



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300  
Wichita KS 67202-1216

ATTN: Saman Sharifaie

**Antholz " A " 1-2**

**2-2s-37w Cheyenne,KS**

Start Date: 2018.01.30 @ 08:09:00

End Date: 2018.01.30 @ 16:33:00

Job Ticket #: 64170                      DST #: 1

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

Printed: 2018.02.05 @ 13:55:31



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

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

**2-2s-37w Cheyenne,KS**

**Antholz " A " 1-2**

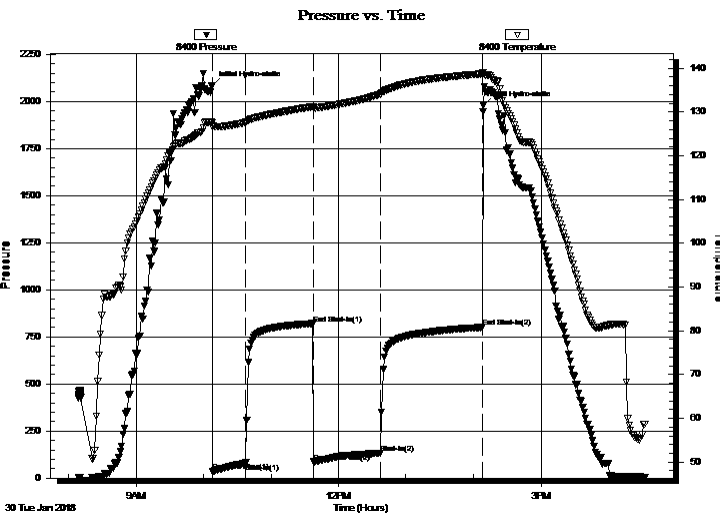
Job Ticket: 64170      **DST#: 1**  
 Test Start: 2018.01.30 @ 08:09:00

## GENERAL INFORMATION:

Formation: **Oread**  
 Deviated: No Whipstock:                      ft (KB)  
 Time Tool Opened: 10:08:01  
 Time Test Ended: 16:33:00  
 Interval: **4192.00 ft (KB) To 4270.00 ft (KB) (TVD)**  
 Total Depth: 4270.00 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: 3400.00 ft (KB)  
 3395.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8400      Outside**  
 Press@RunDepth: 133.19 psig @ 4204.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2018.01.30      End Date: 2018.01.30      Last Calib.: 2018.01.30  
 Start Time: 08:09:01      End Time: 16:32:31      Time On Btm: 2018.01.30 @ 10:07:46  
 Time Off Btm: 2018.01.30 @ 14:08:46

**TEST COMMENT:** 30-IFP- Surface Blow Building to 5"  
 60-ISIP- No Blow  
 60-FFP- Surface Blow Building to 5 1/4"  
 90-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2083.09	127.53	Initial Hydro-static
1	35.70	126.55	Open To Flow (1)
30	80.79	127.66	Shut-In(1)
90	820.18	131.23	End Shut-In(1)
90	85.91	130.96	Open To Flow (2)
150	133.19	134.12	Shut-In(2)
241	800.71	138.72	End Shut-In(2)
241	1978.53	139.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM 35%w 65%m	0.30
155.00	Oil Speck Mud 100%	1.09

## 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

**2-2s-37w Cheyenne,KS**  
**Antholz " A " 1-2**  
Job Ticket: 64170      **DST#: 1**  
Test Start: 2018.01.30 @ 08:09:00

**Tool Information**

Drill Pipe:	Length: 4017.00 ft	Diameter: 3.80 inches	Volume: 56.35 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: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 57.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4192.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	105.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			4166.00	
Shut In Tool	5.00			4171.00	
Hydraulic tool	5.00			4176.00	
Jars	5.00			4181.00	
Safety Joint	2.00			4183.00	
Packer	5.00			4188.00	27.00      Bottom Of Top Packer
Packer	4.00			4192.00	
Stubb	1.00			4193.00	
Perforations	10.00			4203.00	
Change Over Sub	1.00			4204.00	
Recorder	0.00	8960	Inside	4204.00	
Recorder	0.00	8400	Outside	4204.00	
Blank Spacing	62.00			4266.00	
Change Over Sub	1.00			4267.00	
Bullnose	3.00			4270.00	78.00      Bottom Packers & Anchor

**Total Tool Length: 105.00**



**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

**2-2s-37w Cheyenne,KS**  
**Antholz " A " 1-2**  
Job Ticket: 64170      **DST#: 1**  
Test Start: 2018.01.30 @ 08:09:00

### 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:	37000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.97 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 600.00 ppm			
Filter Cake: 2.00 inches			

### Recovery Information

Recovery Table

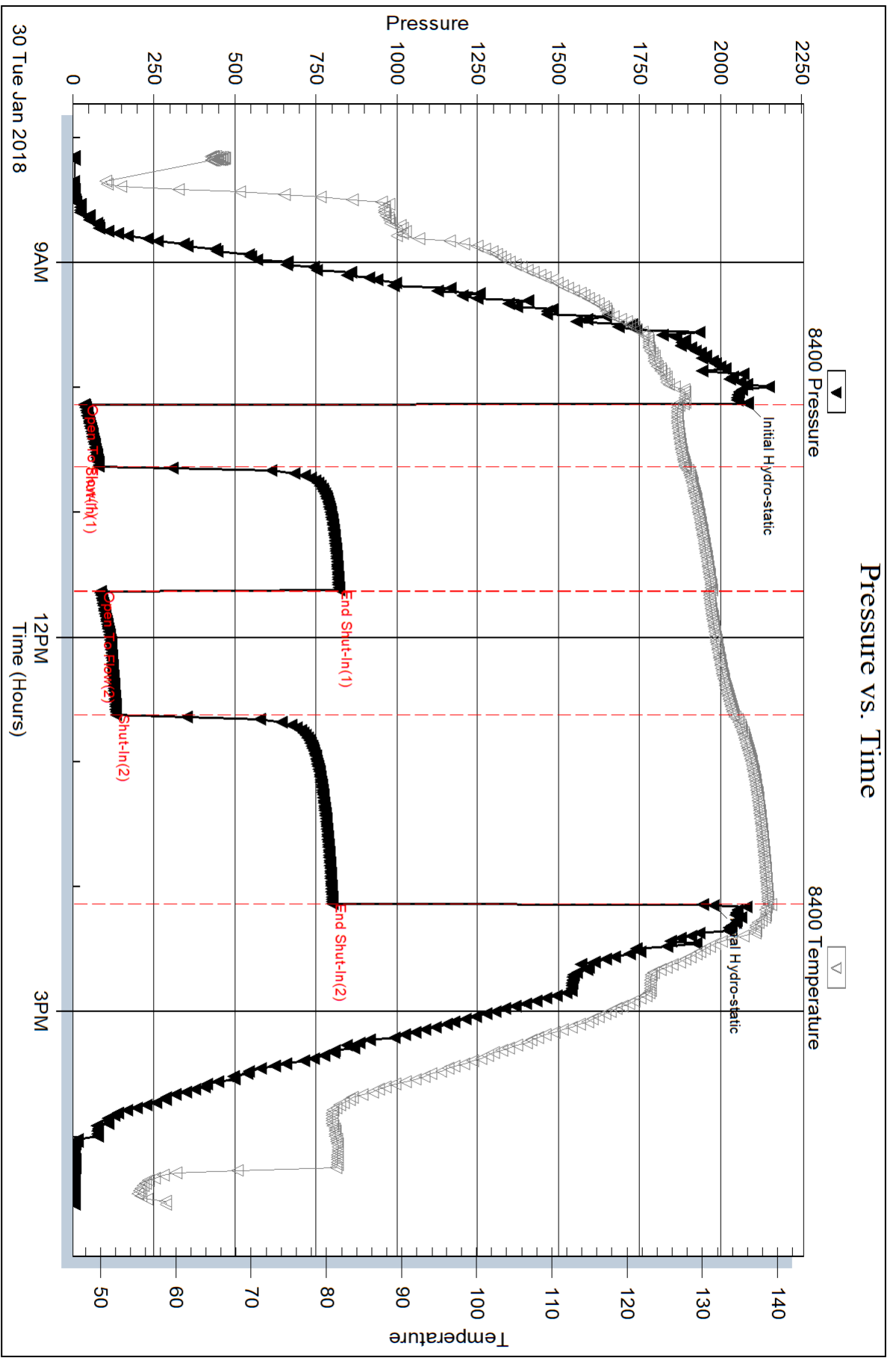
Length ft	Description	Volume bbl
60.00	WCM 35%w 65%m	0.295
155.00	Oil Speck Mud 100%	1.090

Total Length: 215.00 ft      Total Volume: 1.385 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: .288 @ 52



