



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Saman Sharifaie

Walter A #3-1

1-1s-36w Rawlins,KS

Start Date: 2017.03.13 @ 07:07:00

End Date: 2017.03.13 @ 16:37:00

Job Ticket #: 6407 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.16 @ 11:37:45



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202-1216
 ATTN: Saman Sharifaie

1-1s-36w Rawlins,KS
Walter A #3-1
 Job Ticket: 6407 **DST#: 1**
 Test Start: 2017.03.13 @ 07:07:00

GENERAL INFORMATION:

Formation: **LKC " A - D "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:45:00
 Time Test Ended: 16:37:00
 Interval: **4144.00 ft (KB) To 4274.00 ft (KB) (TVD)**
 Total Depth: 4274.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jim Svaty
 Unit No: 76
 Reference Elevations: 3259.00 ft (KB)
 3254.00 ft (CF)
 KB to GR/CF: 5.00 ft

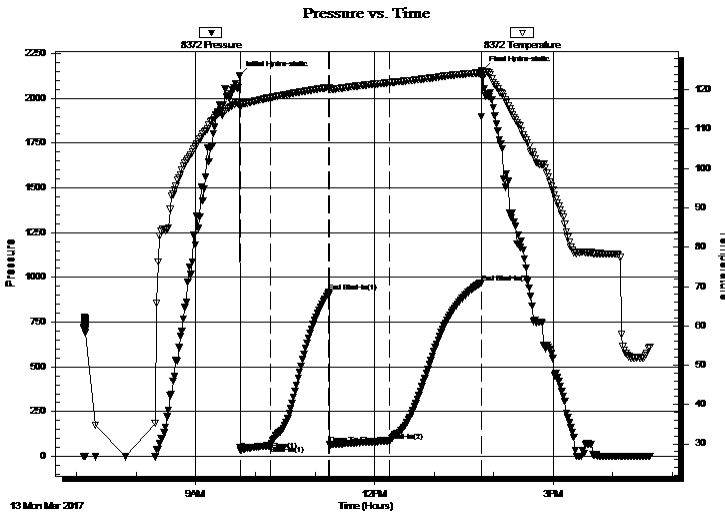
Serial #: 8372

Inside

Press@RunDepth: 86.02 psig @ 4147.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.03.13 End Date: 2017.03.13 Last Calib.: 2017.03.13
 Start Time: 07:07:01 End Time: 16:37:00 Time On Btm: 2017.03.13 @ 09:44:00
 Time Off Btm: 2017.03.13 @ 13:48:30

TEST COMMENT: 30-IFP- Surface Blow Building to 5"
 60-ISIP- No Blow
 60-FFP- Surface Blow Building to 3 3/4"
 90-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2124.67	116.74	Initial Hydro-static
1	32.60	116.33	Open To Flow (1)
31	59.56	118.03	Shut-In(1)
90	916.33	120.62	End Shut-In(1)
91	65.74	120.27	Open To Flow (2)
152	86.02	121.84	Shut-In(2)
243	969.06	124.32	End Shut-In(2)
245	2156.11	124.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
115.00	OCM 15%o 85%m	0.57
40.00	CO 100%	0.20
0.00	20 GIP	0.00

Gas Rates

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



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DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202-1216
 ATTN: Saman Sharifaie

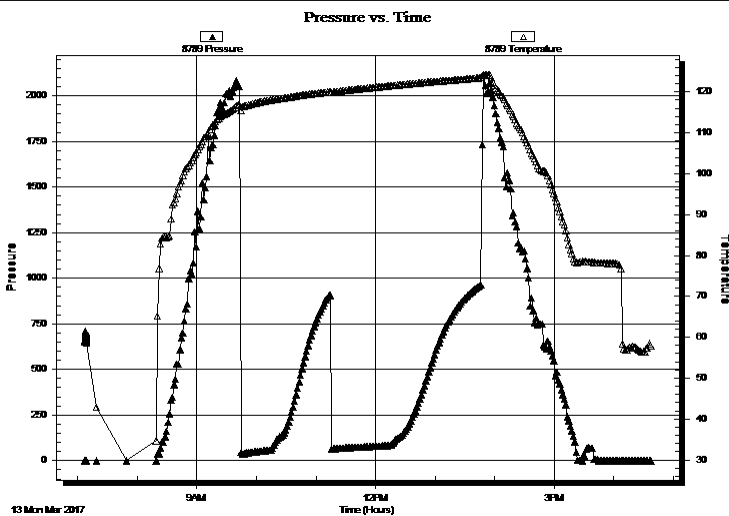
1-1s-36w Rawlins,KS
Walter A #3-1
 Job Ticket: 6407 **DST#: 1**
 Test Start: 2017.03.13 @ 07:07:00

GENERAL INFORMATION:

Formation: **LKC " A - D "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:45:00
 Time Test Ended: 16:37:00
 Interval: **4144.00 ft (KB) To 4274.00 ft (KB) (TVD)**
 Total Depth: 4274.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jim Svaty
 Unit No: 76
 Reference Elevations: 3259.00 ft (KB)
 3254.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8789 Outside
 Press@RunDepth: psig @ 4147.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.03.13 End Date: 2017.03.13 Last Calib.: 2017.03.13
 Start Time: 07:07:01 End Time: 16:37:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP- Surface Blow Building to 5"
 60-ISIP- No Blow
 60-FFP- Surface Blow Building to 3 3/4"
 90-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
115.00	OCM 15%o 85%m	0.57
40.00	CO 100%	0.20
0.00	20 GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Saman Sharifaie

1-1s-36w Rawlins,KS
Walter A #3-1
Job Ticket: 6407 **DST#: 1**
Test Start: 2017.03.13 @ 07:07:00

Tool Information

Drill Pipe:	Length: 3932.00 ft	Diameter: 3.80 inches	Volume: 55.16 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 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: 70000.00 lb
			<u>Total Volume: 56.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4144.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	130.00 ft			
Tool Length:	158.00 ft			
Number of Packers:	2	Diameter: 7.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4117.00	
Shut In Tool	5.00			4122.00	
Hydraulic tool	5.00			4127.00	
Jars	5.00			4132.00	
Safety Joint	2.00			4134.00	
Packer	5.00			4139.00	28.00 Bottom Of Top Packer
Packer	5.00			4144.00	
Stubb	1.00			4145.00	
Perforations	1.00			4146.00	
Change Over Sub	1.00			4147.00	
Recorder	0.00	8372	Inside	4147.00	
Recorder	0.00	8789	Outside	4147.00	
Blank Spacing	93.00			4240.00	
Change Over Sub	1.00			4241.00	
Perforations	30.00			4271.00	
Bullnose	3.00			4274.00	130.00 Bottom Packers & Anchor
Total Tool Length:	158.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Saman Sharifaie

