



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Jeff Christian

Hamit #1-20

S20-6S-19W Rooks,KS

Start Date: 2017.02.27 @ 16:11:00

End Date: 2017.02.27 @ 23:07:30

Job Ticket #: 63509 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.02 @ 15:37:41

Murfin Drilling Company Inc
S20-6S-19W Rooks,KS
Hamit #1-20
DST # 1
LKC 'A-B'
2017.02.27



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc
 250 N Water STE 300
 Wichita KS 67202+1216
 ATTN: Jeff Christian

S20-6S-19W Rooks,KS

Hamit #1-20

Job Ticket: 63509

DST#: 1

Test Start: 2017.02.27 @ 16:11:00

GENERAL INFORMATION:

Formation: **LKC 'A-B'**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 18:25:45
 Tester: Spencer J. Staab
 Time Test Ended: 23:07:30
 Unit No: 84
 Interval: **3352.00 ft (KB) To 3410.00 ft (KB) (TVD)**
 Reference Elevations: 2134.00 ft (KB)
 Total Depth: 3410.00 ft (KB) (TVD)
 2129.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Poor
 KB to GR/CF: 5.00 ft

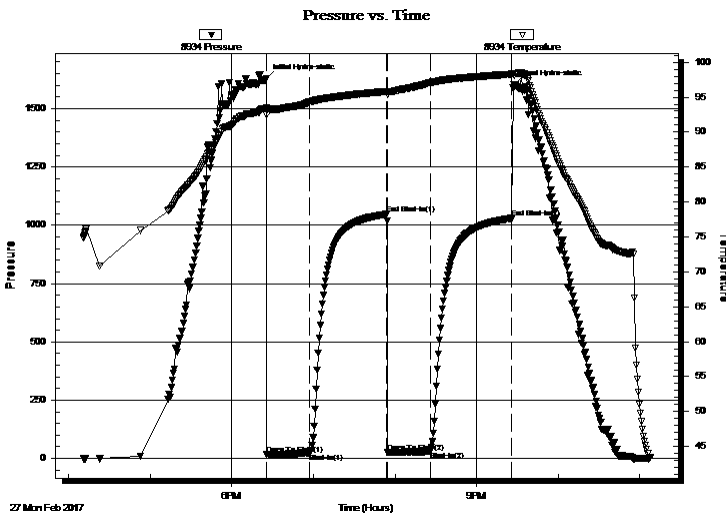
Serial #: 8934

Outside

Press@RunDepth: 29.43 psig @ 3353.00 ft (KB)
 Capacity: 8000.00 psig
 Start Date: 2017.02.27 End Date: 2017.02.27 Last Calib.: 2017.02.27
 Start Time: 16:11:05 End Time: 23:07:29
 Time On Btm: 2017.02.27 @ 18:25:30
 Time Off Btm: 2017.02.27 @ 21:27:30

TEST COMMENT: 30-IF-Very Weak Surface Blow ; Built to 1"
 60-ISI-No Blow Back
 30-FF-Very Weak Surface Blow ; Built to 1/4"
 60-FSI-No Blow Back

PRESSURE SUMMARY



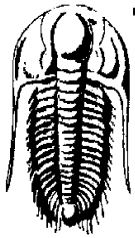
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1627.82	93.51	Initial Hydro-static
1	18.09	92.50	Open To Flow (1)
32	21.52	94.32	Shut-In(1)
89	1047.46	95.83	End Shut-In(1)
90	25.75	95.45	Open To Flow (2)
121	29.43	97.11	Shut-In(2)
181	1030.04	98.28	End Shut-In(2)
182	1602.96	98.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud w /oil specks 100% M	0.05

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63509

DST#: 1

ATTN: Jeff Christian

Test Start: 2017.02.27 @ 16:11:00

GENERAL INFORMATION:

Formation: **LKC 'A-B'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:25:45
 Time Test Ended: 23:07:30
Interval: 3352.00 ft (KB) To 3410.00 ft (KB) (TVD)
 Total Depth: 3410.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor

Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J. Staab
 Unit No: 84

Reference Elevations: 2134.00 ft (KB)
 2129.00 ft (CF)
 KB to GR/CF: 5.00 ft

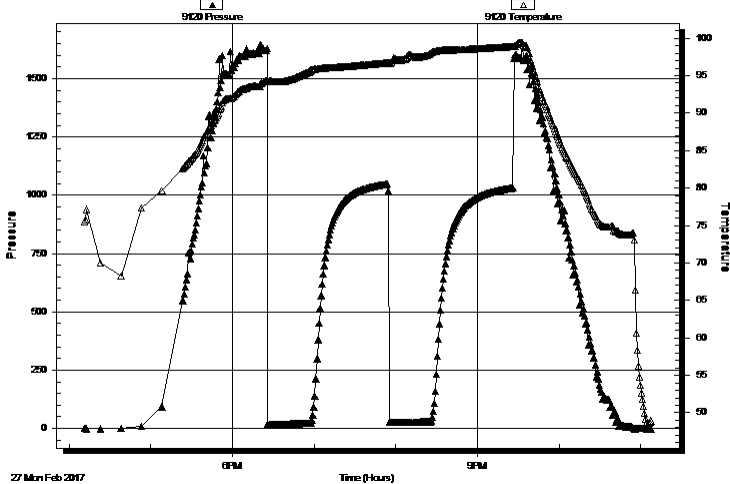
Serial #: 9120

Inside

Press@RunDepth: psig @ 3353.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.02.27 End Date: 2017.02.27 Last Calib.: 2017.02.27
 Start Time: 16:11:15 End Time: 23:07:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Very Weak Surface Blow ; Built to 1"
 60-ISI-No Blow Back
 30-FF-Very Weak Surface Blow ; Built to 1/4"
 60-FSI-No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud w /oil specks 100% M	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63509

DST#: 1

ATTN: Jeff Christian

Test Start: 2017.02.27 @ 16:11:00

Tool Information

Drill Pipe:	Length: 3149.00 ft	Diameter: 3.80 inches	Volume: 44.17 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume:</u>	Tool Chased	ft
				String Weight: Initial	56000.00 lb
Drill Pipe Above KB:	30.00 ft			Final	56000.00 lb
Depth to Top Packer:	3352.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	58.00 ft				
Tool Length:	86.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3325.00	
Shut In Tool	5.00			3330.00	
Hydraulic tool	5.00			3335.00	
Jars	5.00			3340.00	
Safety Joint	3.00			3343.00	
Packer	5.00			3348.00	28.00 Bottom Of Top Packer
Packer	4.00			3352.00	
Stubb	1.00			3353.00	
Recorder	0.00	9120	Inside	3353.00	
Recorder	0.00	8934	Outside	3353.00	
Perforations	19.00			3372.00	
Change Over Sub	1.00			3373.00	
Drill Pipe	32.00			3405.00	
Change Over Sub	1.00			3406.00	
Bullnose	4.00			3410.00	58.00 Bottom Packers & Anchor

Total Tool Length: 86.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63509

DST#: 1

ATTN: Jeff Christian

Test Start: 2017.02.27 @ 16:11:00

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: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud w /oil specks 100% M	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

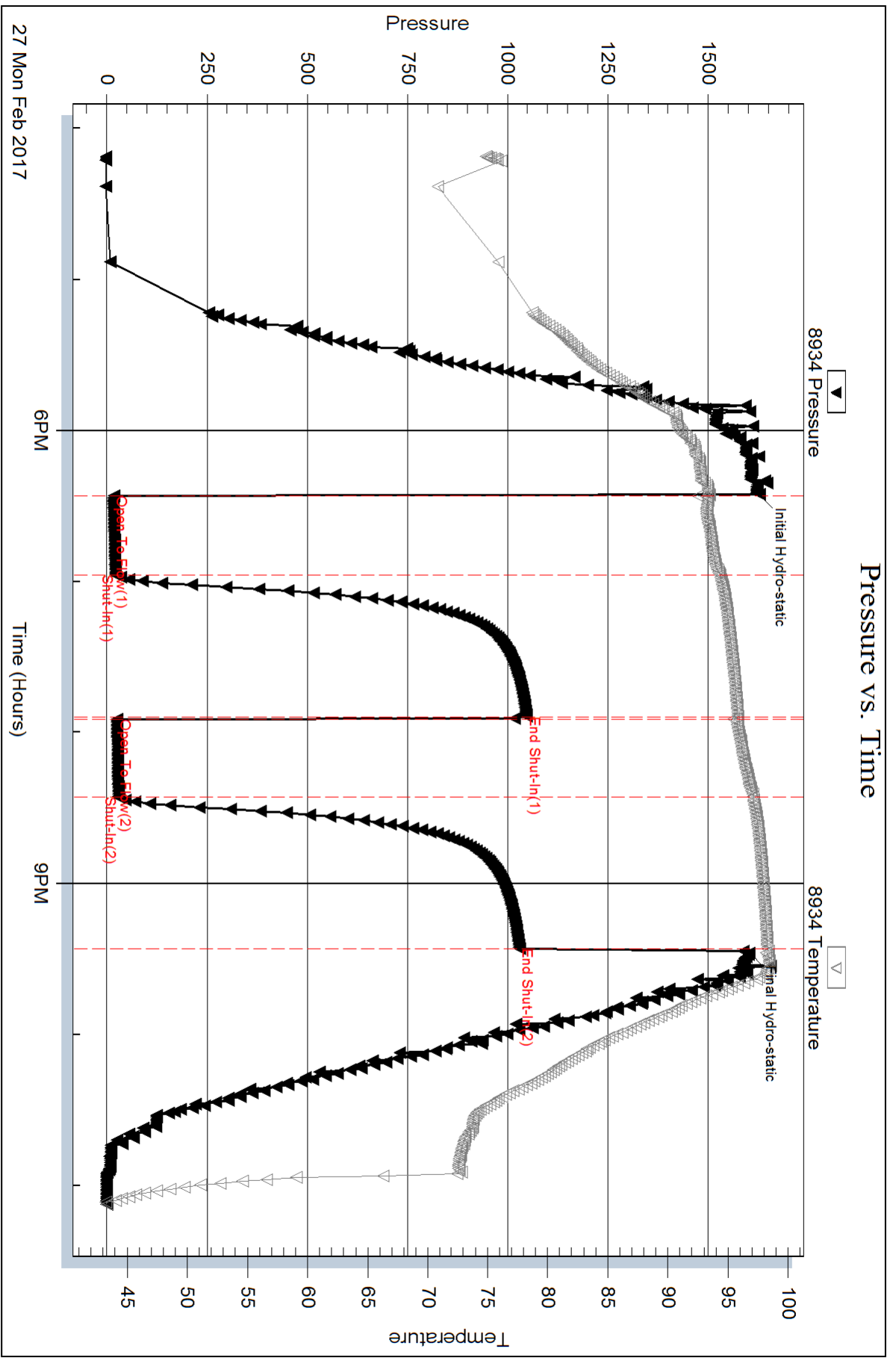
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 3# LCM