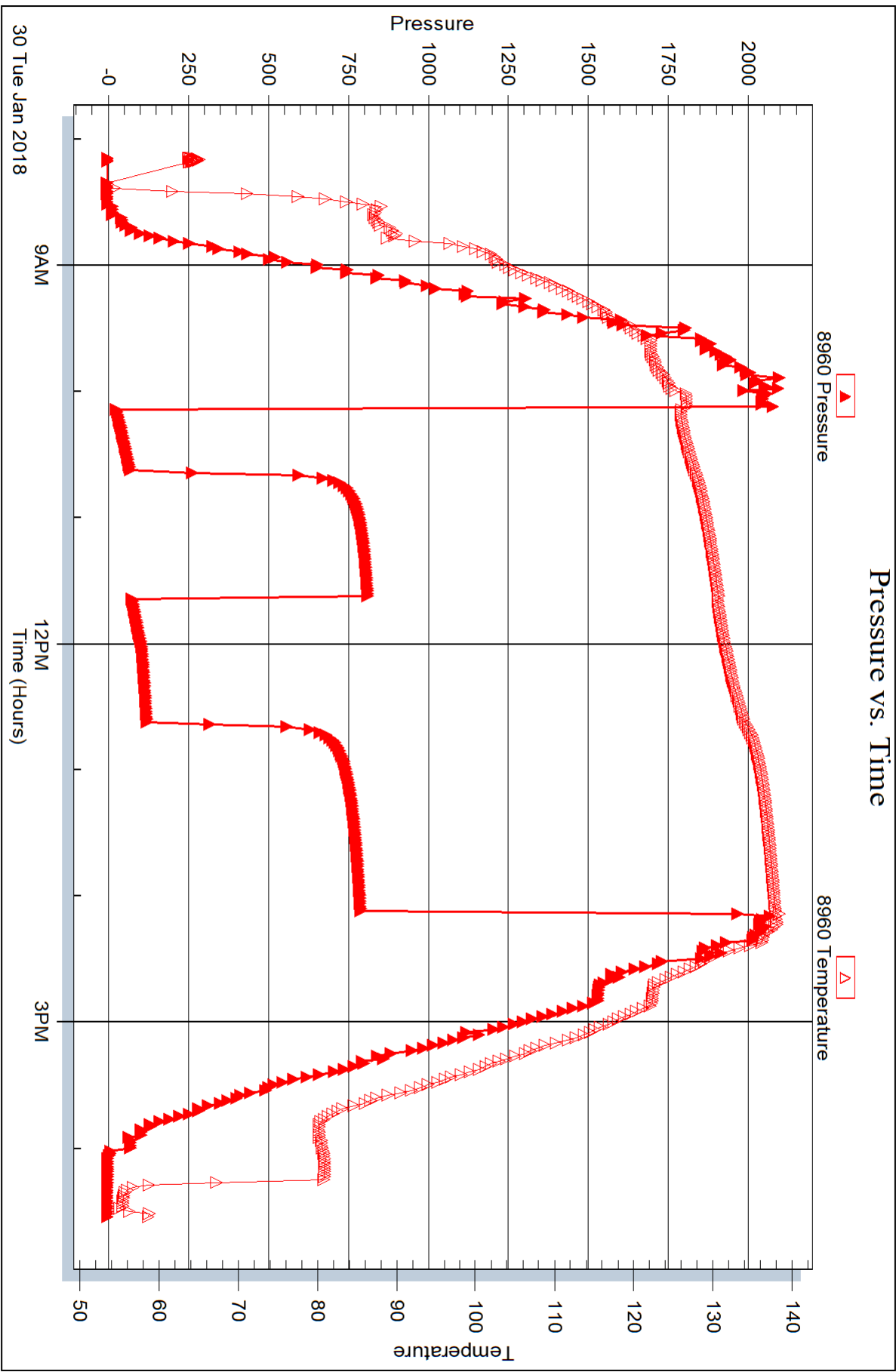
Serial #: 8960

Inside

Murfin Drilling Co Inc

Antholz "A" 1-2

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

**Antholz " A " 1-2**

**2-2s-37w Cheyenne,KS**

Start Date: 2018.01.31 @ 08:38:00

End Date: 2018.01.31 @ 16:44:00

Job Ticket #: 64171                      DST #: 2

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

Printed: 2018.02.05 @ 13:53:49

Murfin Drilling Co Inc  
2-2s-37w Cheyenne,KS  
Antholz " A " 1-2  
DST # 2  
LKC " A - D "  
2018.01.31





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

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

**2-2s-37w Cheyenne,KS**

**Antholz " A " 1-2**

Job Ticket: 64171 **DST#: 2**

Test Start: 2018.01.31 @ 08:38:00

## GENERAL INFORMATION:

Formation: **LKC " A - D "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:30:31  
 Time Test Ended: 16:44:00  
 Interval: **4268.00 ft (KB) To 4416.00 ft (KB) (TVD)**  
 Total Depth: 4416.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 3400.00 ft (KB)  
 3395.00 ft (CF)  
 KB to GR/CF: 5.00 ft

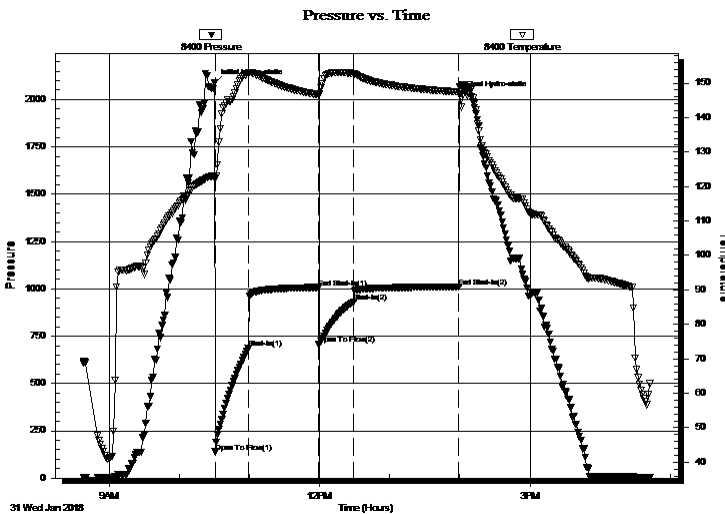
## Serial #: 8400

**Outside**

Press@RunDepth: 930.93 psig @ 4273.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.01.31 End Date: 2018.01.31 Last Calib.: 2018.01.31  
 Start Time: 08:38:01 End Time: 16:43:31 Time On Btm: 2018.01.31 @ 10:30:16  
 Time Off Btm: 2018.01.31 @ 13:59:46

TEST COMMENT: 30-IFP- BOB in 2 1/2 min.  
 60-ISIP- No Blow  
 30-FFP- BOB in 2 1/2 min.  
 90-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2085.54	123.14	Initial Hydro-static
1	138.57	122.56	Open To Flow (1)
29	686.55	152.85	Shut-In(1)
89	1006.76	146.64	End Shut-In(1)
89	706.08	146.54	Open To Flow (2)
119	930.93	152.62	Shut-In(2)
209	1010.26	147.42	End Shut-In(2)
210	2023.07	147.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1295.00	Water 100%	16.53
558.00	MCW 20% m 80% w	7.83
749.00	Oil Speck Mud 100%	10.51

\* 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

**2-2s-37w Cheyenne,KS**

250 N Water Ste 300  
Wichita KS 67202-1216

**Antholz " A " 1-2**

Job Ticket: 64171

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2018.01.31 @ 08:38:00

## Tool Information

Drill Pipe:	Length: 4083.00 ft	Diameter: 3.80 inches	Volume: 57.27 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: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 58.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4268.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	148.00 ft			
Tool Length:	175.00 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			4242.00	
Shut In Tool	5.00			4247.00	
Hydraulic tool	5.00			4252.00	
Jars	5.00			4257.00	
Safety Joint	2.00			4259.00	
Packer	5.00			4264.00	27.00 Bottom Of Top Packer
Packer	4.00			4268.00	
Stubb	1.00			4269.00	
Perforations	3.00			4272.00	
Change Over Sub	1.00			4273.00	
Recorder	0.00	8960	Inside	4273.00	
Recorder	0.00	8400	Outside	4273.00	
Blank Spacing	124.00			4397.00	
Change Over Sub	1.00			4398.00	
Perforations	15.00			4413.00	
Bullnose	3.00			4416.00	148.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>175.00</b>				



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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

**2-2s-37w Cheyenne,KS**  
**Antholz " A " 1-2**  
Job Ticket: 64171      **DST#: 2**  
Test Start: 2018.01.31 @ 08:38:00

