



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67206

ATTN: Robert Hendrix

Patricia #3-16

16-1s-37w Cheyenne,KS

Start Date: 2015.06.26 @ 08:10:00

End Date: 2015.06.26 @ 16:39:50

Job Ticket #: 62595 DST #: 1

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

Printed: 2015.06.29 @ 11:19:33



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.

16-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62595

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.06.26 @ 08:10:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:49:10

Time Test Ended: 16:39:50

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols

Unit No: 78

Interval: 4178.00 ft (KB) To 4296.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4296.00 ft (KB) (TVD)

3257.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 14.00 ft

Serial #: 6752

Inside

Press@RunDepth: 96.67 psig @ 4179.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.26

End Date:

2015.06.26

Last Calib.:

2015.06.26

Start Time: 08:10:01

End Time:

16:39:50

Time On Btm:

2015.06.26 @ 10:48:50

Time Off Btm:

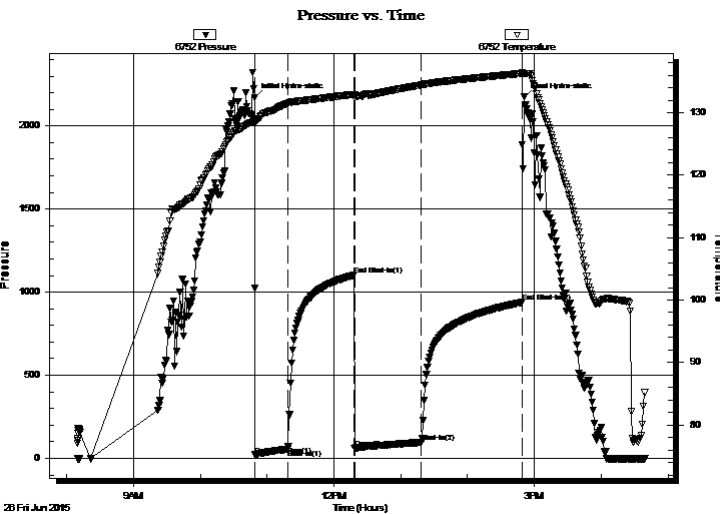
2015.06.26 @ 14:51:00

TEST COMMENT: 30 IF - 1/2" blow built to 2 3/4"

60 ISI - No return

60 FF - Surface blow started @ 47 mins

90 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2172.01	128.78	Initial Hydro-static
1	20.49	128.35	Open To Flow (1)
30	54.98	131.48	Shut-In(1)
90	1102.63	132.95	End Shut-In(1)
90	61.00	132.31	Open To Flow (2)
150	96.67	134.40	Shut-In(2)
240	938.70	136.27	End Shut-In(2)
243	2173.03	136.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM - 40%W - 60%M	0.30
60.00	Mud 100%M	0.30
30.00	Mud w / oil spots 100%M	0.15

Gas Rates

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



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Time Test Ended: 16:39:50

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Tester: Ryan Nichols

Unit No: 78

Interval: **4178.00 ft (KB) To 4296.00 ft (KB) (TVD)**

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4296.00 ft (KB) (TVD)

3257.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 14.00 ft

Serial #: 8322 Outside

Press@RunDepth: psig @ 4179.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.26

End Date:

2015.06.26

Last Calib.:

2015.06.26

Start Time: 08:10:01

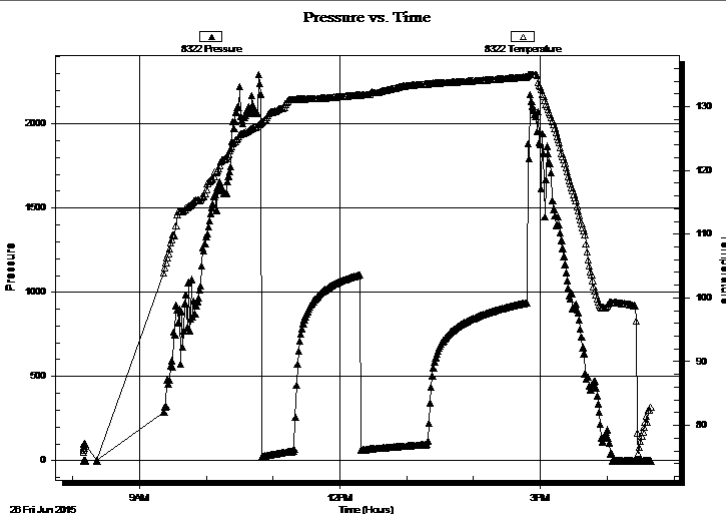
End Time:

16:39:50

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 IF - 1/2" blow built to 2 3/4"
60 ISI - No return
60 FF - Surface blow started @ 47 mins
90 FSI - No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM - 40%W - 60%M	0.30
60.00	Mud 100%M	0.30
30.00	Mud w / oil spots 100%M	0.15

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

16-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62595

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.06.26 @ 08:10:00

Tool Information

Drill Pipe:	Length: 3936.00 ft	Diameter: 3.80 inches	Volume: 55.21 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: 237.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 56.38 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	78000.00 lb
Depth to Top Packer:	4178.00 ft			Final	78000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	118.00 ft				
Tool Length:	145.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4152.00	
Shut In Tool	5.00			4157.00	
Hydraulic tool	5.00			4162.00	
Jars	5.00			4167.00	
Safety Joint	2.00			4169.00	
Packer	5.00			4174.00	27.00 Bottom Of Top Packer
Packer	4.00			4178.00	
Stubb	1.00			4179.00	
Recorder	0.00	6752	Inside	4179.00	
Recorder	0.00	8322	Outside	4179.00	
Perforations	17.00			4196.00	
Change Over Sub	1.00			4197.00	
Drill Pipe	95.00			4292.00	
Change Over Sub	1.00			4293.00	
Bullnose	3.00			4296.00	118.00 Bottom Packers & Anchor