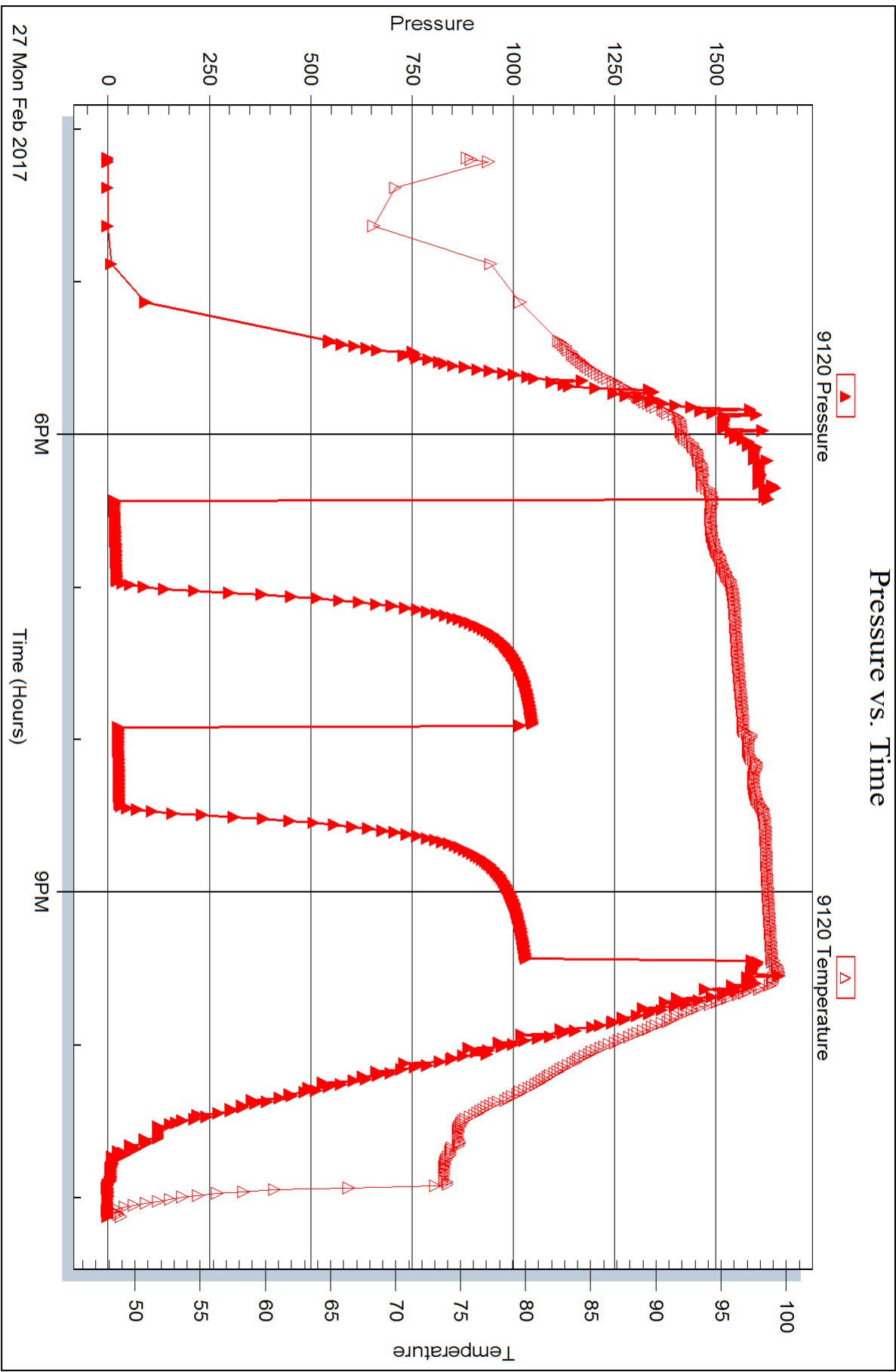
Serial #: 9120

Inside

Murfin Drilling Company Inc

Hamit #1-20

DST Test Number: 1



27 Mon Feb 2017

6PM

Time (Hours)

9PM



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Jeff Christian

Hamit #1-20

S20-6S-19W Rooks,KS

Start Date: 2017.02.28 @ 06:34:00

End Date: 2017.02.28 @ 08:38:45

Job Ticket #: 63510 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.02 @ 15:36:56

Murfin Drilling Company Inc
S20-6S-19W Rooks,KS
Hamit #1-20
DST # 2
LKC 'D-F'
2017.02.28



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63510

DST#: 2

ATTN: Jeff Christian

Test Start: 2017.02.28 @ 06:34:00

GENERAL INFORMATION:

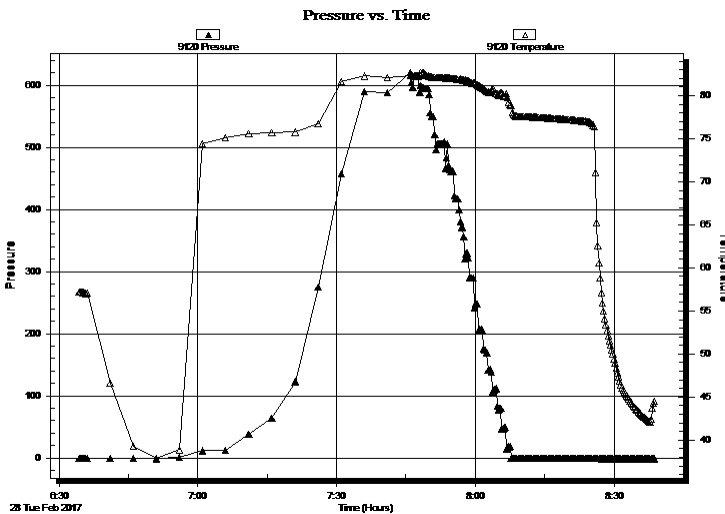
Formation: **LKC 'D-F'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended: 08:38:45
 Interval: **3407.00 ft (KB) To 3448.00 ft (KB) (TVD)**
 Total Depth: 3448.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 2134.00 ft (KB)
 2129.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 9120

Inside

Press@RunDepth: psig @ 3410.00 ft (KB)
 Start Date: 2017.02.28 End Date: 2017.02.28
 Start Time: 06:34:15 End Time: 08:38:45
 Capacity: 8000.00 psig
 Last Calib.: 2017.02.28
 Time On Btm:
 Time Off Btm:

TEST COMMENT: Hit Bridge 17 stands in (1050 ft), opened tool, w ould not slide thru. came out of hole



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud	0.30

* 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 Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63510

DST#: 2

ATTN: Jeff Christian

Test Start: 2017.02.28 @ 06:34:00

Tool Information

Drill Pipe:	Length: 3181.00 ft	Diameter: 3.80 inches	Volume: 44.62 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose:	lb
			<u>Total Volume: - bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	lb
Depth to Top Packer:	3407.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	41.00 ft				
Tool Length:	69.00 ft				
Number of Packers:	1	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			3380.00	
Shut In Tool	5.00			3385.00	
Hydraulic tool	5.00			3390.00	
Jars	5.00			3395.00	
Safety Joint	3.00			3398.00	
Packer	5.00			3403.00	28.00 Bottom Of Top Packer
Packer	4.00			3407.00	
Stubb	1.00			3408.00	
Perforations	2.00			3410.00	
Recorder	0.00	9120	Inside	3410.00	
Recorder	0.00	8934	Outside	3410.00	
Change Over Sub	1.00			3411.00	
Drill Pipe	32.00			3443.00	
Change Over Sub	1.00			3444.00	
Bullnose	4.00			3448.00	41.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63510

