



DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Kent Matson

DAMW 'A' # 1-11

S11-17s-33w Scott,KS

Start Date: 2015.02.13 @ 06:44:05

End Date: 2015.02.13 @ 14:45:14

Job Ticket #: 61520 DST #: 1

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

Printed: 2015.02.19 @ 14:40:45



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co, INC.
250 N Water STE 300
Wichita KS 67202
ATTN: Kent Matson

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

Job Ticket: 61520

DST#: 1

Test Start: 2015.02.13 @ 06:44:05

GENERAL INFORMATION:

Formation: **LKC B-D**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 08:28:45

Time Test Ended: 14:45:14

Test Type: Conventional Bottom Hole (Initial)

Tester: Justin Harris

Unit No: 71

Interval: 4016.00 ft (KB) To 4080.00 ft (KB) (TVD)

Reference Elevations: 3021.00 ft (KB)

Total Depth: 4080.00 ft (KB) (TVD)

3010.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

Serial #: 8674

Inside

Press@RunDepth: 913.64 psig @ 4017.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.02.13

End Date:

2015.02.13

Last Calib.: 2015.02.13

Start Time: 06:44:05

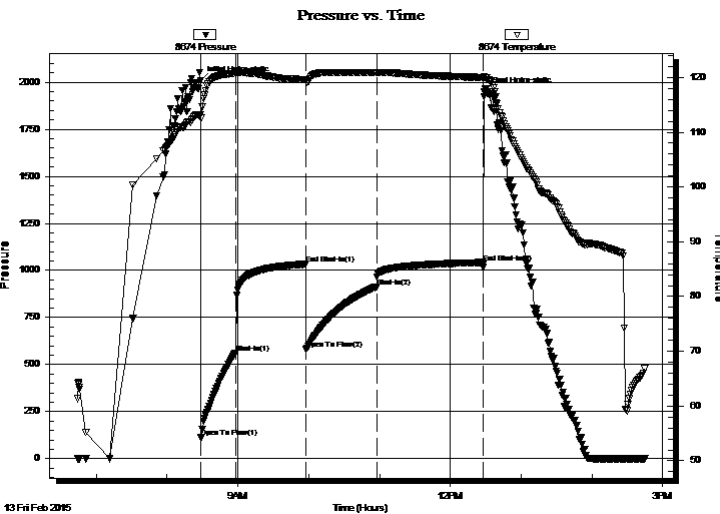
End Time:

14:45:14

Time On Btm: 2015.02.13 @ 08:28:15

Time Off Btm: 2015.02.13 @ 12:28:30

TEST COMMENT: 30: B.O.B in 2 mins.
60: No Return.
60: B.O.B in 4 mins.
90: No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2010.08	113.16	Initial Hydro-static
1	111.35	112.54	Open To Flow (1)
30	562.11	120.73	Shut-In(1)
90	1034.17	119.58	End Shut-In(1)
90	580.45	119.31	Open To Flow (2)
150	913.64	120.84	Shut-In(2)
240	1041.36	119.99	End Shut-In(2)
241	1948.38	120.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
276.00	mcw 45m 55w	1.36
826.00	mcw 05m 95w	11.59
827.00	mcw 10m 90w	11.60
0.00	total 1929'	0.00

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: Kent Matson

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

Job Ticket: 61520

DST#: 1

Test Start: 2015.02.13 @ 06:44:05

GENERAL INFORMATION:

Formation: **LKC B-D**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 08:28:45

Time Test Ended: 14:45:14

Test Type: Conventional Bottom Hole (Initial)

Tester: Justin Harris

Unit No: 71

Interval: 4016.00 ft (KB) To 4080.00 ft (KB) (TVD)

Reference Elevations: 3021.00 ft (KB)

Total Depth: 4080.00 ft (KB) (TVD)

3010.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

Serial #: 8355 Outside

Press@RunDepth: psig @ 4017.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.02.13

End Date:

2015.02.13

Last Calib.:

2015.02.13

Start Time: 06:44:05

End Time:

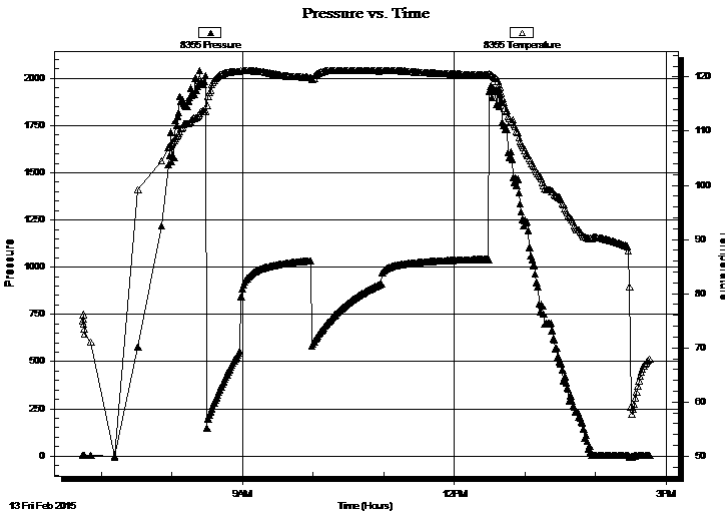
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Time On Btm:

Time Off Btm:

TEST COMMENT: 30: B.O.B in 2 mins.
60: No Return.
60: B.O.B in 4 mins.
90: No Return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
276.00	mcw 45m 55w	1.36
826.00	mcw 05m 95w	11.59
827.00	mcw 10m 90w	11.60
0.00	total 1929'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, INC.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61520

DST#: 1

ATTN: Kent Matson

Test Start: 2015.02.13 @ 06:44:05

Tool Information

Drill Pipe:	Length: 3736.00 ft	Diameter: 3.80 inches	Volume: 52.41 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 276.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4016.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	91.00 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			3990.00	
Shut In Tool	5.00			3995.00	
Hydraulic tool	5.00			4000.00	
Jars	5.00			4005.00	
Safety Joint	2.00			4007.00	
Packer	5.00			4012.00	27.00 Bottom Of Top Packer
Packer	4.00			4016.00	
Stubb	1.00			4017.00	
Recorder	0.00	8355	Outside	4017.00	
Recorder	0.00	8674	Inside	4017.00	
Perforations	25.00			4042.00	
Change Over Sub	1.00			4043.00	
Drill Pipe	31.00			4074.00	
Change Over Sub	1.00			4075.00	
Bullnose	5.00			4080.00	64.00 Bottom Packers & Anchor

Total Tool Length: 91.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, INC.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61520

DST#: 1

ATTN: Kent Matson

Test Start: 2015.02.13 @ 06:44:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

48000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
276.00	mcw 45m 55w	1.357
826.00	mcw 05m 95w	11.587
827.00	mcw 10m 90w	11.601
0.00	total 1929'	0.000

Total Length: 1929.00 ft Total Volume: 24.545 bbl

Num Fluid Samples: 0

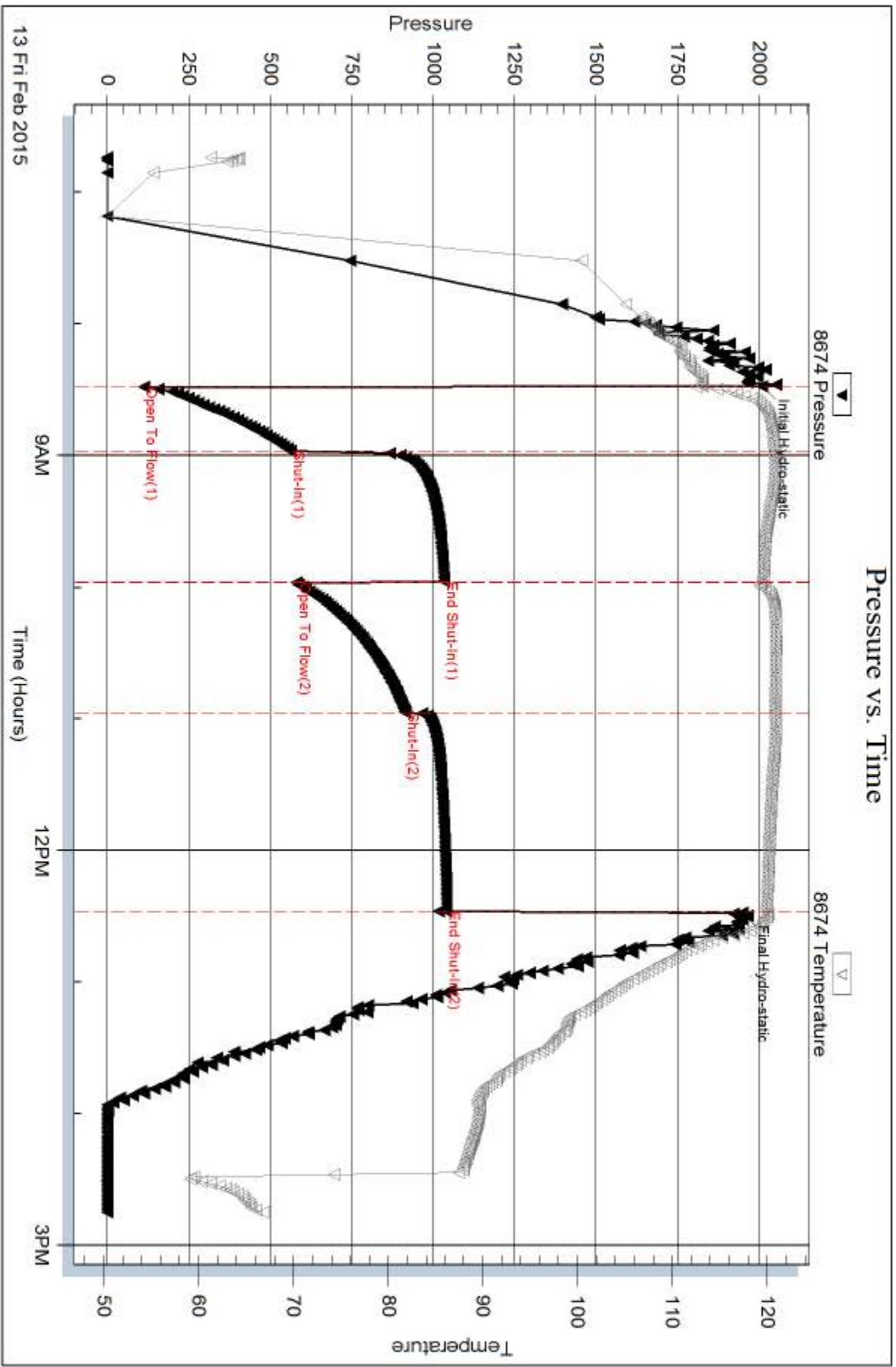
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API RW .14 @72 F = 48000