Total Tool Length: 145.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

16-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62595

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.06.26 @ 08:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

10500 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 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
60.00	WCM - 40%W - 60%M	0.295
60.00	Mud 100%M	0.295
30.00	Mud w / oil spots 100%M	0.148

Total Length: 150.00 ft Total Volume: 0.738 bbl

Num Fluid Samples: 0

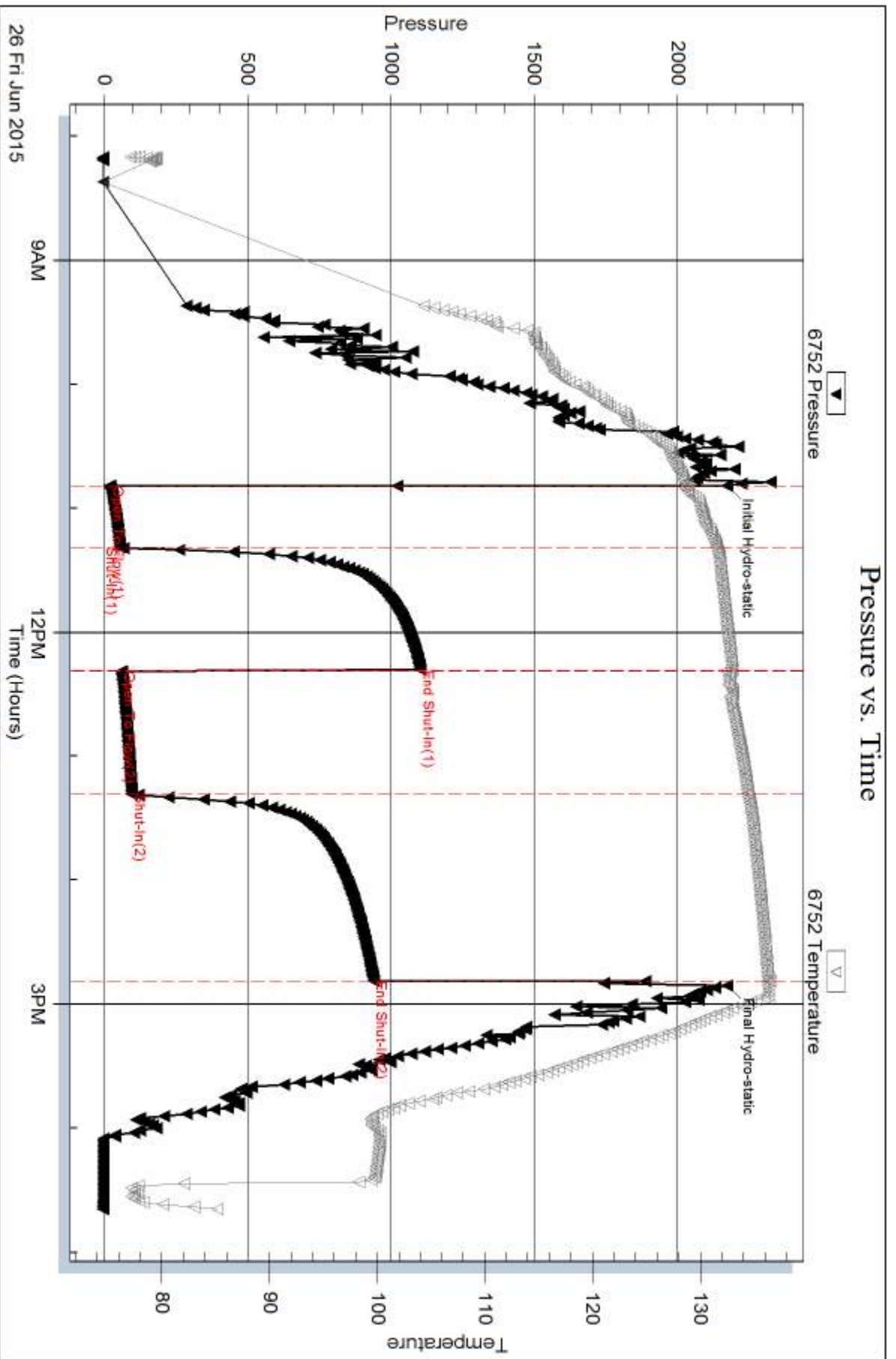
Num Gas Bombs: 0

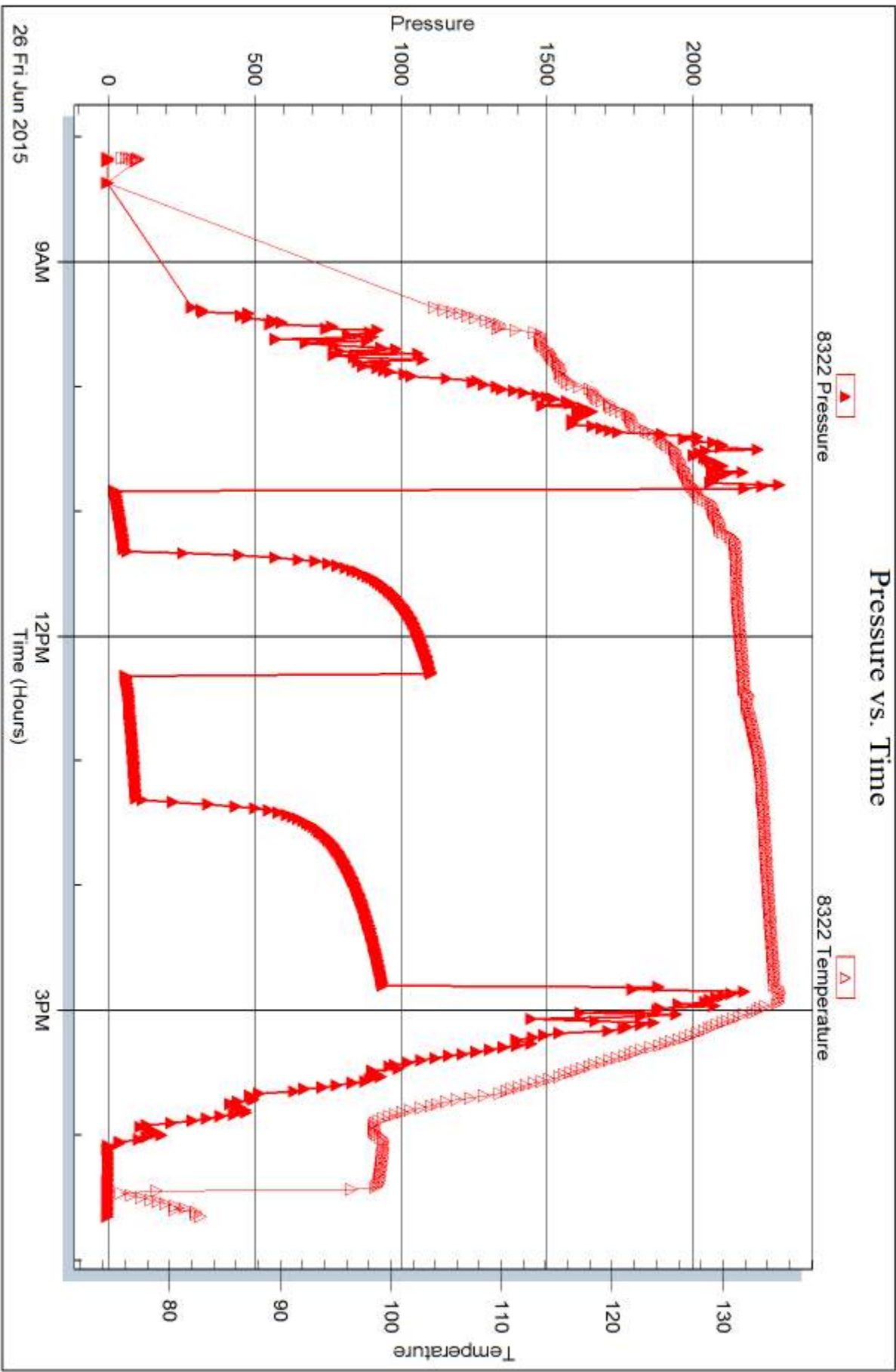
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .553 @ 78 DEG F







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67206

ATTN: Robert Hendrix

Patricia #3-16

16-1s-37w Cheyenne,KS

Start Date: 2015.06.27 @ 12:43:00

End Date: 2015.06.27 @ 19:48:50

Job Ticket #: 62596 DST #: 2

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

Printed: 2015.06.29 @ 11:18:40



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DRILL STEM TEST REPORT

Murfin Drilling Co.

16-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62596

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.06.27 @ 12:43:00

GENERAL INFORMATION:

Formation: **LKC " G - J "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:50:20

Time Test Ended: 19:48:50

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4299.00 ft (KB) To 4443.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4443.00 ft (KB) (TVD)

3257.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 14.00 ft

Serial #: 6752

