



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67202

ATTN: Chuck Schmaltz

Frisbie A #2-6

6-2s-36w Rawlins,KS

Start Date: 2015.05.19 @ 13:17:00

End Date: 2015.05.19 @ 22:42:49

Job Ticket #: 62578 DST #: 1

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

Printed: 2015.05.26 @ 14:05:50



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62578

DST#: 1

ATTN: Chuck Schmaltz

Test Start: 2015.05.19 @ 13:17:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:19:50

Time Test Ended: 22:42:49

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols

Unit No: 78

Interval: 4140.00 ft (KB) To 4190.00 ft (KB) (TVD)

Reference Elevations: 3343.00 ft (KB)

Total Depth: 4190.00 ft (KB) (TVD)

3338.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6752 Inside

Press@RunDepth: 18.01 psig @ 4141.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.19

End Date:

2015.05.19

Last Calib.:

2015.05.19

Start Time: 13:17:01

End Time:

22:42:49

Time On Btm:

2015.05.19 @ 17:19:40

Time Off Btm:

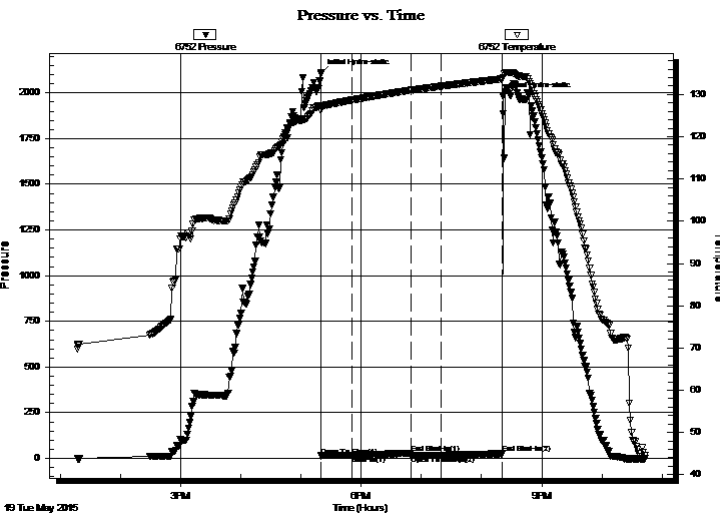
2015.05.19 @ 20:21:09

TEST COMMENT: 30 IF - Surface blow built to 1/2"

60 ISI - No return

30 FF - No blow

60 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2104.00	127.43	Initial Hydro-static
1	13.91	126.23	Open To Flow (1)
31	17.30	128.65	Shut-In(1)
90	28.35	131.01	End Shut-In(1)
91	15.85	131.01	Open To Flow (2)
121	18.01	131.98	Shut-In(2)
181	24.68	133.66	End Shut-In(2)
182	1979.41	134.05	Final Hydro-static

Recovery

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

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62578

DST#: 1

ATTN: Chuck Schmaltz

Test Start: 2015.05.19 @ 13:17:00

Tool Information

Drill Pipe:	Length: 3947.00 ft	Diameter: 3.80 inches	Volume: 55.37 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 56.28 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	4140.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	77.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4114.00	
Shut In Tool	5.00			4119.00	
Hydraulic tool	5.00			4124.00	
Jars	5.00			4129.00	
Safety Joint	2.00			4131.00	
Packer	5.00			4136.00	27.00 Bottom Of Top Packer
Packer	4.00			4140.00	
Stubb	1.00			4141.00	
Recorder	0.00	6752	Inside	4141.00	
Recorder	0.00	8322	Outside	4141.00	
Perforations	13.00			4154.00	
Change Over Sub	1.00			4155.00	
Drill Pipe	31.00			4186.00	
Change Over Sub	1.00			4187.00	
Bullnose	3.00			4190.00	50.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62578

DST#: 1

ATTN: Chuck Schmaltz

Test Start: 2015.05.19 @ 13:17:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 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
5.00	Mud 100%M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