## Mud and Cushion Information

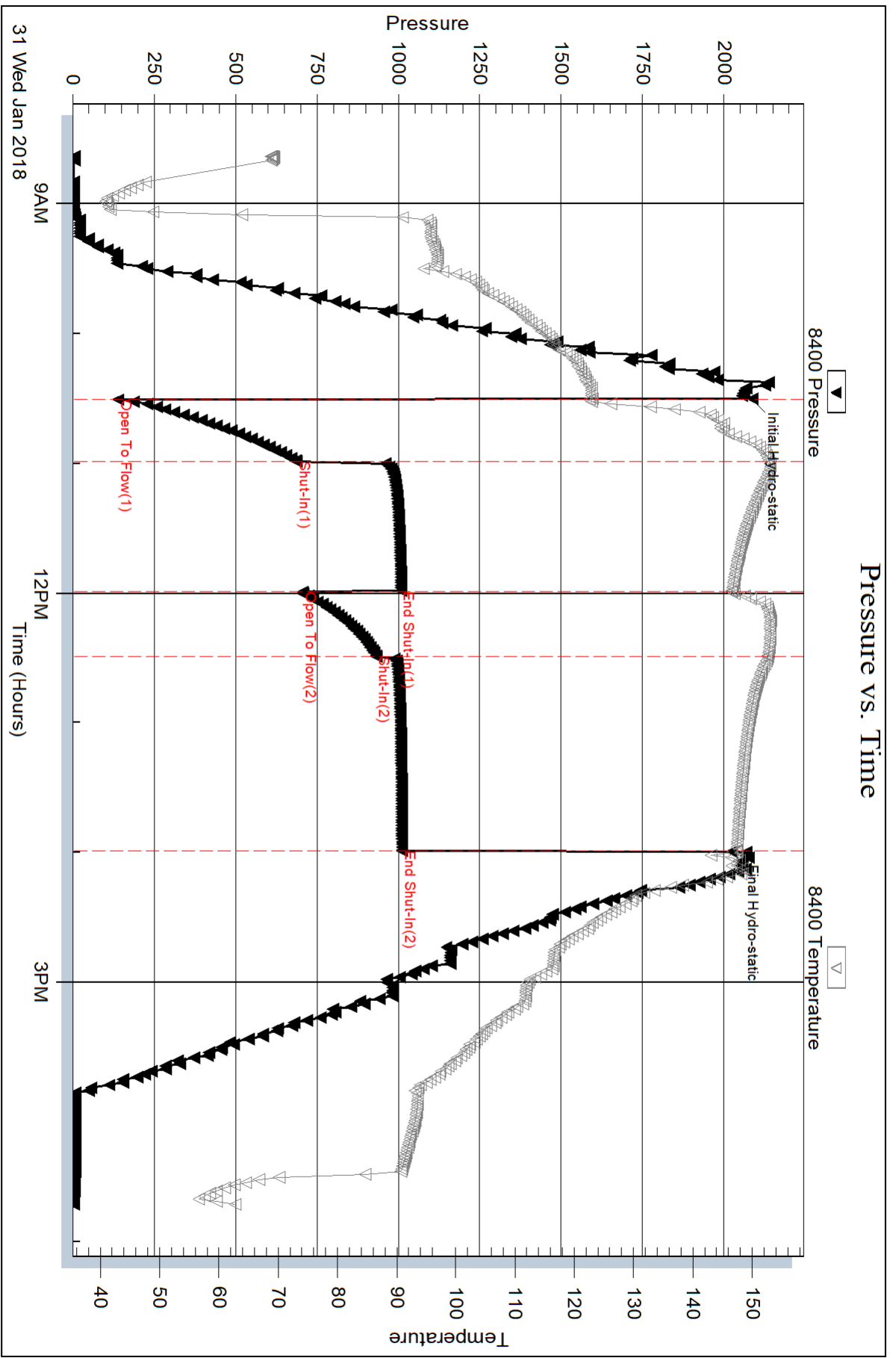
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	30000 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.57 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 600.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1295.00	Water 100%	16.535
558.00	MCW 20% m 80% w	7.827
749.00	Oil Speck Mud 100%	10.507

Total Length: 2602.00 ft      Total Volume: 34.869 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: .340 @ 48





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300  
Wichita KS 67202-1216

ATTN: Saman Sharifaie

### **Antholz " A " 1-2**

### **2-2s-37w Cheyenne,KS**

Start Date: 2018.02.01 @ 02:39:00

End Date: 2018.02.01 @ 11:29:00

Job Ticket #: 64172                      DST #: 3

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

Printed: 2018.02.05 @ 13:53:09



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

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

**2-2s-37w Cheyenne,KS**

**Antholz " A " 1-2**

Job Ticket: 64172 **DST#: 3**

Test Start: 2018.02.01 @ 02:39:00

## GENERAL INFORMATION:

Formation: **LKC " G "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 04:42:01  
 Time Test Ended: 11:29:00  
 Interval: **4416.00 ft (KB) To 4460.00 ft (KB) (TVD)**  
 Total Depth: 4460.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 3400.00 ft (KB)  
 3395.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 8400

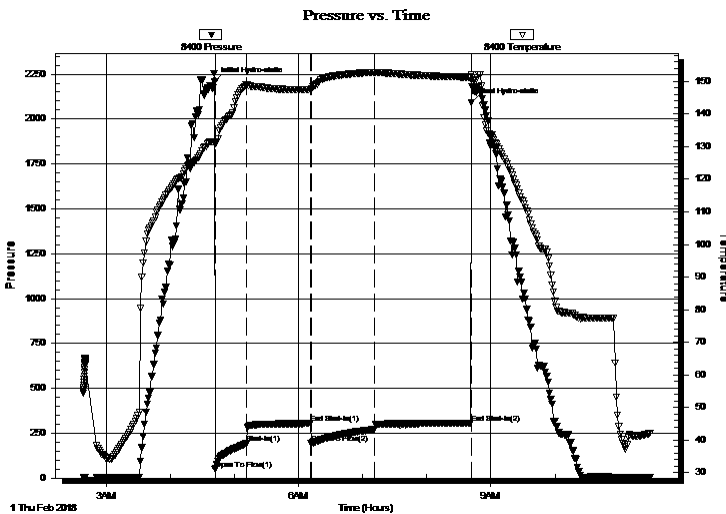
**Outside**

Press@RunDepth: 270.68 psig @ 4421.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.02.01 End Date: 2018.02.01 Last Calib.: 2018.02.01  
 Start Time: 02:39:01 End Time: 11:28:46 Time On Btm: 2018.02.01 @ 04:41:46  
 Time Off Btm: 2018.02.01 @ 08:41:46

TEST COMMENT: 30-IFP- BOB in 9 min.  
 60-ISIP- No Blow  
 60-FFP- BOB in 25 1/2 min.  
 90-FSIP- No Blow

## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2208.85	131.44	Initial Hydro-static
1	48.26	130.85	Open To Flow (1)
30	191.98	148.97	Shut-In(1)
90	303.87	147.44	End Shut-In(1)
90	192.37	147.47	Open To Flow (2)
150	270.68	152.77	Shut-In(2)
240	304.88	151.30	End Shut-In(2)
240	2090.93	152.04	Final Hydro-static



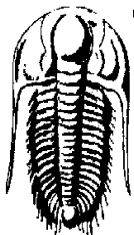
## Recovery

Length (ft)	Description	Volume (bbl)
303.00	OMCW 2%o 33% m 65% w	2.62
228.00	WOCM 10% w 20% o 70% m	3.20
15.00	CO 100%	0.21

\* 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

**2-2s-37w Cheyenne,KS**

**Antholz " A " 1-2**

Job Ticket: 64172      **DST#: 3**  
 Test Start: 2018.02.01 @ 02:39:00

### GENERAL INFORMATION:

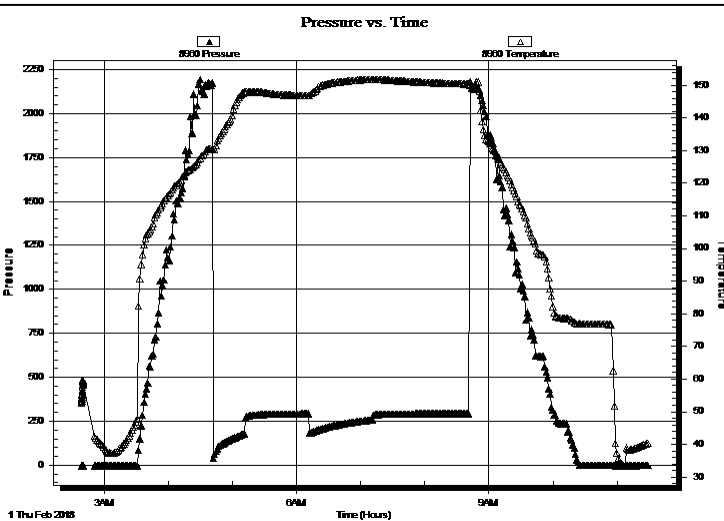
Formation:	<b>LKC " G "</b>		
Deviated:	No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened:	04:42:01		Tester: Jim Svaty
Time Test Ended:	11:29:00		Unit No: 76
<b>Interval:</b>	<b>4416.00 ft (KB) To 4460.00 ft (KB) (TVD)</b>		Reference Elevations: 3400.00 ft (KB)
Total Depth:	4460.00 ft (KB) (TVD)		3395.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft

**Serial #: 8960**

**Inside**

Press@RunDepth:	psig @	4421.00 ft (KB)	Capacity:	8000.00 psig
Start Date:	2018.02.01	End Date:	2018.02.01	Last Calib.: 2018.02.01
Start Time:	02:39:01	End Time:	11:28:46	Time On Btm:
				Time Off Btm:

TEST COMMENT: 30-IFP- BOB in 9 min.  
 60-ISIP- No Blow  
 60-FFP- BOB in 25 1/2 min.  
 90-FSIP- No Blow



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
303.00	OMCW 2%o 33% m 65%w	2.62
228.00	WOCM 10%w 20%o 70% m	3.20
15.00	CO 100%	0.21

### 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

**2-2s-37w Cheyenne,KS**  
**Antholz " A " 1-2**  
Job Ticket: 64172      **DST#: 3**  
Test Start: 2018.02.01 @ 02:39:00

**Tool Information**

Drill Pipe:	Length: 4236.00 ft	Diameter: 3.80 inches	Volume: 59.42 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: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 75000.00 lb
		Total Volume: 60.30 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4416.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	71.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			4390.00	
Shut In Tool	5.00			4395.00	
Hydraulic tool	5.00			4400.00	
Jars	5.00			4405.00	
Safety Joint	2.00			4407.00	
Packer	5.00			4412.00	27.00      Bottom Of Top Packer
Packer	4.00			4416.00	
Stubb	1.00			4417.00	
Perforations	3.00			4420.00	
Change Over Sub	1.00			4421.00	
Recorder	0.00	8960	Inside	4421.00	
Recorder	0.00	8400	Outside	4421.00	
Blank Spacing	31.00			4452.00	
Change Over Sub	1.00			4453.00	
Perforations	4.00			4457.00	
Bullnose	3.00			4460.00	44.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>		<b>71.00</b>			





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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250 N Water Ste 300  
Wichita KS 67202-1216  
ATTN: Saman Sharifaie

**2-2s-37w Cheyenne,KS**  
**Antholz " A " 1-2**  
Job Ticket: 64172      **DST#: 3**  
Test Start: 2018.02.01 @ 02:39:00

## Mud and Cushion Information

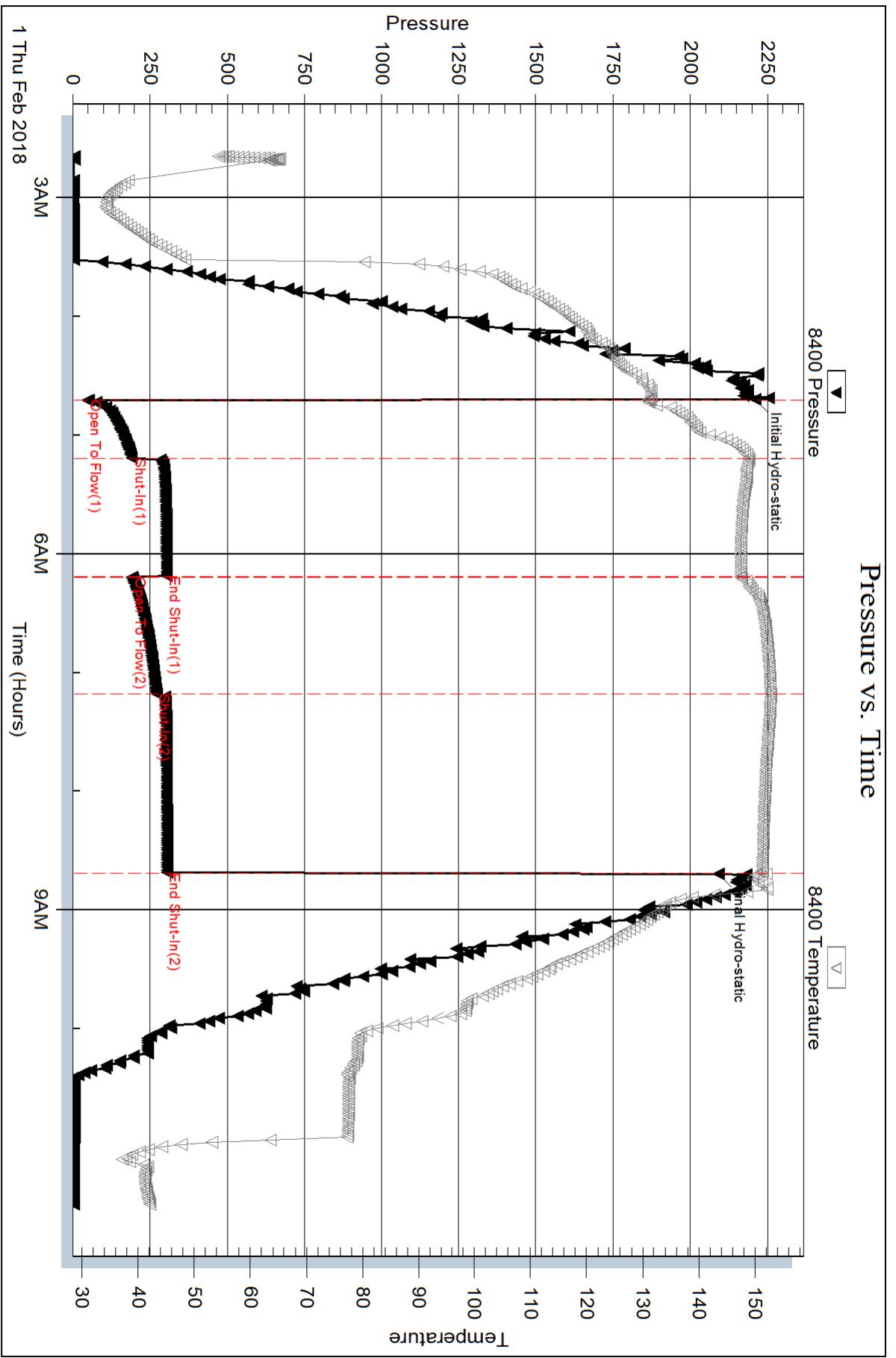
Mud Type: Gel Chem	Cushion Type:	Oil API: 30 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 32500 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.58 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 600.00 ppm		
Filter Cake: 2.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
303.00	OMCW 2%o 33%m 65%w	2.620
228.00	WOCM 10%w 20%o 70%m	3.198
15.00	CO 100%	0.210

Total Length: 546.00 ft      Total Volume: 6.028 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: .498 @ 31