Inside

Press@RunDepth: 28.65 psig @ 4300.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.27

End Date:

2015.06.27

Last Calib.:

2015.06.27

Start Time: 12:43:01

End Time:

19:48:50

Time On Btm:

2015.06.27 @ 14:50:10

Time Off Btm:

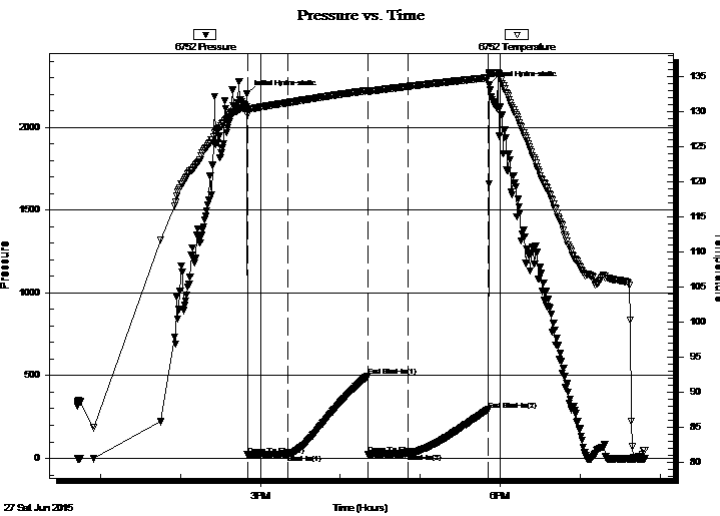
2015.06.27 @ 17:51:39

TEST COMMENT: 30 IF - 1/4" blow died @ 17 mins

60 ISI - No return

30 FF - No blow

60 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2200.44	130.65	Initial Hydro-static
1	20.58	129.53	Open To Flow (1)
31	25.16	131.23	Shut-In(1)
91	497.21	132.94	End Shut-In(1)
91	25.83	132.77	Open To Flow (2)
121	28.65	133.54	Shut-In(2)
181	293.98	134.78	End Shut-In(2)
182	2254.86	135.53	Final Hydro-static

Recovery

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

* Recovery from multiple tests

Gas Rates

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



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16-1s-37w Cheyenne, KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62596

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.06.27 @ 12:43:00

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Time Tool Opened: 14:50:20

Time Test Ended: 19:48:50

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4299.00 ft (KB) To 4443.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4443.00 ft (KB) (TVD)

3257.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 14.00 ft

Serial #: 8322 Outside

Press@RunDepth: psig @ 4300.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.27 End Date: 2015.06.27

Last Calib.: 2015.06.27

Start Time: 12:43:01 End Time: 19:48:40

Time On Btm:

