	Conventional Bottom Hole (Reset)
Deviated:	No Whipstock:	ft (KB)	Tester:	James Winder
Time Tool Opened:	05:30:30		Unit No:	83
Time Test Ended:	10:35:00		Reference Elevations:	3271.00 ft (KB)
Interval:	4129.00 ft (KB) To 4220.00 ft (KB) (TVD)			3260.00 ft (CF)
Total Depth:	4220.00 ft (KB) (TVD)		KB to GR/CF:	11.00 ft
Hole Diameter:	7.88 inches	Hole Condition: Fair		

Serial #: 8366

Outside

Press@RunDepth:	psig @	4130.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2015.07.05	End Date:	2015.07.05	Last Calib.:	2015.07.05
Start Time:	03:37:05	End Time:	10:34:29	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 4 3/4 min.
60 - IS!: No blow back
30 - FF: Blow built to BOB at 6 1/4 min.
60 - FS!: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
869.00	SMCW w/trace oil 94%w , 6%m	9.99
205.00	MW w/oil spots 54%w , 45%m, 1%o	2.88
1.00	Free 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.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62194

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 03:37:00

Tool Information

Drill Pipe:	Length: 3865.00 ft	Diameter: 3.80 inches	Volume: 54.22 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 55.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4129.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	91.00 ft			
Tool Length:	119.00 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			4106.00	
Hydraulic tool	5.00			4111.00	
Jars	5.00			4116.00	
Safety Joint	3.00			4119.00	
Packer	5.00			4124.00	28.00 Bottom Of Top Packer
Packer	5.00			4129.00	
Stubb	1.00			4130.00	
Recorder	0.00	8791	Inside	4130.00	
Recorder	0.00	8366	Outside	4130.00	
Perforations	21.00			4151.00	
Blank Spacing	66.00			4217.00	
Bullnose	3.00			4220.00	91.00 Bottom Packers & Anchor

Total Tool Length: 119.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62194

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 03:37:00

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
869.00	SMCW w /trace oil 94%w , 6%m	9.985
205.00	MW w /oil spots 54%w , 45%m, 1%o	2.876
1.00	Free oil	0.014

Total Length: 1075.00 ft Total Volume: 12.875 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

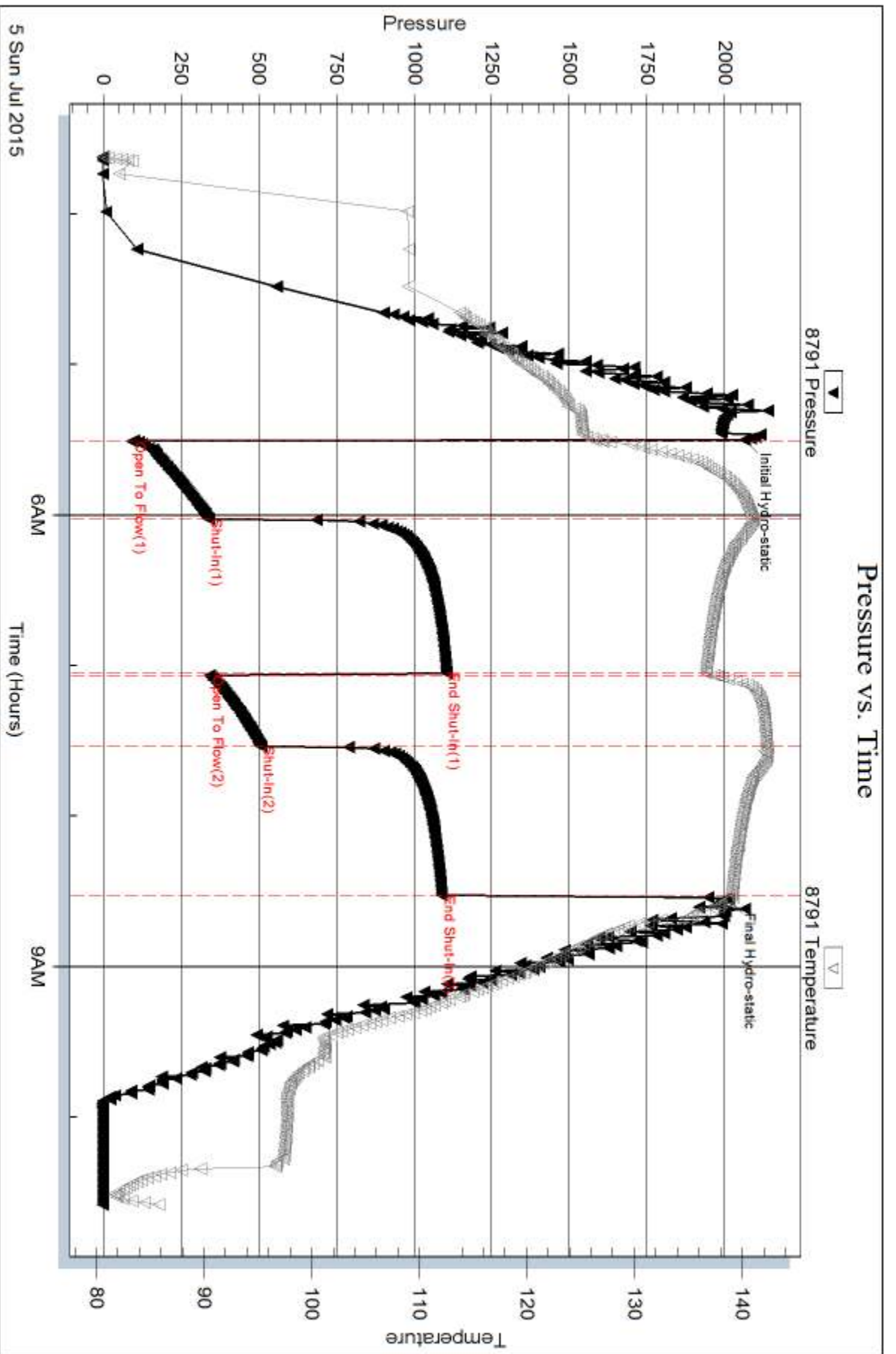
Serial #:

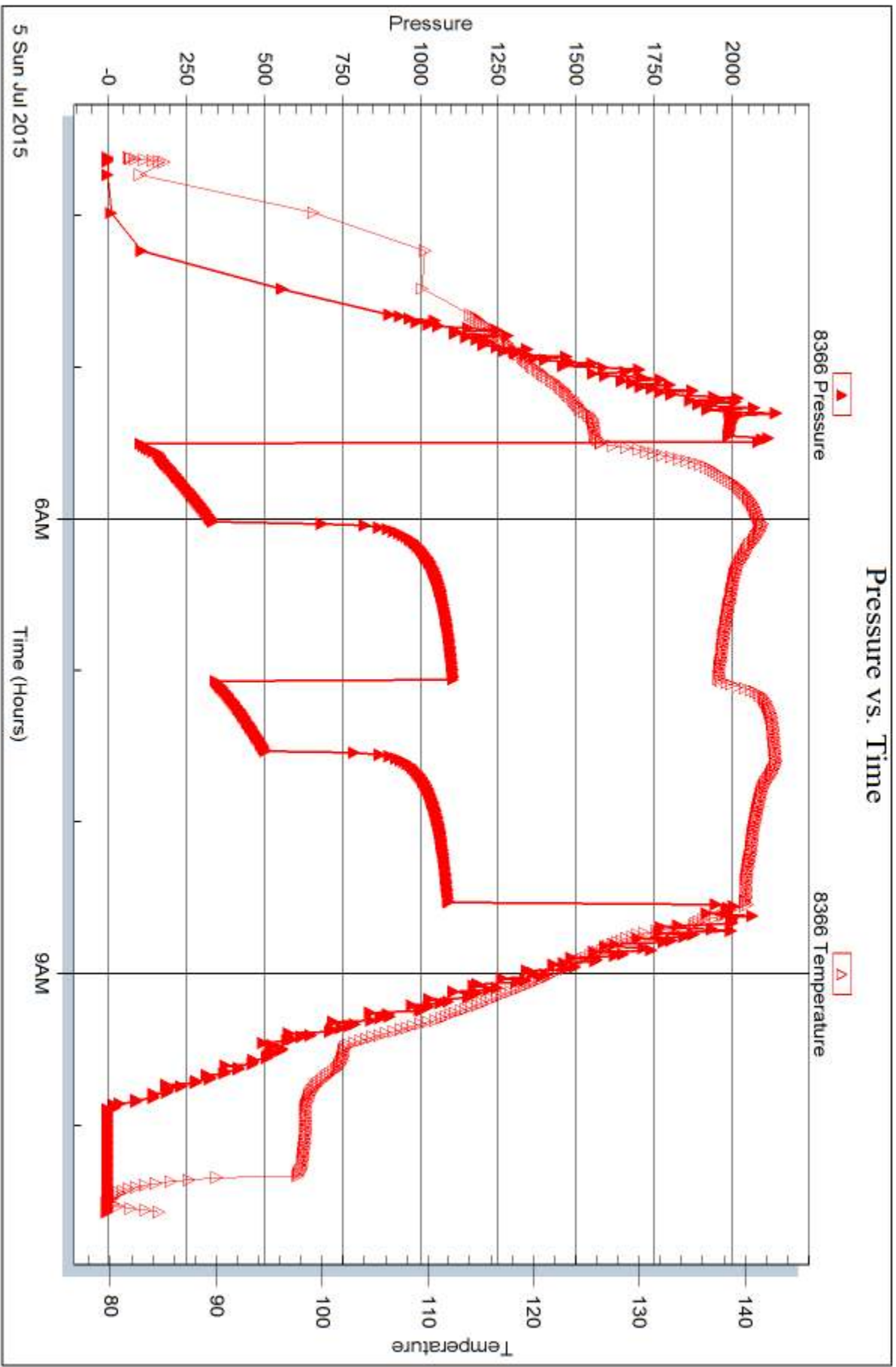
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .228 ohms @ 84.5 deg F

Chlorides = 25,000 ppm







DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Frisbie 'B' #1-6

6-2s/-5w Rawlins KS

Start Date: 2015.07.05 @ 18:55:00

End Date: 2015.07.06 @ 02:44:00

Job Ticket #: 62195 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.09 @ 08:50:09



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62195

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 18:55:00

GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:58:30

Time Test Ended: 02:44:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4214.00 ft (KB) To 4270.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4270.00 ft (KB) (TVD)

3260.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8791

Inside

Press@RunDepth: 494.90 psig @ 4215.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.05

End Date:

2015.07.06

Last Calib.:

2015.07.06

Start Time: 18:55:05

End Time:

02:43:59

Time On Btm:

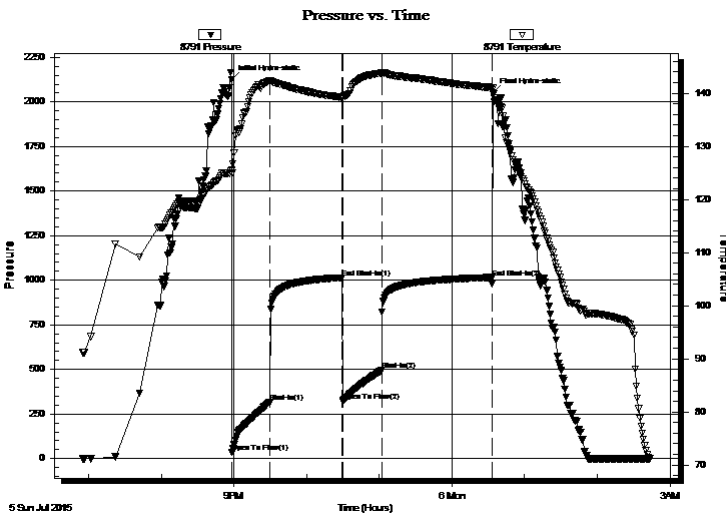
2015.07.05 @ 20:58:15

Time Off Btm:

2015.07.06 @ 00:34:00

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 6 min.
60 - IS: Blow back built to 1/4"
30 - FF: Blow built to BOB at 7 1/2 min.
90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2126.26	125.52	Initial Hydro-static
1	35.23	124.90	Open To Flow (1)
31	313.42	142.25	Shut-In(1)
91	1014.51	139.18	End Shut-In(1)
92	321.17	139.12	Open To Flow (2)
124	494.90	143.79	Shut-In(2)
215	1015.78	141.09	End Shut-In(2)
216	2051.17	140.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
355.00	SMCW w/trace oil 94%w, 6%m	2.78
250.00	SOMCW 91%w, 7%m, 2%o	3.51
440.00	SOCWM 53%m, 40%w, 4%g, 3%o	6.17
15.00	SMCGO 84%o, 10%g, 6%m	0.21

* Recovery from multiple tests

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: Robert Hendrix

6-2s/-5w Rawlins KS

Frisbie 'B' #1-6

Job Ticket: 62195

DST#: 3

Test Start: 2015.07.05 @ 18:55:00

GENERAL INFORMATION:

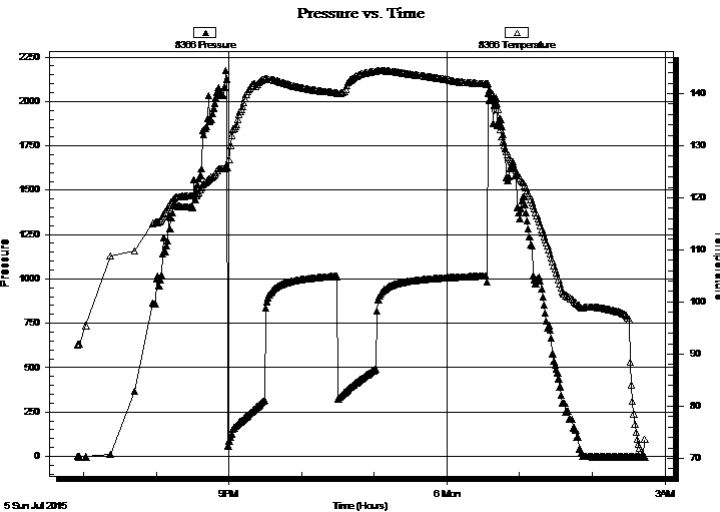
Formation: **LKC "D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:58:30
 Time Test Ended: 02:44:00
Interval: 4214.00 ft (KB) To 4270.00 ft (KB) (TVD)
 Total Depth: 4270.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3271.00 ft (KB)
 3260.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8366

Outside

Press@RunDepth: psig @ 4215.00 ft (KB)
 Start Date: 2015.07.05 End Date: 2015.07.06
 Start Time: 18:55:05 End Time: 02:43:14
 Capacity: 8000.00 psig
 Last Calib.: 2015.07.06
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 6 min.
 60 - ISI: Blow back built to 1/4"
 30 - FF: Blow built to BOB at 7 1/2 min.
 90 - FSI: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
355.00	SMCW w/trace oil 94%w, 6%m	2.78
250.00	SOMCW 91%w, 7%m, 2%o	3.51
440.00	SOCWM 53%m, 40%w, 4%g, 3%o	6.17
15.00	SMCGO 84%o, 10%g, 6%m	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.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62195

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 18:55:00

Tool Information

Drill Pipe:	Length: 3962.00 ft	Diameter: 3.80 inches	Volume: 55.58 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 56.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4214.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	84.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			4191.00	
Hydraulic tool	5.00			4196.00	
Jars	5.00			4201.00	
Safety Joint	3.00			4204.00	
Packer	5.00			4209.00	28.00 Bottom Of Top Packer
Packer	5.00			4214.00	
Stubb	1.00			4215.00	
Recorder	0.00	8791	Inside	4215.00	
Recorder	0.00	8366	Outside	4215.00	
Perforations	18.00			4233.00	
Blank Spacing	34.00			4267.00	
Bullnose	3.00			4270.00	56.00 Bottom Packers & Anchor

Total Tool Length: 84.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62195

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 18:55:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 6.76 in³
Resistivity: ohm.m
Salinity: 1500.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 29000 ppm