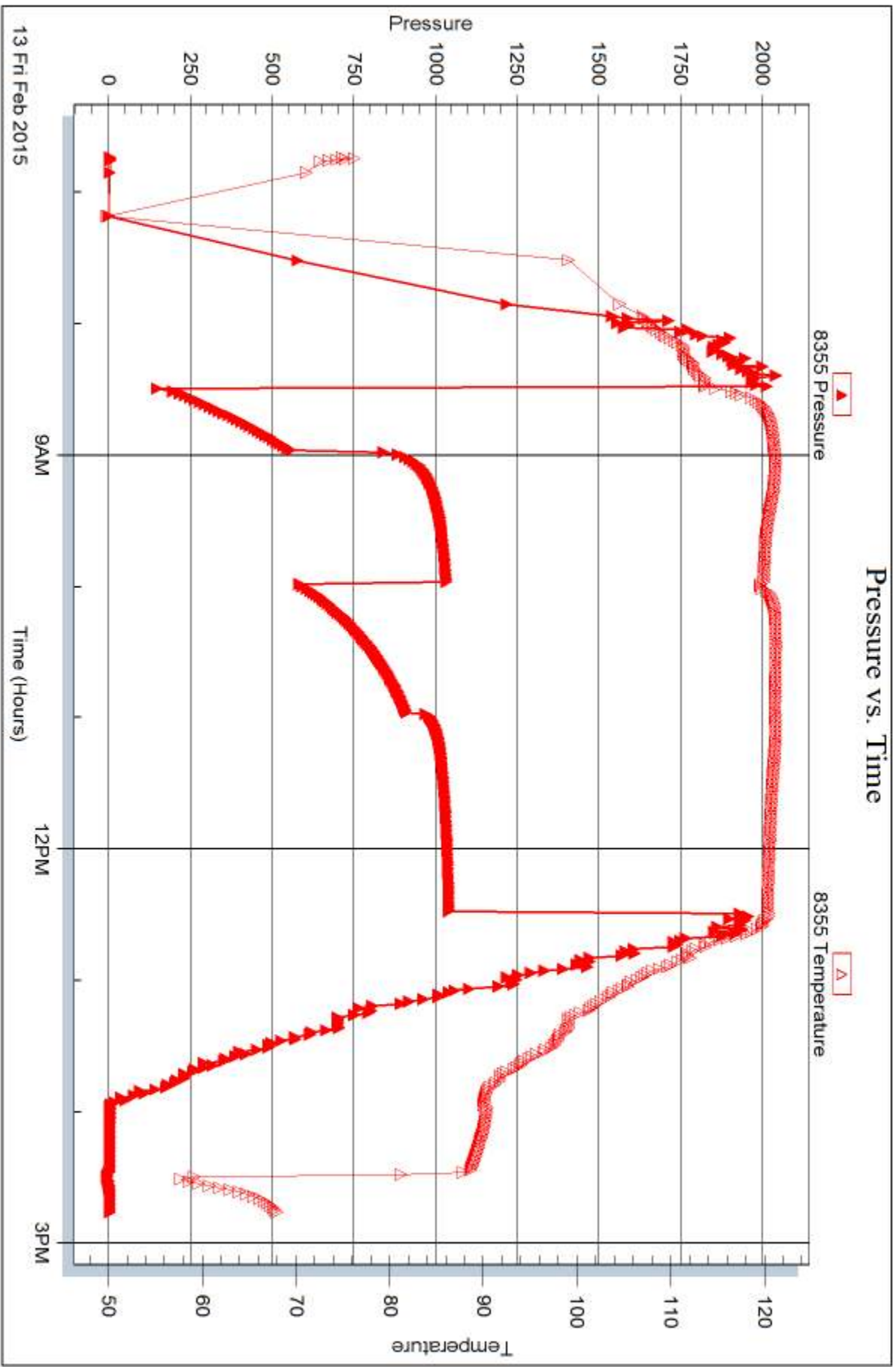


Serial #: 8355

Outside Murfin Drilling Co. INC.

DAMW/A' # 1-11

DST Test Number: 1





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Kent Matson

DAMW 'A' # 1-11

S11-17s-33w Scott,KS

Start Date: 2015.02.14 @ 18:15:00

End Date: 2015.02.15 @ 02:30:20

Job Ticket #: 61562 DST #: 2

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

Printed: 2015.02.19 @ 14:40:23



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co, INC.
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Kent Matson

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

Job Ticket: 61562 **DST#: 2**
 Test Start: 2015.02.14 @ 18:15:00

GENERAL INFORMATION:

Formation: **LKC 'K'**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 20:39:20
 Time Test Ended: 02:30:20
 Interval: **4272.00 ft (KB) To 4320.00 ft (KB) (TVD)**
 Total Depth: 4320.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Chuck Smith
 Unit No: 61
 Reference Elevations: 3021.00 ft (KB)
 3010.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8357

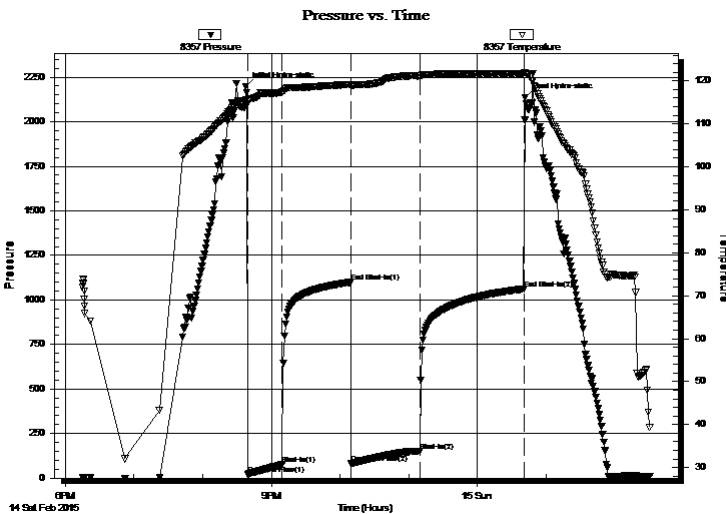
Inside

Press@RunDepth: 152.33 psig @ 4274.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.02.14 End Date: 2015.02.15 Last Calib.: 2015.02.15
 Start Time: 18:15:02 End Time: 02:30:19 Time On Btm: 2015.02.14 @ 20:37:40
 Time Off Btm: 2015.02.15 @ 00:41:40

TEST COMMENT: 30- 4" Blow .
 60- No return.
 60- 3 1/2" Blow .
 90-No return.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2196.83	115.49	Initial Hydro-static
2	21.59	114.78	Open To Flow (1)
32	75.73	117.35	Shut-In(1)
92	1099.52	119.10	End Shut-In(1)
92	80.32	118.85	Open To Flow (2)
152	152.33	121.16	Shut-In(2)
243	1062.15	121.73	End Shut-In(2)
244	2134.49	121.87	Final Hydro-static



Recovery

Length (ft)	Description	Volume (bbl)
277.00	WM 25w 75m	1.36
15.00	OSM 100m	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, INC.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61562

DST#: 2

ATTN: Kent Matson

Test Start: 2015.02.14 @ 18:15:00

Tool Information

Drill Pipe:	Length: 3988.00 ft	Diameter: 3.82 inches	Volume: 56.53 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 57.89 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.50 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	4272.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	75.50 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			4245.50	
Shut In Tool	5.00			4250.50	
Hydraulic tool	5.00			4255.50	
Jars	5.00			4260.50	
Safety Joint	2.50			4263.00	
Packer	5.00			4268.00	27.50 Bottom Of Top Packer
Packer	4.00			4272.00	
Stubb	1.00			4273.00	
Perforations	1.00			4274.00	
Recorder	0.00	8357	Inside	4274.00	
Recorder	0.00	6751	Outside	4274.00	
Perforations	10.00			4284.00	
Change Over Sub	1.00			4285.00	
Drill Pipe	31.00			4316.00	
Change Over Sub	1.00			4317.00	
Bullnose	3.00			4320.00	48.00 Bottom Packers & Anchor
Total Tool Length:	75.50				



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, INC.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61562

DST#: 2

ATTN: Kent Matson

Test Start: 2015.02.14 @ 18:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