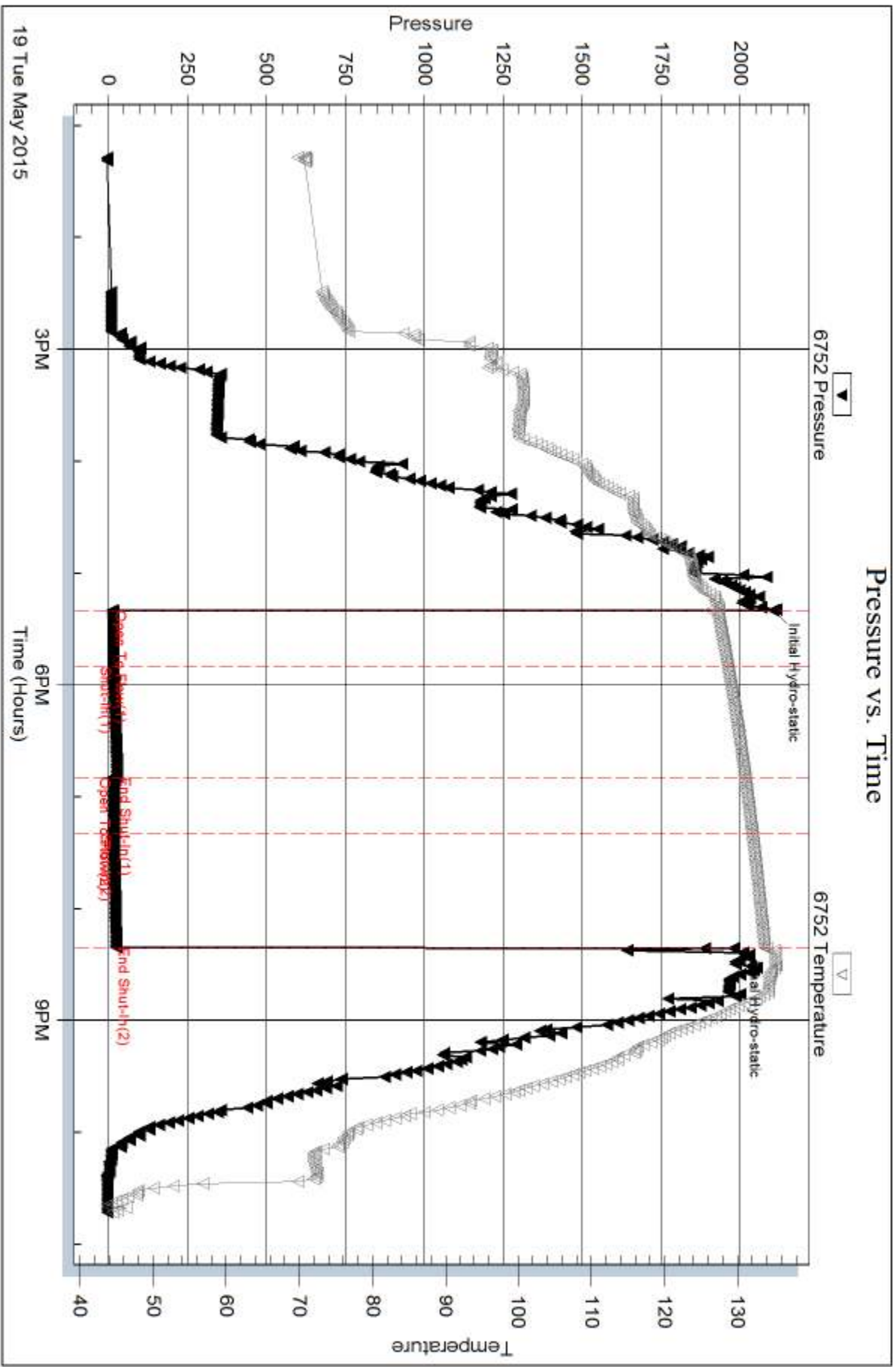
Serial #: 6752

Inside

Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 62578

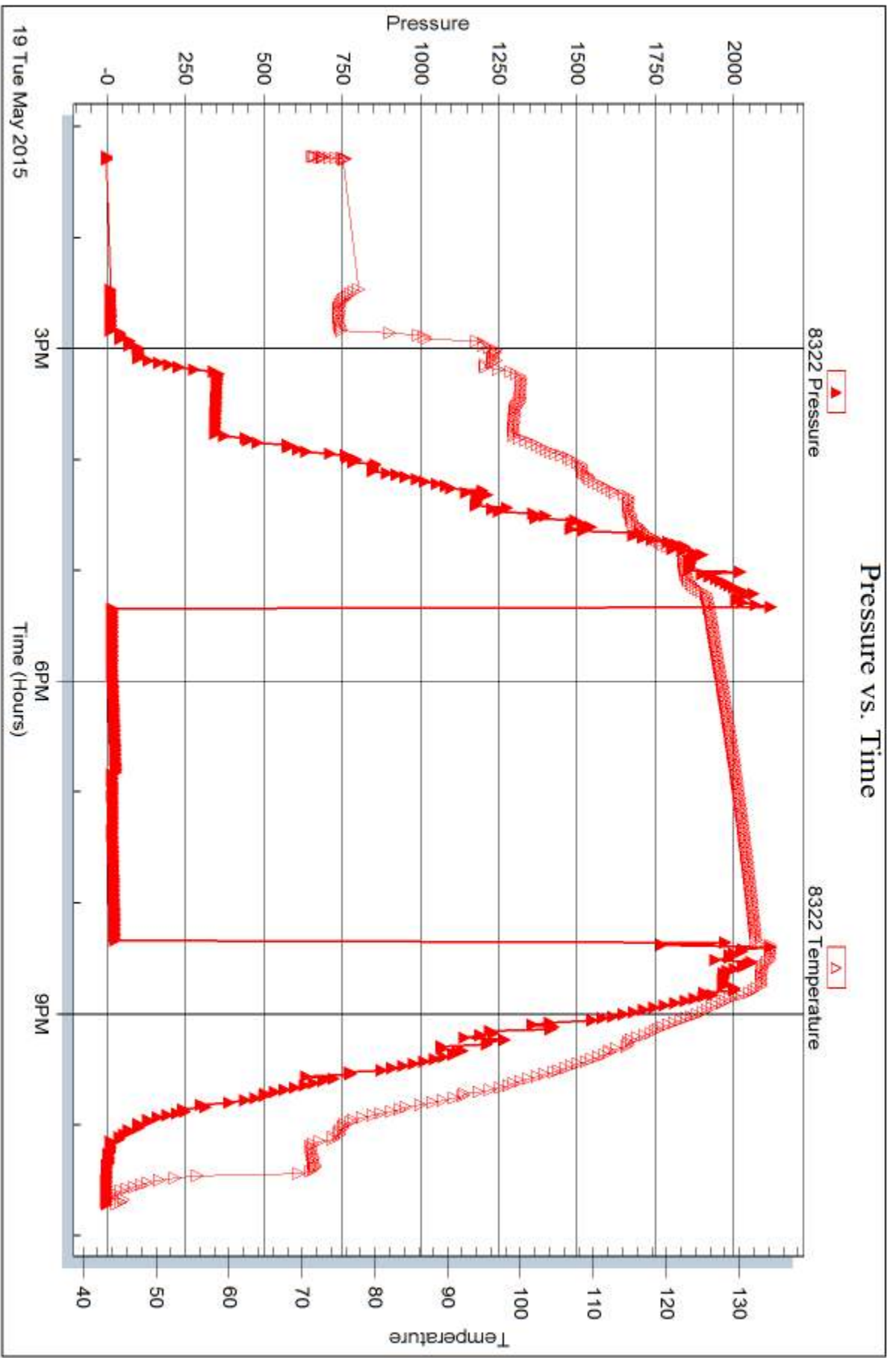
Printed: 2015.05.26 @ 14:05:51

Serial #: 8322

Outside Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 62578

Printed: 2015.05.26 @ 14:05:51



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67202

ATTN: Chuck Schmaltz

Frisbie A #2-6

6-2s-36w Rawlins,KS

Start Date: 2015.05.20 @ 19:41:00

End Date: 2015.05.21 @ 04:50:49

Job Ticket #: 62579 DST #: 2

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

Printed: 2015.05.26 @ 14:05:23

Murfin Drilling Co.
6-2s-36w Rawlins,KS
Frisbie A #2-6
DST # 2
LKC " A - D "
2015.05.20



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62579

DST#: 2

ATTN: Chuck Schmalz

Test Start: 2015.05.20 @ 19:41:00

GENERAL INFORMATION:

Formation: **LKC " A - D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:16:40

Time Test Ended: 04:50:49

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols

Unit No: 78

Interval: 4225.00 ft (KB) To 4348.00 ft (KB) (TVD)

Reference Elevations: 3343.00 ft (KB)

Total Depth: 4348.00 ft (KB) (TVD)

3338.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6752

Inside

Press@RunDepth: 370.64 psig @ 4226.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.20

End Date:

2015.05.21

Last Calib.:

2015.05.21

Start Time: 19:41:01

End Time:

04:50:49

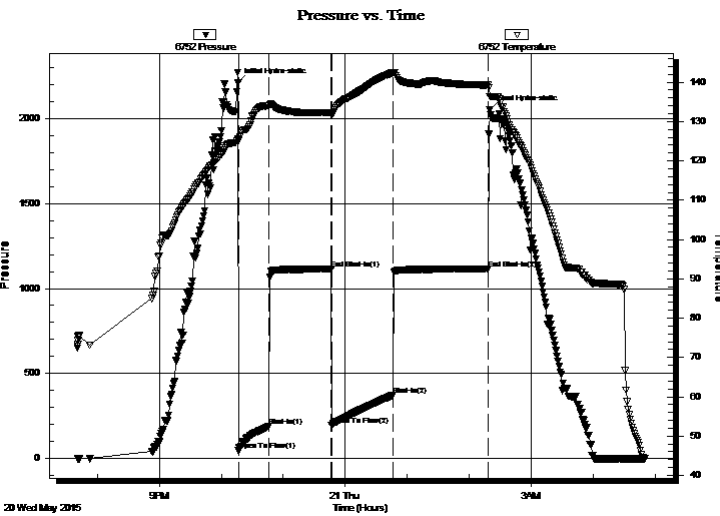
Time On Btm:

2015.05.20 @ 22:16:20

Time Off Btm:

2015.05.21 @ 02:20:00

TEST COMMENT: 30 IF - slide 3' w hen tool opened, bleed off surge, 1" blow built to BoB @ 13 mins
60 ISI - No return
60 FF - Surface blow started @ 1 1/2 mins built to BoB @ 18 mins
90 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2213.39	125.60	Initial Hydro-static
1	45.19	125.17	Open To Flow (1)
31	190.90	134.17	Shut-In(1)
91	1114.53	132.25	End Shut-In(1)
91	196.21	131.82	Open To Flow (2)
150	370.64	142.46	Shut-In(2)
242	1114.99	139.25	End Shut-In(2)
244	2052.16	136.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	OCMW - 2%o - 8%M - 90%W	0.91
378.00	OCMW - 2%o - 18%M - 80%W	5.30
189.00	OWCM - 2%o - 48%W - 50%M	2.65
20.00	Mud 100%M	0.28

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62579

DST#: 2

ATTN: Chuck Schmaltz

Test Start: 2015.05.20 @ 19:41:00

Tool Information

Drill Pipe:	Length: 4042.00 ft	Diameter: 3.80 inches	Volume: 56.70 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 57.61 bbl</u>	Tool Chased	3.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	59000.00 lb
Depth to Top Packer:	4225.00 ft			Final	63000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	123.00 ft				
Tool Length:	150.00 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			4199.00	
Shut In Tool	5.00			4204.00	
Hydraulic tool	5.00			4209.00	
Jars	5.00			4214.00	
Safety Joint	2.00			4216.00	
Packer	5.00			4221.00	27.00 Bottom Of Top Packer
Packer	4.00			4225.00	
Stubb	1.00			4226.00	
Recorder	0.00	6752	Inside	4226.00	
Recorder	0.00	8322	Outside	4226.00	
Perforations	23.00			4249.00	
Change Over Sub	1.00			4250.00	
Drill Pipe	94.00			4344.00	
Change Over Sub	1.00			4345.00	
Bullnose	3.00			4348.00	123.00 Bottom Packers & Anchor

Total Tool Length: 150.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62579

DST#: 2

ATTN: Chuck Schmaltz

Test Start: 2015.05.20 @ 19:41:00

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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 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
186.00	OCMW - 2%o - 8%M - 90%W	0.915
378.00	OCMW - 2%o - 18%M - 80%W	5.302
189.00	OWCM - 2%o - 48%W - 50%M	2.651
20.00	Mud 100%M	0.281