DST#: 2

ATTN: Jeff Christian

Test Start: 2017.02.28 @ 06:34:00

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: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Mud	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

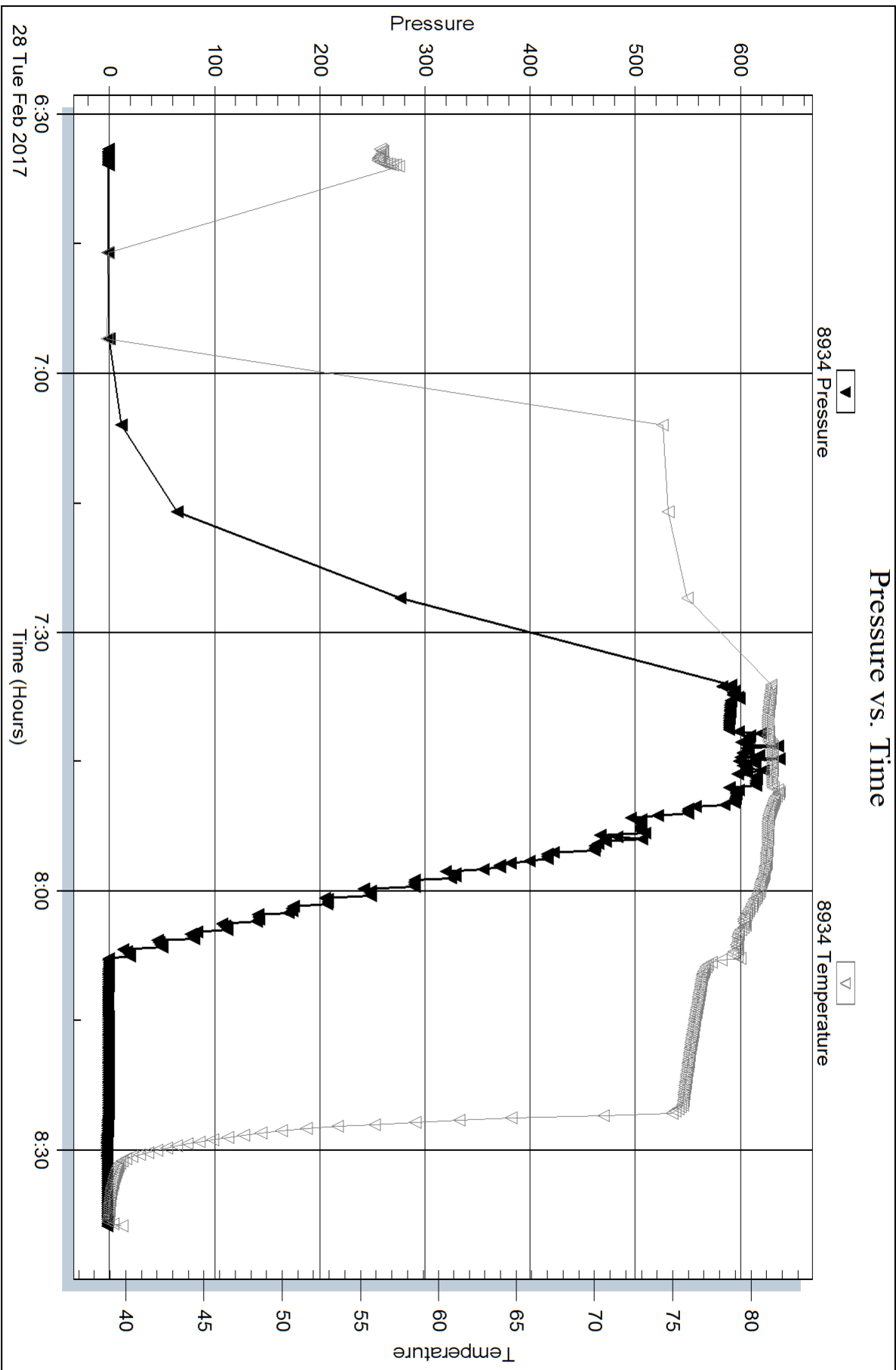
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



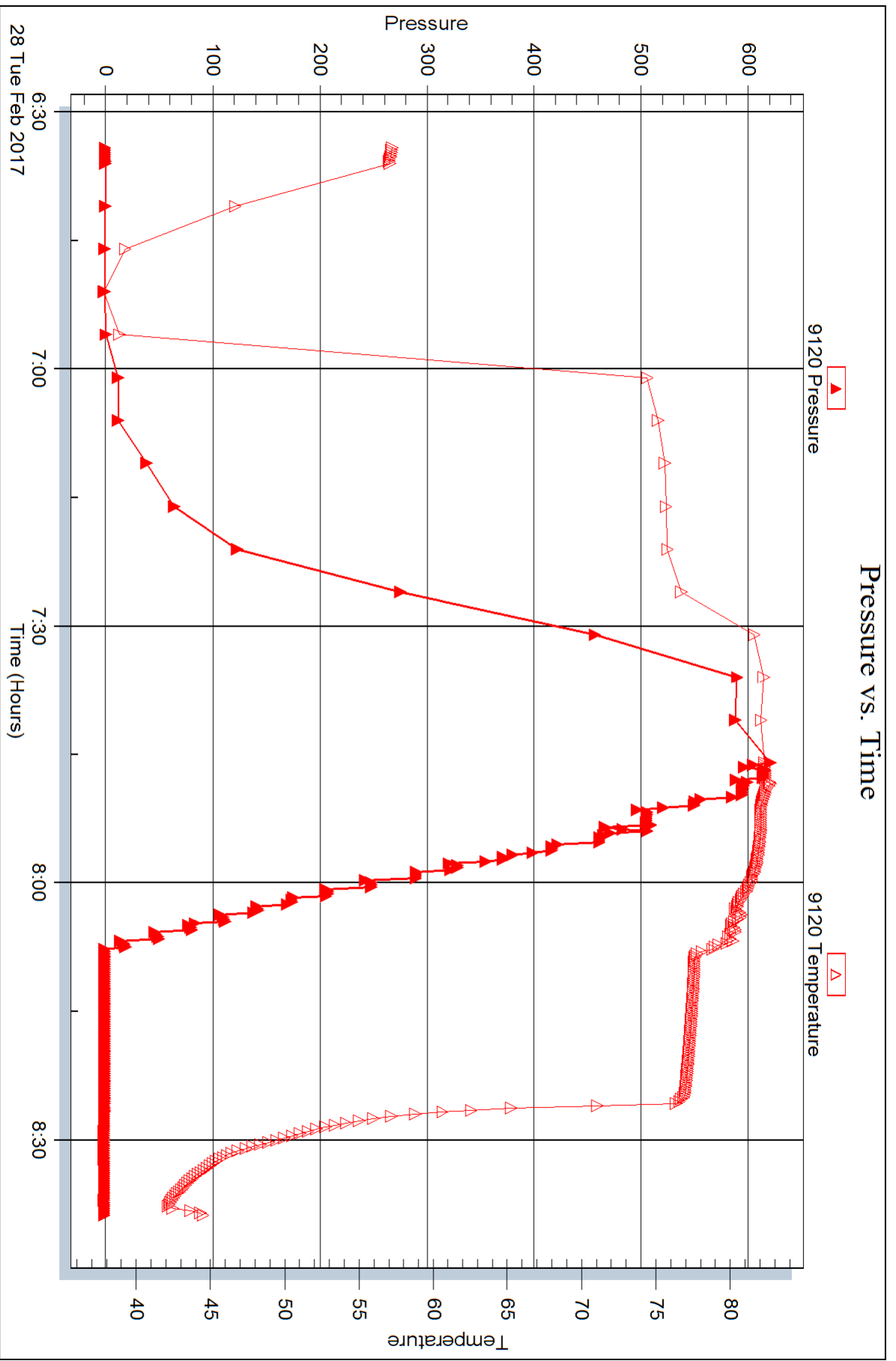
Serial #: 9120

Inside

Murfin Drilling Company Inc

Hamit #1-20

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 63510

Printed: 2017.03.02 @ 15:36:58



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Jeff Christian

Hamit #1-20

S20-6S-19W Rooks,KS

Start Date: 2017.02.28 @ 13:48:00

End Date: 2017.02.28 @ 20:26:00

Job Ticket #: 63511 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.02 @ 15:36:32

Murfin Drilling Company Inc
S20-6S-19W Rooks,KS
Hamit #1-20
DST # 3
LKC 'D-F'
2017.02.28



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63511

DST#: 3

ATTN: Jeff Christian

Test Start: 2017.02.28 @ 13:48:00

GENERAL INFORMATION:

Formation: **LKC 'D-F'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:36:15

Time Test Ended: 20:26:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 3407.00 ft (KB) To 3448.00 ft (KB) (TVD)

Reference Elevations: 2134.00 ft (KB)

Total Depth: 3448.00 ft (KB) (TVD)

2129.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 5.00 ft

Serial #: 8934 Outside

Press@RunDepth: 30.75 psig @ 3410.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.02.28 End Date: 2017.02.28