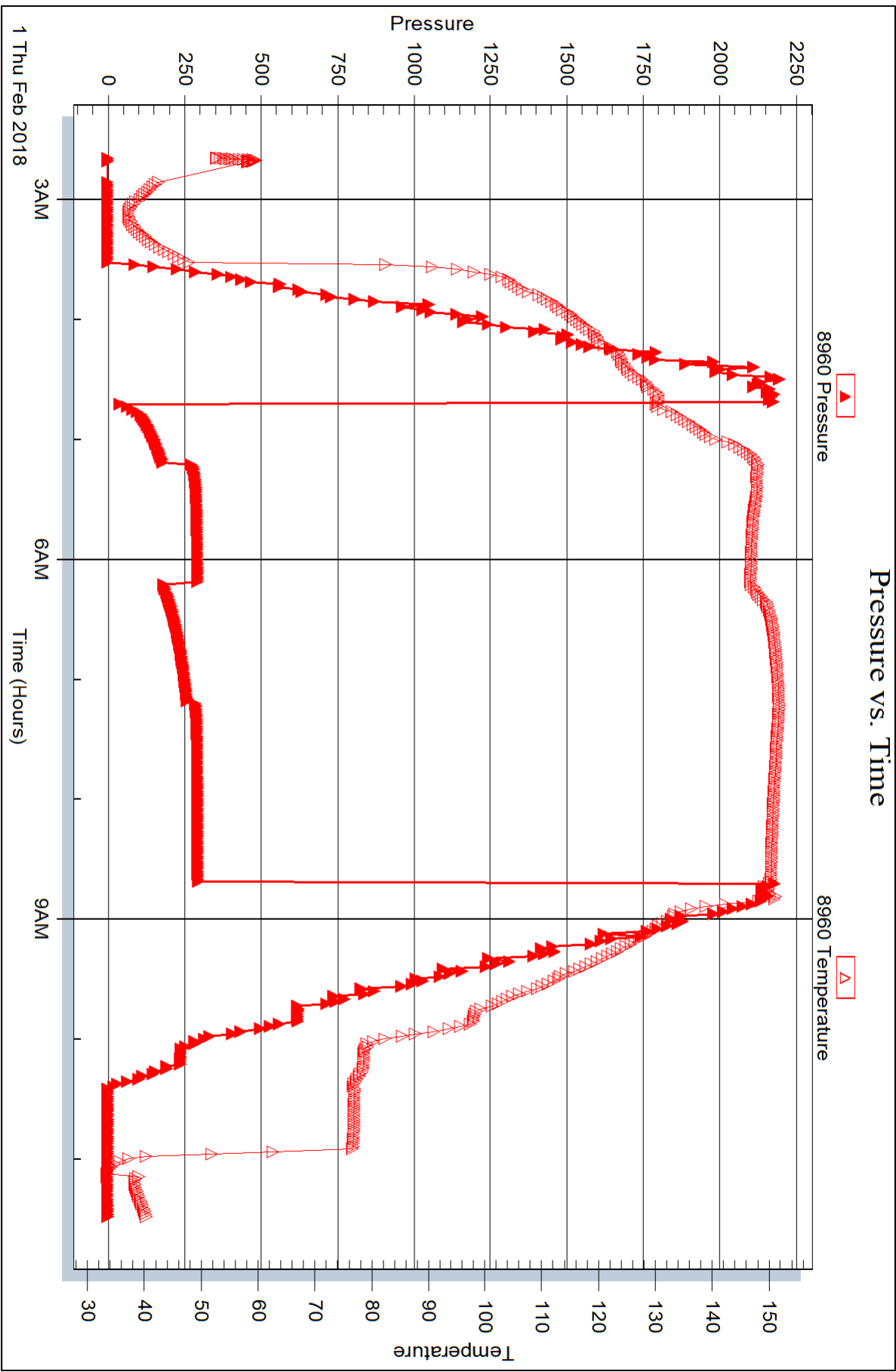
Serial #: 8960

Inside

Murfin Drilling Co Inc

Antholz "A" 1-2

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300  
Wichita KS 67202-1216

ATTN: Saman Sharifaie

**Antholz " A " 1-2**

**2-2s-37w Cheyenne,KS**

Start Date: 2018.02.01 @ 23:03:00

End Date: 2018.02.02 @ 07:50:00

Job Ticket #: 64173                      DST #: 4

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

Printed: 2018.02.05 @ 13:50:29



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

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

**2-2s-37w Cheyenne,KS**

**Antholz " A " 1-2**

Job Ticket: 64173 **DST#: 4**

Test Start: 2018.02.01 @ 23:03:00

## GENERAL INFORMATION:

Formation: **LKC " H - J "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 01:07:01  
 Time Test Ended: 07:50:00  
 Interval: **4460.00 ft (KB) To 4544.00 ft (KB) (TVD)**  
 Total Depth: 4544.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 3400.00 ft (KB)  
 3395.00 ft (CF)  
 KB to GR/CF: 5.00 ft

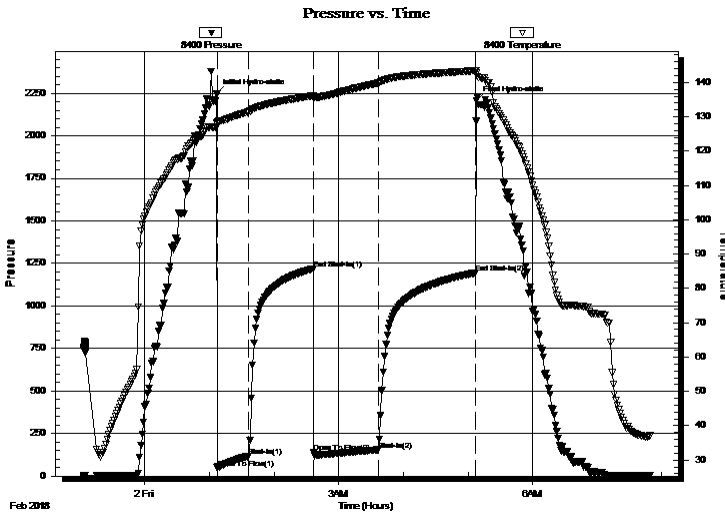
**Serial #: 8400**

**Outside**

Press@RunDepth: 154.60 psig @ 4478.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.02.01 End Date: 2018.02.02 Last Calib.: 2018.02.02  
 Start Time: 23:03:01 End Time: 07:49:46 Time On Btm: 2018.02.02 @ 01:06:46  
 Time Off Btm: 2018.02.02 @ 05:08:01

**TEST COMMENT:** 30-IFP- Surface Blow Building to 4 3/4" in 20 min.  
 60-ISIP- No Blow  
 60-FFP- BOB in 42 min.  
 90-FSIP- Weak Surface Blow in 4 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2245.27	128.29	Initial Hydro-static
1	48.97	127.88	Open To Flow (1)
30	115.99	131.47	Shut-In(1)
90	1218.10	136.14	End Shut-In(1)
90	138.00	135.55	Open To Flow (2)
150	154.60	139.84	Shut-In(2)
241	1194.25	143.42	End Shut-In(2)
242	2204.53	142.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
286.00	OCM 40%o 60%m	2.38
0.00	80 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

**2-2s-37w Cheyenne,KS**  
**Antholz " A " 1-2**  
Job Ticket: 64173      **DST#: 4**  
Test Start: 2018.02.01 @ 23:03:00

**Tool Information**

Drill Pipe:	Length: 4268.00 ft	Diameter: 3.80 inches	Volume: 59.87 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: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 72000.00 lb
		Total Volume: 60.75 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4460.00 ft			Final 69000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	111.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
Change Over Sub	1.00			4434.00	
Shut In Tool	5.00			4439.00	
Hydraulic tool	5.00			4444.00	
Jars	5.00			4449.00	
Safety Joint	2.00			4451.00	
Packer	5.00			4456.00	27.00      Bottom Of Top Packer
Packer	4.00			4460.00	
Stubb	1.00			4461.00	
Perforations	16.00			4477.00	
Change Over Sub	1.00			4478.00	
Recorder	0.00	8789	Inside	4478.00	
Recorder	0.00	8400	Outside	4478.00	
Blank Spacing	62.00			4540.00	
Change Over Sub	1.00			4541.00	
Bullnose	3.00			4544.00	84.00      Bottom Packers & Anchor

**Total Tool Length: 111.00**



**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

**2-2s-37w Cheyenne,KS**  
**Antholz " A " 1-2**  
Job Ticket: 64173      **DST#: 4**  
Test Start: 2018.02.01 @ 23:03:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.59 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 900.00 ppm		
Filter Cake: 2.00 inches		