Total Length: 773.00 ft

Total Volume: 9.149 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

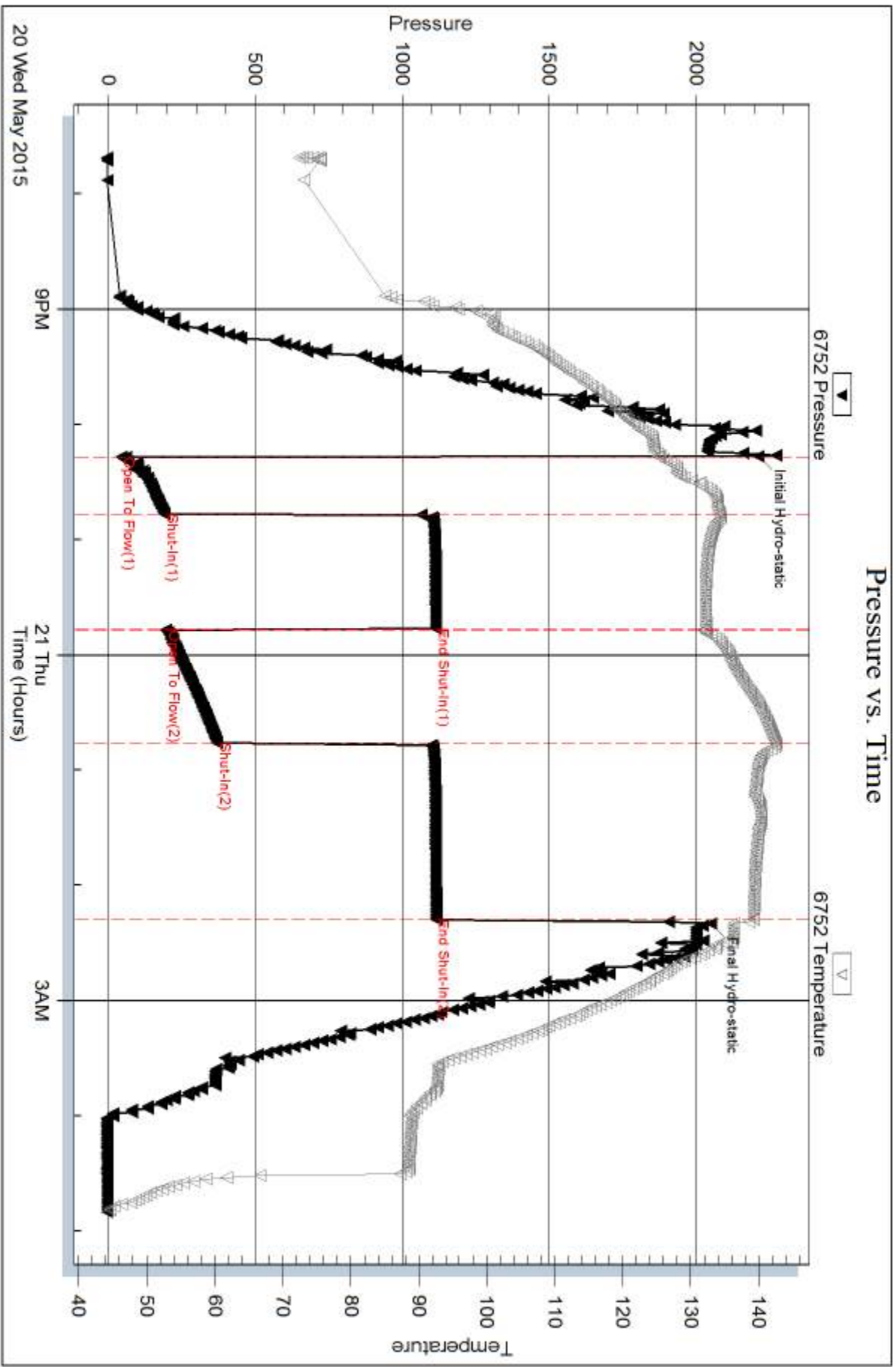
Serial #: 6752

Inside

Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 2

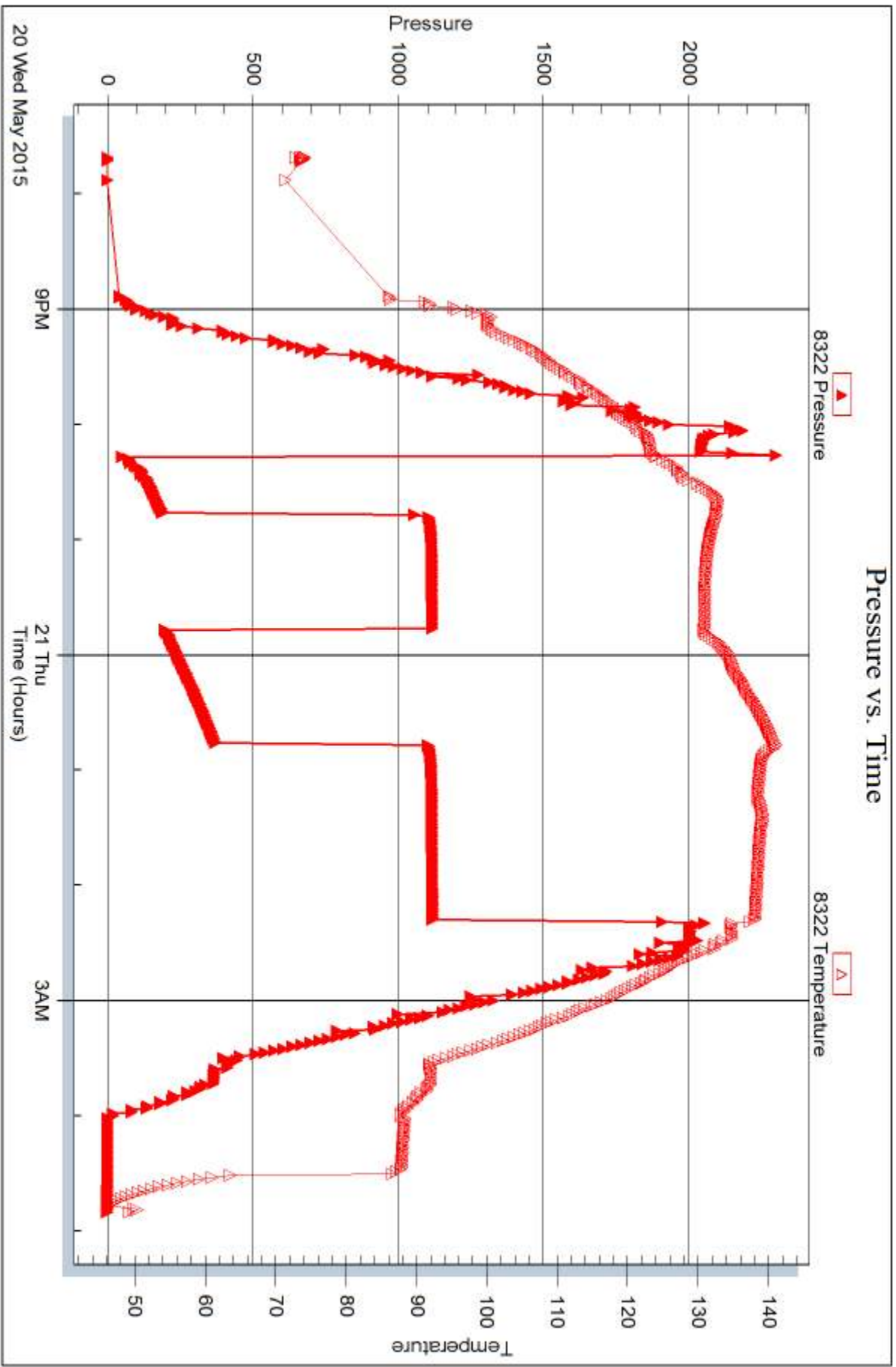


Serial #: 8322

Outside Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 62579

Printed: 2015.05.26 @ 14:05:24



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67202

ATTN: Chuck Schmaltz

Frisbie A #2-6

6-2s-36w Rawlins,KS

Start Date: 2015.05.21 @ 15:36:00

End Date: 2015.05.22 @ 00:13:00

Job Ticket #: 62580 DST #: 3

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

Printed: 2015.05.26 @ 14:04:57



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62580

DST#: 3

ATTN: Chuck Schmalz

Test Start: 2015.05.21 @ 15:36:00

GENERAL INFORMATION:

Formation: **LKC " G "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:01:10

Time Test Ended: 00:13:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4358.00 ft (KB) To 4410.00 ft (KB) (TVD)

Reference Elevations: 3343.00 ft (KB)

Total Depth: 4410.00 ft (KB) (TVD)

3338.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6752

Inside

Press@RunDepth: 947.69 psig @ 4359.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.21

End Date:

2015.05.22

Last Calib.:

2015.05.22

Start Time: 15:36:01

End Time:

00:13:00

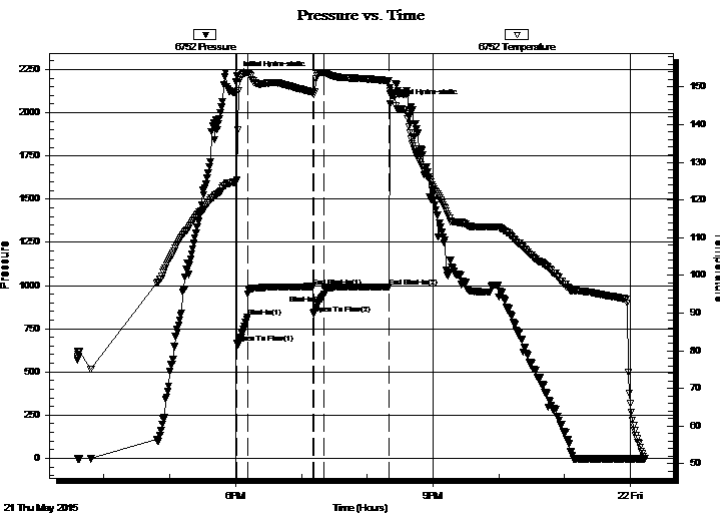
Time On Btm:

2015.05.21 @ 18:01:00

Time Off Btm:

2015.05.21 @ 20:20:39

TEST COMMENT: 10 IF - BoB @ 35 secs
60 ISI - Surface blow built to 1" died back @ 45 mins to 1/2"
10 FF - BoB @ 30 secs
60 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2212.27	125.03	Initial Hydro-static
1	664.42	125.21	Open To Flow (1)
10	818.61	153.79	Shut-In(1)
70	993.84	148.58	End Shut-In(1)
70	838.09	148.04	Open To Flow (2)
80	947.69	153.70	Shut-In(2)
139	993.39	151.62	End Shut-In(2)
140	2050.35	149.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
315.00	OMCW - 2%o - 3%M - 95%W	2.72
630.00	GOMCW - 30%G - 3%M - 20%o - 47%W	8.84
820.00	GOMCW - 30%G - 10%o - 10%M - 50%W	11.50
315.00	GWMCO - 30%G - 20%W - 20%M - 30%o	4.42
150.00	GOWCM - 10%G - 15%W - 30%o - 40%W	2.10

* 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.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62580