Last Calib.: 2017.02.28

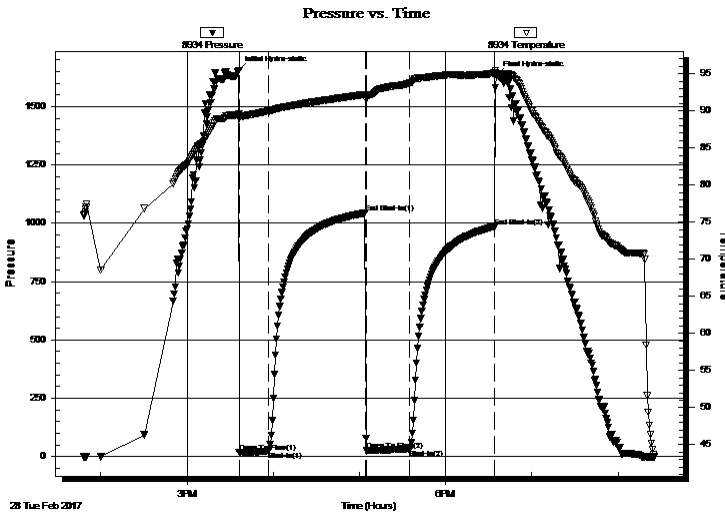
Start Time: 13:48:05 End Time: 20:25:59

Time On Btm: 2017.02.28 @ 15:36:00

Time Off Btm: 2017.02.28 @ 18:35:15

TEST COMMENT: 30-IF-Very Weak Surface Blow ; Built from 1/8 inch to 1"
60-ISI-No Blow Back
30-FF-Very Weak Surface Blow ; Few Bubbles
60-FSI-No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1655.48	89.54	Initial Hydro-static
1	16.83	89.03	Open To Flow (1)
21	22.91	89.96	Shut-In(1)
88	1043.78	92.22	End Shut-In(1)
89	24.87	91.97	Open To Flow (2)
119	30.75	93.77	Shut-In(2)
179	986.30	95.10	End Shut-In(2)
180	1633.47	95.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100% M	0.07

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

S20-6S-19W Rooks, KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63511

DST#: 3

ATTN: Jeff Christian

Test Start: 2017.02.28 @ 13:48:00

GENERAL INFORMATION:

Formation: **LKC 'D-F'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:36:15

Time Test Ended: 20:26:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 3407.00 ft (KB) To 3448.00 ft (KB) (TVD)

Reference Elevations: 2134.00 ft (KB)

Total Depth: 3448.00 ft (KB) (TVD)

2129.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 5.00 ft

Serial #: 9120 Inside

Press@RunDepth: psig @ 3410.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.02.28 End Date: 2017.02.28

Last Calib.: 2017.02.28

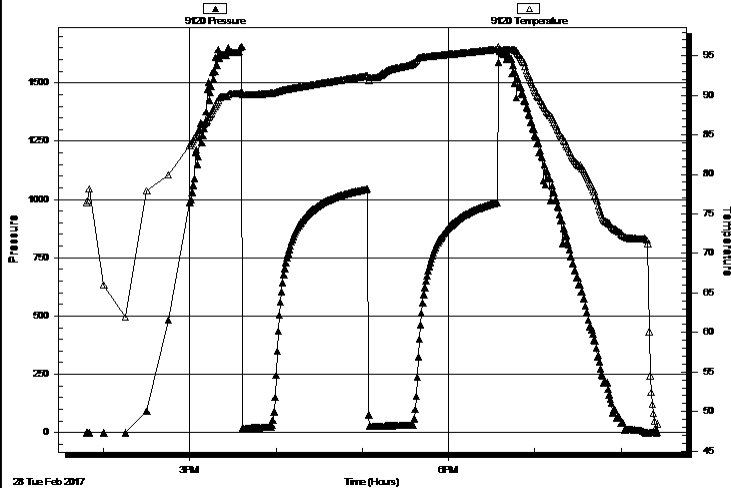
Start Time: 13:48:15 End Time: 20:26:00

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-Very Weak Surface Blow ; Built from 1/8 inch to 1"
60-ISI-No Blow Back
30-FF-Very Weak Surface Blow ; Few Bubbles
60-FSI-No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100% M	0.07

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 Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63511

DST#: 3

ATTN: Jeff Christian

Test Start: 2017.02.28 @ 13:48:00

Tool Information

Drill Pipe:	Length: 3181.00 ft	Diameter: 3.80 inches	Volume: 44.62 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3407.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	69.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3380.00	
Shut In Tool	5.00			3385.00	
Hydraulic tool	5.00			3390.00	
Jars	5.00			3395.00	
Safety Joint	3.00			3398.00	
Packer	5.00			3403.00	28.00 Bottom Of Top Packer
Packer	4.00			3407.00	
Stubb	1.00			3408.00	
Perforations	2.00			3410.00	
Recorder	0.00	9120	Inside	3410.00	
Recorder	0.00	8934	Outside	3410.00	
Change Over Sub	1.00			3411.00	
Drill Pipe	32.00			3443.00	
Change Over Sub	1.00			3444.00	
Bullnose	4.00			3448.00	41.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63511

DST#: 3

ATTN: Jeff Christian

Test Start: 2017.02.28 @ 13:48:00

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:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud 100% M	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

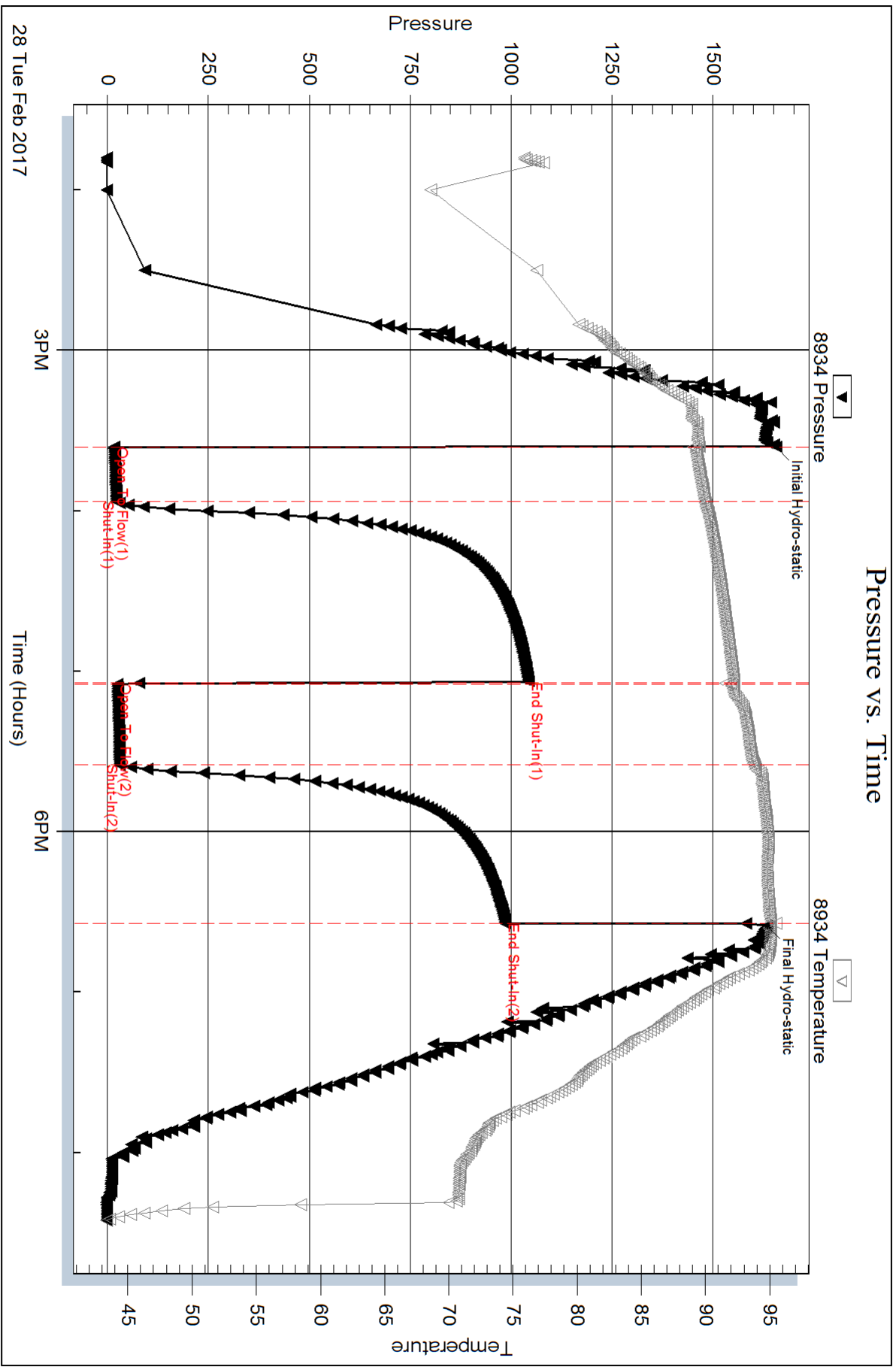
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4# LCM