1-1s-36w Rawlins,KS
Walter A #3-1
Job Ticket: 6407 **DST#: 1**
Test Start: 2017.03.13 @ 07:07:00

Mud and Cushion Information

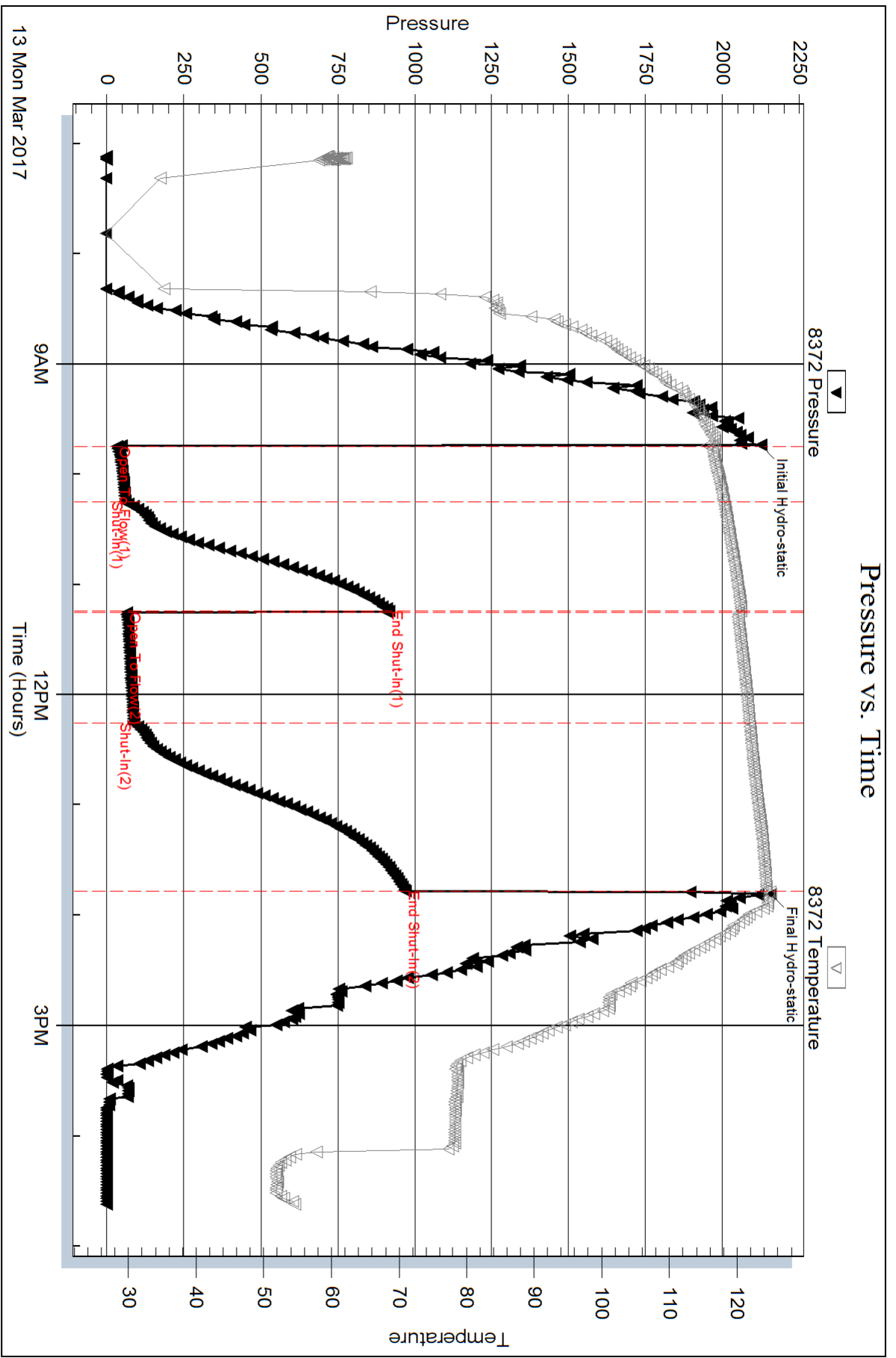
Mud Type: Gel Chem	Cushion Type:	Oil API: 31 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.77 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 600.00 ppm		
Filter Cake: 8.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
115.00	OCM 15%o 85%m	0.566
40.00	CO 100%	0.197
0.00	20 GIP	0.000

Total Length: 155.00 ft Total Volume: 0.763 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