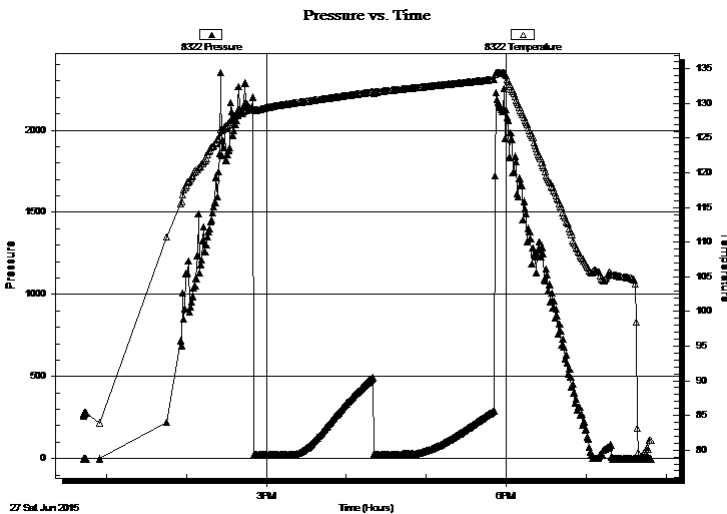
Time Off Btm:

TEST COMMENT: 30 IF - 1/4" blow died @ 17 mins

60 ISI - No return

30 FF - No blow

60 FSI - No return



PRESSURE SUMMARY

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

Recovery

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

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

16-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62596

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.06.27 @ 12:43:00

Tool Information

Drill Pipe:	Length: 4065.00 ft	Diameter: 3.80 inches	Volume: 57.02 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: 237.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 58.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4299.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	144.00 ft			
Tool Length:	171.00 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			4273.00	
Shut In Tool	5.00			4278.00	
Hydraulic tool	5.00			4283.00	
Jars	5.00			4288.00	
Safety Joint	2.00			4290.00	
Packer	5.00			4295.00	27.00 Bottom Of Top Packer
Packer	4.00			4299.00	
Stubb	1.00			4300.00	
Recorder	0.00	6752	Inside	4300.00	
Recorder	0.00	8322	Outside	4300.00	
Perforations	12.00			4312.00	
Change Over Sub	1.00			4313.00	
Drill Pipe	126.00			4439.00	
Change Over Sub	1.00			4440.00	
Bullnose	3.00			4443.00	144.00 Bottom Packers & Anchor

Total Tool Length: 171.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

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16-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62596

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.06.27 @ 12:43:00

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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