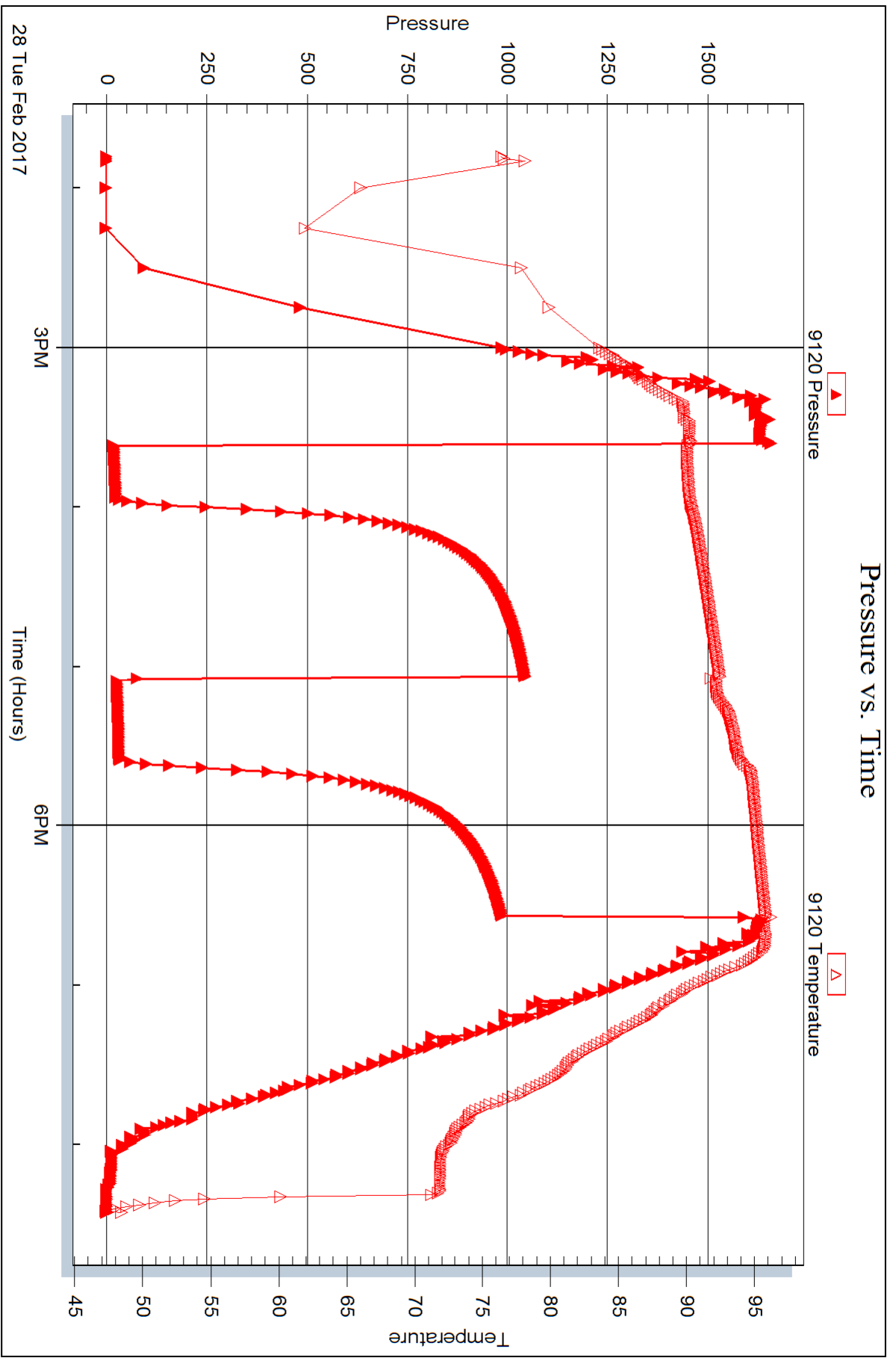
Serial #: 9120

Inside

Murfin Drilling Company Inc

Hamit #1-20

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63511

Printed: 2017.03.02 @ 15:36:33



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Jeff Christian

Hamit #1-20

S20-6S-19W Rooks,KS

Start Date: 2017.03.01 @ 10:43:00

End Date: 2017.03.01 @ 17:01:45

Job Ticket #: 63512 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.02 @ 15:35:16



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63512

DST#: 4

ATTN: Jeff Christian

Test Start: 2017.03.01 @ 10:43:00

GENERAL INFORMATION:

Formation: **LKC 'H-K'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:27:15

Time Test Ended: 17:01:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 3472.00 ft (KB) To 3564.00 ft (KB) (TVD)

Reference Elevations: 2134.00 ft (KB)

Total Depth: 3564.00 ft (KB) (TVD)

2129.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8934 Outside

Press@RunDepth: 31.96 psig @ 3475.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.03.01 End Date: 2017.03.01

Last Calib.: 2017.03.01

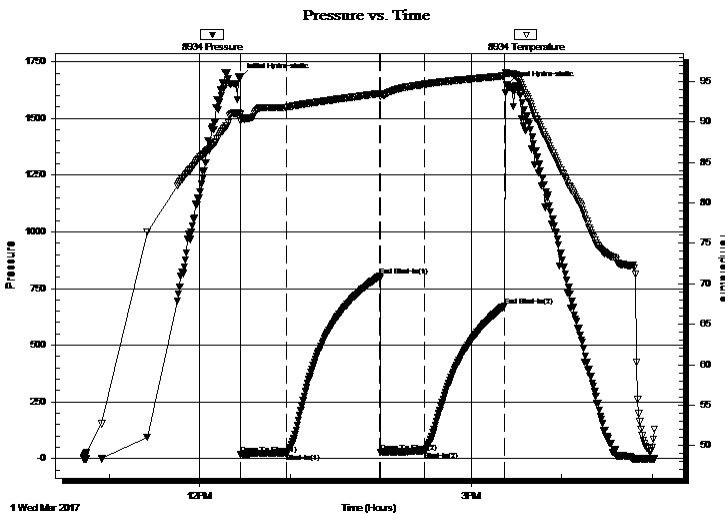
Start Time: 10:43:05 End Time: 17:01:44

Time On Btm: 2017.03.01 @ 12:27:00

Time Off Btm: 2017.03.01 @ 15:23:30

TEST COMMENT: 30-IF-Very Weak Surface Blow ; Built from 1/8" to 1"
60-ISI-No Blow Back
30-FF-Very Weak Surface Blow ; Few Bubbles
60-FSI-No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1681.82	90.89	Initial Hydro-static
1	18.66	90.15	Open To Flow (1)
31	25.48	91.79	Shut-In(1)
93	803.48	93.50	End Shut-In(1)
93	28.64	93.11	Open To Flow (2)
122	31.96	94.63	Shut-In(2)
176	674.65	95.69	End Shut-In(2)
177	1646.86	96.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100% M	0.10

* 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 Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63512

DST#: 4

ATTN: Jeff Christian

Test Start: 2017.03.01 @ 10:43:00

Tool Information

Drill Pipe:	Length: 3244.00 ft	Diameter: 3.80 inches	Volume: 45.50 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	60000.00 lb
Drill Pipe Above KB:	5.00 ft			Final	60000.00 lb
Depth to Top Packer:	3472.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	92.00 ft				
Tool Length:	120.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3445.00	
Shut In Tool	5.00			3450.00	
Hydraulic tool	5.00			3455.00	
Jars	5.00			3460.00	
Safety Joint	3.00			3463.00	
Packer	5.00			3468.00	28.00 Bottom Of Top Packer
Packer	4.00			3472.00	
Stubb	1.00			3473.00	
Perforations	2.00			3475.00	
Recorder	0.00	9120	Inside	3475.00	
Recorder	0.00	8934	Outside	3475.00	
Perforations	20.00			3495.00	
Change Over Sub	1.00			3496.00	
Drill Pipe	63.00			3559.00	
Change Over Sub	1.00			3560.00	
Bullnose	4.00			3564.00	92.00 Bottom Packers & Anchor
Total Tool Length:	120.00				



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63512

DST#: 4

ATTN: Jeff Christian

Test Start: 2017.03.01 @ 10:43:00

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: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud 100% M	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