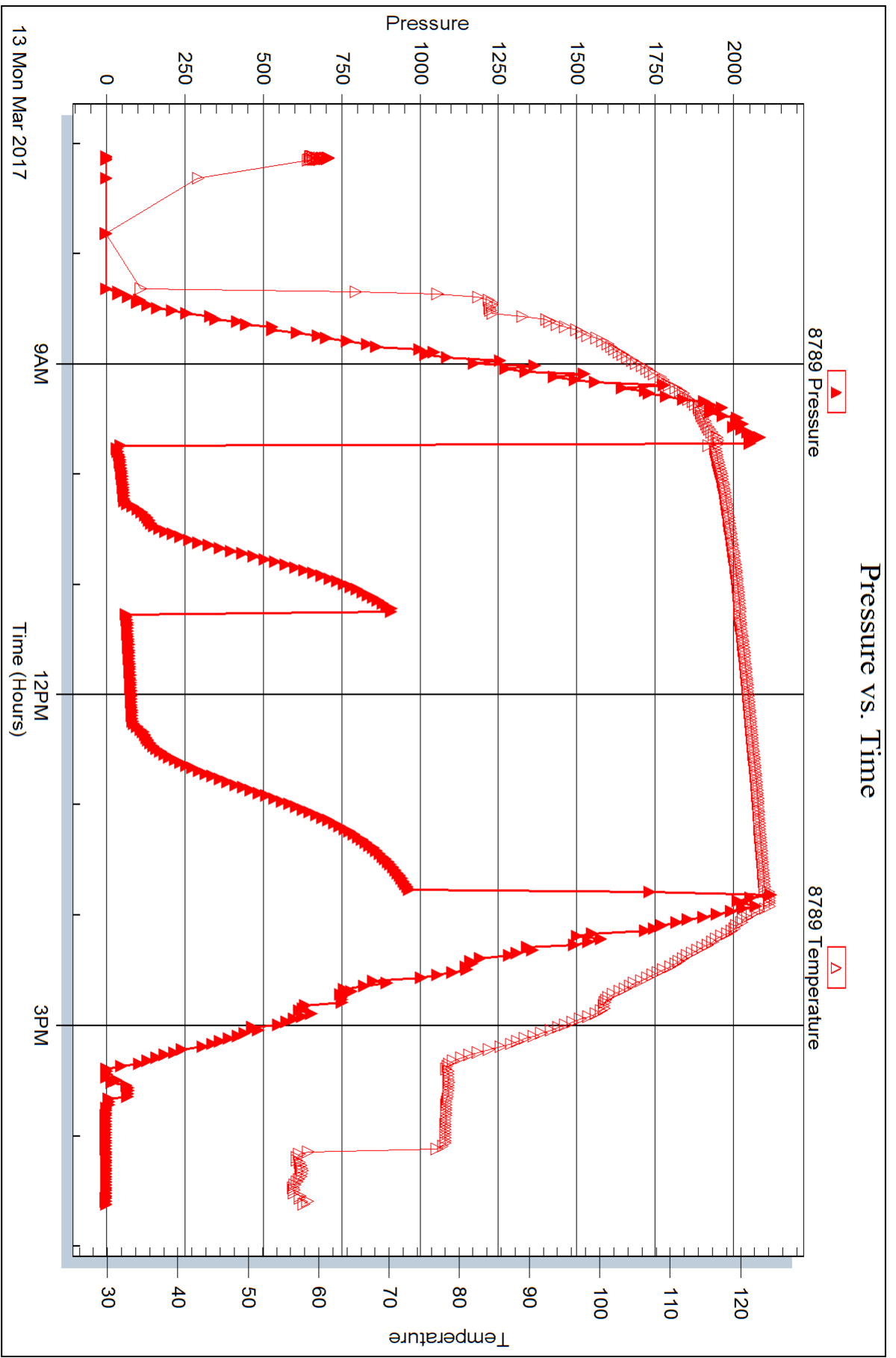


Serial #: 8789

Outside Murfin Drilling Co Inc

Walter A #3-1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Saman Sharifaie

Walter A #3-1

1-1s-36w Rawlins,KS

Start Date: 2017.03.14 @ 05:07:00

End Date: 2017.03.14 @ 13:30:00

Job Ticket #: 64073 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.16 @ 11:37:09



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Saman Sharifaie

1-1s-36w Rawlins,KS
Walter A #3-1
Job Ticket: 64073 **DST#: 2**
Test Start: 2017.03.14 @ 05:07:00

GENERAL INFORMATION:

Formation: **LKC "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:11:00
Time Test Ended: 13:30:00
Interval: **4272.00 ft (KB) To 4330.00 ft (KB) (TVD)**
Total Depth: 4330.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty/Martine Sa
Unit No: 76
Reference Elevations: 3259.00 ft (KB)
3254.00 ft (CF)
KB to GR/CF: 5.00 ft

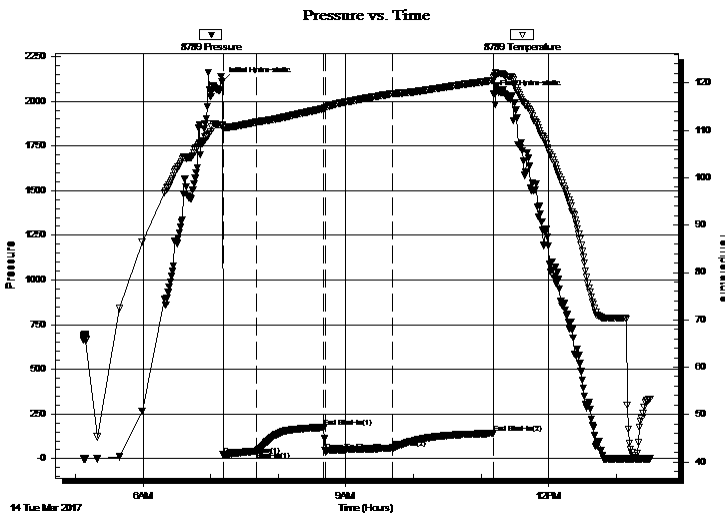
Serial #: 8789

Outside

Press@RunDepth: 59.00 psig @ 4275.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.03.14 End Date: 2017.03.14 Last Calib.: 2017.03.14
Start Time: 05:07:01 End Time: 13:30:00 Time On Btm: 2017.03.14 @ 07:10:30
Time Off Btm: 2017.03.14 @ 11:11:30

TEST COMMENT: 30- IFP- Blow built to 3 1/2"
60- ISIP- No blow
60- FFP- Blow built to 3"
90- FSIP- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2109.73	111.09	Initial Hydro-static
1	21.06	110.45	Open To Flow (1)
30	40.15	111.72	Shut-In(1)
90	174.87	114.60	End Shut-In(1)
91	43.84	114.71	Open To Flow (2)
151	59.00	117.74	Shut-In(2)
241	141.20	120.53	End Shut-In(2)
241	2039.92	121.20	Final Hydro-static

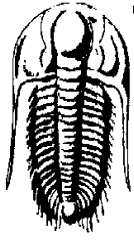
Recovery

Length (ft)	Description	Volume (bbl)
95.00	OCM 20%o 80%M	0.47
2.00	CO 100%	0.01
0.00	30' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



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TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Saman Sharifaie

1-1s-36w Rawlins,KS

Walter A #3-1

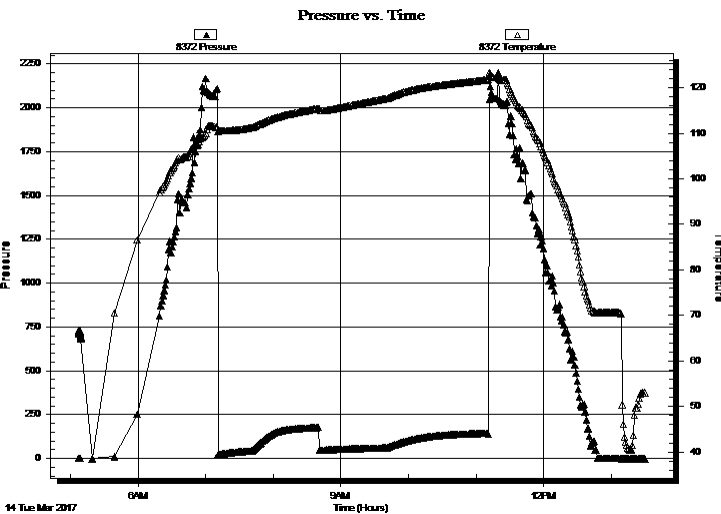
Job Ticket: 64073 **DST#: 2**
Test Start: 2017.03.14 @ 05:07:00