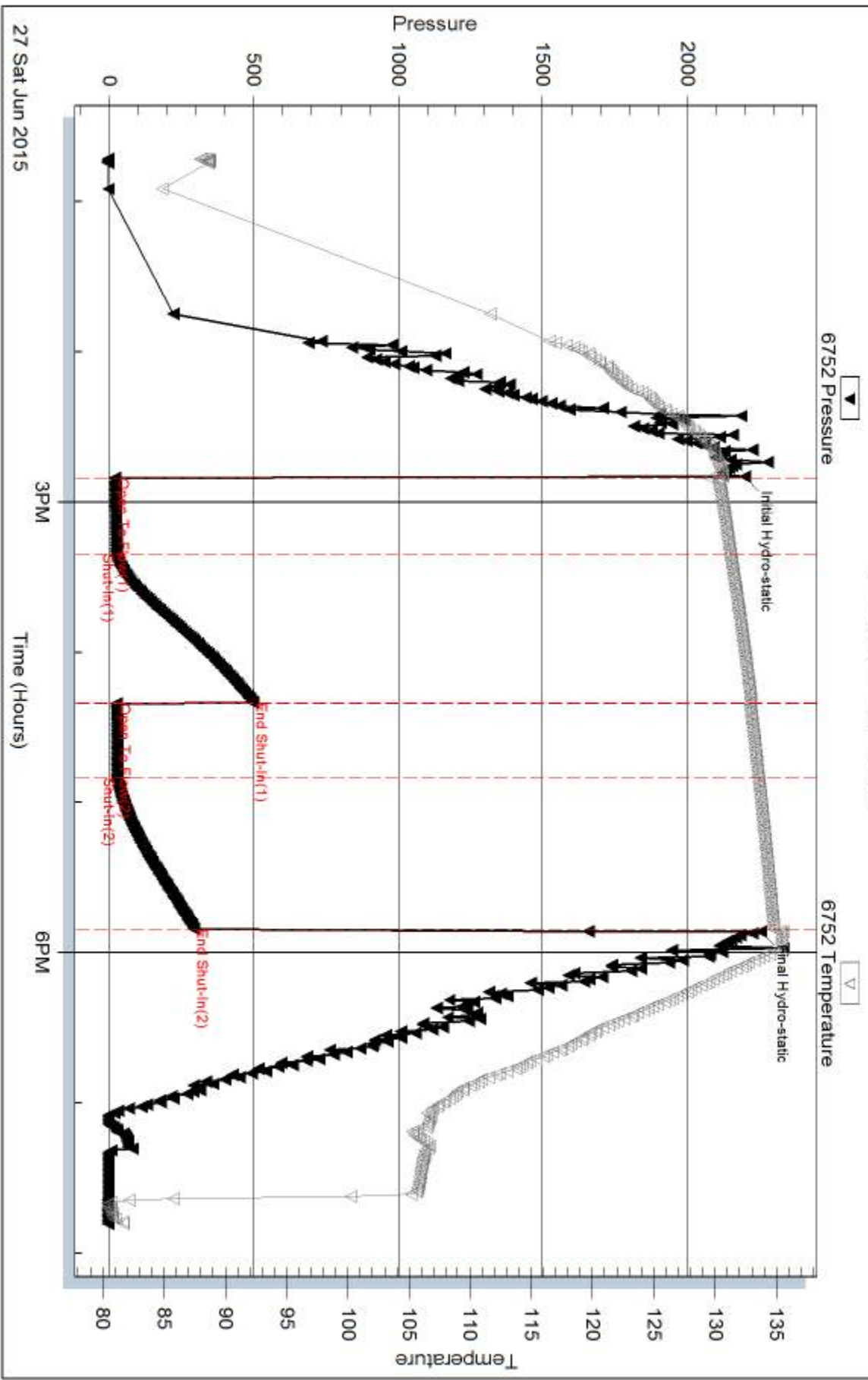
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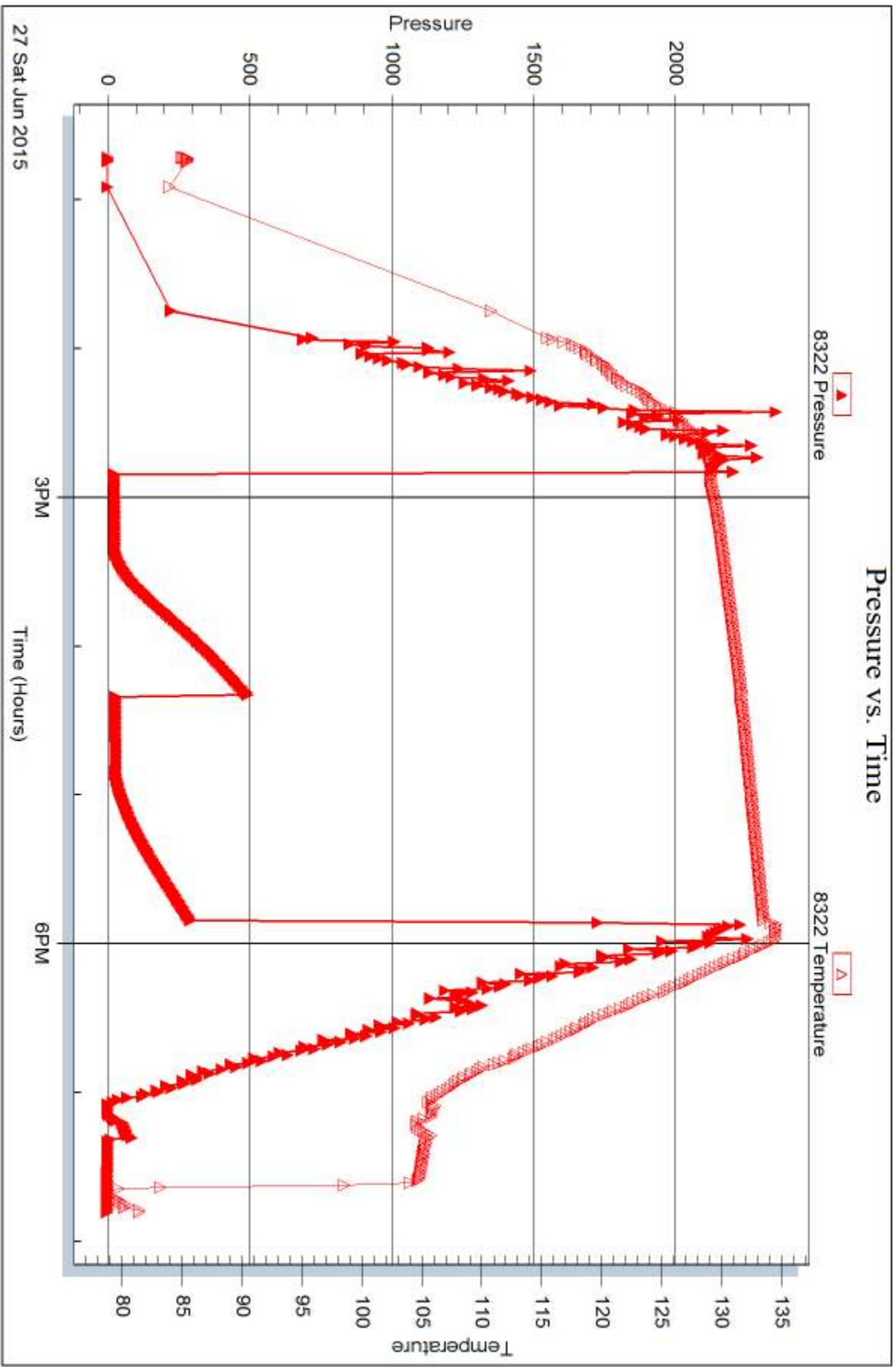
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67206

ATTN: Robert Hendrix

Patricia #3-16

16-1s-37w Cheyenne,KS

Start Date: 2015.06.28 @ 20:37:00

End Date: 2015.06.29 @ 05:02:50

Job Ticket #: 62597 DST #: 3

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

Printed: 2015.06.29 @ 11:18:15



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.

16-1s-37w Cheyenne, KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62597

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.06.28 @ 20:37:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:44:00

Time Test Ended: 05:02:50

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 4590.00 ft (KB) To 4642.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4642.00 ft (KB) (TVD)

3257.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 14.00 ft

Serial #: 6752 Inside

Press@RunDepth: 23.92 psig @ 4591.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.28

End Date:

2015.06.29

Last Calib.:

2015.06.29

Start Time: 20:37:01

End Time:

05:02:50

Time On Btm:

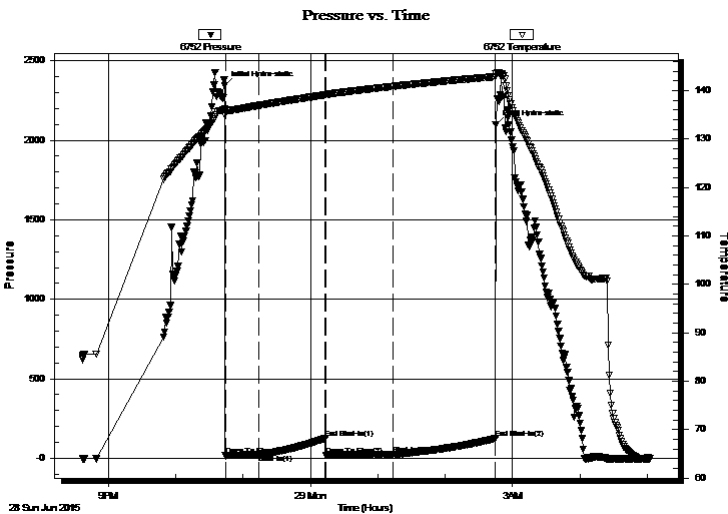
2015.06.28 @ 22:43:40

Time Off Btm:

2015.06.29 @ 02:45:00

TEST COMMENT: 30 IF - Surface blow built to 1/2" died back to surface
60 ISI - No return
60 FF - No blow
90 FSI - No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2342.88	136.14	Initial Hydro-static
1	16.31	134.98	Open To Flow (1)
31	22.59	136.91	Shut-In(1)
90	127.01	139.08	End Shut-In(1)
90	17.17	139.09	Open To Flow (2)
150	23.92	140.85	Shut-In(2)
241	124.85	142.85	End Shut-In(2)
242	2097.60	143.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM - 10%o - 90%M	0.02

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

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16-1s-37w Cheyenne, KS

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Patricia #3-16

Job Ticket: 62597

DST#: 3

ATTN: Robert Hendrix

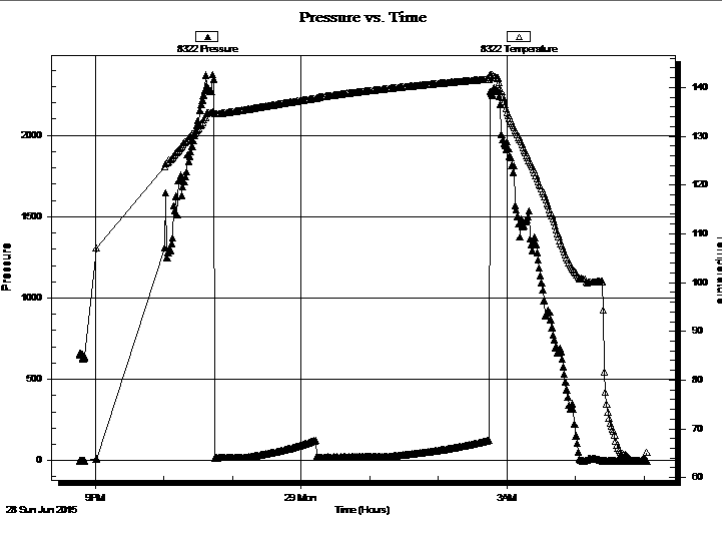
Test Start: 2015.06.28 @ 20:37:00

GENERAL INFORMATION:

Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 22:44:00
 Tester: Ryan Nichols
 Time Test Ended: 05:02:50
 Unit No: 78
 Interval: **4590.00 ft (KB) To 4642.00 ft (KB) (TVD)**
 Reference Elevations: 3271.00 ft (KB)
 Total Depth: 4642.00 ft (KB) (TVD) 3257.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 14.00 ft

Serial #: 8322 Outside
 Press@RunDepth: psig @ 4591.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.06.28 End Date: 2015.06.29 Last Calib.: 2015.06.29
 Start Time: 20:46:01 End Time: 05:02:42 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 IF - Surface blow built to 1/2" died back to surface
 60 ISI - No return
 60 FF - No blow
 90 FSI - No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM - 10%o - 90%M	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.

16-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62597

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.06.28 @ 20:37:00

Tool Information

Drill Pipe:	Length: 4348.00 ft	Diameter: 3.80 inches	Volume: 60.99 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: 237.00 ft	Diameter: 2.25 inches	Volume: 1.17 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 62.16 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4590.00 ft			Final 80000.00 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

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4564.00	
Shut In Tool	5.00			4569.00	
Hydraulic tool	5.00			4574.00	
Jars	5.00			4579.00	
Safety Joint	2.00			4581.00	
Packer	5.00			4586.00	27.00 Bottom Of Top Packer
Packer	4.00			4590.00	
Stubb	1.00			4591.00	
Recorder	0.00	6752	Inside	4591.00	
Recorder	0.00	8322	Outside	4591.00	
Perforations	15.00			4606.00	
Change Over Sub	1.00			4607.00	
Drill Pipe	31.00			4638.00	
Change Over Sub	1.00			4639.00	
Bullnose	3.00			4642.00	52.00 Bottom Packers & Anchor

Total Tool Length: 79.00



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FLUID SUMMARY

Murfin Drilling Co.

16-1s-37w Cheyenne,KS

250 N. Water STE 300
Wichita KS 67206

Patricia #3-16

Job Ticket: 62597

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.06.28 @ 20:37:00

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:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	OCM - 10%o - 90%M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