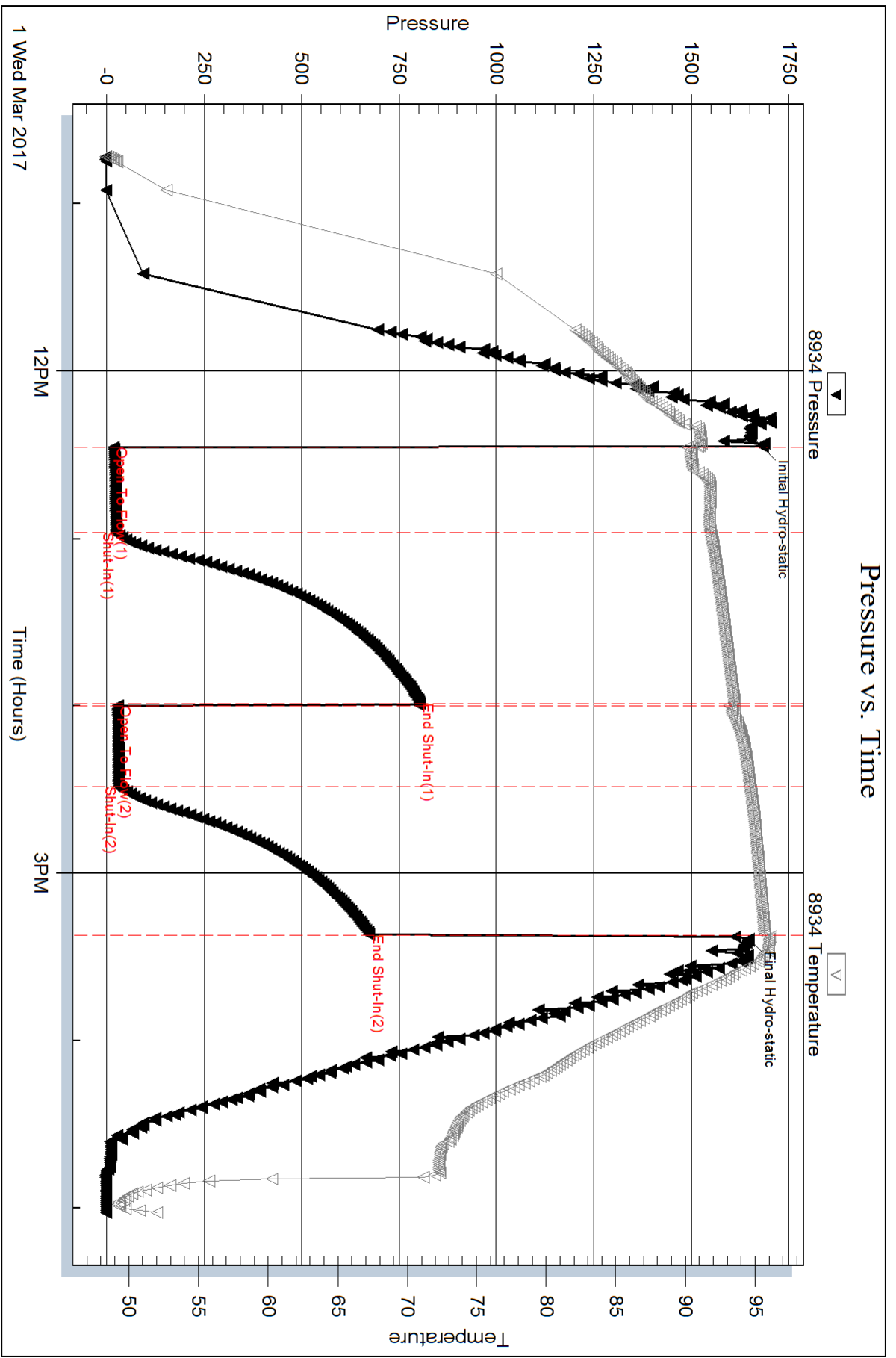
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4# LCM



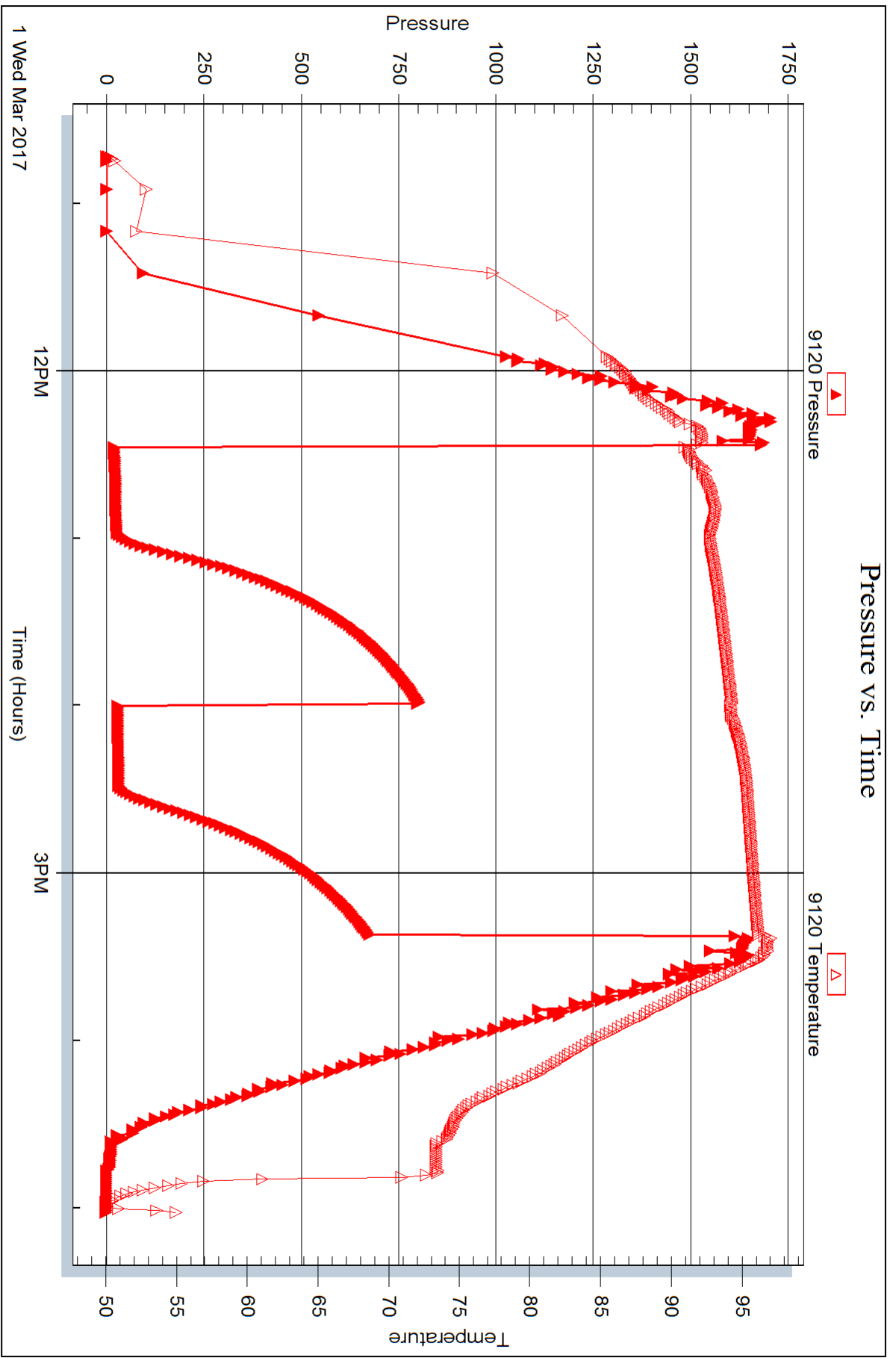
Serial #: 9120

Inside

Murfin Drilling Company Inc

Hamit #1-20

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 63512

Printed: 2017.03.02 @ 15:35:17



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Jeff Christian

Hamit #1-20

S20-6S-19W Rooks,KS

Start Date: 2017.03.02 @ 02:55:00

End Date: 2017.03.02 @ 10:47:30

Job Ticket #: 63513 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.02 @ 15:32:47

Murfin Drilling Company Inc
S20-6S-19W Rooks,KS
Hamit #1-20
DST # 5
Reagan Sand
2017.03.02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63513

DST#: 5

ATTN: Jeff Christian

Test Start: 2017.03.02 @ 02:55:00

GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:34:15

Time Test Ended: 10:47:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 3606.00 ft (KB) To 3641.00 ft (KB) (TVD)

Reference Elevations: 2134.00 ft (KB)

Total Depth: 3641.00 ft (KB) (TVD)

2129.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8934 Outside

Press@RunDepth: 217.99 psig @ 3607.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.03.02

End Date:

2017.03.02

Last Calib.:

2017.03.02

Start Time: 02:55:05

End Time:

10:47:29

Time On Btm:

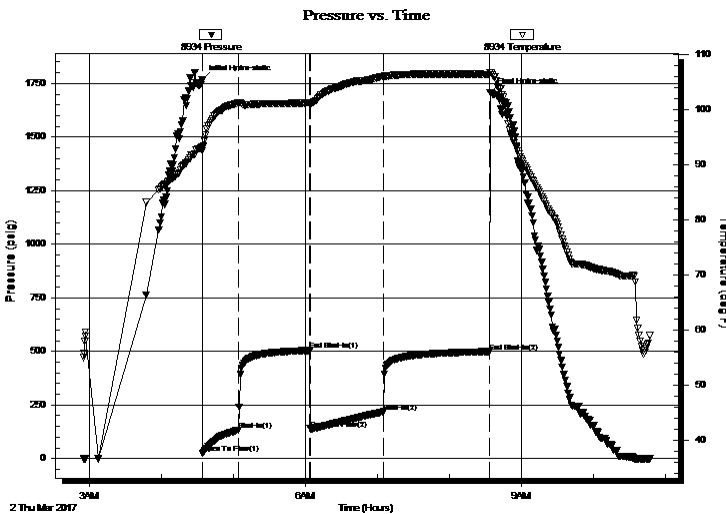
2017.03.02 @ 04:34:00

Time Off Btm:

2017.03.02 @ 08:33:45

TEST COMMENT: 30-IF-BOB in 12 minutes
60-ISI-Very Weak Surface Blow ; Built to 1/4"
60-FF-BOB in 14 minutes
90-FSI-Very Weak Surface Blow ; Built to 1/2"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1768.01	93.13	Initial Hydro-static
1	25.76	92.44	Open To Flow (1)
31	132.57	101.15	Shut-In(1)
90	504.07	101.14	End Shut-In(1)
90	138.77	101.05	Open To Flow (2)
151	217.99	105.96	Shut-In(2)
240	497.94	106.32	End Shut-In(2)
240	1707.33	106.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GOCM 10% G 40% O 50% M	0.59
385.00	GMCO 10%G 10%M 80%O	4.63
20.00	Clean Oil 100% O	0.28