Recovery Information

Recovery Table

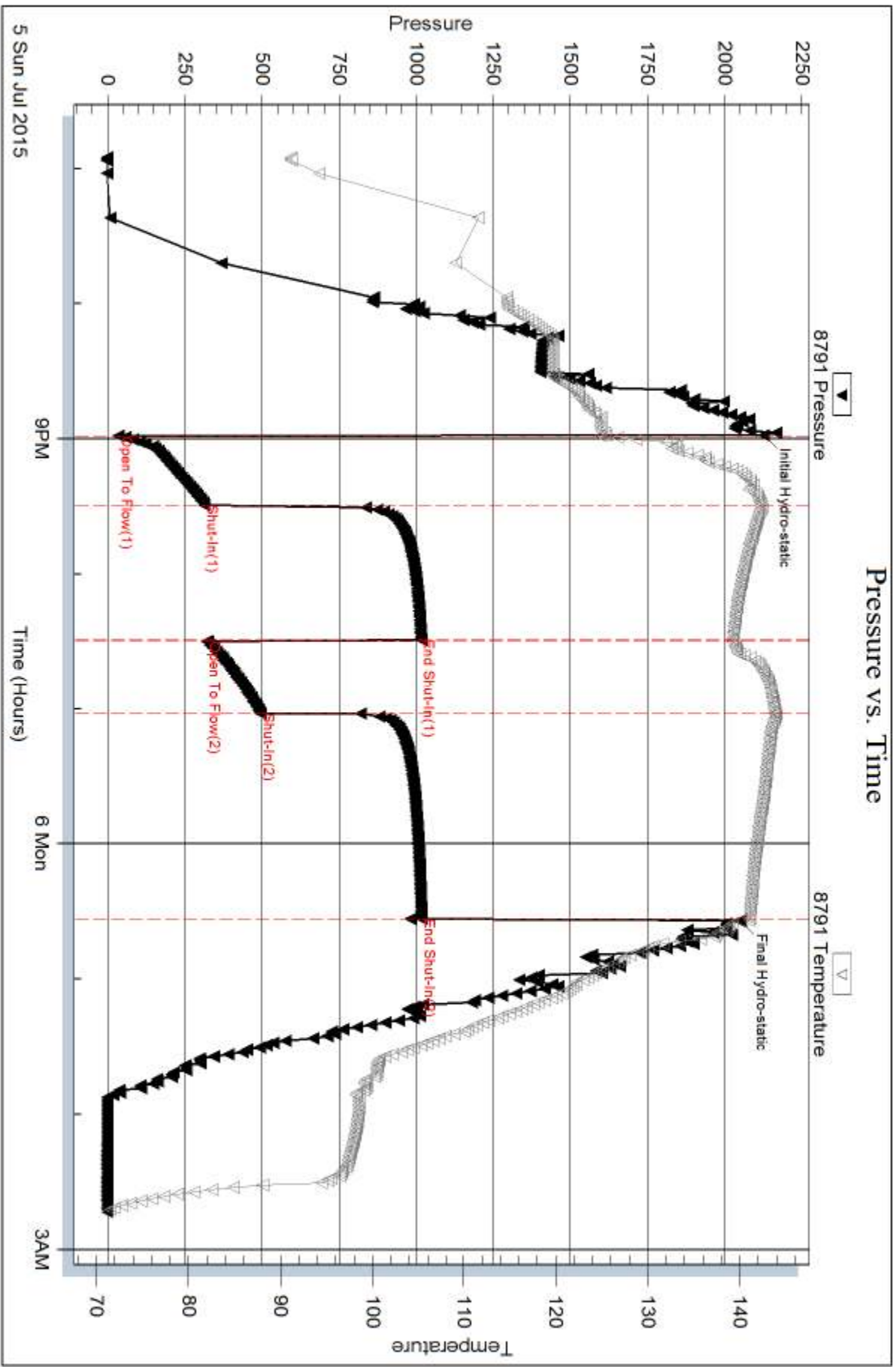
Length ft	Description	Volume bbl
355.00	SMCW w /trace oil 94%w , 6%m	2.775
250.00	SOMCW 91%w , 7%m, 2%o	3.507
440.00	SOCWM 53%m, 40%w , 4%g, 3%o	6.172
15.00	SMCGO 84%o, 10%g, 6%m	0.210

Total Length: 1060.00 ft Total Volume: 12.664 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity too low to check
RW = .271 ohms @ 69.3 deg F Chlorides = 29,000 ppm