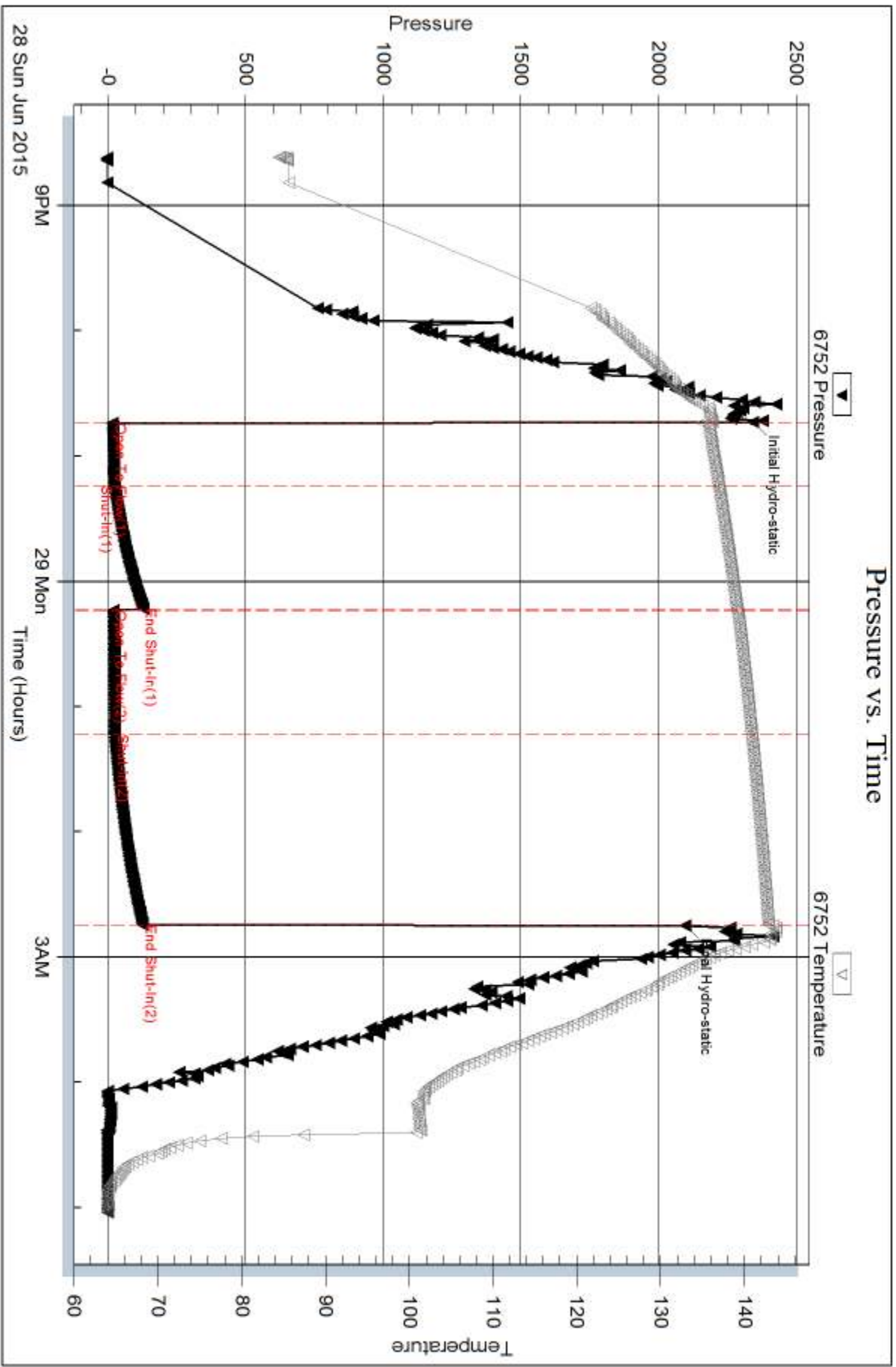
Num Gas Bombs: 0

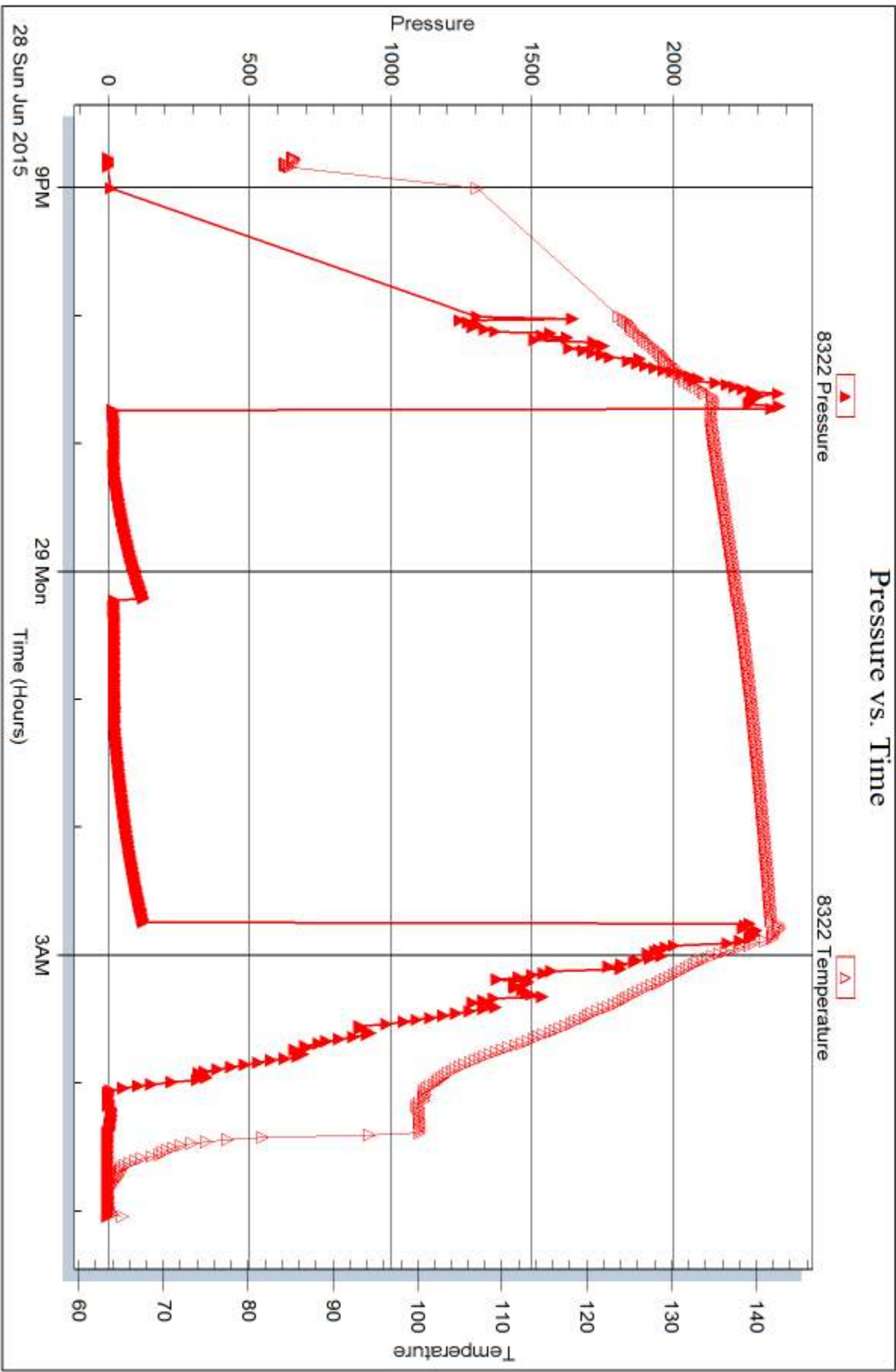
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62595