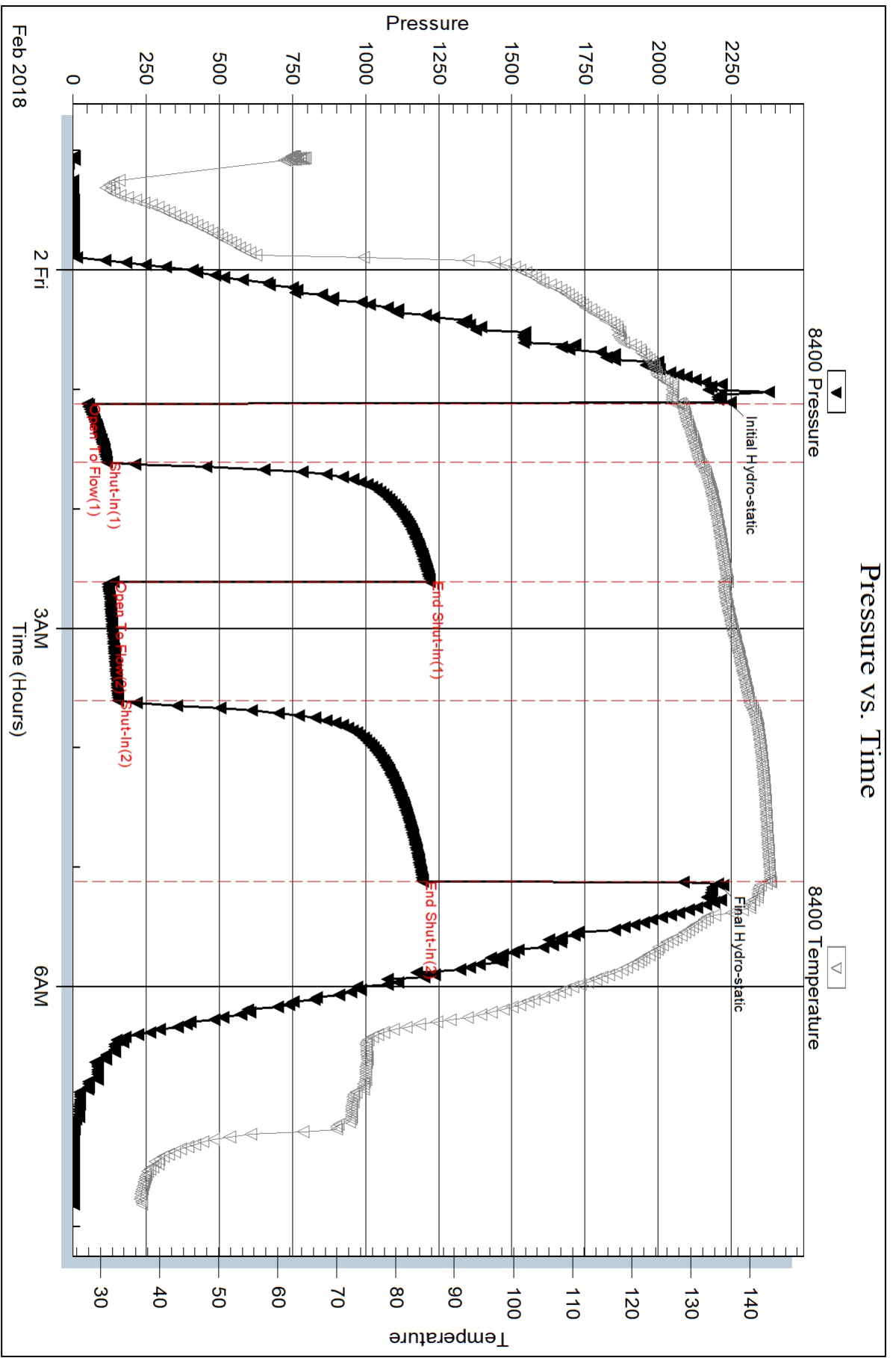
## Recovery Information

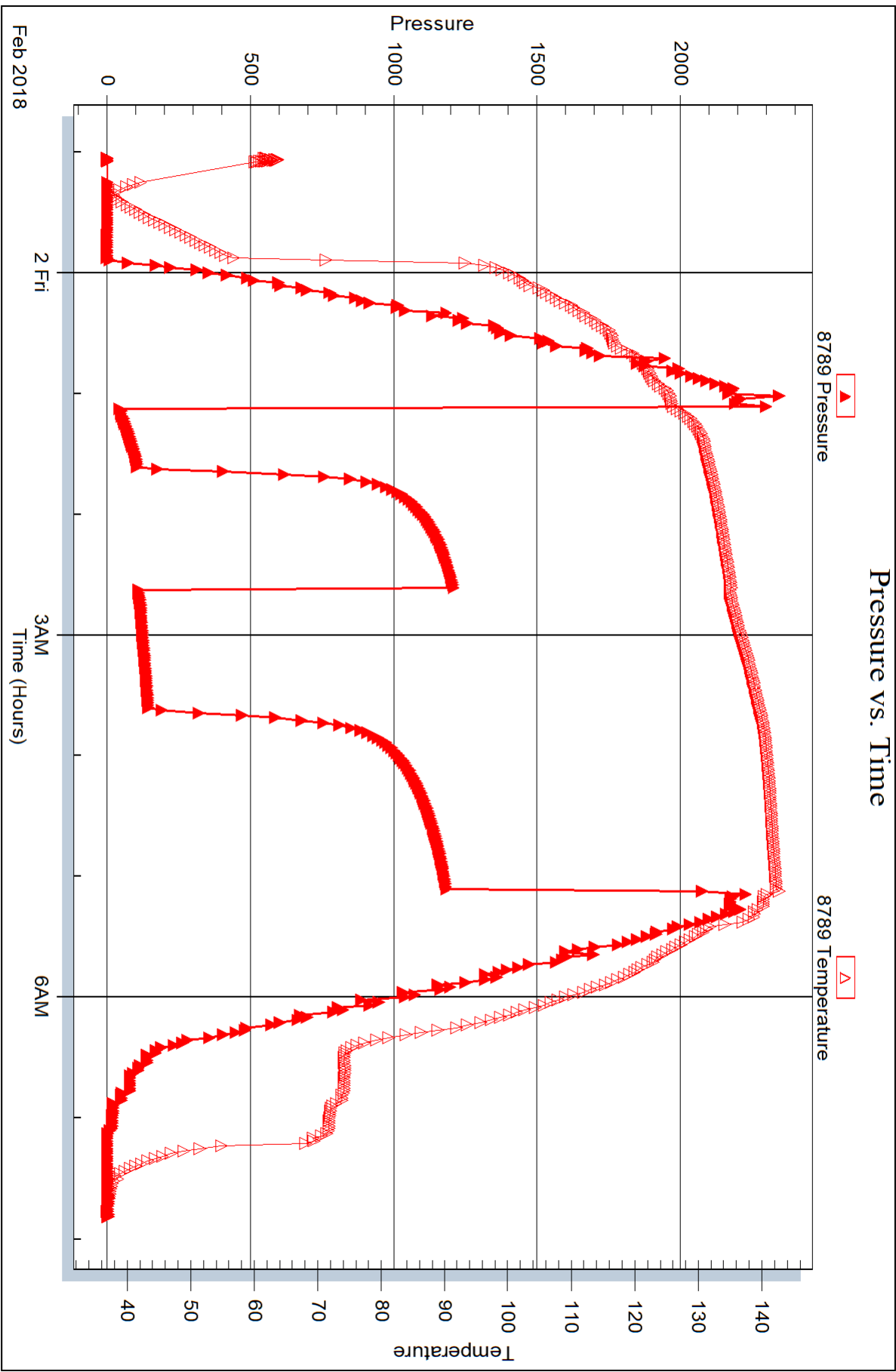
Recovery Table

Length ft	Description	Volume bbl
286.00	OCM 40%o 60%m	2.381
0.00	80 GIP	0.000

Total Length: 286.00 ft      Total Volume: 2.381 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300  
Wichita KS 67202-1216

ATTN: Saman Sharifaie

**Antholz " A " 1-2**

**2-2s-37w Cheyenne,KS**

Start Date: 2018.02.02 @ 18:56:00

End Date: 2018.02.03 @ 02:12:00

Job Ticket #: 64174                      DST #: 5

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

Printed: 2018.02.05 @ 13:49:04



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

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

**2-2s-37w Cheyenne,KS**

**Antholz " A " 1-2**

Job Ticket: 64174

**DST#: 5**

Test Start: 2018.02.02 @ 18:56:00

## GENERAL INFORMATION:

Formation: **LKC " K - L "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:03:46

Time Test Ended: 02:12:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

**Interval: 4544.00 ft (KB) To 4600.00 ft (KB) (TVD)**

Total Depth: 4600.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3400.00 ft (KB)

3395.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8400 Outside**

Press@RunDepth: 30.68 psig @ 4565.00 ft (KB)

Start Date: 2018.02.02

End Date:

2018.02.03

Start Time: 18:56:01

End Time:

02:11:46

Capacity: 8000.00 psig

Last Calib.: 2018.02.03

Time On Btm: 2018.02.02 @ 21:03:31

Time Off Btm: 2018.02.03 @ 00:04:46

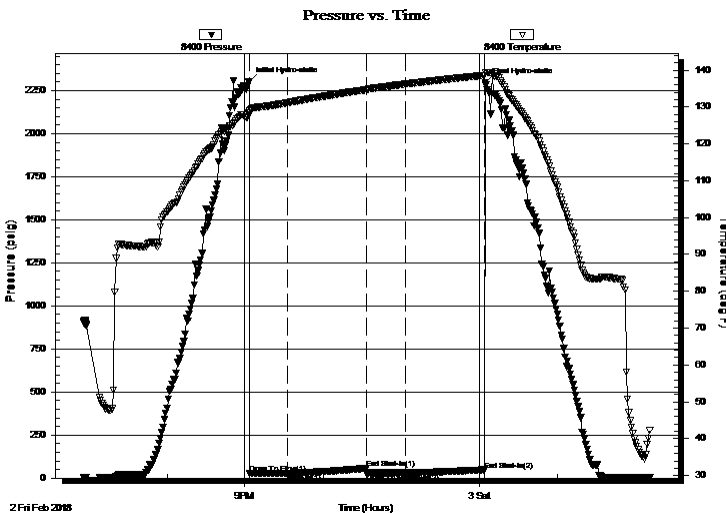
**TEST COMMENT:** 30-IFP- Surface Blow Building to 1 1/4" in 19 min.

60-ISIP- No Blow

30-FFP- No Blow

60-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2303.14	128.95	Initial Hydro-static
1	27.99	128.33	Open To Flow (1)
30	28.98	131.15	Shut-In(1)
90	57.88	134.68	End Shut-In(1)
90	29.38	134.68	Open To Flow (2)
120	30.68	136.20	Shut-In(2)
181	48.63	138.58	End Shut-In(2)
182	2294.73	139.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100%	0.01

\* 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

**2-2s-37w Cheyenne,KS**  
**Antholz " A " 1-2**  
Job Ticket: 64174      **DST#: 5**  
Test Start: 2018.02.02 @ 18:56:00

**Tool Information**

Drill Pipe:	Length: 4361.00 ft	Diameter: 3.80 inches	Volume: 61.17 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: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 62.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4544.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			4518.00	
Shut In Tool	5.00			4523.00	
Hydraulic tool	5.00			4528.00	
Jars	5.00			4533.00	
Safety Joint	2.00			4535.00	
Packer	5.00			4540.00	27.00      Bottom Of Top Packer
Packer	4.00			4544.00	
Stubb	1.00			4545.00	
Perforations	19.00			4564.00	
Change Over Sub	1.00			4565.00	
Recorder	0.00	8789	Inside	4565.00	
Recorder	0.00	8400	Outside	4565.00	
Blank Spacing	31.00			4596.00	
Change Over Sub	1.00			4597.00	
Bullnose	3.00			4600.00	56.00      Bottom Packers & Anchor

**Total Tool Length: 83.00**



**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

**2-2s-37w Cheyenne,KS**  
**Antholz " A " 1-2**  
Job Ticket: 64174      **DST#: 5**  
Test Start: 2018.02.02 @ 18:56:00