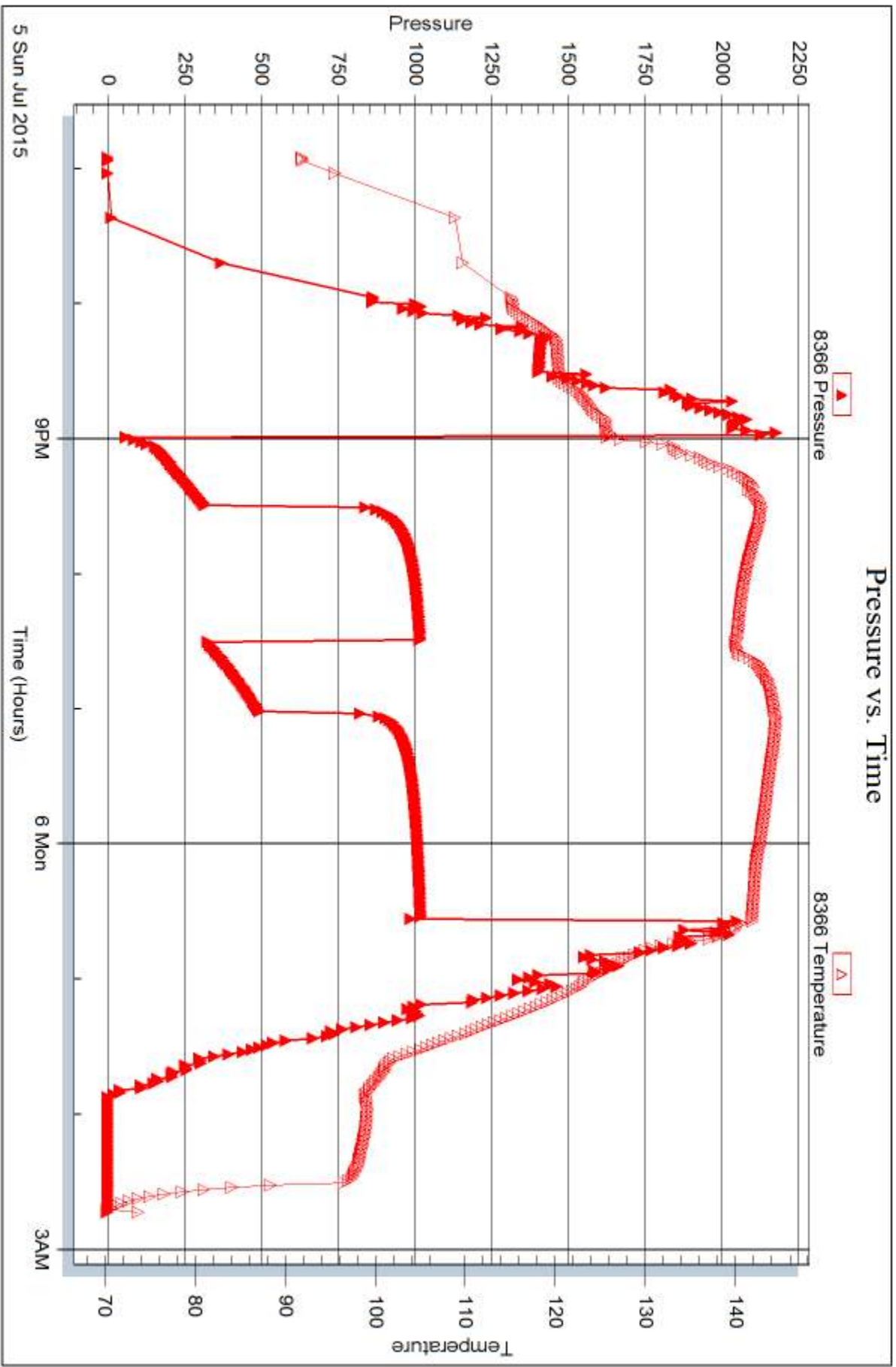


Serial #: 8366

Outside Murfin Drilling Co., Inc.

Frisbie B' #1-6

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 62195

Printed: 2015.07.09 @ 08:50:10



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Frisbie 'B' #1-6

6-2s/-5w Rawlins KS

Start Date: 2015.07.06 @ 19:27:00

End Date: 2015.07.07 @ 02:48:30

Job Ticket #: 62196 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.09 @ 08:48:14



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62196

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.07.06 @ 19:27:00

GENERAL INFORMATION:

Formation: **LKC "J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:00:30
 Time Test Ended: 02:48:30
 Interval: **4359.00 ft (KB) To 4406.00 ft (KB) (TVD)**
 Total Depth: 4406.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3271.00 ft (KB)
 3260.00 ft (CF)
 KB to GR/CF: 11.00 ft

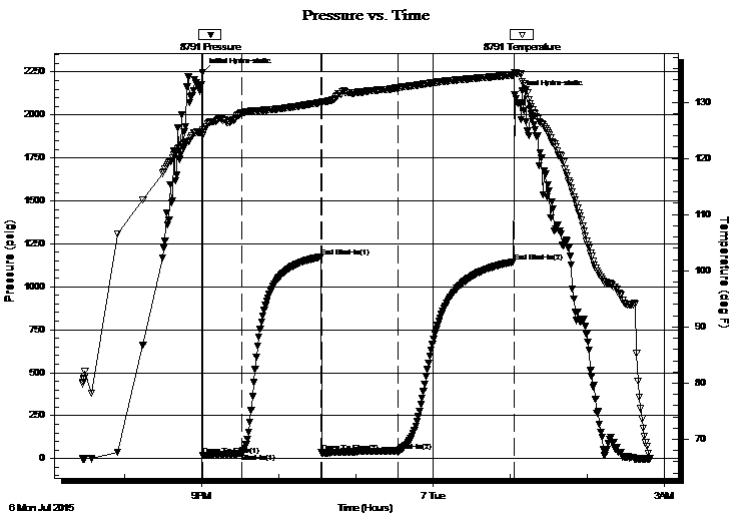
Serial #: 8791

Inside

Press@RunDepth: 44.59 psig @ 4360.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.07.06 End Date: 2015.07.07 Last Calib.: 2015.07.07
 Start Time: 19:27:05 End Time: 02:48:29 Time On Btm: 2015.07.06 @ 21:00:15
 Time Off Btm: 2015.07.07 @ 01:03:15

TEST COMMENT: 30 - IF: Blow built to 1 1/8", died back to 1/2" at close
 60 - IS: No blow back
 60 - FF: No blow
 90 - FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2247.82	125.13	Initial Hydro-static
1	17.06	124.10	Open To Flow (1)
31	29.30	128.12	Shut-In(1)
92	1174.30	129.92	End Shut-In(1)
93	34.19	129.72	Open To Flow (2)
153	44.59	132.58	Shut-In(2)
243	1145.73	134.83	End Shut-In(2)
243	2120.02	135.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 85% m, 12% o, 3% g	0.30
1.00	MCO 70% o, 30% m	0.00

* Recovery from multiple tests

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: Robert Hendrix

6-2s/-5w Rawlins KS

Frisbie 'B' #1-6

Job Ticket: 62196

DST#: 4

Test Start: 2015.07.06 @ 19:27:00

GENERAL INFORMATION:

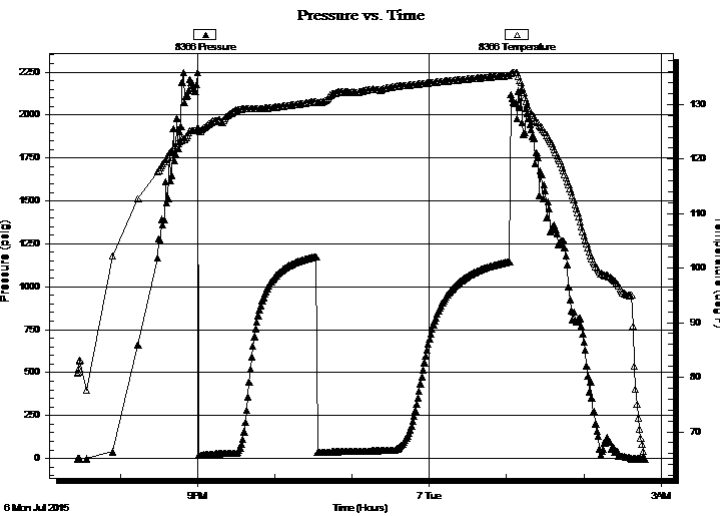
Formation: **LKC "J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:00:30
 Time Test Ended: 02:48:30
 Interval: **4359.00 ft (KB) To 4406.00 ft (KB) (TVD)**
 Total Depth: 4406.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3271.00 ft (KB)
 3260.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8366