DST#: 3

ATTN: Chuck Schmaltz

Test Start: 2015.05.21 @ 15:36:00

Tool Information

Drill Pipe:	Length: 4170.00 ft	Diameter: 3.80 inches	Volume: 58.49 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 59.40 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4358.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	52.00 ft				
Tool Length:	79.00 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			4332.00	
Shut In Tool	5.00			4337.00	
Hydraulic tool	5.00			4342.00	
Jars	5.00			4347.00	
Safety Joint	2.00			4349.00	
Packer	5.00			4354.00	27.00 Bottom Of Top Packer
Packer	4.00			4358.00	
Stubb	1.00			4359.00	
Recorder	0.00	6752	Inside	4359.00	
Recorder	0.00	8322	Outside	4359.00	
Perforations	15.00			4374.00	
Change Over Sub	1.00			4375.00	
Drill Pipe	31.00			4406.00	
Change Over Sub	1.00			4407.00	
Bullnose	3.00			4410.00	52.00 Bottom Packers & Anchor

Total Tool Length: 79.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62580

DST#: 3

ATTN: Chuck Schmaltz

Test Start: 2015.05.21 @ 15:36:00

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: 6.39 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
315.00	OMCW - 2%o - 3%M - 95%W	2.724
630.00	GOMCW - 30%G - 3%M - 20%o - 47%W	8.837
820.00	GOMCW - 30%G - 10%o - 10%M - 50%W	11.502
315.00	GWMCO - 30%G - 20%W - 20%M - 30%o	4.419
150.00	GOWCM - 10%G - 15%W - 30%o - 40%M	2.104

Total Length: 2230.00 ft Total Volume: 29.586 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .955 @ 48 DEG F

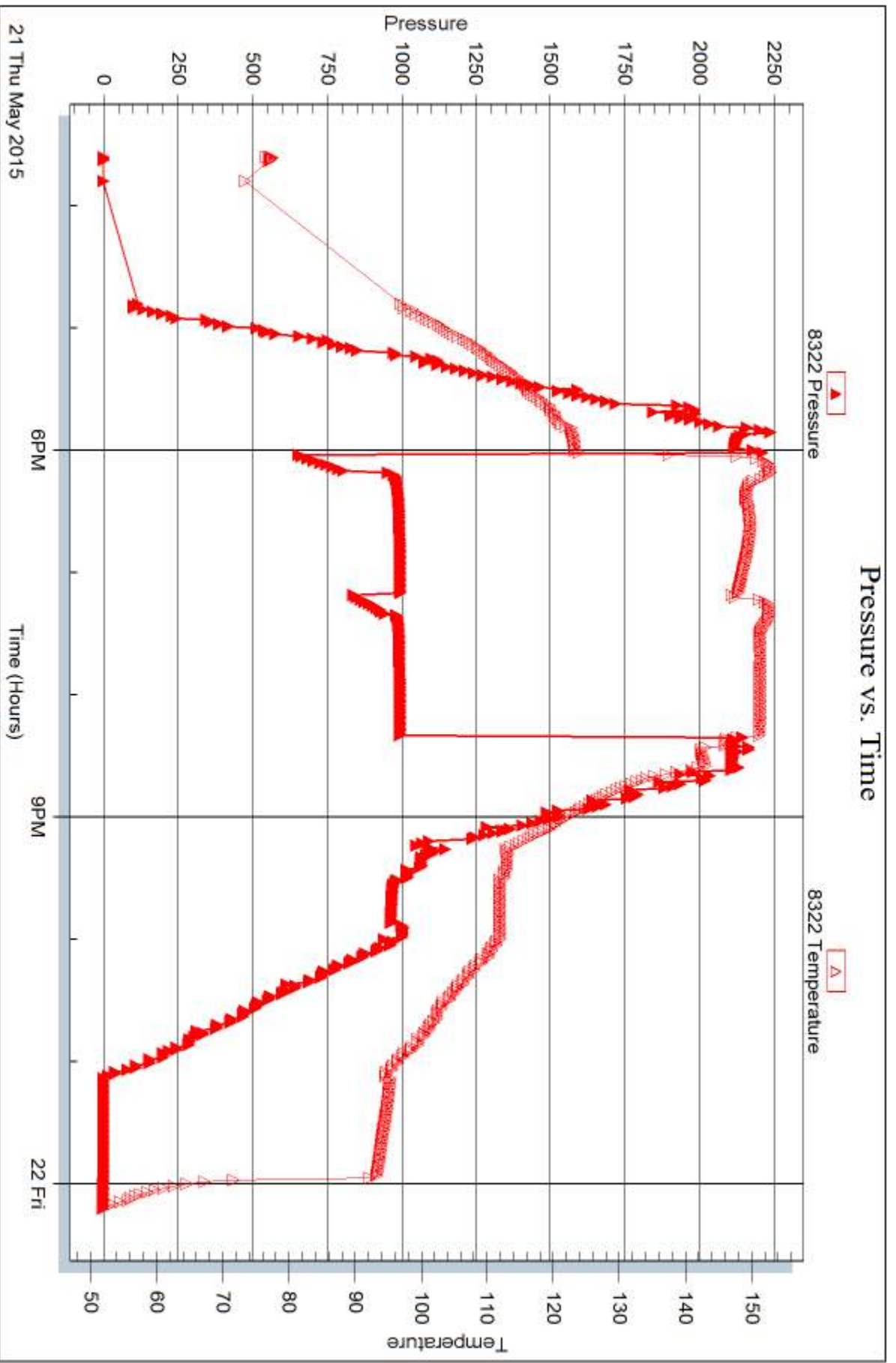
CHLORIDES = 9,500 PPM

Serial #: 8322

Outside Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 625580

Printed: 2015.05.26 @ 14:04:59



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67202

ATTN: Chuck Schmaltz

Frisbie A #2-6

6-2s-36w Rawlins,KS

Start Date: 2015.05.22 @ 14:05:00

End Date: 2015.05.22 @ 22:50:40

Job Ticket #: 62581 DST #: 4

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

Printed: 2015.05.26 @ 14:01:06

Murfin Drilling Co. 6-2s-36w Rawlins,KS Frisbie A #2-6 DST # 4 LKC " H - J " 2015.05.22



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62581

DST#: 4

ATTN: Chuck Schmaltz

Test Start: 2015.05.22 @ 14:05:00

GENERAL INFORMATION:

Formation: **LKC "H - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:20:20

Time Test Ended: 22:50:40

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4412.00 ft (KB) To 4495.00 ft (KB) (TVD)

Reference Elevations: 3343.00 ft (KB)

Total Depth: 4495.00 ft (KB) (TVD)

3338.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6752

Inside

Press@RunDepth: 108.57 psig @ 4413.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.22

End Date:

2015.05.22

Last Calib.:

2015.05.22

Start Time: 14:05:01

End Time:

22:50:40

Time On Btm:

2015.05.22 @ 16:20:10

Time Off Btm:

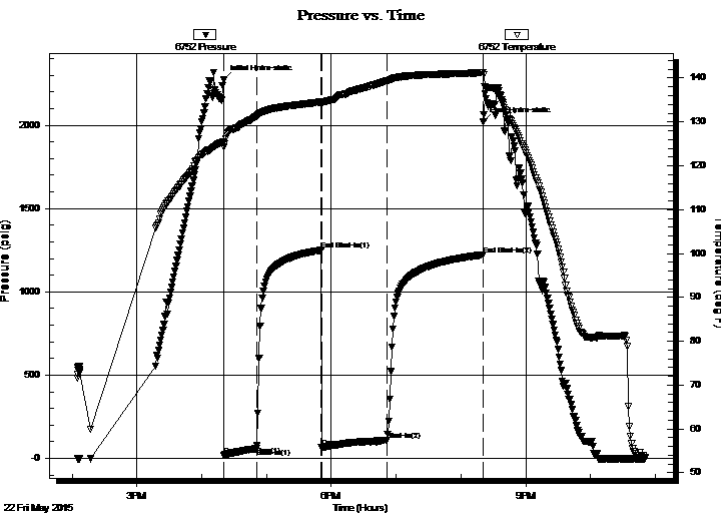
2015.05.22 @ 20:20:39

TEST COMMENT: 30 IF - 1/2" blow built to 5"

60 ISI - No return

60 FF - Surface blow started @ 2 mins built to 5"

90 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2271.98	125.45	Initial Hydro-static
1	19.65	124.23	Open To Flow (1)
31	59.79	131.30	Shut-In(1)
91	1249.62	134.55	End Shut-In(1)
91	63.63	134.22	Open To Flow (2)
151	108.57	139.34	Shut-In(2)
240	1221.86	141.24	End Shut-In(2)
241	2022.04	141.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	WOCM - 20%W - 20%o - 60%M	0.30
62.00	WOCM - 10%W - 20%o - 70%M	0.30
62.00	OCM - 25%o - 75%M	0.30
14.00	Free Oil - 100%o	0.20

* 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.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62581

DST#: 4

ATTN: Chuck Schmaltz

Test Start: 2015.05.22 @ 14:05:00

Tool Information

Drill Pipe:	Length: 4229.00 ft	Diameter: 3.80 inches	Volume: 59.32 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 60.23 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4412.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	83.00 ft				
Tool Length:	110.00 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			4386.00	
Shut In Tool	5.00			4391.00	
Hydraulic tool	5.00			4396.00	
Jars	5.00			4401.00	
Safety Joint	2.00			4403.00	
Packer	5.00			4408.00	27.00 Bottom Of Top Packer
Packer	4.00			4412.00	
Stubb	1.00			4413.00	
Recorder	0.00	6752	Inside	4413.00	
Recorder	0.00	8322	Outside	4413.00	
Perforations	13.00			4426.00	
Change Over Sub	1.00			4427.00	
Drill Pipe	64.00			4491.00	
Change Over Sub	1.00			4492.00	
Bullnose	3.00			4495.00	83.00 Bottom Packers & Anchor

Total Tool Length: 110.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

6-2s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Frisbie A #2-6

Job Ticket: 62581

DST#: 4

ATTN: Chuck Schmaltz

Test Start: 2015.05.22 @ 14:05:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 65.00 sec/qt
Water Loss: 6.39 in³
Resistivity: ohm.m
Salinity: 1000.00 ppm
Filter Cake: 2.00 inches

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

Oil API: 30 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	WOCM - 20%W - 20%o - 60%M	0.305
62.00	WOCM - 10%W - 20%o - 70%M	0.305
62.00	OCM - 25%o - 75%M	0.305
14.00	Free Oil - 100%o	0.196

Total Length: 200.00 ft Total Volume: 1.111 bbl

Num Fluid Samples: 0

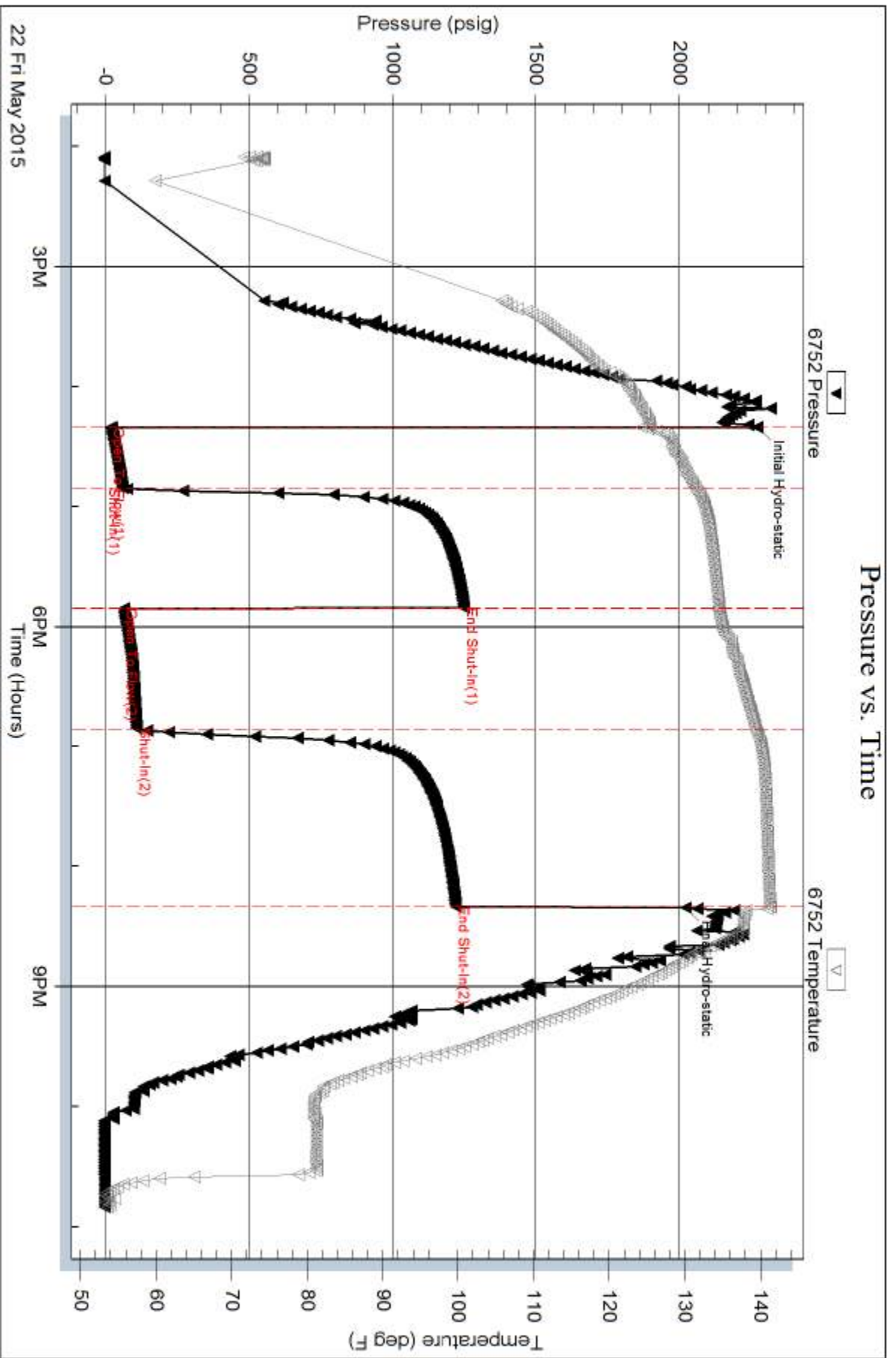
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: OIL API = 31 @ 70 DEG F = 30 COR 60 DEG F