34000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
277.00	WM 25w 75m	1.362
15.00	OSM 100m	0.213

Total Length: 292.00 ft Total Volume: 1.575 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .580 @ 25 Degrees F = 34000 PPM

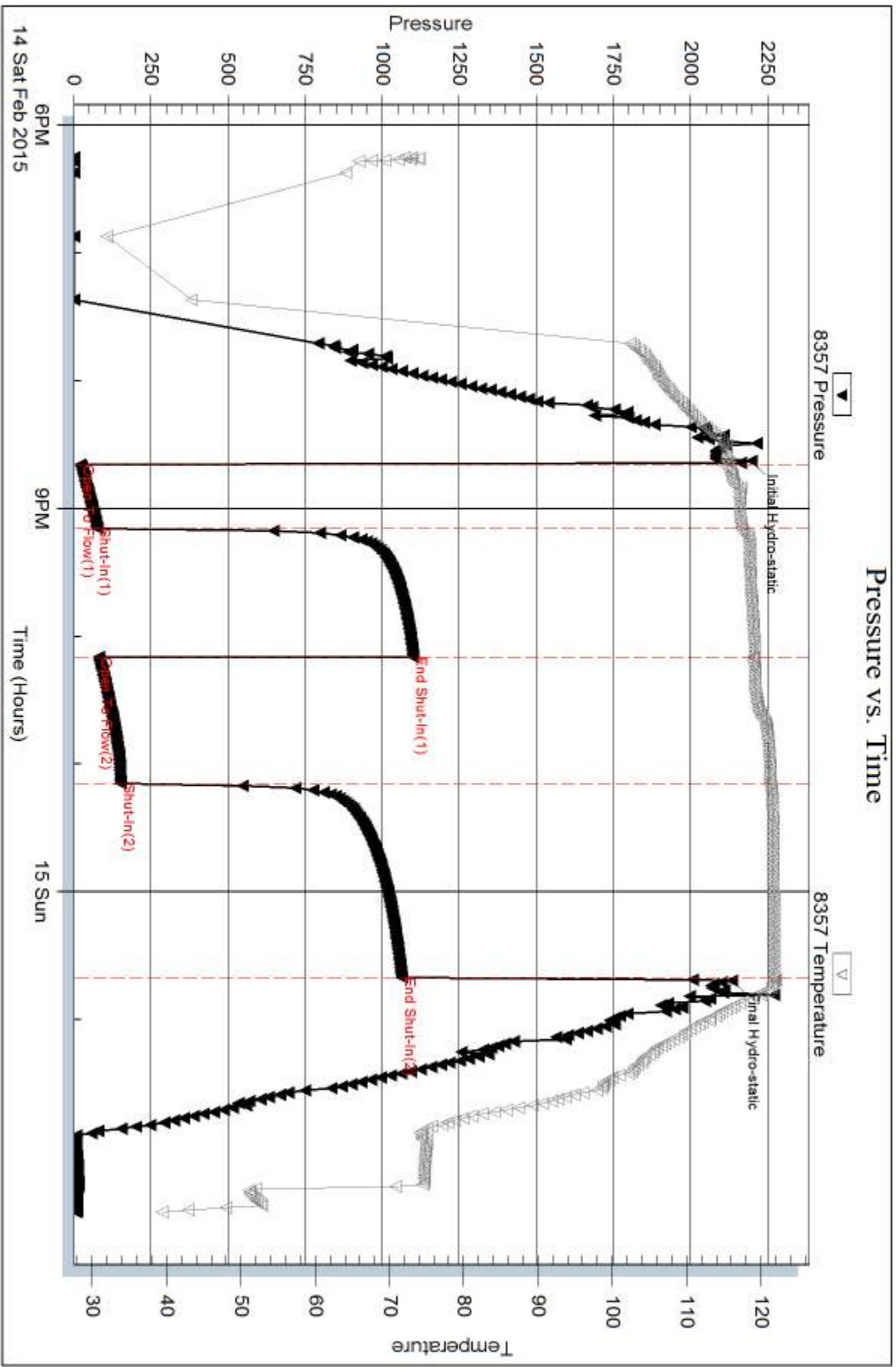
Serial #: 8357

Inside

Murfin Drilling Co. INC.

DAMW A' # 1-11

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 61562

Printed: 2015.02.19 @ 14:40:24



DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Kent Matson

DAMW 'A' # 1-11

S11-17s-33w Scott,KS

Start Date: 2015.02.15 @ 23:20:00

End Date: 2015.02.16 @ 08:21:19

Job Ticket #: 61563 DST #: 3

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

Printed: 2015.02.19 @ 14:38:22



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co, INC.
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Kent Matson

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

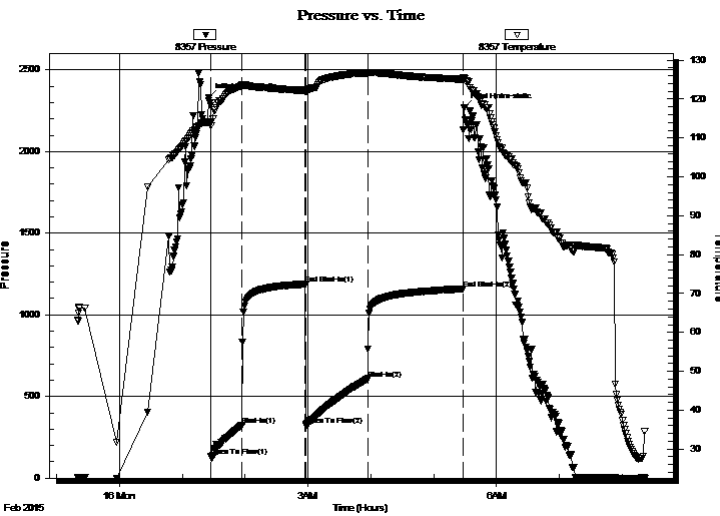
Job Ticket: 61563 **DST#: 3**
 Test Start: 2015.02.15 @ 23:20:00

GENERAL INFORMATION:

Formation: **Marmaton**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 01:27:30
 Time Test Ended: 08:21:19
 Interval: **4394.00 ft (KB) To 4490.00 ft (KB) (TVD)**
 Total Depth: 4490.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Smith
 Unit No: 61
 Reference Elevations: 3021.00 ft (KB)
 3010.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8357 Inside
 Press@RunDepth: 609.51 psig @ 4397.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.02.15 End Date: 2015.02.16 Last Calib.: 2015.02.16
 Start Time: 23:20:02 End Time: 08:21:19 Time On Btm: 2015.02.16 @ 01:25:00
 Time Off Btm: 2015.02.16 @ 05:29:20

TEST COMMENT: 30- B.O.B. @ 7 min.
 60- No return.
 60- B.O.B. @ 8 min.
 90- No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2327.27	114.16	Initial Hydro-static
3	131.22	113.25	Open To Flow (1)
32	325.44	123.38	Shut-In(1)
93	1188.39	122.34	End Shut-In(1)
93	325.14	122.04	Open To Flow (2)
153	609.51	126.71	Shut-In(2)
244	1159.46	125.09	End Shut-In(2)
245	2269.50	125.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
680.00	OSMW 10m 90w	7.07
370.00	GMCW 5g 45m 50w	5.24
280.00	OWCM 2o 38w 60m	3.97

* 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: Kent Matson

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

Job Ticket: 61563

DST#: 3

Test Start: 2015.02.15 @ 23:20:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 01:27:30

Time Test Ended: 08:21:19

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 61

Interval: 4394.00 ft (KB) To 4490.00 ft (KB) (TVD)

Total Depth: 4490.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3021.00 ft (KB)

3010.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6751 Outside

Press@RunDepth: psig @ 4397.00 ft (KB)

Start Date: 2015.02.15

End Date: 2015.02.16

Start Time: 23:20:02

End Time: 08:21:19

Capacity: 8000.00 psig

Last Calib.: 2015.02.16

Time On Btm:

Time Off Btm:

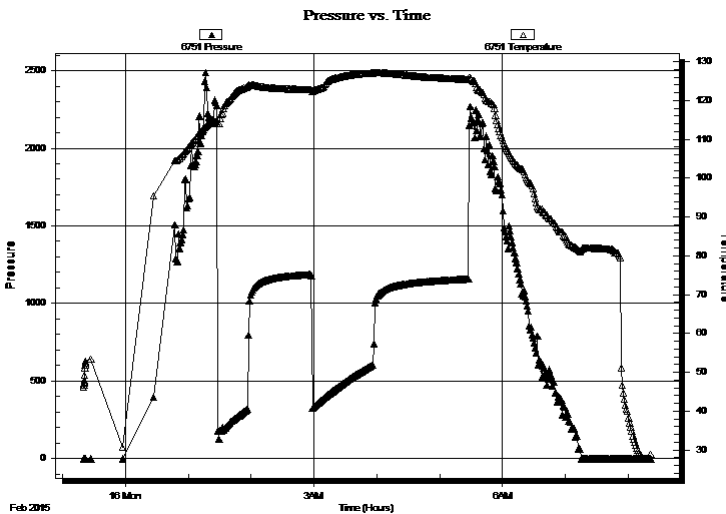
TEST COMMENT: 30- B.O.B. @ 7 min.

60- No return.

60- B.O.B. @ 8 min.