GENERAL INFORMATION:

Formation: **LKC "G"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 07:11:00 Tester: Jim Svaty/Martine Sa
 Time Test Ended: 13:30:00 Unit No: 76
 Interval: **4272.00 ft (KB) To 4330.00 ft (KB) (TVD)** Reference Elevations: 3259.00 ft (KB)
 Total Depth: 4330.00 ft (KB) (TVD) 3254.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8372 **Inside**
 Press@RunDepth: psig @ 4275.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.03.14 End Date: 2017.03.14 Last Calib.: 2017.03.14
 Start Time: 05:07:01 End Time: 13:30:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30- IFP- Blow built to 3 1/2"
 60- ISIP- No blow
 60- FFP- Blow built to 3"
 90- FSIP- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
95.00	OCM 20% ◊ 80%M	0.47
2.00	CO 100%	0.01
0.00	30' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Saman Sharifaie

1-1s-36w Rawlins,KS
Walter A #3-1
Job Ticket: 64073 **DST#: 2**
Test Start: 2017.03.14 @ 05:07:00

Tool Information

Drill Pipe:	Length: 4056.00 ft	Diameter: 3.80 inches	Volume: 56.90 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 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:	70000.00 lb
			<u>Total Volume: 57.91 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	65000.00 lb
Depth to Top Packer:	4272.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	58.00 ft				
Tool Length:	86.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4245.00	
Shut In Tool	5.00			4250.00	
Hydraulic tool	5.00			4255.00	
Jars	5.00			4260.00	
Safety Joint	2.00			4262.00	
Packer	5.00			4267.00	28.00 Bottom Of Top Packer
Packer	5.00			4272.00	
Stubb	1.00			4273.00	
Perforations	1.00			4274.00	
Change Over Sub	1.00			4275.00	
Recorder	0.00	8372	Inside	4275.00	
Recorder	0.00	8789	Outside	4275.00	
Blank Spacing	31.00			4306.00	
Change Over Sub	1.00			4307.00	
Perforations	20.00			4327.00	
Bullnose	3.00			4330.00	58.00 Bottom Packers & Anchor
Total Tool Length:	86.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

1-1s-36w Rawlins,KS

250 N Water Ste 300
Wichita KS 67202-1216

Walter A #3-1

Job Ticket: 64073

DST#: 2

ATTN: Saman Sharifaie

Test Start: 2017.03.14 @ 05:07:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 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
95.00	OCM 20%o 80%M	0.467
2.00	CO 100%	0.010
0.00	30' GIP	0.000

Total Length: 97.00 ft Total Volume: 0.477 bbl

Num Fluid Samples: 0

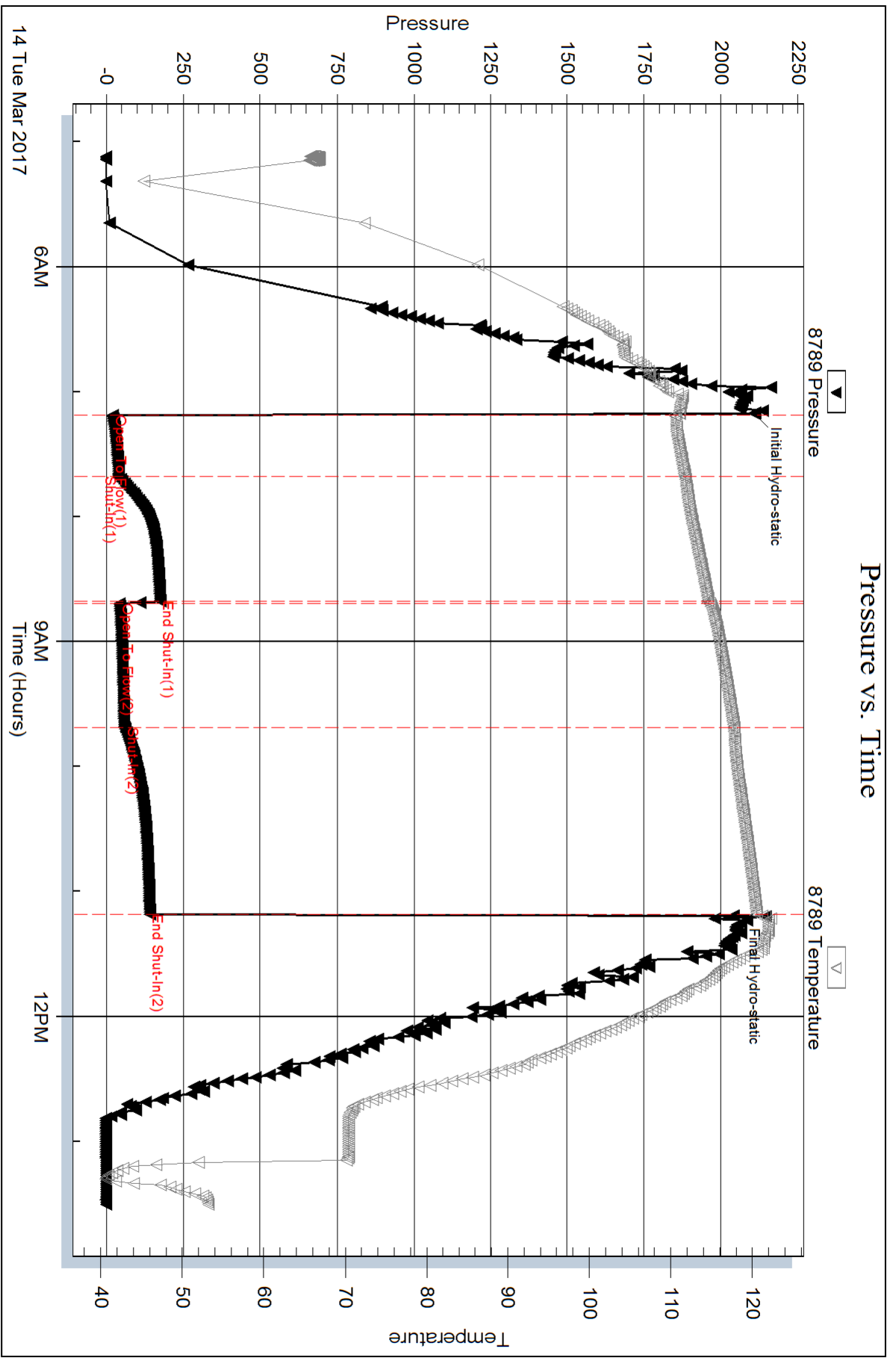
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