Outside

Press@RunDepth: psig @ 4360.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.07.06 End Date: 2015.07.07 Last Calib.: 2015.07.07
 Start Time: 19:27:05 End Time: 02:47:59 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 1 1/8", died back to 1/2" at close
 60 - IS: No blow back
 60 - FF: No blow
 90 - FS: No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 85% m, 12% o, 3% g	0.30
1.00	MCO 70% o, 30% m	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.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62196

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.07.06 @ 19:27:00

Tool Information

Drill Pipe:	Length: 4120.00 ft	Diameter: 3.80 inches	Volume: 57.79 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.98 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4359.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	75.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4336.00	
Hydraulic tool	5.00			4341.00	
Jars	5.00			4346.00	
Safety Joint	3.00			4349.00	
Packer	5.00			4354.00	28.00 Bottom Of Top Packer
Packer	5.00			4359.00	
Stubb	1.00			4360.00	
Recorder	0.00	8791	Inside	4360.00	
Recorder	0.00	8366	Outside	4360.00	
Perforations	9.00			4369.00	
Blank Spacing	34.00			4403.00	
Bullnose	3.00			4406.00	47.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62196

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.07.06 @ 19:27:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 7.19 in³
Resistivity: ohm.m
Salinity: 1300.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OCM 85% <i>m</i> , 12% <i>o</i> , 3% <i>g</i>	0.295
1.00	MCO 70% <i>o</i> , 30% <i>m</i>	0.005