90- No return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
680.00	OSMW 10m 90w	7.07
370.00	GMCW 5g 45m 50w	5.24
280.00	OWCM 2o 38w 60m	3.97

* 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.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61563

DST#: 3

ATTN: Kent Matson

Test Start: 2015.02.15 @ 23:20:00

Tool Information

Drill Pipe:	Length: 4110.00 ft	Diameter: 3.82 inches	Volume: 58.26 bbl	Tool Weight:	2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose:	85000.00 lb
			<u>Total Volume: 59.62 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.50 ft			String Weight: Initial	76000.00 lb
Depth to Top Packer:	4394.00 ft			Final	79000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	96.00 ft				
Tool Length:	123.50 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			4367.50	
Shut In Tool	5.00			4372.50	
Hydraulic tool	5.00			4377.50	
Jars	5.00			4382.50	
Safety Joint	2.50			4385.00	
Packer	5.00			4390.00	27.50 Bottom Of Top Packer
Packer	4.00			4394.00	
Stubb	1.00			4395.00	
Perforations	2.00			4397.00	
Recorder	0.00	8357	Inside	4397.00	
Recorder	0.00	6751	Outside	4397.00	
Perforations	25.00			4422.00	
Change Over Sub	1.00			4423.00	
Drill Pipe	63.00			4486.00	
Change Over Sub	1.00			4487.00	
Bullnose	3.00			4490.00	96.00 Bottom Packers & Anchor
Total Tool Length:	123.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, INC.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61563

DST#: 3

ATTN: Kent Matson

Test Start: 2015.02.15 @ 23:20:00

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:

48000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
680.00	OSMW 10m 90w	7.075
370.00	GMCW 5g 45m 50w	5.245
280.00	OWCM 2o 38w 60m	3.969

Total Length: 1330.00 ft Total Volume: 16.289 bbl

Num Fluid Samples: 0

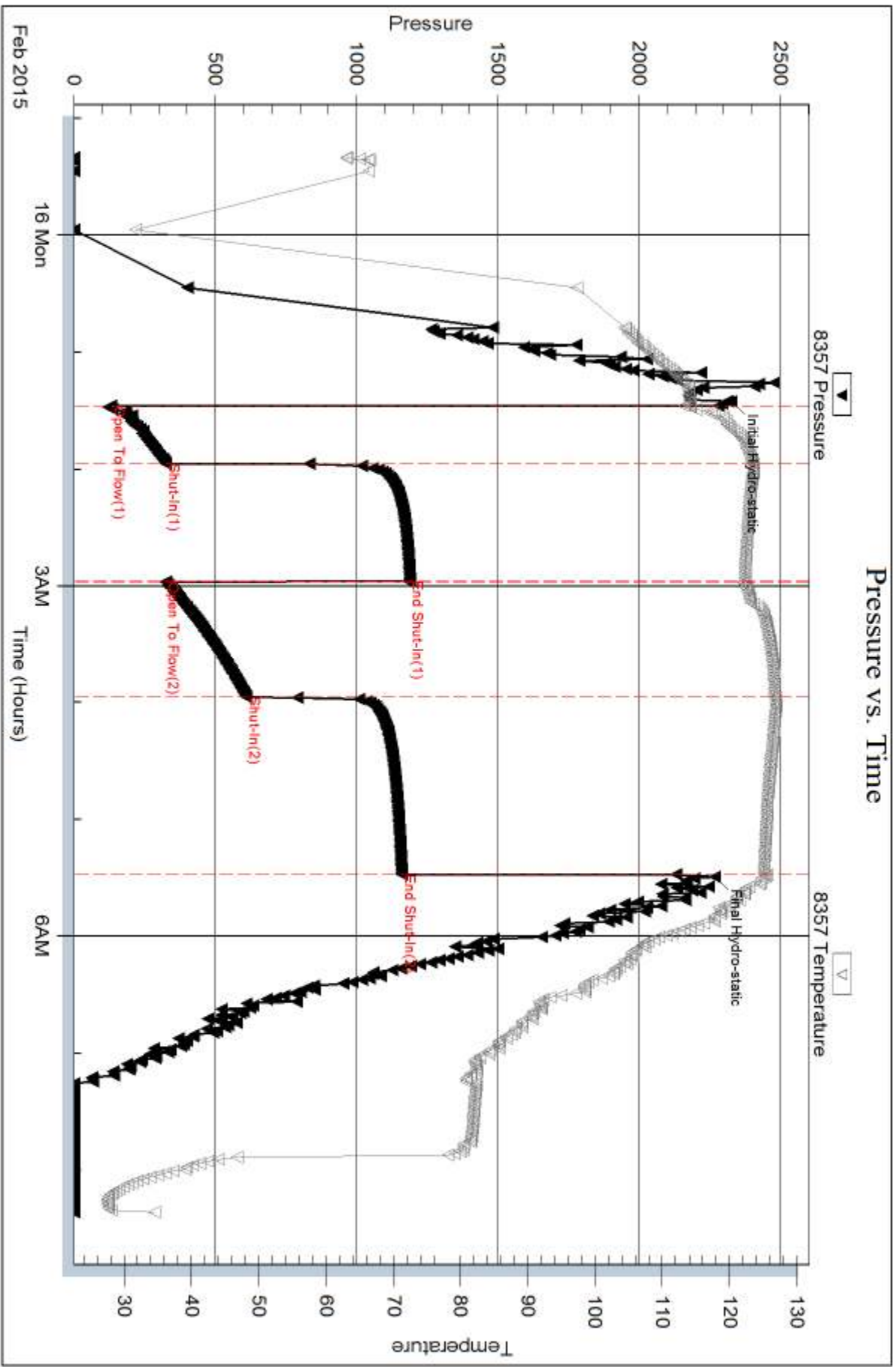
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .390 @ 28 Degrees F = 48000 PPM

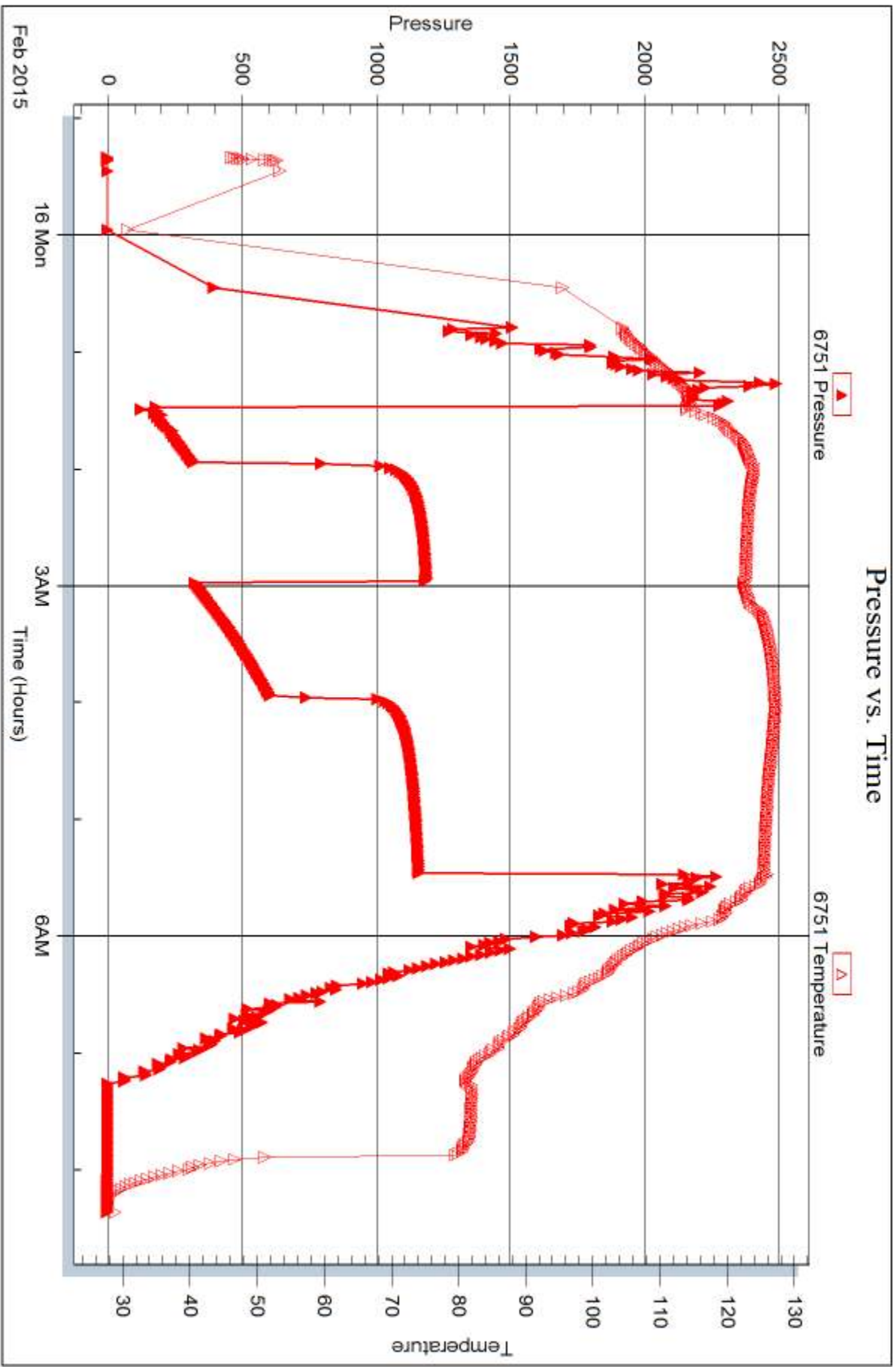


Serial #: 6751

Outside Murfin Drilling Co. INC.