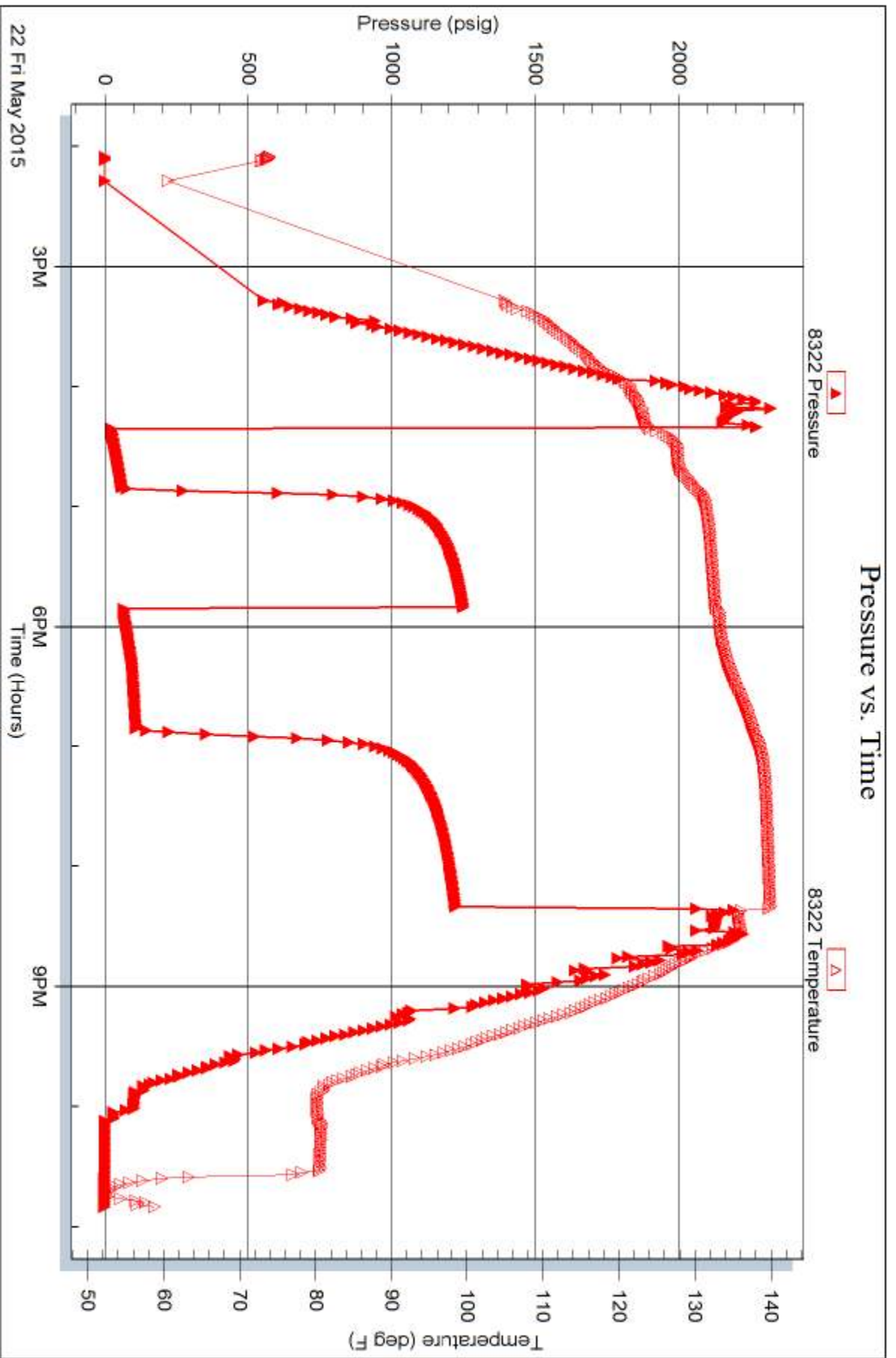


Serial #: 8322

Outside Murfin Drilling Co.

Frisbie A #2-6

DST Test Number: 4



Tribble Testing, Inc

Ref. No: 62581

Printed: 2015.05.26 @ 14:01:08



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62578

Well Name & No. Frisbe A Test No. 1 Date 5-19-15
 Company Murfin Drilling Co. Elevation 3343 KB 3338 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Chuck Schmaltz Rig Murfin #6
 Location: Sec. 6 Twp. 25 Rge. 36 W Co. Rawlins State KS

Interval Tested 4140 - 4190 Zone Tested Oreod
 Anchor Length 50' Drill Pipe Run 3947' Mud Wt. 9.3
 Top Packer Depth 4135 Drill Collars Run 186' Vis 53
 Bottom Packer Depth 4140 Wt. Pipe Run 0' WL 6.8
 Total Depth 4190 Chlorides 600 ppm System LCM 4

Blow Description IF - Surface blow built to 1/2"
ISI - No blow
FF - No blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%n
<u>5'</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%n
Rec	Feet of	%gas	%oil	%water	%n
Rec	Feet of	%gas	%oil	%water	%n
Rec	Feet of	%gas	%oil	%water	%n

Rec Total 5' BHT 1340 Gravity _____ API RW _____ @ _____ °F Chlorides _____
 (A) Initial Hydrostatic 2104 Test 1150 T-On Location 12:00
 (B) First Initial Flow 14 Jars 250 T-Started 13:17
 (C) First Final Flow 17 Safety Joint 75 T-Open 17:20
 (D) Initial Shut-In 28 Circ Sub NC T-Pulled 20:20
 (E) Second Initial Flow 16 Hourly Standby _____ T-Out 22:42
 (F) Second Final Flow 18 Mileage 120 RT 120 Comments _____
 (G) Final Shut-In 25 Sampler _____
 (H) Final Hydrostatic 1979 Straddle _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Shale Packer _____
 Final Flow 30 Extra Packer _____
 Final Shut-In 60 Extra Recorder _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1595
 Sub Total 1595 MP/DST Disc't _____

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 less suffered or sustained, directly or indirectly, through the use of 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. 62579

Well Name & No. Frigbie A # 2-6 Test No. 2 Date 5/20/15
 Company Murfin Drilling Co. Elevation 3343 KB 7338 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Chuck Schmalz Rig Murfin #8
 Location: Sec. 6 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4225 - 4348 Zone Tested 2KC "A-D"
 Anchor Length 123' Drill Pipe Run 4042' Mud Wt. 9.3
 Top Packer Depth 4220 Drill Collars Run 186' Vis 48
 Bottom Packer Depth 4225 Wt. Pipe Run 0' WL 7.2
 Total Depth 4348 Chlorides 600 ppm System LCM 4

Blow Description IF - slid 3' when tool opened bleed off surge, 1" built to BOB @ 13 mins / ISI - No return
FF - Surface started @ 1 1/2 mins built to BOB @ 18 mins
FST - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud</u>			<u>100</u>	
<u>189</u>	<u>OMCW</u>		<u>2</u>	<u>48</u>	<u>50</u>
<u>378</u>	<u>OMCW</u>		<u>2</u>	<u>80</u>	<u>18</u>
<u>186</u>	<u>OMCW</u>		<u>2</u>	<u>90</u>	<u>8</u>