## 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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 900.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

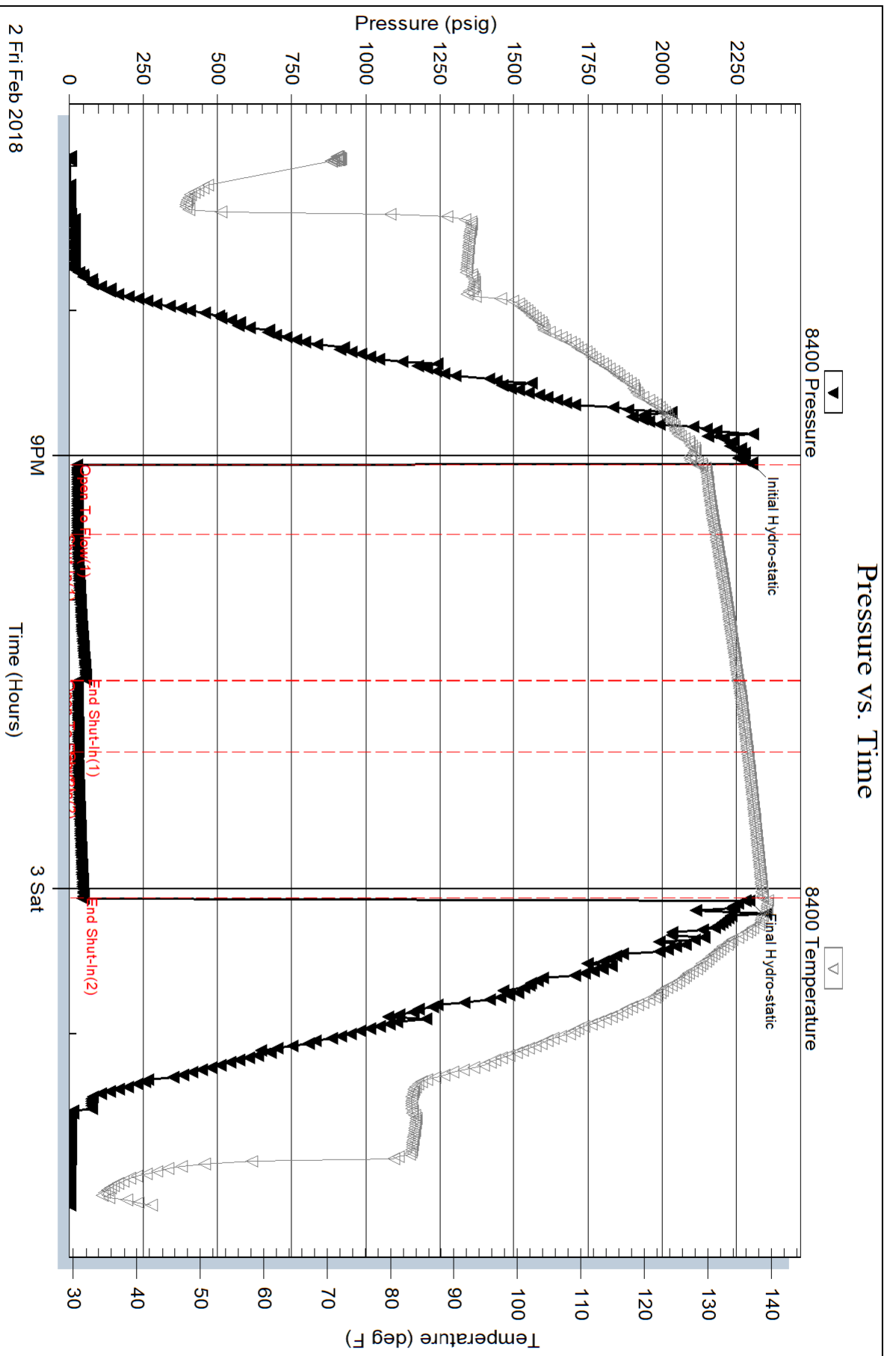
Length ft	Description	Volume bbl
3.00	Mud 100%	0.015

Total Length: 3.00 ft      Total Volume: 0.015 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:





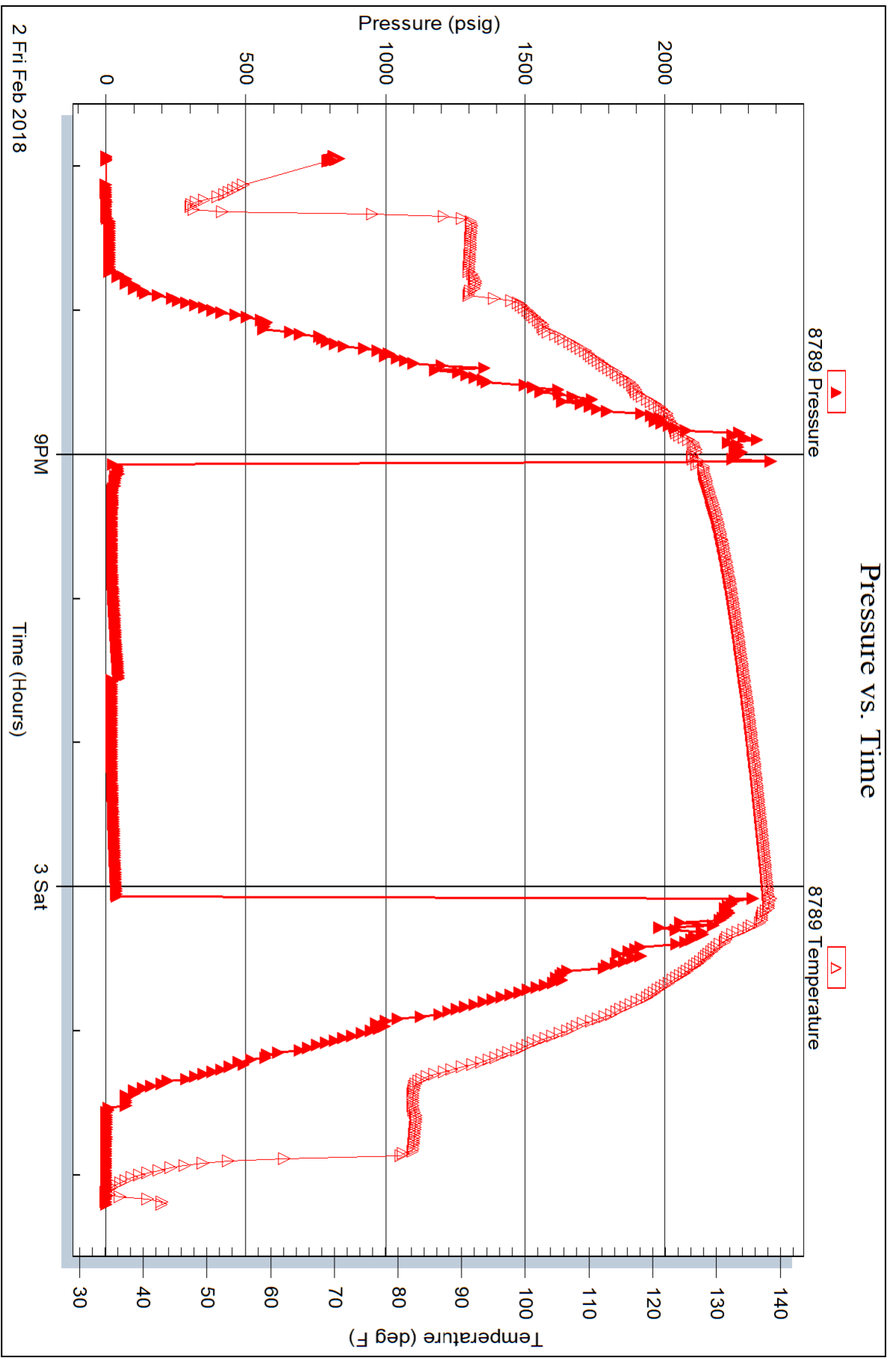
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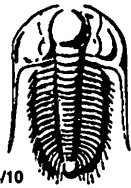
Inside

Murfin Drilling Co Inc

Antholz "A" 1-2

DST Test Number: 5





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64170

Well Name & No. Antholz "A" 1-2 Test No. 1 Date 1-30-18  
 Company Murfin Drilling Co. Inc. Elevation 3400 KB 3395 GL  
 Address 250 N. Water Ste 300 Wichita KS 67202-1216  
 Co. Rep / Geo. SAMAN SHARIFAIE Rig MURFIN 3  
 Location: Sec. 2 Twp. 2<sup>S</sup> Rge. 37<sup>W</sup> Co. Cheyenne State KS