DAMW/A' # 1-11

DST Test Number: 3





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Kent Matson

DAMW 'A' # 1-11

S11-17s-33w Scott,KS

Start Date: 2015.02.17 @ 08:12:00

End Date: 2015.02.17 @ 15:56:39

Job Ticket #: 61564 DST #: 4

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

Printed: 2015.02.19 @ 14:37:41

Murfin Drilling Co, INC.

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

DST # 4

Verdigrits - Atoka

2015.02.17



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co, INC.
250 N Water STE 300
Wichita KS 67202
ATTN: Kent Matson

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

Job Ticket: 61564

DST#: 4

Test Start: 2015.02.17 @ 08:12:00

GENERAL INFORMATION:

Formation: **Verdigris - Atoka**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 10:34:30
 Time Test Ended: 15:56:39
 Interval: **4569.00 ft (KB) To 4680.00 ft (KB) (TVD)**
 Total Depth: 4680.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Smith
 Unit No: 61
 Reference Elevations: 3021.00 ft (KB)
 3010.00 ft (CF)
 KB to GR/CF: 11.00 ft

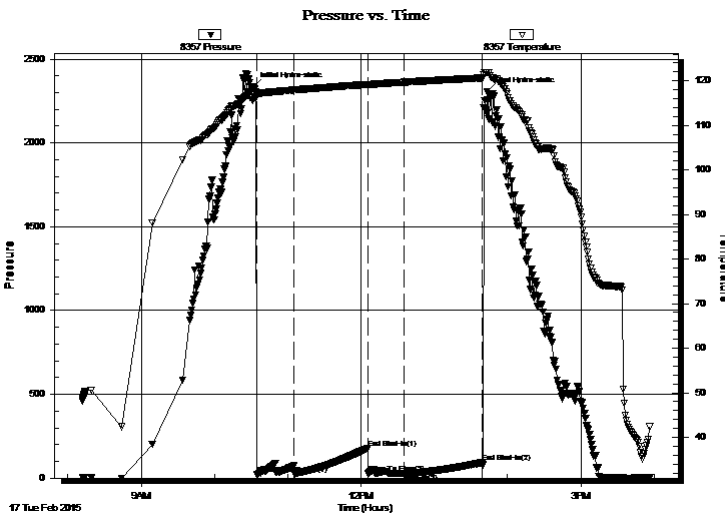
Serial #: 8357

Inside

Press@RunDepth: 27.94 psig @ 4571.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.02.17 End Date: 2015.02.17 Last Calib.: 2015.02.17
 Start Time: 08:12:02 End Time: 15:56:40 Time On Btm: 2015.02.17 @ 10:32:10
 Time Off Btm: 2015.02.17 @ 13:43:30

TEST COMMENT: 30- Decreasing 1/2" Blow .
 60- No return.
 30- No blow .
 60- No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2333.46	116.30	Initial Hydro-static
3	23.78	116.58	Open To Flow (1)
33	74.47	117.93	Shut-In(1)
94	179.27	119.17	End Shut-In(1)
94	26.55	119.13	Open To Flow (2)
124	27.94	119.70	Shut-In(2)
188	93.11	120.64	End Shut-In(2)
192	2304.12	121.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100m	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 Co, INC.
250 N Water STE 300
Wichita KS 67202
ATTN: Kent Matson

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

Job Ticket: 61564

DST#: 4

Test Start: 2015.02.17 @ 08:12:00

GENERAL INFORMATION:

Formation: **Verdigris - Atoka**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 10:34:30
 Time Test Ended: 15:56:39
 Interval: **4569.00 ft (KB) To 4680.00 ft (KB) (TVD)**
 Total Depth: 4680.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Smith
 Unit No: 61
 Reference Elevations: 3021.00 ft (KB)
 3010.00 ft (CF)
 KB to GR/CF: 11.00 ft

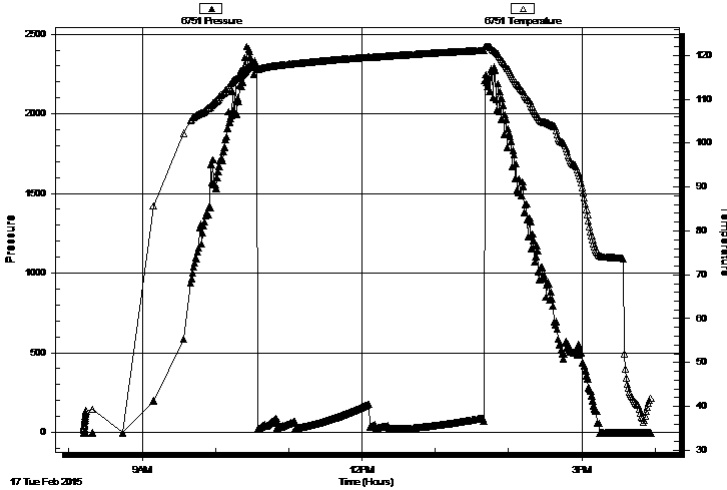
Serial #: 6751

Outside

Press@RunDepth: psig @ 4571.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.02.17 End Date: 2015.02.17 Last Calib.: 2015.02.17
 Start Time: 08:12:02 End Time: 15:56:40 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30- Decreasing 1/2" Blow .
 60- No return.
 30- No blow .
 60- No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100m	0.02

* 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.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61564

DST#: 4

ATTN: Kent Matson

Test Start: 2015.02.17 @ 08:12:00

Tool Information

Drill Pipe:	Length: 4270.00 ft	Diameter: 3.82 inches	Volume: 60.53 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 61.89 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.50 ft			String Weight: Initial 77000.00 lb
Depth to Top Packer:	4569.00 ft			Final 77000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	111.00 ft			
Tool Length:	138.50 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			4542.50	
Shut In Tool	5.00			4547.50	
Hydraulic tool	5.00			4552.50	
Jars	5.00			4557.50	
Safety Joint	2.50			4560.00	
Packer	5.00			4565.00	27.50 Bottom Of Top Packer
Packer	4.00			4569.00	
Stubb	1.00			4570.00	
Perforations	1.00			4571.00	
Recorder	0.00	8357	Inside	4571.00	
Recorder	0.00	6751	Outside	4571.00	
Perforations	10.00			4581.00	
Change Over Sub	1.00			4582.00	
Drill Pipe	94.00			4676.00	
Change Over Sub	1.00			4677.00	
Bullnose	3.00			4680.00	111.00 Bottom Packers & Anchor
Total Tool Length:	138.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, INC.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61564

DST#: 4

ATTN: Kent Matson

Test Start: 2015.02.17 @ 08:12:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OSM 100m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

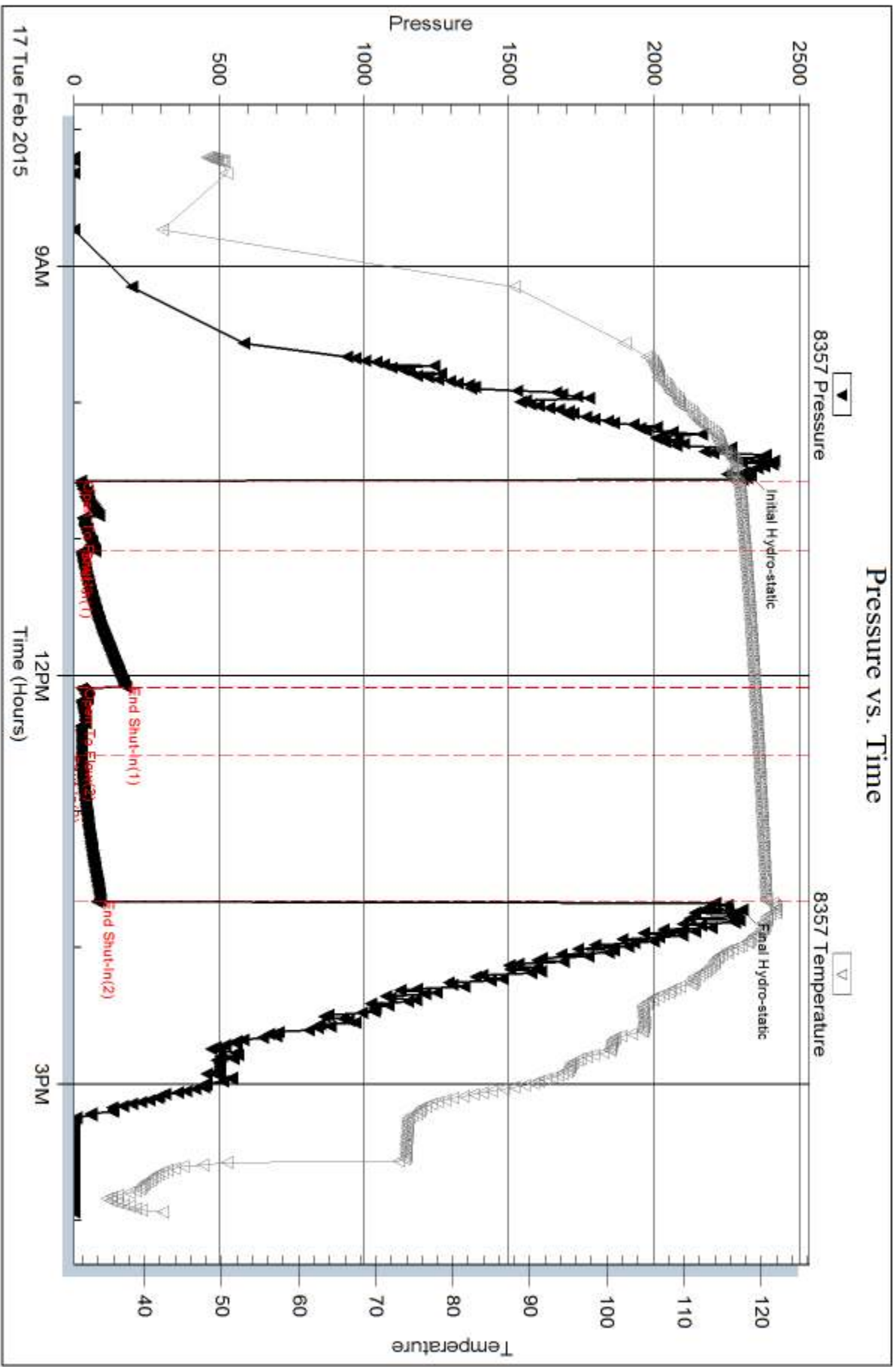
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