Rec Total 773' BHT 139' Gravity — API RW — @ — °F Chlorides — ppm
 (A) Initial Hydrostatic 2213 Test 1150 T-On Location 19:30
 (B) First Initial Flow 45 Jars 250 T-Started 19:41
 (C) First Final Flow 191 Safety Joint 75 T-Open 22:15
 (D) Initial Shut-In 1115 Circ Sub NC T-Pulled 02:15
 (E) Second Initial Flow 196 Hourly Standby _____ T-Out 04:50
 (F) Second Final Flow 371 Mileage 120 RT 110 Comments _____
 (G) Final Shut-In 1115 Sampler _____
 (H) Final Hydrostatic 2052 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1585
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1585

Approved By _____

Our Representative Chuck Schmalz

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. 62580

Well Name & No. Frisbie A #2-6 Test No. 3 Date 5/21/15
 Company Martin Drilling Co. Elevation 3343 KB 3338 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Chuck Schmatz Rig Martin #8
 Location: Sec. 6 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4358 - 4410 Zone Tested 2KC "G"
 Anchor Length 52' Drill Pipe Run _____ Mud Wt. 9.1
 Top Packer Depth 4353 Drill Collars Run 186' Vis 56
 Bottom Packer Depth 4358 Wt. Pipe Run 0 WL 6.4
 Total Depth 4410 Chlorides 600 ppm System LCM 5

Blow Description IF - BoB @ 35 secs
ISI - Surface blow built to 1", died back @ 45 mins to 1/2"
FF - BoB @ 30 secs
FSI -

Rec <u>150</u>	Feet of <u>GOWCM</u>	<u>10</u> %gas	<u>30</u> %oil	<u>15</u> %water	<u>40</u> %mud
Rec <u>315</u>	Feet of <u>GWMCO</u>	<u>30</u> %gas	<u>30</u> %oil	<u>20</u> %water	<u>20</u> %mud
Rec <u>820</u>	Feet of <u>GOMCW</u>	<u>30</u> %gas	<u>10</u> %oil	<u>50</u> %water	<u>10</u> %mud
Rec <u>630</u>	Feet of <u>GOMCW</u>	<u>30</u> %gas	<u>20</u> %oil	<u>47</u> %water	<u>3</u> %mud
Rec <u>315</u>	Feet of <u>OMCW</u>	<u>0</u> %gas	<u>2</u> %oil	<u>95</u> %water	<u>3</u> %mud

Rec Total 2230 BHT 152° Gravity _____ API RW 955 @ 48° F Chlorides 9,500 ppm
 (A) Initial Hydrostatic 2212 Test 1150 T-On Location 15:00
 (B) First Initial Flow 664 Jars 250 T-Started 15:36
 (C) First Final Flow 819 Safety Joint 75 T-Open 18:00
 (D) Initial Shut-In 994 Circ Sub NC T-Pulled 20:20
 (E) Second Initial Flow 838 Hourly Standby _____ T-Out 00:13
 (F) Second Final Flow 948 Mileage 120 RT 110 Comments _____
 (G) Final Shut-In 993 Sampler _____
 (H) Final Hydrostatic 2050 Straddle _____
 Initial Open 10 Shale Packer _____
 Initial Shut-In 60 Shale Packer _____
 Final Flow 10 Extra Packer _____
 Final Shut-In 60 Extra Recorder _____
 Sub Total 0 Total 1585 MP/DST Disc't _____
 Sub Total 1585

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62581

Well Name & No. Frisbie A # 2-6 Test No. 4 Date 5/22/15
 Company Martin Drilling Co. Elevation 3343 KB 3338 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Chuck Schmalz Rig Martin # 8
 Location: Sec. 6 Twp. 25 Rge. 36W Co. Rawlins State KS

Interval Tested 4412 - 4495 Zone Tested LKC "H-J"
 Anchor Length 83' Drill Pipe Run 4229 Mud Wt. 9.2
 Top Packer Depth 4407 Drill Collars Run 186' Vis 65
 Bottom Packer Depth 4412 Wt. Pipe Run 0' WL 6.4
 Total Depth 4495 Chlorides 1000 ppm System LCM 4
 Blow Description IF - 1/2" blow built to 5"
ISI - No return
FF - Surface blow started @ 2 mins built to 5"
FSE - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>14</u>	<u>0:1</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>62</u>	<u>0CM</u>	<u>25</u>	<u>0</u>	<u>75</u>	<u>0</u>
<u>62</u>	<u>WOCM</u>	<u>20</u>	<u>10</u>	<u>70</u>	<u>0</u>
<u>62</u>	<u>WOCM</u>	<u>20</u>	<u>20</u>	<u>60</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 200' BHT 141° Gravity 30 API RW - @ - °F Chlorides - ppm
 (A) Initial Hydrostatic 2272 Test 1150 T-On Location 13:30
 (B) First Initial Flow 20 Jars 250 T-Started 14:02
 (C) First Final Flow 60 Safety Joint 75 T-Open 16:20
 (D) Initial Shut-In 1250 Circ Sub NC T-Pulled 20:20
 (E) Second Initial Flow 64 Hourly Standby _____ T-Out 22:50
 (F) Second Final Flow 109 Mileage 120 RT 110 Comments _____
 (G) Final Shut-In 1222 Sampler _____
 (H) Final Hydrostatic 2022 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Extra Packer _____ Sub Total 0
 Initial Shut-In 60 Extra Recorder _____ Total 1585
 Final Flow 60 Day Standby _____ MP/DST Disc't _____
 Final Shut-In 90 Accessibility _____
 Sub Total 1585

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. 62213

Well Name & No. Frisbie 'A' # 2-6 Test No. _____ Date 5-25-15
 Company Marfin Drilling CO., Inc. Elevation 3343 KB 3338 GL _____
 Address 250 N. water STE 300, Wichita, KS, 67202
 Co. Rep / Geo. Chuck Schmalz Rig Marfin #8
 Location: Sec. 6 Twp. 2S Rge. 36 W Co. Rawlins State KS

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

Blow Description went to load tools the night of the 24th but Tool Pusher wasn't informed & they shut down till 10:00 am on the 25th went to load tools. Unable to get into location due to weather conditions.

Rec	Feet of	%gas	%oil	%water	%mud

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

(A) Initial Hydrostatic _____ Test No test T-On Location _____
 (B) First Initial Flow _____ Jars _____ T-Started _____
 (C) First Final Flow _____ Safety Joint _____ T-Open _____
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out _____
 (F) Second Final Flow _____ Mileage 220 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic _____ Straddle _____
 Ruined Shale Packer _____
 Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Recorder _____
 Extra Copies _____
 Initial Open _____
 Initial Shut-In _____
 Final Flow _____ Day Standby 1.5d 23.25h Sub Total 800
 Final Shut-In _____ Accessibility _____ Total 1020
 Sub Total 220 MP/DST Disc't _____

Approved By _____ Our Representative Benjamin [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.