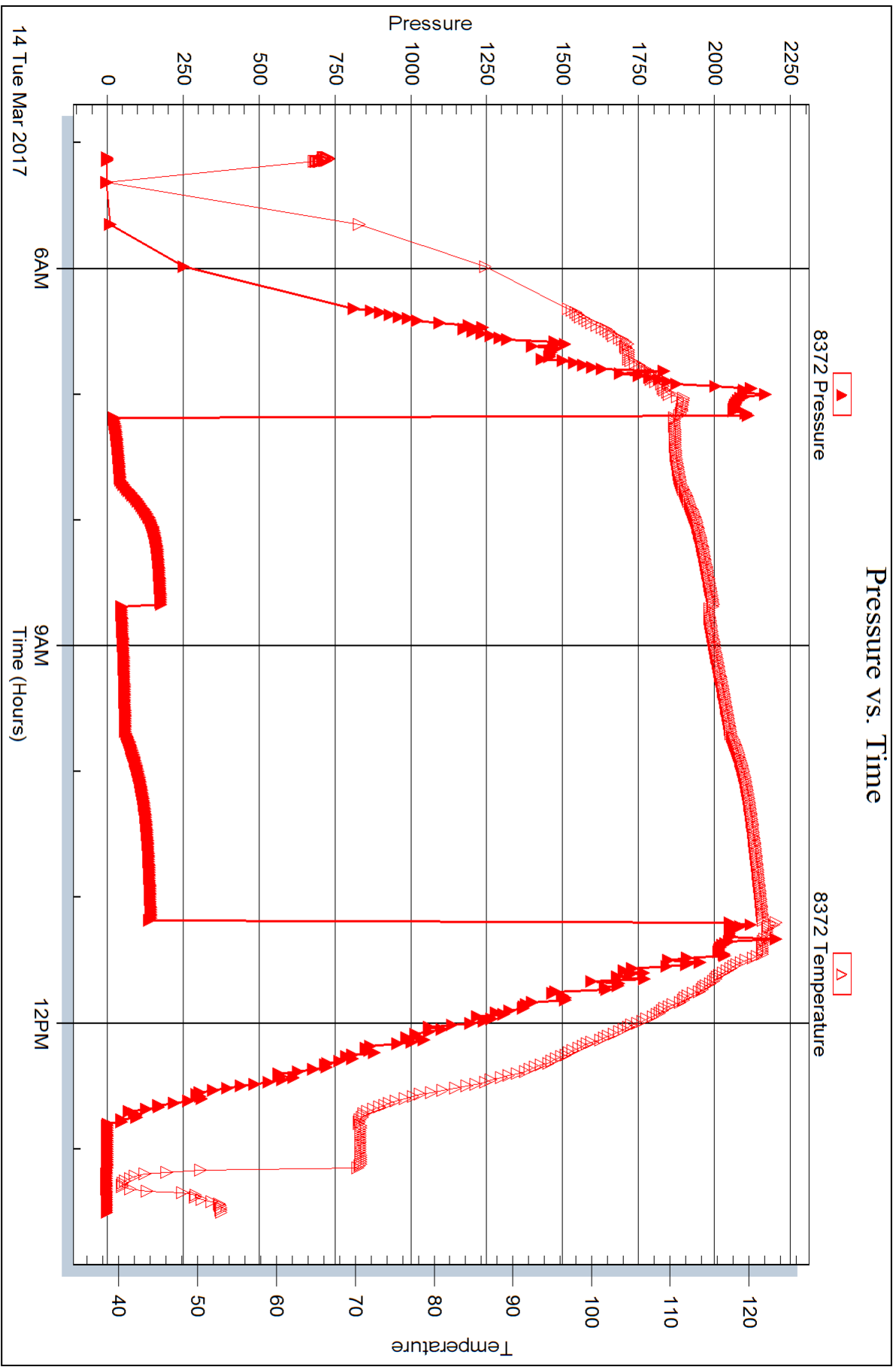
Serial #: 8372

Inside

Murfin Drilling Co Inc

Walter A #3-1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Saman Sharifaie

Walter A #3-1

1-1s-36w Rawlins,KS

Start Date: 2017.03.15 @ 05:13:00

End Date: 2017.03.15 @ 14:09:00

Job Ticket #: 64074 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.16 @ 11:34:41



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Saman Sharifaie

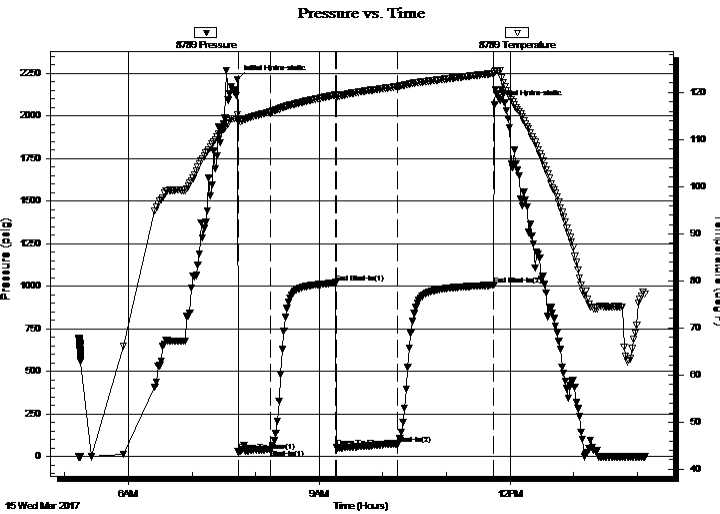
1-1s-36w Rawlins,KS
Walter A #3-1
Job Ticket: 64074 **DST#: 3**
Test Start: 2017.03.15 @ 05:13:00

GENERAL INFORMATION:

Formation: **LKC "H - J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:43:30
Time Test Ended: 14:09:00
Interval: **4328.00 ft (KB) To 4428.00 ft (KB) (TVD)**
Total Depth: 4428.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty/Martine Sa
Unit No: 76
Reference Elevations: 3259.00 ft (KB)
3254.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8789 Outside
Press@RunDepth: 74.95 psig @ 4330.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.03.15 End Date: 2017.03.15 Last Calib.: 2017.03.15
Start Time: 05:13:01 End Time: 14:08:00 Time On Btm: 2017.03.15 @ 07:43:00
Time Off Btm: 2017.03.15 @ 11:45:30

TEST COMMENT: 30- IFP- Blow built to 4 1/2"
60- ISIP- No blow
60- FFP- B.O.B @ 53 mins
90- FSIP-Surface blow built to 1/4" @ 5 1/2 mins died @ 62 mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2213.73	115.26	Initial Hydro-static
1	28.13	114.28	Open To Flow (1)
31	42.61	115.90	Shut-In(1)
93	1021.83	119.49	End Shut-In(1)
93	56.62	119.22	Open To Flow (2)
151	74.95	121.28	Shut-In(2)
242	1006.55	124.03	End Shut-In(2)
243	2066.18	124.45	Final Hydro-static

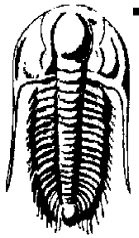
Recovery

Length (ft)	Description	Volume (bbl)
117.00	OCM 40% o, 60%m	0.58
18.00	CO 100%	0.09
0.00	220 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Saman Sharifaie

1-1s-36w Rawlins,KS

Walter A #3-1

Job Ticket: 64074

DST#: 3

Test Start: 2017.03.15 @ 05:13:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:43:30

Time Test Ended: 14:09:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty/Martine Sa

Unit No: 76

Interval: 4328.00 ft (KB) To 4428.00 ft (KB) (TVD)

Total Depth: 4428.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3259.00 ft (KB)

3254.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8372 Inside

Press@RunDepth: psig @ 4330.00 ft (KB)

Start Date: 2017.03.15

End Date: 2017.03.15

Start Time: 05:13:01

End Time: 14:08:00

Capacity: 8000.00 psig

Last Calib.: 2017.03.15

Time On Btm:

Time Off Btm:

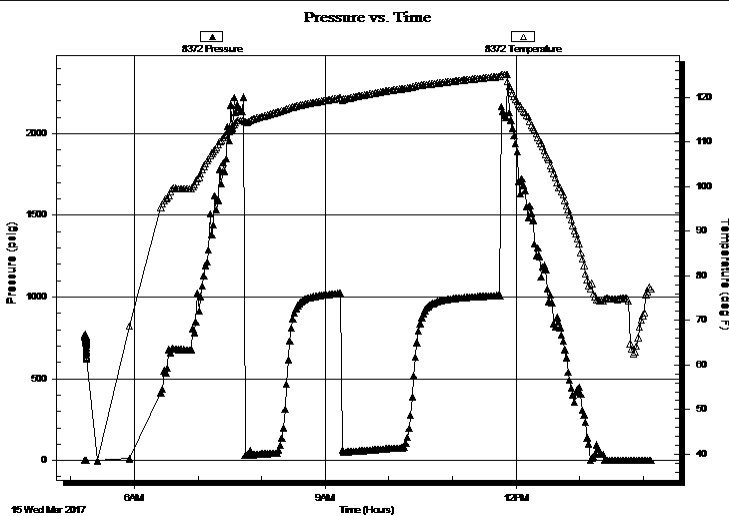
TEST COMMENT: 30- IFF- Blow built to 4 1/2"

60- ISIP- No blow

60- FFP- B.O.B @ 53 mins

90- FSIP-Surface blow built to 1/4" @ 5 1/2 mins died @ 62 mins

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
117.00	OCM 40% o, 60% m	0.58
18.00	CO 100%	0.09
0.00	220 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Saman Sharifaie

1-1s-36w Rawlins,KS
Walter A #3-1
Job Ticket: 64074 **DST#: 3**
Test Start: 2017.03.15 @ 05:13:00

Tool Information

Drill Pipe:	Length: 4117.00 ft	Diameter: 3.80 inches	Volume: 57.75 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 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: 70000.00 lb
			<u>Total Volume: 58.76 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4328.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.00 ft			
Tool Length:	128.00 ft			
Number of Packers:	2	Diameter: 7.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4301.00	
Shut In Tool	5.00			4306.00	
Hydraulic tool	5.00			4311.00	
Jars	5.00			4316.00	
Safety Joint	2.00			4318.00	
Packer	5.00			4323.00	28.00 Bottom Of Top Packer
Packer	5.00			4328.00	
Stubb	1.00			4329.00	
Perforations	1.00			4330.00	
Recorder	0.00	8372	Inside	4330.00	
Recorder	0.00	8789	Outside	4330.00	
perforations	30.00			4360.00	
Change Over Sub	1.00			4361.00	
blank spacing	63.00			4424.00	
Change Over Sub	1.00			4425.00	
Bullnose	3.00			4428.00	100.00 Bottom Packers & Anchor
Total Tool Length:	128.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Saman Sharifaie

1-1s-36w Rawlins,KS
Walter A #3-1
Job Ticket: 64074 **DST#: 3**
Test Start: 2017.03.15 @ 05:13:00