Total Length: 61.00 ft Total Volume: 0.300 bbl

Num Fluid Samples: 0

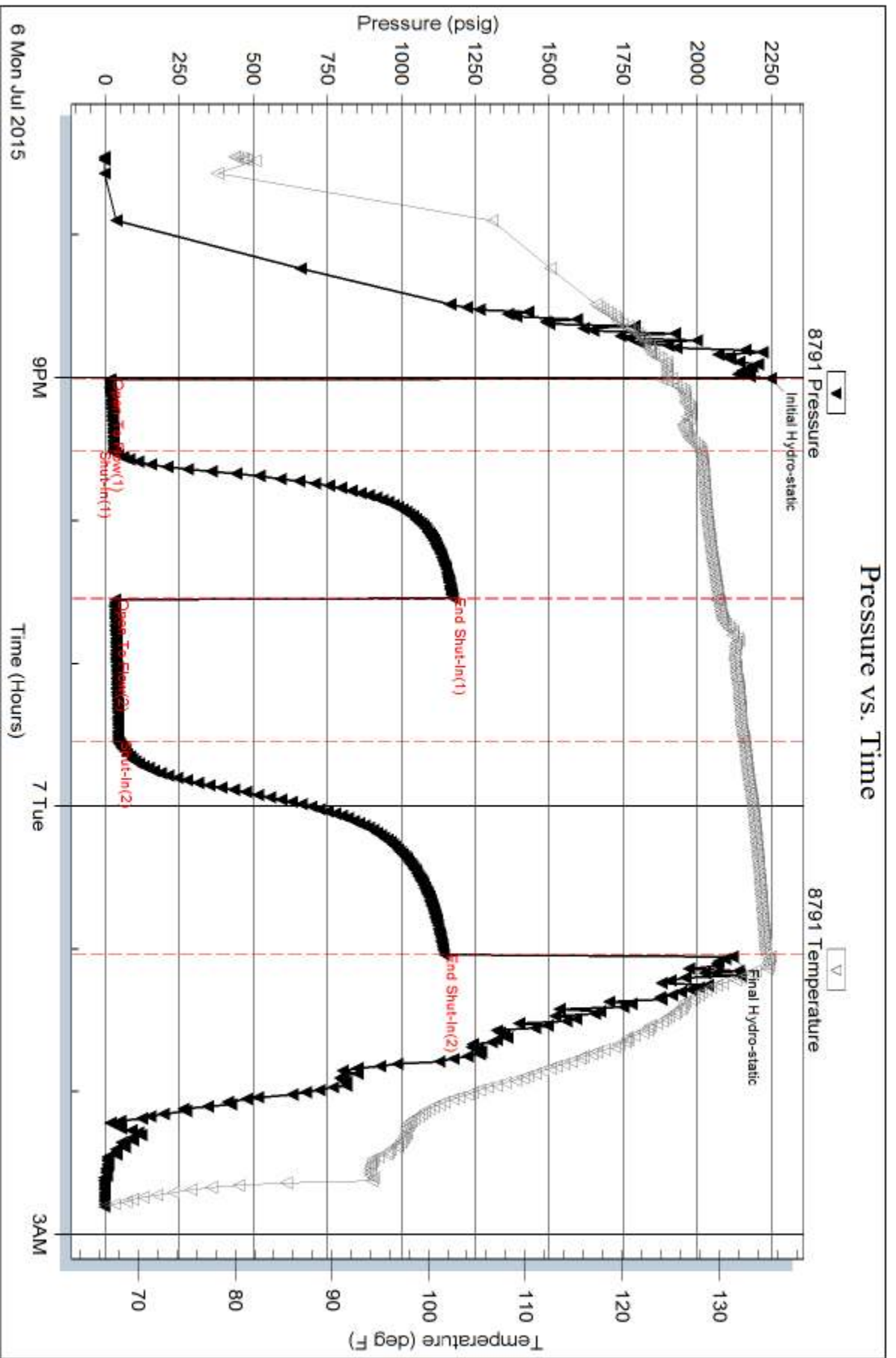
Num Gas Bombs: 0

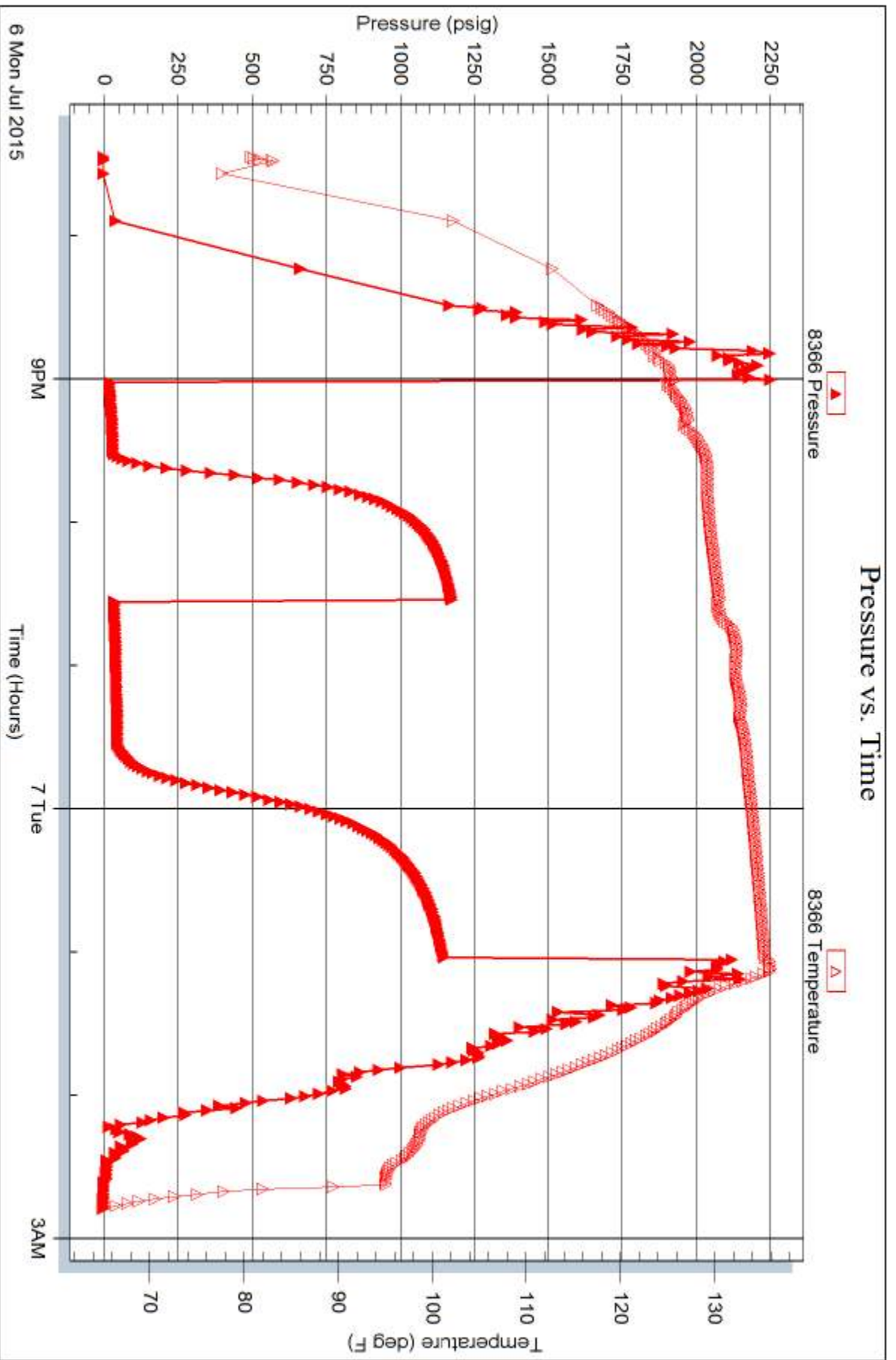
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62193

Well Name & No. Frisbie 'B' # ~~000~~ 1-6 Test No. 1 Date 7-4-15
 Company Murfin Drilling Co. Inc. Elevation 3271 KB 3260 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 6 Twp. 2S Rge. 35W Co. Rawlins State KS

Interval Tested 4040 - 4102 Zone Tested Oread
 Anchor Length 62 Drill Pipe Run 3803 Mud Wt. 9.1
 Top Packer Depth 4035 Drill Collars Run ~~000~~ 242 Vis 60
 Bottom Packer Depth 4040 Wt. Pipe Run - WL 6.8
 Total Depth 4102 Chlorides 600 ppm System LCM 6

Blow Description IF: Blow built to 6"
ISI: No blowback
FF: No blow, Flushed tool at 17 min., Blow built to 3"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>60000 SMCO</u>	-	<u>92</u>	-	<u>8</u>
<u>10</u>	<u>Om</u>	-	<u>45</u>	-	<u>55</u>
<u>121</u>	<u>50/wcm</u>	-	<u>2</u>	<u>25</u>	<u>73</u>
<u>121</u>	<u>50/mw</u>	<u>20</u>	<u>3</u>	<u>48</u>	<u>47</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 262 BHT 133 Gravity 23.4 API RW .393 @ 95.7 °F Chlorides 12,000 ppm

(A) Initial Hydrostatic 2084 Test 1150 T-On Location 5:05
 (B) First Initial Flow 22 Jars 250 T-Started 6:28
 (C) First Final Flow 81 Safety Joint 75 T-Open 8:48
 (D) Initial Shut-In 949 Circ Sub _____ T-Pulled 13:03
 (E) Second Initial Flow 88 Hourly Standby _____ T-Out 14:50
 (F) Second Final Flow 131 Mileage 96 RT 96 Comments Didn't feel tool
 (G) Final Shut-In 923 Sampler _____ Reopen at flush but surface
 (H) Final Hydrostatic 2017 Straddle _____ blow started
 Ruined Shale Packer _____
 Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Copies _____
 Extra Recorder _____
 Sub Total 0
 Total 1571
 MP/DST Disc't _____
 Day Standby _____
 Accessibility _____
 Sub Total 1571

Initial Open 30
 Initial Shut-In 60
 Final Flow 75
 Final Shut-In 90

Approved By [Signature] Our Representative James Winder

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62194

Well Name & No. Frisbie 'B' #1-6 Test No. 2 Date 7-5-15
 Company Murfin Drilling Co. Inc. Elevation 3271 KB 3260 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 6 Twp. 2S Rge. 35W Co. Rawlins State KS