Well Name & No. Patricia # 3-16 Test No. 1 Date 6/26/15
 Company Martin Drilling Co. Elevation 3271 KB 3257 GL
 Address 250 N. Water STE 300 Wichita KS 67206
 Co. Rep / Geo. Robert Hendrix Rig Martin # 2
 Location: Sec. 16 Twp. 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 4178-4296 Zone Tested LKC "A-D"
 Anchor Length 118' Drill Pipe Run ~~393'~~ 393' Mud Wt. 9.4
 Top Packer Depth 4173 Drill Collars Run ~~237'~~ 237' Vis 55
 Bottom Packer Depth 4178 Wt. Pipe Run 0' WL 7.6
 Total Depth 4296 Chlorides 600 ppm System LCM 6

Blow Description IF - 1/2" blow built to 2 3/4"
ISI - No return
FF - Surface blow started @ 47 mins
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Mud w/o. 1 spots</u>			<u>100</u>	<u>0</u>
<u>60</u>	<u>Mud</u>			<u>100</u>	<u>0</u>
<u>60</u>	<u>WCM</u>		<u>40</u>	<u>60</u>	<u>0</u>

Rec Total 150' BHT 136° Gravity — API RW .553 @ 78° F Chlorides 10,500 ppm

(A) Initial Hydrostatic <u>2172</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>07:30</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>08:10</u>
(C) First Final Flow <u>55</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:49</u>
(D) Initial Shut-In <u>1103</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>14:49</u>
(E) Second Initial Flow <u>61</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:39</u>
(F) Second Final Flow <u>97</u>	<input checked="" type="checkbox"/> Mileage <u>155 XT 155</u>	Comments
(G) Final Shut-In <u>939</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2173</u>	<input type="checkbox"/> Straddle	

Initial Open <u>30</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Ruined Packer
Final Flow <u>60</u>	<input type="checkbox"/> Extra Copies
Final Shut-In <u>90</u>	Sub Total <u>0</u>
	Total <u>1630</u>
	MP/DST Disc't
Sub Total <u>1630</u>	

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. 62596

Well Name & No. Patricia # 3-16 Test No. 2 Date 6/27/15
 Company Murfin Drilling Co. Elevation 3271 KB 3257 GL
 Address 250 N. Water STE 300 Wichita KS 67206
 Co. Rep / Geo. Robert Hendrix Rig Murfin # 2
 Location: Sec. 16 Twp. 1S Rge. 37W Co. Zhewenne State KS

Interval Tested 4299-4443 Zone Tested LKC "G-J"
 Anchor Length 144' Drill Pipe Run 4065' Mud Wt. 9.2
 Top Packer Depth 4294 Drill Collars Run ~~4065~~ 237' Vis 69
 Bottom Packer Depth 4299 Wt. Pipe Run 0' WL 6.0
 Total Depth 4443 Chlorides 700 ppm System LCM 8
 Blow Description IF - 1/4" blow died @ 17 mins
ISI - No return
FF - No blow
FSL - No return

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

Rec Total 5' BHT 135° Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2200</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>12:30</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>12:43</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>14:50</u>
(D) Initial Shut-In <u>497</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>17:50</u>
(E) Second Initial Flow <u>26</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>19:48</u>
(F) Second Final Flow <u>29</u>	<input checked="" type="checkbox"/> Mileage <u>155 RT</u> 155	Comments
(G) Final Shut-In <u>294</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2255</u>	<input type="checkbox"/> Straddle	
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	Total <u>1630</u>
	Sub Total <u>1630</u>	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 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. 62597

Well Name & No. Patricia #3-16 Test No. 3 Date 6/28/15
 Company Murfin Drilling Co. Elevation 3271 KB 3257 GL
 Address 250 N. Water STE 300 Wichita KS 67206
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 16 Twp. 15 Rge. 37W Co. Cheyenne State KS

Interval Tested 4590-4642 Zone Tested Pawnee
 Anchor Length 4595 52' Drill Pipe Run 4348' Mud Wt. 9.2
 Top Packer Depth 4595 85 Drill Collars Run 237' Vis 84
 Bottom Packer Depth 4590 Wt. Pipe Run 0' WL 6.8
 Total Depth 4642 Chlorides 700 ppm System LCM 7
 Blow Description IF - Surface blow built to 1/2" died back to surface
ISI - No return
FF - No blow
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5'</u>	<u>0 CM</u>	<u>10</u>		<u>90</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5' BHT 1430 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2343</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>20:00</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>20:37</u>
(C) First Final Flow <u>23</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>23:44</u>
(D) Initial Shut-In <u>127</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>02:44</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>05:02</u>
(F) Second Final Flow <u>24</u>	<input checked="" type="checkbox"/> Mileage <u>155 RT</u> 155	Comments _____
(G) Final Shut-In <u>125</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>2098</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1630</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1630</u>	

Approved By _____ Our Representative Robert Hendrix

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