Mud and Cushion Information

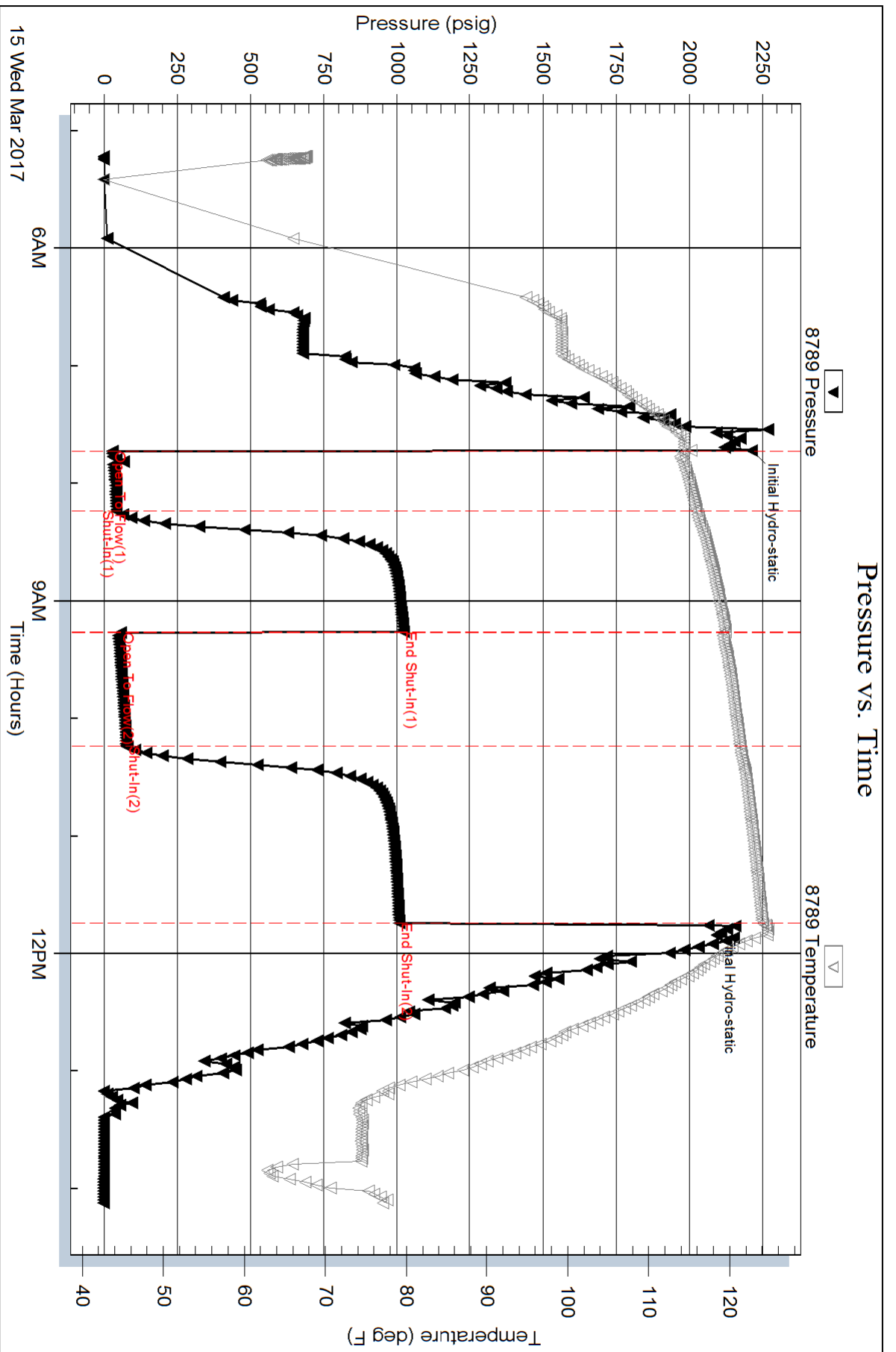
Mud Type: Gel Chem	Cushion Type:	Oil API: 28 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.99 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 700.00 ppm		
Filter Cake: 2.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
117.00	OCM 40% o, 60%m	0.575
18.00	CO 100%	0.089
0.00	220 GIP	0.000

Total Length: 135.00 ft Total Volume: 0.664 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



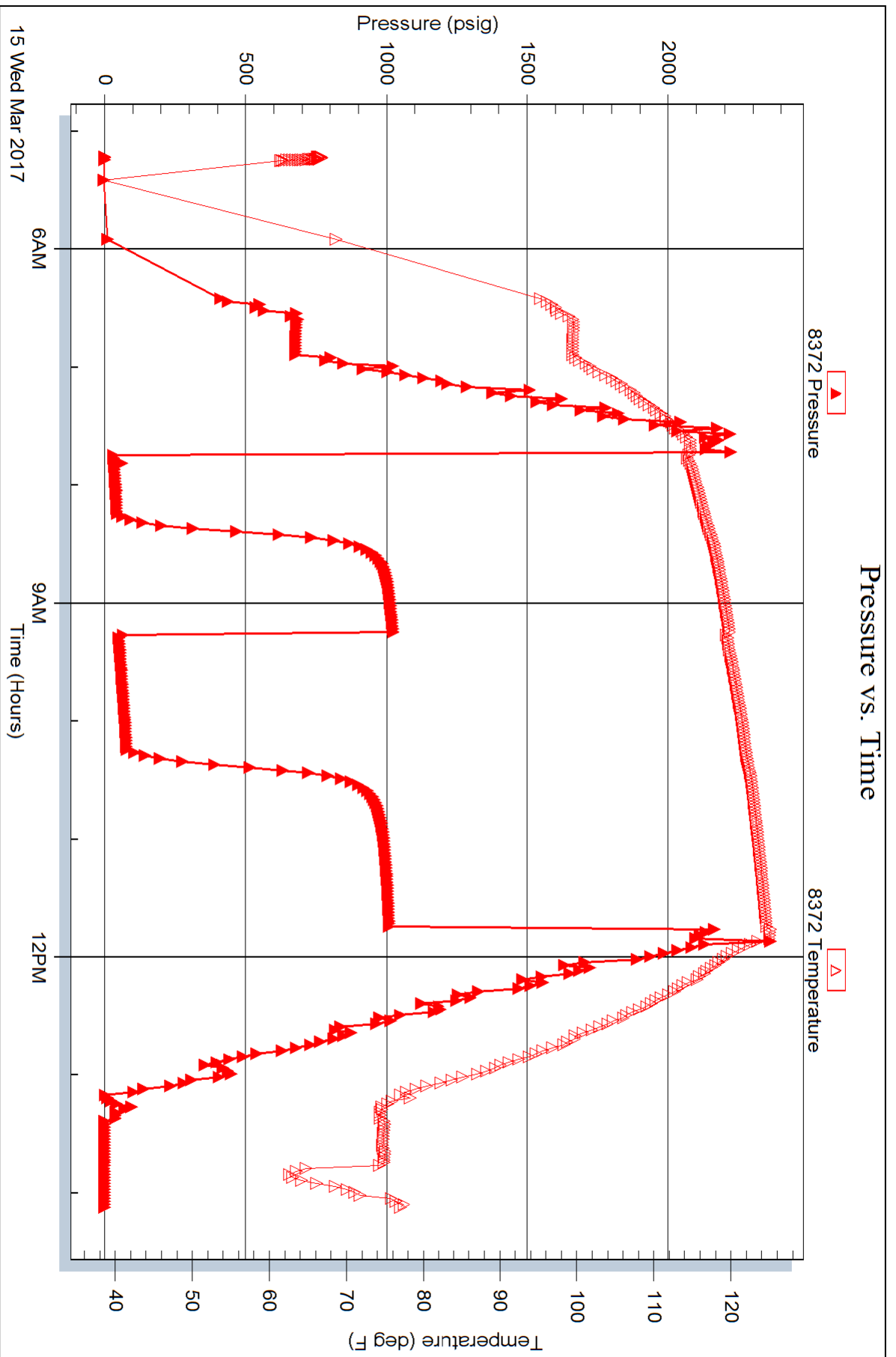
Serial #: 8372

Inside

Murfin Drilling Co Inc

Walter A #3-1

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64072**

Well Name & No. Walter A 3-1 Test No. 1 Date 3-13-17
 Company Murfin Drilling Co Inc. Elevation 3259 KB 3254 GL
 Address 250 N. Water Ste 300 Wichita KS 67202-1216
 Co. Rep / Geo. SAMAN SHARIFAIE Rig MURFIN 24
 Location: Sec. 1 Twp. 1 S Rge. 36 W Co. RAWLINS State KS