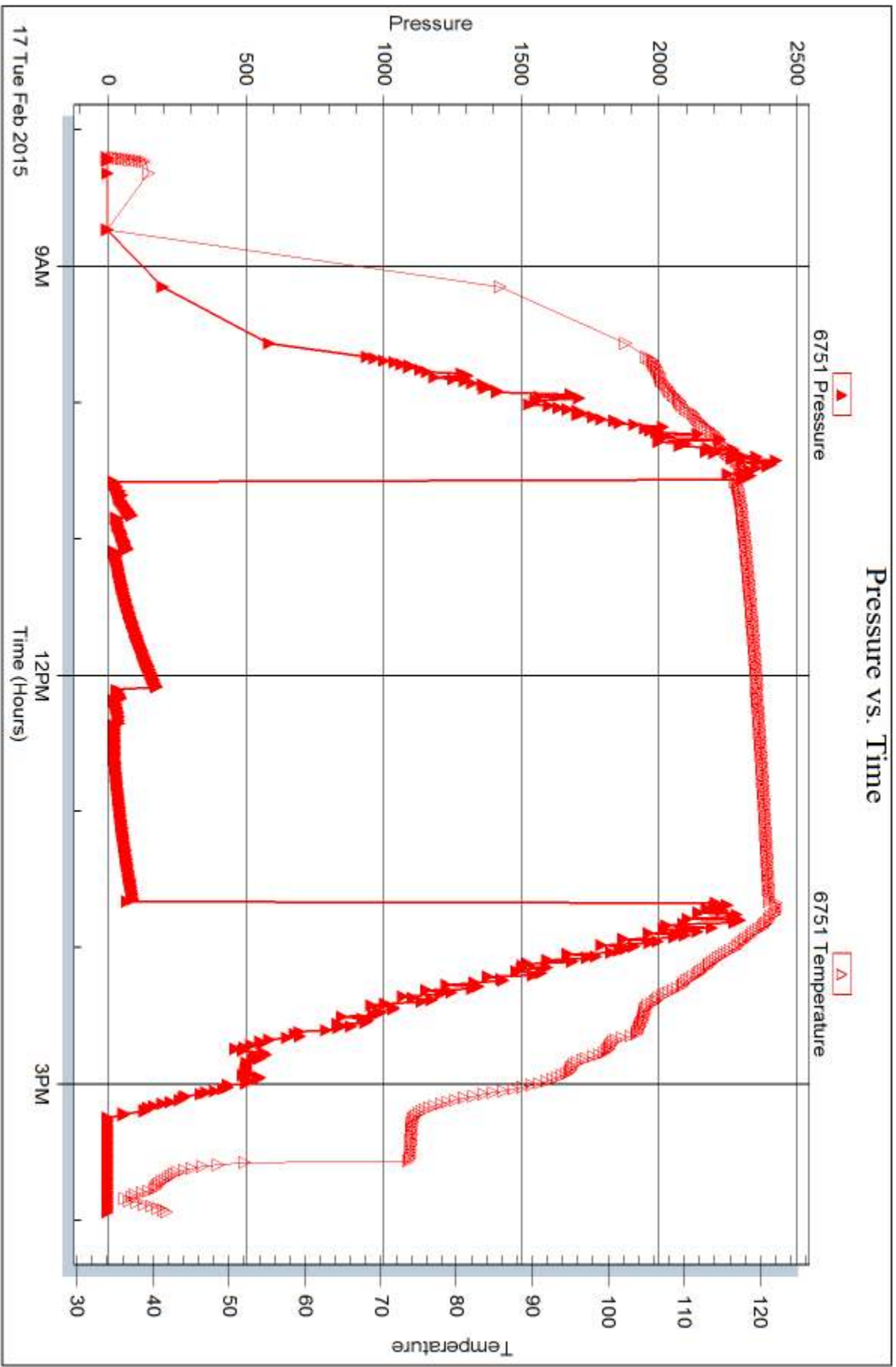


Serial #: 6751

Outside Murfin Drilling Co. INC.

DAMW/A' # 1-11

DST Test Number: 4





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Kent Matson

DAMW 'A' # 1-11

S11-17s-33w Scott,KS

Start Date: 2015.02.17 @ 23:45:00

End Date: 2015.02.18 @ 07:10:50

Job Ticket #: 61565 DST #: 5

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

Printed: 2015.02.19 @ 14:36:35



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co, INC.
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Kent Matson

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

Job Ticket: 61565 **DST#: 5**
 Test Start: 2015.02.17 @ 23:45:00

GENERAL INFORMATION:

Formation: **Morrow - Upper Missi**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 02:09:20

Time Test Ended: 07:10:50

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 61

Interval: **4644.00 ft (KB) To 4730.00 ft (KB) (TVD)**

Total Depth: 4730.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3021.00 ft (KB)

3010.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8357

Inside

Press@RunDepth: 59.60 psig @ 4646.00 ft (KB)

Start Date: 2015.02.17

End Date:

2015.02.18

Start Time: 23:45:02

End Time:

07:10:49

Capacity: 8000.00 psig

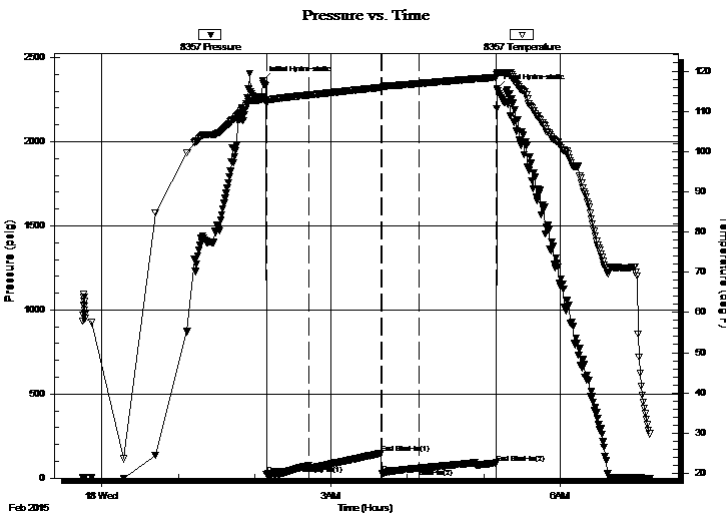
Last Calib.: 2015.02.18

Time On Btm: 2015.02.18 @ 02:06:30

Time Off Btm: 2015.02.18 @ 05:10:39

TEST COMMENT: 30- 1" Decreasing blow .
 60- No return.
 30- No blow .
 60- No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2365.57	113.19	Initial Hydro-static
3	23.80	112.01	Open To Flow (1)
36	75.14	114.04	Shut-In(1)
93	149.40	115.93	End Shut-In(1)
94	27.27	115.94	Open To Flow (2)
123	59.60	116.90	Shut-In(2)
184	90.18	118.45	End Shut-In(2)
185	2314.08	119.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100m	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 Co, INC.

250 N Water STE 300
Wichita KS 67202

ATTN: Kent Matson

S11-17s-33w Scott,KS

DAMW 'A' # 1-11

Job Ticket: 61565 **DST#: 5**

Test Start: 2015.02.17 @ 23:45:00

GENERAL INFORMATION:

Formation: **Morrow - Upper Missi**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 02:09:20

Time Test Ended: 07:10:50

Interval: 4644.00 ft (KB) To 4730.00 ft (KB) (TVD)

Total Depth: 4730.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 61

Reference Elevations: 3021.00 ft (KB)

3010.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6751 Outside

Press@RunDepth: psig @ 4646.00 ft (KB)

Start Date: 2015.02.17 End Date: 2015.02.18

Start Time: 23:45:02 End Time: 07:10:40

Capacity: 8000.00 psig

Last Calib.: 2015.02.18

Time On Btm:

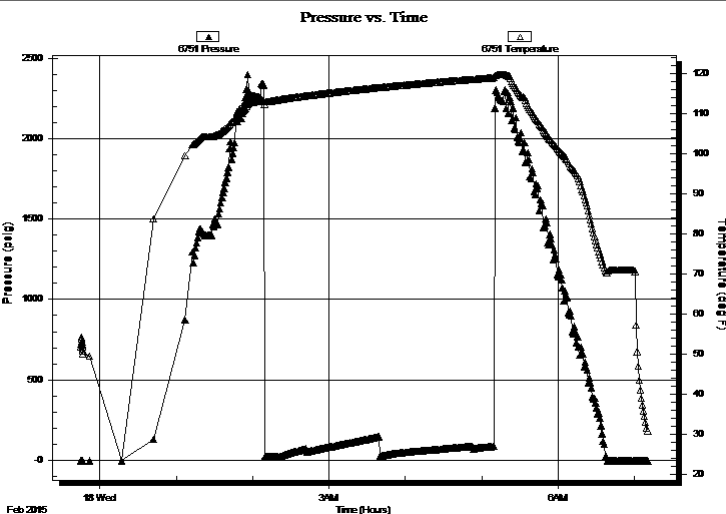
Time Off Btm:

TEST COMMENT: 30- 1" Decreasing blow .