Interval Tested 4129 - 4220 Zone Tested LKC "A"
 Anchor Length 91 Drill Pipe Run 3865 Mud Wt. 9.1
 Top Packer Depth 4124 Drill Collars Run 242 Vis 58
 Bottom Packer Depth 4129 Wt. Pipe Run - WL 7.2
 Total Depth 4220 Chlorides 600 ppm System LCM 8
 Blow Description IF: Blow built to BOB (11") at 4 3/4 min.
ISI: No blowback
FF: Blow built to BOB at 6 1/4 min
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Oil</u>				
<u>205</u>	<u>MW w/oil spots</u>		<u>1</u>	<u>54</u>	<u>45</u>
<u>869</u>	<u>SMCW w/trace oil</u>	<u>trace</u>	<u>94</u>	<u>6</u>	

Rec Total 1075 BHT 139 Gravity _____ API RW .228 @ 84.5 °F Chlorides 25 000 ppm

(A) Initial Hydrostatic 2063 Test 1150 T-On Location 2:40
 (B) First Initial Flow 92 Jars 250 T-Started 3:37
 (C) First Final Flow 338 Safety Joint 75 T-Open 5:30
 (D) Initial Shut-In 1105 Circ Sub _____ T-Pulled 8:32
 (E) Second Initial Flow 342 Hourly Standby _____ T-Out 10:30
 (F) Second Final Flow 506 Mileage 96 RT 96 Comments _____
 (G) Final Shut-In 1089 Sampler _____
 (H) Final Hydrostatic 2014 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 60 Day Standby _____
 Accessibility _____
 Sub Total 1571 Sub Total 1571 MP/DST Disc't _____

Approved By Rh D. [Signature] Our Representative James Winder
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62195

Well Name & No. Frisbie 'B' #1-6 Test No. 3 Date 7-5-15
 Company Murfin Drilling Co. Inc Elevation 3271 KB 3260 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 6 Twp. 2s Rge. 35W Co. Rawlins State KS

Interval Tested 4214 - 4270 Zone Tested LKC "D"
 Anchor Length 56 Drill Pipe Run 3962 Mud Wt. 9.1
 Top Packer Depth 4209 Drill Collars Run 242 Vis 53
 Bottom Packer Depth 4214 Wt. Pipe Run - WL 6.8
 Total Depth 4270 Chlorides 1500 ppm System LCM 08

Blow Description IF: Blow built to BOB (11") at 6 min.
ISI: Blowback built to 1/4"
FF: Blow built to BOB at 7 1/2 min
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>SMCGO</u>	<u>10</u>	<u>84</u>	<u>-</u>	<u>6</u>
<u>440</u>	<u>SOCWM</u>	<u>4</u>	<u>3</u>	<u>40</u>	<u>53</u>
<u>250</u>	<u>SOMCW</u>	<u>-</u>	<u>2</u>	<u>91</u>	<u>7</u>
<u>355</u>	<u>SMCW w/trace oil</u>	<u>%gas</u>	<u>trace</u>	<u>94</u>	<u>6</u>

Rec Total 1060 BHT 141 Gravity _____ API RW 0271 @ 69.3 °F Chlorides 29000 ppm
 (A) Initial Hydrostatic 2126 Test 1150 T-On Location 18:40 7/5
 (B) First Initial Flow 35 Jars 250 T-Started 18:55
 (C) First Final Flow 313 Safety Joint 75 T-Open 20:58
 (D) Initial Shut-In 1015 Circ Sub _____ T-Pulled 00:33
 (E) Second Initial Flow 321 Hourly Standby _____ T-Out 2:40 7/6
 (F) Second Final Flow 495 Mileage 96RT 96 Comments _____
 (G) Final Shut-In 1016 Sampler _____
 (H) Final Hydrostatic 2051 Straddle _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 90 Day Standby _____
 Sub Total 1571 Accessibility _____
 Sub Total 1571 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1571
 MP/DST Disc't _____

Approved By _____

Our Representative James Winder

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62196

Well Name & No. Frisbie 'B' #1-6 Test No. 3 Date 7-6-15
 Company Murfin Drilling Co. Inc Elevation 3271 KB 3260 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 6 Twp. 2s Rge. 35w Co. Rawlins State KS

Interval Tested 4359-4406 Zone Tested LKC "J"
 Anchor Length 47 Drill Pipe Run 4120 Mud Wt. 9.2
 Top Packer Depth 4354 Drill Collars Run 242 Vis 53
 Bottom Packer Depth 4359 Wt. Pipe Run - WL 7.2
 Total Depth 4406 Chlorides 1300 ppm System LCM 8
 Blow Description IF: Blow built to 1 1/8", died back to 1/2" at close
ISI: No blowback
FF: No blow
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>mco</u>	<u>70</u>		<u>30</u>	
<u>60</u>	<u>OCM</u>	<u>3</u>	<u>12</u>	<u>85</u>	

Rec Total 61 BHT 135 Gravity 1150 API RW @ °F Chlorides ppm
 (A) Initial Hydrostatic 2248 Test 1150 T-On Location 19:00 7/6
 (B) First Initial Flow 17 Jars 250 T-Started 19:27
 (C) First Final Flow 29 Safety Joint 75 T-Open 21:00
 (D) Initial Shut-In 1174 Circ Sub _____ T-Pulled 1:02
 (E) Second Initial Flow 34 Hourly Standby _____ T-Out 2:45 7/7
 (F) Second Final Flow 45 Mileage 96RT X 2 96+96 Comments _____
 (G) Final Shut-In 1146 Sampler _____
 (H) Final Hydrostatic 2120 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 1667 Sub Total _____
 Total 1667 Total _____
 MP/DST Disc't _____

Approved By _____ Our Representative James Winder

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