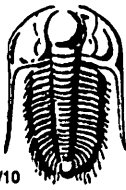
Interval Tested 4192 - 4270 Zone Tested Oread  
 Anchor Length 78 Drill Pipe Run 4017 Mud Wt. 9.1  
 Top Packer Depth 4187 Drill Collars Run 179 Vis 56  
 Bottom Packer Depth 4192 Wt. Pipe Run 0 WL 6  
 Total Depth 4270 Chlorides 600 ppm System LCM 2  
 Blow Description IFP - Surface Blow Building to 5 in.  
ISIP - No Blow  
FFP - Surface Blow Building to 5 1/4 in.  
FSIP No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>WCM</u>		<u>35</u>	<u>65</u>	
<u>155</u>	<u>Oil Speck Mud</u>			<u>100</u>	

Rec Total 215 BHT 139 Gravity \_\_\_\_\_ API RW 288 @ 52 °F Chlorides 37000 ppm  
 (A) Initial Hydrostatic 2083  Test 1150 T-On Location 6:45  
 (B) First Initial Flow 35  Jars 250 T-Started 8:09  
 (C) First Final Flow 80  Safety Joint 75 T-Open 10:08  
 (D) Initial Shut-In 820  Circ Sub \_\_\_\_\_ T-Pulled 14:08  
 (E) Second Initial Flow 85  Hourly Standby \_\_\_\_\_ T-Out 16:33  
 (F) Second Final Flow 133  Mileage RT 115 86.25  
 (G) Final Shut-In 800  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1978  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1561.25

Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1561.25  
 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. 64171

Well Name & No. Antholz "A" 1-2 Test No. 2 Date 1-31-18  
 Company Murfin Drilling Co. Inc. Elevation 3400 KB 3395 GL  
 Address 250 N. Water Ste 300 Wichita KS 67202-1216  
 Co. Rep / Geo. SAMAN SHARIFAIE Rig Murfin 3  
 Location: Sec. 2 Twp. 2<sup>s</sup> Rge. 37<sup>w</sup> Co. Cheyenne State KS

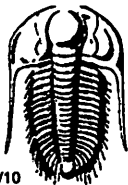
Interval Tested 4268-4416 Zone Tested LKC "A-D"  
 Anchor Length 148 Drill Pipe Run \_\_\_\_\_ Mud Wt. 9.1  
 Top Packer Depth 4263 Drill Collars Run 179 Vis 60  
 Bottom Packer Depth 4268 Wt. Pipe Run 4 WL 5.6  
 Total Depth 4416 Chlorides 600 ppm System LCM 2  
 Blow Description IFP- BOB in 2 1/2 min.  
ISIP- No Blow  
FFP- BOB in 2 1/2 min.  
F5IP- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1295</u>	<u>Water</u>		<u>100</u>		
<u>558</u>	<u>MCW</u>		<u>80</u>	<u>20</u>	
<u>749</u>	<u>Oil Speck Mud.</u>			<u>100</u>	
____	____				
____	____				

Rec Total 2602 BHT 147 Gravity \_\_\_\_\_ API RW 1340 @ 48 °F Chlorides 30000 ppm

(A) Initial Hydrostatic <u>2085</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>7:50</u>
(B) First Initial Flow <u>138</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>8:38</u>
(C) First Final Flow <u>686</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>10:30</u>
(D) Initial Shut-In <u>1006</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>14:00</u>
(E) Second Initial Flow <u>706</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>16:44</u>
(F) Second Final Flow <u>930</u>	<input checked="" type="checkbox"/> Mileage 86.25	Comments _____
(G) Final Shut-In <u>1010</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2023</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>90</u>	<input type="checkbox"/> Day Standby _____	Total <u>1561.25</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1561.25</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. 64172

Well Name & No. Antholz "A" 1-2 Test No. 3 Date 2-1-18  
 Company Murfin Drilling Co. Inc. Elevation 3400 KB 3395 GL  
 Address 250 N Water Ste 300 Wichita KS 67202-1216  
 Co. Rep / Geo. Saman Sharifaie Rig Murfin 3  
 Location: Sec. 2 Twp. 25 Rge. 37W Co. Cheyenne State KS

Interval Tested 4416-4460 Zone Tested LHC "2"  
 Anchor Length 44 Drill Pipe Run 4236 Mud Wt. 9.1  
 Top Packer Depth 4411 Drill Collars Run 179 Vis 60  
 Bottom Packer Depth 4416 Wt. Pipe Run 0 WL 5.6  
 Total Depth 4460 Chlorides 600 ppm System LCM 2

Blow Description IFP- BOB in 9min.  
ISIP- No Blow  
FFP- BOB in 25 1/2 min.  
FSIP- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>303</u>	<u>0 MCW</u>	<u>2</u>	<u>65</u>	<u>33</u>	
<u>228</u>	<u>WOCM</u>	<u>20</u>	<u>10</u>	<u>70</u>	
<u>15</u>	<u>CO</u>	<u>100</u>			

Rec Total 546 BHT 152 Gravity 30 API RW 498 @ 31 °F Chlorides 32500 ppm

- (A) Initial Hydrostatic 2208
- (B) First Initial Flow 48
- (C) First Final Flow 191
- (D) Initial Shut-In 303
- (E) Second Initial Flow 192
- (F) Second Final Flow 270
- (G) Final Shut-In 304
- (H) Final Hydrostatic 2090

- Test 1150
- Jars 250
- Safety Joint 75
- Circ Sub
- Hourly Standby
- Mileage 86.25
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1561.25

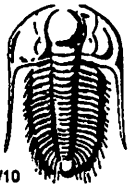
- T-On Location 01:15
- T-Started 02:39
- T-Open 04:42
- T-Pulled 08:42
- T-Out 11:29

- Comments \_\_\_\_\_
- Ruined Shale Packer
- Ruined Packer
- Extra Copies
- Sub Total 0
- Total 1561.25
- MP/DST Disc't \_\_\_\_\_

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

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64173

Well Name & No. Antholz "A" 1-2 Test No. 4 Date 2-1-18  
 Company Murfin Drilling Co. Inc. Elevation 3400 KB 3395 GL  
 Address 250 N. Water St. Ste. 300 Wichita, KS 67202-1216  
 Co. Rep / Geo. Saman Sharifa Rig Murfin 3  
 Location: Sec. 2 Twp. 2<sup>s</sup> Rge. 37<sup>w</sup> Co. Cheyenne State KS

Interval Tested 4460-4544 Zone Tested LKC H-I  
 Anchor Length 84 Drill Pipe Run 4268 Mud Wt. 9.1  
 Top Packer Depth 4455 Drill Collars Run 179 Vis 57  
 Bottom Packer Depth 4460 Wt. Pipe Run 0 WL 5.6  
 Total Depth 4544 Chlorides 900 ppm System LCM 2

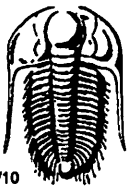
Blow Description IFP - Surface Building to 4 3/4 in. In 20 min.  
ISIP - No Blow.  
FFP - BOB in 42 min  
F5IP - Weak Surface Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>286</u>	<u>OCM</u>		<u>40</u>	<u>60</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>80 MIP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 286 BHT 143 Gravity 38 API RW @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2245</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>21:55</u>
(B) First Initial Flow <u>48</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>23:03</u>
(C) First Final Flow <u>115</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>01:07</u>
(D) Initial Shut-In <u>1218</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>05:07</u>
(E) Second Initial Flow <u>138</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>07:50</u>
(F) Second Final Flow <u>154</u>	<input checked="" type="checkbox"/> Mileage <u>86.25</u>	Comments _____
(G) Final Shut-In <u>1194</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>2204</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>1561.25</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1561.25</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. 84174

Well Name & No. Antholz "A" 1-2 Test No. 5 Date 2-2-18  
 Company Murfin Drilling Co. Inc. Elevation 3400 KB 3395 GL  
 Address 250 N. Water Ste. 300 Wichita KS 67202-1216  
 Co. Rep / Geo. SAMAN SHARIFARE Rig Murfin 3  
 Location: Sec. 2 Twp. 2<sup>s</sup> Rge. 37<sup>w</sup> Co. Cheyenne State KS

Interval Tested 4544-4600 Zone Tested LKC "K&L"  
 Anchor Length 56 Drill Pipe Run 4361 Mud Wt. 9.2  
 Top Packer Depth 4539 Drill Collars Run 179 Vis 54  
 Bottom Packer Depth 4544 Wt. Pipe Run 8 WL 6.8  
 Total Depth 4600 Chlorides 900 ppm System LCM 2

Blow Description IFP - Surface Blow Building to 1 1/4 in. TN. 1900 ft.  
FSIP - No Blow  
FFP - No Blow  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
3	Mad.			100	

Rec Total 3 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2303  Test 1150 T-On Location 17:01  
 (B) First Initial Flow 27  Jars 250 T-Started 18:56  
 (C) First Final Flow 28  Safety Joint 75 T-Open 21:04  
 (D) Initial Shut-In 57  Circ Sub \_\_\_\_\_ T-Pulled 00:04  
 (E) Second Initial Flow 29  Hourly Standby \_\_\_\_\_ T-Out 02:12  
 (F) Second Final Flow 30  Mileage X 2 172.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 48  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2294  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1647.50

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

Sub Total 1647.50  
 Total 1647.50  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]  
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