Interval Tested 4144 - 4274 Zone Tested LKC "A-D"
 Anchor Length 130 Drill Pipe Run 3932 Mud Wt. 9.3
 Top Packer Depth 4139 Drill Collars Run 205 Vis 58
 Bottom Packer Depth 4144 Wt. Pipe Run 0 WL 6.8
 Total Depth 4274 Chlorides 600 ppm System LCM 8

Blow Description IFP - Surface Blow Building to 5 in.
ISIP - No Blow
FFP - Surface Blow Building to 3 3/4 in.
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>115</u>	<u>OCM</u>	<u>15</u>		<u>85</u>	
<u>40</u>	<u>CO</u>	<u>100</u>			
	<u>20 DIP</u>				

Rec Total 155 BHT 124 Gravity 31 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic <u>2124</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>05:23</u>
(B) First Initial Flow <u>32</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>07:07</u>
(C) First Final Flow <u>59</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>09:45</u>
(D) Initial Shut-In <u>916</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>13:45</u>
(E) Second Initial Flow <u>65</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:37</u>
(F) Second Final Flow <u>86</u>	<input checked="" type="checkbox"/> Mileage <u>99</u> <u>132 RT</u>	Comments
(G) Final Shut-In <u>969</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2156</u>	<input type="checkbox"/> Straddle	

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

Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1574
 MP/DST Disc't

Sub Total 1574

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.

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64073**

Well Name & No. Walter A 3-1 Test No. 2 Date 3-14-17
 Company Murfin Drilling Co. Inc Elevation 3259 KB 3254 GL
 Address 250 N. Water Ste 300 Wichita KS 67202-1216
 Co. Rep / Geo. Saman Sheritale Rig Murfin 24
 Location: Sec. 1 Twp. 15 Rge. 36w Co. Rawlins State KS

Interval Tested 4272-4330 Zone Tested LKC "G"
 Anchor Length 58' Drill Pipe Run 4056 Mud Wt. 9.1
 Top Packer Depth 4267 Drill Collars Run 206 Vis 63
 Bottom Packer Depth 4272 Wt. Pipe Run — WL 5.6
 Total Depth 4330 Chlorides 700 ppm System LCM 8.0
 Blow Description IFP. Surface blow built to 3 1/2"
ISIP. No Blow
FFP. Surface blow built to 3"
FSIP

Rec	Feet of	%gas	%oil	%water	%mud
<u>95</u>	<u>OCM</u>	<u>20</u>		<u>80</u>	
<u>2</u>	<u>C.O</u>	<u>100</u>			
	<u>30 G.I.P</u>				

Rec Total 97 BHT 121 Gravity 32 API RW @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2109 Test 1150 T-On Location 4:51
 (B) First Initial Flow 21 Jars 250 T-Started 5:07
 (C) First Final Flow 40 Safety Joint 75 T-Open 7:12
 (D) Initial Shut-In 174 Circ Sub _____ T-Pulled 11:12
 (E) Second Initial Flow 43 Hourly Standby _____ T-Out 1330
 (F) Second Final Flow 59 Mileage 99 Comments _____
 (G) Final Shut-In 141 Sampler _____
 (H) Final Hydrostatic 2039 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1574
 Accessibility _____ MP/DST Disc _____
 Sub Total 1574

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64074**

Well Name & No. Walker A 3-1 Test No. 3 Date 3-15-16
 Company Murfin Drilling Inc CO Elevation 3259 KB 3254 GL
 Address 250 N Water Ste 300 Wichita, KS 67202-1216
 Co. Rep / Geo. Saman Sheritaie Rig Murfin #24
 Location: Sec. 1 Twp. 15 Rge. 36W Co. Rawlins State KS

Interval Tested 4328-4428 Zone Tested LKC "H-J"
 Anchor Length 100' Drill Pipe Run 4117 Mud Wt. 9.2
 Top Packer Depth 4323 Drill Collars Run 205 Vis 62
 Bottom Packer Depth 4328 Wt. Pipe Run — WL 6.0
 Total Depth 4428 Chlorides 700 ppm System LCM 8#
 Blow Description IFP. Blow built to 4 1/2"
ISIP. No blow

FFP. B.O.B @ 53 mins

FSIP. Surface blow built to 1/4" in 5 1/2 mins. dead @ 62 mins

Rec	Feet of	%gas	%oil	%water	%mud
<u>117</u>	<u>OCM 40'</u>	<u>40</u>		<u>60</u>	
<u>18</u>	<u>CO</u>	<u>100</u>			
<u>—</u>	<u>220 GIP</u>				
<u>—</u>	<u>—</u>				
<u>—</u>	<u>—</u>				

Rec Total 135 BHT 124 Gravity 28 API RW — @ — °F Chlorides — ppm

- (A) Initial Hydrostatic 2213
- (B) First Initial Flow 28
- (C) First Final Flow 42
- (D) Initial Shut-In 1021
- (E) Second Initial Flow 56
- (F) Second Final Flow 74
- (G) Final Shut-In 1006
- (H) Final Hydrostatic 2066

- Test 1150
- Jars 250
- Safety Joint 75
- Circ Sub —
- Hourly Standby —
- Mileage 198 X2
- Sampler —
- Straddle —
- Shale Packer —
- Extra Packer —
- Extra Recorder —
- Day Standby —
- Accessibility —

- T-On Location 4:20
- T-Started 5:13
- T-Open 8:15 7:45
- T-Pulled 11:45
- T-Out 14:09

Comments loaded tools 22:06 3/15

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

- Ruined Shale Packer —
- Ruined Packer —
- Extra Copies —
- Sub Total 0
- Total 1673
- MP/DST Disc't —

Approved By _____

Our Representative [Signature]

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