60- No return.

30- No blow .

60- No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100m	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co, INC.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61565

DST#: 5

ATTN: Kent Matson

Test Start: 2015.02.17 @ 23:45:00

Tool Information

Drill Pipe:	Length: 4364.00 ft	Diameter: 3.82 inches	Volume: 61.86 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 63.22 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.50 ft			String Weight: Initial 79000.00 lb
Depth to Top Packer:	4644.00 ft			Final 79000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	86.00 ft			
Tool Length:	113.50 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			4617.50	
Shut In Tool	5.00			4622.50	
Hydraulic tool	5.00			4627.50	
Jars	5.00			4632.50	
Safety Joint	2.50			4635.00	
Packer	5.00			4640.00	27.50 Bottom Of Top Packer
Packer	4.00			4644.00	
Stubb	1.00			4645.00	
Perforations	1.00			4646.00	
Recorder	0.00	8357	Inside	4646.00	
Recorder	0.00	6751	Outside	4646.00	
Perforations	16.00			4662.00	
Change Over Sub	1.00			4663.00	
Drill Pipe	63.00			4726.00	
Change Over Sub	1.00			4727.00	
Bullnose	3.00			4730.00	86.00 Bottom Packers & Anchor
Total Tool Length:	113.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co, INC.

S11-17s-33w Scott,KS

250 N Water STE 300
Wichita KS 67202

DAMW 'A' # 1-11

Job Ticket: 61565

DST#: 5

ATTN: Kent Matson

Test Start: 2015.02.17 @ 23:45:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OSM 100m	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:

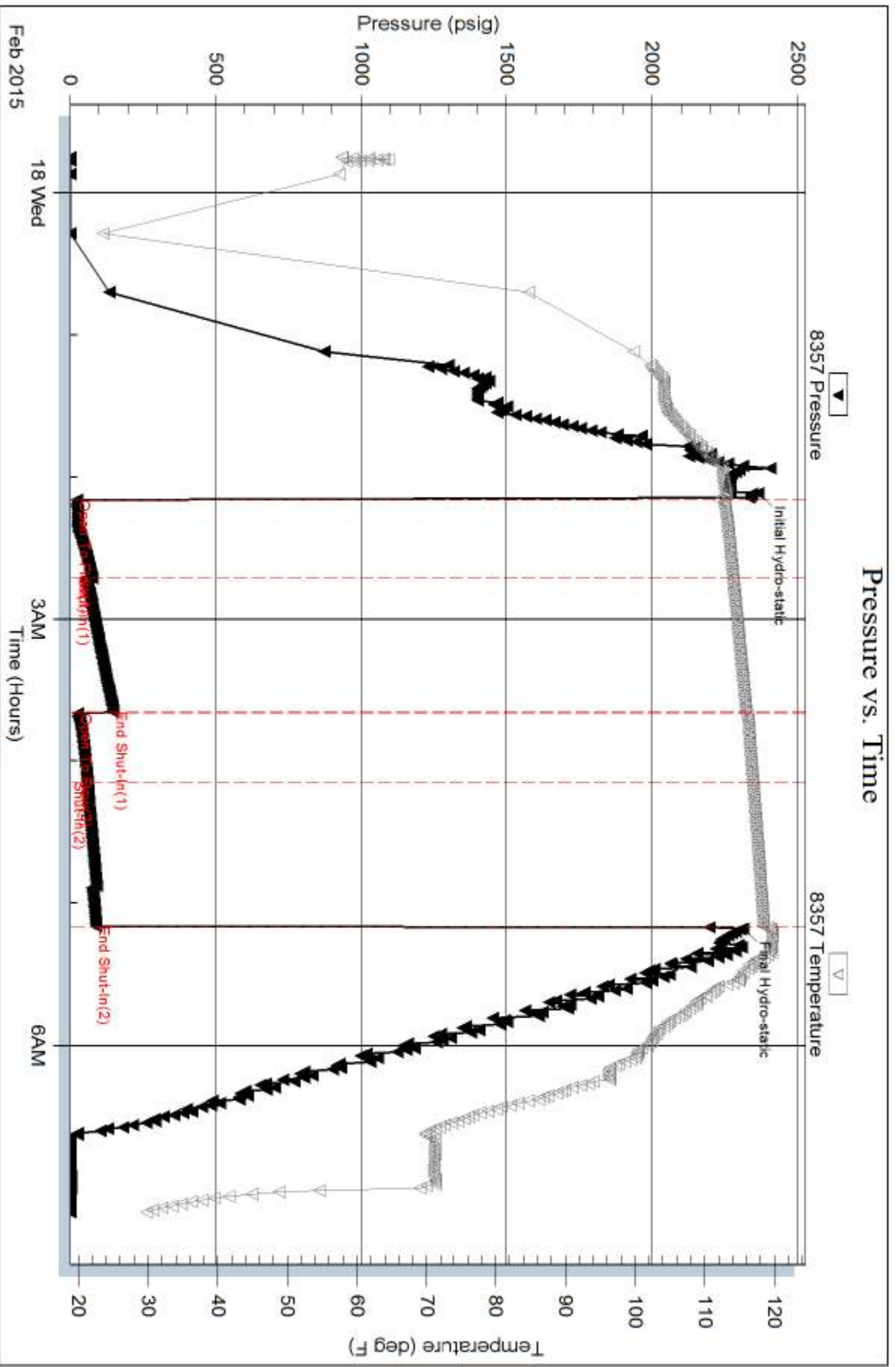
Serial #: 8357

Inside

Murfin Drilling Co. INC.

DAMW A' # 1-11

DST Test Number: 5

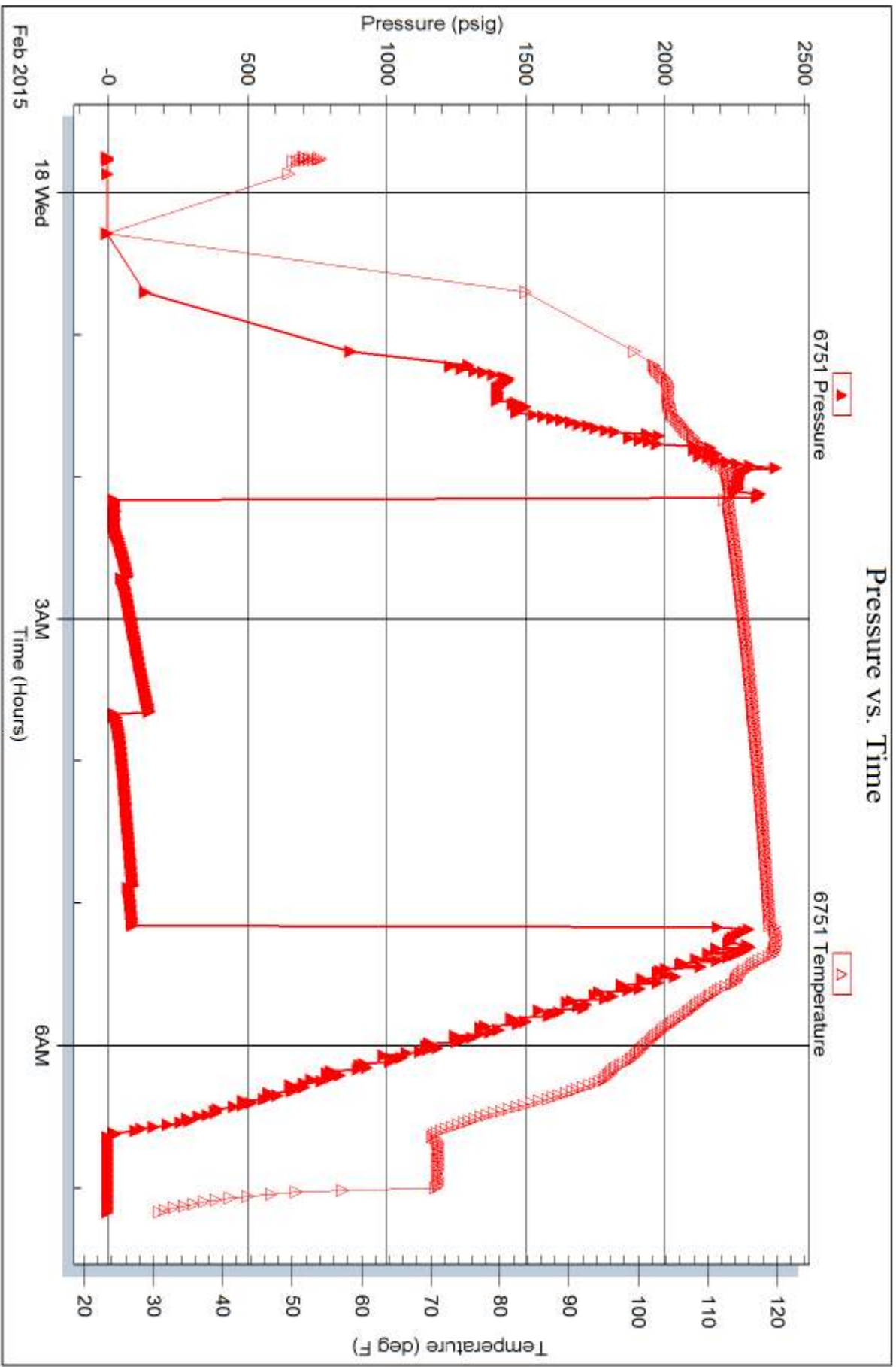


Serial #: 6751

Outside Murfin Drilling Co. INC.