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 Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63513

DST#: 5

ATTN: Jeff Christian

Test Start: 2017.03.02 @ 02:55:00

Tool Information

Drill Pipe:	Length: 3402.00 ft	Diameter: 3.80 inches	Volume: 47.72 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	58000.00 lb
Drill Pipe Above KB:	29.00 ft			Final	60000.00 lb
Depth to Top Packer:	3606.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	35.00 ft				
Tool Length:	63.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3579.00	
Shut In Tool	5.00			3584.00	
Hydraulic tool	5.00			3589.00	
Jars	5.00			3594.00	
Safety Joint	3.00			3597.00	
Packer	5.00			3602.00	28.00 Bottom Of Top Packer
Packer	4.00			3606.00	
Stubb	1.00			3607.00	
Recorder	0.00	9120	Inside	3607.00	
Recorder	0.00	8934	Outside	3607.00	
Perforations	30.00			3637.00	
Bullnose	4.00			3641.00	35.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company Inc

S20-6S-19W Rooks,KS

250 N Water STE 300
Wichita KS 67202+1216

Hamit #1-20

Job Ticket: 63513

DST#: 5

ATTN: Jeff Christian

Test Start: 2017.03.02 @ 02:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

19 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	GOCM 10% G 40% O 50% M	0.590
385.00	GMCO 10%G 10%M 80%O	4.626
20.00	Clean Oil 100% O	0.281

Total Length: 525.00 ft Total Volume: 5.497 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

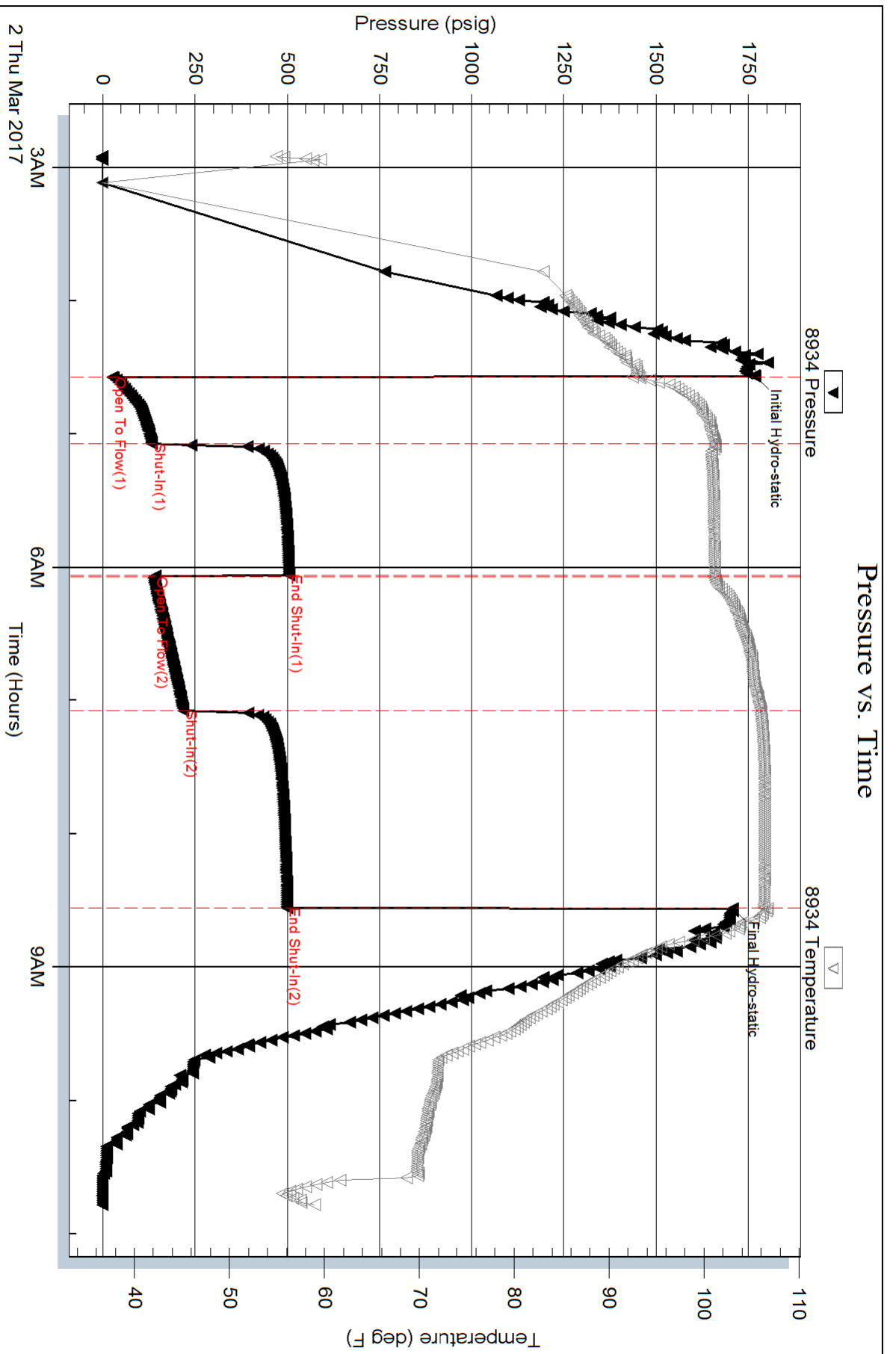
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4# LCM

Gravity= 19 degrees @ 60 degrees



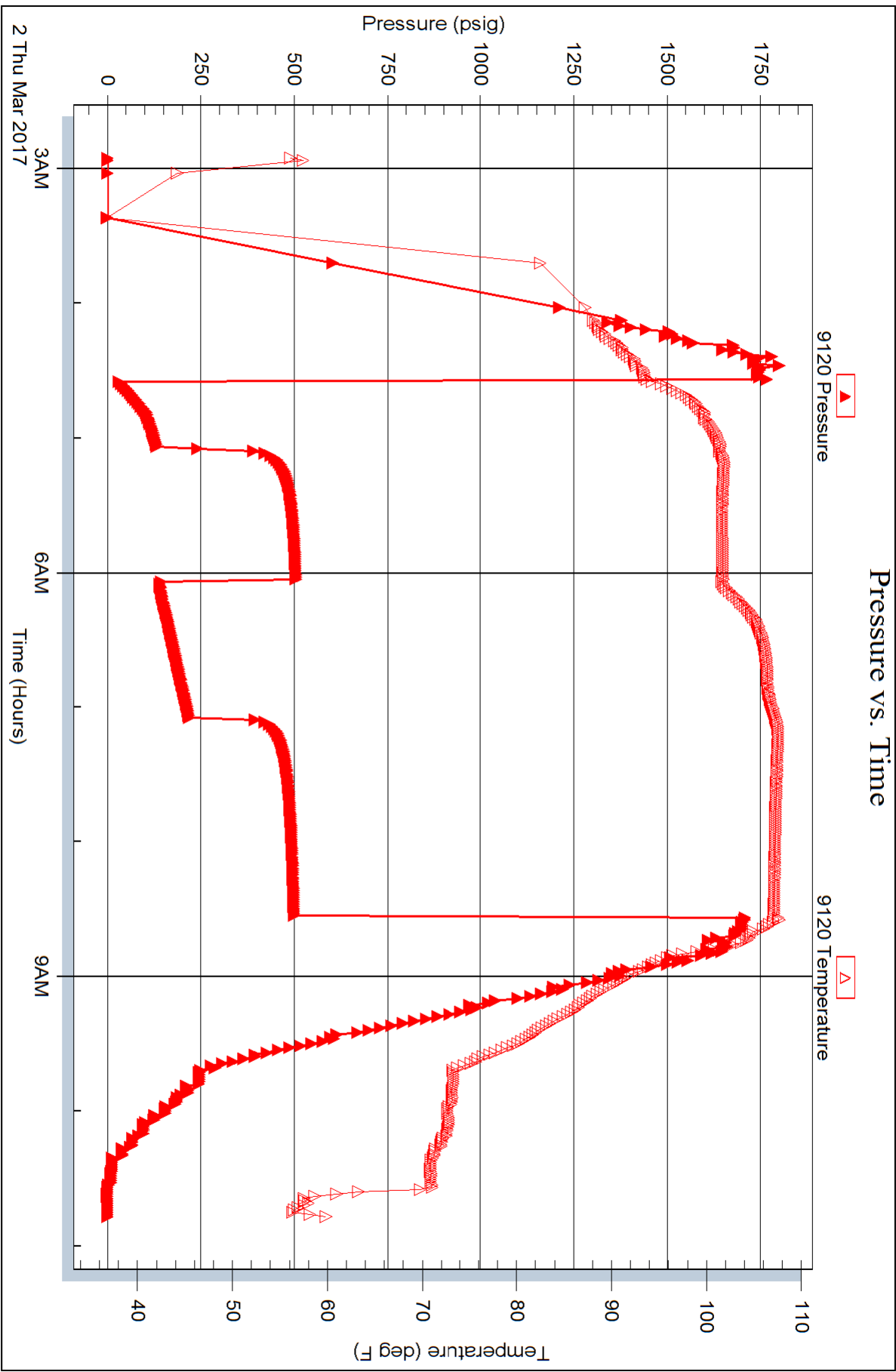
Serial #: 9120

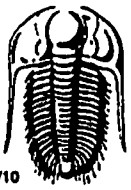
Inside

Murfin Drilling Company Inc

Hamit #1-20

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63509

Well Name & No. Hamit # 1-20 Test No. 1 Date 02/27/2017
 Company Murfin Drilling Company Elevation 2134 KB 2129 GL
 Address 250 N Water STE 300 Wichita KS 67202 + 1216
 Co. Rep / Geo. Jeff Christian Johnson Murfin Rig # 24
 Location: Sec. 20 Twp. 6S Rge. 19W Co. Rooks State Ks