DAMW/A' # 1-11

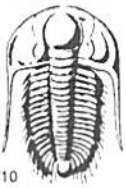
DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 61565

Printed: 2015.02.19 @ 14:36:37



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61520

Well Name & No. DAMW 'A' # 1-11 Test No. 1 Date 2/13
 Company Murfin Drilling Co, Inc Elevation 3021 KB 3010 GL
 Address 250 N Water STE 300 Wichita KS, 67202
 Co. Rep / Geo. Kent Mason Rig Murfin 21
 Location: Sec. 11 Twp. 17S Rge. 33W Co. Scott State Ks

Interval Tested 4016 4090 Zone Tested Lensing B-D
 Anchor Length 64 Drill Pipe Run 3734 Mud Wt. 9.2
 Top Packer Depth 4012 Drill Collars Run 276 Vis 49
 Bottom Packer Depth 4014 Wt. Pipe Run Ø WL 7.2
 Total Depth 4090 Chlorides 5000 ppm System LCM 4

Blow Description 30 B.O.B in 2 mins.
60 No Return.
60 B.O.B in 3 mins.
90 No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>821</u>	<u>new</u>			<u>95</u>	<u>05</u>
<u>827</u>	<u>new</u>			<u>90</u>	<u>10</u>
<u>276</u>	<u>new</u>			<u>55</u>	<u>45</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1929 BHT 120 Gravity — API RW .14 @ 72° F Chlorides 28000 ppm

(A) Initial Hydrostatic 2010 Test 1150 T-On Location 6:00
 (B) First Initial Flow 111 Jars 250 T-Started 6:44
 (C) First Final Flow 562 Safety Joint 75 T-Open 8:25
 (D) Initial Shut-In 1034 Circ Sub N/C T-Pulled 1225
 (E) Second Initial Flow 580 Hourly Standby _____ T-Out 1445
 (F) Second Final Flow 904 Mileage 26 RT ²⁶ Comments _____
 (G) Final Shut-In 1041 Sampler _____
 (H) Final Hydrostatic 1948 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1501
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1501

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

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. 61562

4/10

Well Name & No. DAMW 'A' 1-11 Test No. 2 Date 2-14-15
 Company Muffin Drilling Co., Inc. Elevation 3021 KB 3010 GL
 Address 250 N. Water St. 300 Wichita, KS 67202
 Co. Rep / Geo. Kent Matson Rig MDC#21
 Location: Sec. 11 Twp. 17s Rge. 33w Co. Scott State KS

Interval Tested 4272-4320 Zone Tested Lansing 'K'
 Anchor Length 48 Drill Pipe Run 3988 Mud Wt. 9.2
 Top Packer Depth 4268 Drill Collars Run 277 Vis 53
 Bottom Packer Depth 4272 Wt. Pipe Run 0 WL 7.2
 Total Depth 4320 Chlorides 6500 ppm System LCM 4"
 Blow Description 4" Blow.
No return.
3 1/2" Blow.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>15</u>	Feet of <u>OSM</u>				<u>100</u>
Rec <u>277</u>	Feet of <u>WM</u>			<u>25</u>	<u>75</u>
Rec _____	Feet of _____				
Rec _____	Feet of _____				

Rec Total 292 BHT 122 Gravity — API RW .580 @ 25 °F Chlorides 34000 ppm

(A) Initial Hydrostatic <u>2197</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>18:15</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>18:15</u>
(C) First Final Flow <u>76</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>20:39</u>
(D) Initial Shut-In <u>1100</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>00:41</u>
(E) Second Initial Flow <u>80</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>2:30</u>
(F) Second Final Flow <u>152</u>	<input checked="" type="checkbox"/> Mileage <u>26RT 26</u>	Comments _____
(G) Final Shut-In <u>1062</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2134</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1501</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1501</u>	

Approved By [Signature] Our Representative Chuck Arnold

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. 61563

4/10

Well Name & No. DAMWA 1-11 Test No. 3 Date 2-15-15
 Company Murfin Drilling Co., Inc. Elevation 3021 KB 3010 GL
 Address 2.50 N. Water Ste. 300 Wichita, KS 67202
 Co. Rep / Geo. Kent Matson Rig M.D.C. #21
 Location: Sec. 11 Twp. 17s Rge. 33w Co. Scott State Ks

Interval Tested 4394 - 4490 Zone Tested Macmaton
 Anchor Length 96 Drill Pipe Run 4110 Mud Wt. 9.3
 Top Packer Depth 4390 Drill Collars Run 277 Vis 50
 Bottom Packer Depth 4394 Wt. Pipe Run 0 WL 7.2
 Total Depth 4490 Chlorides 7600 ppm System LCM 4#

Blow Description B.O.B. @ 7 min.
No return.
B.O.B. @ 8 min.
No return.

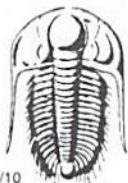
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>280</u>	Feet of <u>OWCM</u>	%gas	<u>2</u> %oil	<u>38</u> %water	<u>60</u> %mud
Rec <u>370</u>	Feet of <u>GMCW</u>	<u>5</u> %gas	%oil	<u>50</u> %water	<u>45</u> %mud
Rec <u>680</u>	Feet of <u>OSMW</u>	%gas	%oil	<u>90</u> %water	<u>10</u> %mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 1330 BHT 125 Gravity — API RW 390 @ 28 °F Chlorides 46000 ppm

(A) Initial Hydrostatic 2327 Test 1150 T-On Location 23:10
 (B) First Initial Flow 131 Jars 250 T-Started 23:20
 (C) First Final Flow 325 Safety Joint 75 T-Open 1:28
 (D) Initial Shut-In 1188 Circ Sub NIC T-Pulled 5:28
 (E) Second Initial Flow 325 Hourly Standby _____ T-Out 8:21
 (F) Second Final Flow 610 Mileage 26 Comments Some rubber may be in the hole.
 (G) Final Shut-In 1159 Sampler _____
 (H) Final Hydrostatic 2270 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer 320
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 320
 Day Standby _____ Total 1821
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1501

Approved By [Signature] Our Representative Chuck Smith

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. 61564

4/10

Well Name & No. DAMW 'A' 1-11 Test No. 4 Date 2-17-15
 Company Murfin Drilling Co., Inc. Elevation 3021 KB 3010 GL
 Address 250 N. Water St. 300 Wichita, KS 67202
 Co. Rep / Geo. Kent Matson Rig M.D.C. #21
 Location: Sec. 11 Twp. 17s Rge. 33w Co. Scott State KS

Interval Tested 4569-4680 Zone Tested Verdigris - Atoka
 Anchor Length 111 Drill Pipe Run 4270 Mud Wt. 9.3
 Top Packer Depth 4565 Drill Collars Run 277 Vis 55
 Bottom Packer Depth 4569 Wt. Pipe Run 0 WL 9.2
 Total Depth 4680 Chlorides 9600 ppm System LCM 4#
 Blow Description 1/2" Decreasing blow.
No return
No blow.
No return.

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

Rec Total 5 BHT 120 Gravity — API RW — @ — °F Chlorides — ppm
 (A) Initial Hydrostatic 2333 Test 1150 T-On Location 8:12
 (B) First Initial Flow 24 Jars 250 T-Started 8:12
 (C) First Final Flow 74 Safety Joint 75 T-Open 10:35
 (D) Initial Shut-In 179 Circ Sub NIC T-Pulled 13:40
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 15:57
 (F) Second Final Flow 28 Mileage 26 Comments _____
 (G) Final Shut-In 93 Sampler _____
 (H) Final Hydrostatic 2304 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1501
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 1501

Approved By [Signature] Our Representative Chuck Smith

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61565

4/10

Well Name & No. DAMW 'A' 1-11 Test No. 5 Date 2-17-15
 Company Murfin Drilling Co., Inc. Elevation 3021 KB 3010 GL
 Address 250 N. Water Ste. 300 Wichita, KS 67202
 Co. Rep / Geo. Kent Matson Rig MDC #21
 Location: Sec. 11 Twp. 17s Rge. 33w Co. Scott State KS

Interval Tested 4644 - 4730 Zone Tested Morrow - Upper Mississippian
 Anchor Length 86 Drill Pipe Run 4364 Mud Wt. 9.2
 Top Packer Depth 4640 Drill Collars Run 277 Vis 60
 Bottom Packer Depth 4644 Wt. Pipe Run 0 WL 8.0
 Total Depth 4730 Chlorides 7000 ppm System LCM 4th
 Blow Description Decreasing blow
No return.
No blow.
No return.

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

Rec Total 5 BHT 118 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2366</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>23:45</u>
(B) First Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>23:45</u>
(C) First Final Flow <u>75</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2:09</u>
(D) Initial Shut-In <u>149</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>5:10</u>
(E) Second Initial Flow <u>27</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>7:11</u>
(F) Second Final Flow <u>60</u>	<input checked="" type="checkbox"/> Mileage <u>x2 26+26</u>	Comments <u>Loaded tool 2-19</u>
(G) Final Shut-In <u>90</u>	<input type="checkbox"/> Sampler	<u>3:00 a.m.</u>
(H) Final Hydrostatic <u>2314</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1777</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1777</u>	

Approved By

Our Representative

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