Interval Tested 3352' - 3410' Zone Tested LKC 'a-b'
 Anchor Length 58' Drill Pipe Run 3149' Mud Wt. 8.8
 Top Packer Depth 3347' Drill Collars Run 205' Vis 63
 Bottom Packer Depth 3352' Wt. Pipe Run — WL 5.6
 Total Depth 3410' Chlorides 800 ppm System LCM 3#
 Blow Description D7 - Very Weak Surface Blow; built up to 1 inch
DSD - No Blow Back
F7 - Very Weak Surface Blow; Built to 1/4 inch
FSD - No Blow Back

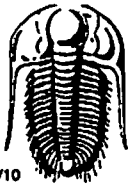
Rec	Feet of	%gas	%oil	%water	%mud
<u>10'</u>	<u>Mud w/oil specks</u>			<u>100%</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10' BHT 98° Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>1627</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>13:08</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>16:11</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>18:24</u>
(D) Initial Shut-In <u>1047</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>21:26</u>
(E) Second Initial Flow <u>25</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>23:06</u>
(F) Second Final Flow <u>29</u>	<input checked="" type="checkbox"/> Mileage <u>120 RT 90</u>	Comments
(G) Final Shut-In <u>1030</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1602</u>	<input type="checkbox"/> Straddle	
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1465</u>
	Sub Total <u>1465</u>	MP/DST Disc't

Approved By _____ Our Representative Spencer J. Stank Thank-you!!
 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.

785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63510

Well Name & No. Hamit # 1-20 Test No. 2 Date 02/28/2017
 Company Murfin Drilling Company Inc Elevation 2134 KB 2129 GL
 Address 250 N Water STE 300 Wichita Ks 67202+1216
 Co. Rep / Geo. Jeff Christian / Shauna Hummelman Rig Murfin Rig #24
 Location: Sec. 20 Twp. 6S Rge. 19W Co. Rocks State Ks

Interval Tested 3407' - 3448' Zone Tested LKC 'D-7' gone
 Anchor Length 41' Drill Pipe Run 3181' Mud Wt. 8.8
 Top Packer Depth 3402' Drill Collars Run 205' Vis 63
 Bottom Packer Depth 3407' Wt. Pipe Run — WL 5.6
 Total Depth 3448' Chlorides 800 ppm System LCM 3#

Blow Description 57-
65-
77- Hit Bridge 17 Stands in
7SD- Opened tool to try to slide thru, didn't work

Rec	Feet of	%gas	%oil	%water	%mud
<u>60'</u>	<u>Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

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

- (A) Initial Hydrostatic _____
- (B) First Initial Flow _____
- (C) First Final Flow _____
- (D) Initial Shut-In _____
- (E) Second Initial Flow _____
- (F) Second Final Flow _____
- (G) Final Shut-In _____
- (H) Final Hydrostatic _____

- Test 850
- Jars 250
- Safety Joint 75
- Circ Sub _____
- Hourly Standby _____
- Mileage 120 R7 90
- Sampler _____
- Straddle _____
- Shale Packer _____
- Extra Packer _____
- Extra Recorder _____
- Day Standby _____
- Accessibility _____
- Sub Total 1265

T-On Location 05:58
 T-Started 06:34
 T-Open _____
 T-Pulled H + Bridge
 T-Out 1050' in
 Comments _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1265
 MP/DST Disc't _____

Initial Open _____
 Initial Shut-In _____
 Final Flow _____
 Final Shut-In _____

Approved By _____ Our Representative Spencer J. Stahl Thanks!

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.

785-259-0056

Test NO. 63511



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Well Name & No. Hamit # 1-20 Test No. 3 Date 02/28/2017
 Company Murfin Drilling Company Inc Elevation 2134 KB 2129 GL
 Address 250 N Water STE 380 Wichita Ks 67202+1216
 Co. Rep / Geo. Jeff Christian Rig Murfin Rig #24
 Location: Sec. 20 Twp. 6S Rge. 19W Co. Rooks State Ks

Interval Tested 3407'-3448' Zone Tested LAC 'D-7' zones
 Anchor Length 41' Drill Pipe Run 3181' Mud Wt. 8.9
 Top Packer Depth 3402' Drill Collars Run 205' Vis 64
 Bottom Packer Depth 3407' Wt. Pipe Run — WL 7.2
 Total Depth 3448' Chlorides 1,100 ppm System LCM 4#

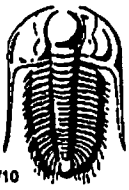
Blow Description D7- Very Weak Surface Blow; Built from 1/8th inch to 1 inch
ISD- No Blow Back
77- Very Weak Surface Blow; few bubbles
7SD- No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>15'</u>	<u>Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15' BHT 95° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1655</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>13:20</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>13:48</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>15:34</u>
(D) Initial Shut-In <u>1043</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>18:35</u>
(E) Second Initial Flow <u>24</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>20:24</u>
(F) Second Final Flow <u>30</u>	<input checked="" type="checkbox"/> Mileage <u>2027</u> 90	Comments
(G) Final Shut-In <u>986</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1633</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>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>1465</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1465</u>	

Approved By _____ Our Representative Spencer J. Stuck Thanks!
 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.
 285-259 0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63512

Well Name & No. Hamit #1-20 Test No. 4 Date 03/01/2017
 Company Murfin Drilling Company Inc Elevation 2134 KB 2129 GL
 Address 250 N Main STE 300 Wichita Ks 67202 + 1216
 Co. Rep / Geo. Jeff Christian Rig Murfin Rig # 24
 Location: Sec. 20 Twp. 6s Rge. 19w Co. Rooks State Ks

Interval Tested 3472-3564' Zone Tested LKC 'A-K' zones
 Anchor Length 92' Drill Pipe Run 3244' Mud Wt. 8.9
 Top Packer Depth 3467' Drill Collars Run 205' Vis 64
 Bottom Packer Depth 3472' Wt. Pipe Run - WL 7.2
 Total Depth 3564' Chlorides 1,100 ppm System LCM 4#

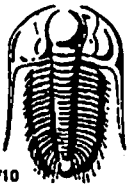
Blow Description D7 - Very Weak Surface Blow; built from 1/2 in to 1 inch
DSD - No Blow Back
77 - Very Weak Surface Blow; Few Bubbles
7SD - No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20'</u>	<u>Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20' BHT 96° Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1681</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>10:10</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:43</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>12:26</u>
(D) Initial Shut-In <u>803</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>15:26</u>
(E) Second Initial Flow <u>28</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>17:01</u>
(F) Second Final Flow <u>31</u>	<input checked="" type="checkbox"/> Mileage <u>120 RT 90</u>	Comments
(G) Final Shut-In <u>674</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1646</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>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>1465</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1465</u>	

Approved By _____ Our Representative Spencer J. Jacob Thank-you!
 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.
 785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63513

Well Name & No. Hamit # 1-20 Test No. 5 Date 03/02/2017
 Company Murfin Drilling Company Inc. Elevation 2134 KB 2129 GL
 Address 250 N Main STE 300 Wichita Ks 67202 + 016
 Co. Rep / Geo. Jeff Christian Rig Murfin Rig #24
 Location: Sec. 20 Twp. 6s Rge. 19w Co. rooks State Ks

Interval Tested 3606' - 3641' Zone Tested Reagan Sand
 Anchor Length 35' Drill Pipe Run 3402' Mud Wt. 9.0
 Top Packer Depth 3601' Drill Collars Run 205' Vis 54
 Bottom Packer Depth 3606' Wt. Pipe Run - WL 6.0
 Total Depth 3641' Chlorides 1,100 ppm System LCM 4#

Blow Description 17- BOB in 12 minutes
1SD- Very Weak Surface Blow; Built to 1/4 inch
77- BOB in 14 minutes
7SD- Very Weak Surface Blow; Built to 1/2 inch

Rec	Feet of	%gas	%oil	%water	%mud
<u>120'</u>	<u>10CM</u>	<u>10</u>	<u>40</u>	<u>50</u>	<u>0</u>
<u>385'</u>	<u>1MCO</u>	<u>10</u>	<u>80</u>	<u>10</u>	<u>0</u>
<u>20'</u>	<u>Clean Oil</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 525' BHT 106° Gravity 19° @ 60°F API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1768</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>02:04</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>02:55</u>
(C) First Final Flow <u>132</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>04:33</u>
(D) Initial Shut-In <u>504</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>08:33</u>
(E) Second Initial Flow <u>138</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:45</u>
(F) Second Final Flow <u>217</u>	<input checked="" type="checkbox"/> Mileage <u>120R7</u> 90	Comments
(G) Final Shut-In <u>497</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1707</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>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1715</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1715</u>	

Approved By _____ Our Representative Spencer J. Staal Thanks!

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.

785-259-0056