



## DRILL STEM TEST REPORT

Prepared For: **Murfin Oil Co, Inc.**

250 N Water STE 300  
Wichita, KS 67202

ATTN: Robert Stolze

### **Frahm A #1-20**

#### **20-10s-34w Thomas,KS**

Start Date: 2012.02.01 @ 07:02:00

End Date: 2012.02.01 @ 15:39:15

Job Ticket #: 44416                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.02.16 @ 10:32:25

Murfin Oil Co, Inc.  
20-10s-34w Thomas,KS  
Frahm A #1-20  
DST # 1  
Toronto - LKC A  
2012.02.01



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44416

**DST#: 1**

ATTN: Robert Stolzle

Test Start: 2012.02.01 @ 07:02:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:41:45

Time Test Ended: 15:39:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 53

**Interval: 4102.00 ft (KB) To 4180.00 ft (KB) (TVD)**

Reference Elevations: 3244.00 ft (KB)

Total Depth: 4180.00 ft (KB) (TVD)

3231.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

**Serial #: 8677**

**Inside**

Press @ Run Depth: 311.21 psig @ 4105.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.01

End Date:

2012.02.01

Last Calib.:

2012.02.01

Start Time: 07:02:15

End Time:

15:39:15

Time On Btm:

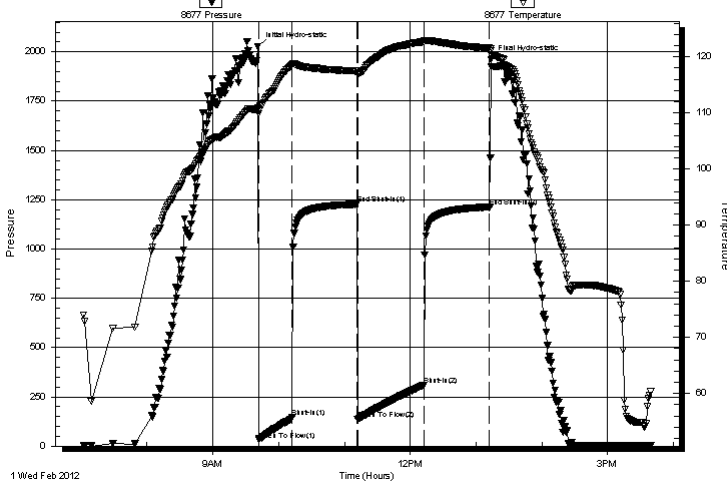
2012.02.01 @ 09:41:30

Time Off Btm:

2012.02.01 @ 13:13:45

**TEST COMMENT:** IF: BOB @ 13 min.  
IS: No return.  
FF: BOB @ 19 min.  
FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

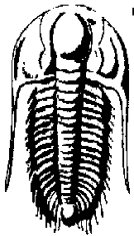
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2027.02	110.85	Initial Hydro-static
1	31.13	109.85	Open To Flow (1)
31	145.51	118.52	Shut-In(1)
90	1227.69	117.47	End Shut-In(1)
91	137.10	117.03	Open To Flow (2)
151	311.21	122.66	Shut-In(2)
210	1213.80	121.58	End Shut-In(2)
213	1961.60	121.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
570.00	mcw 10m 90w (oilspots)	2.80
140.00	sow cm 1o 25w 74m	0.69

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Oil Co, Inc.  
250 N Water STE 300  
Wichita, KS 67202  
ATTN: Robert Stolzle

**20-10s-34w Thomas, KS**

**Frahm A #1-20**

Job Ticket: 44416

**DST#: 1**

Test Start: 2012.02.01 @ 07:02:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC A**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:41:45  
 Time Test Ended: 15:39:15  
 Interval: **4102.00 ft (KB) To 4180.00 ft (KB) (TVD)**  
 Total Depth: 4180.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Bradley Walter  
 Unit No: 53  
 Reference Elevations: 3244.00 ft (KB)  
 3231.00 ft (CF)  
 KB to GR/CF: 13.00 ft

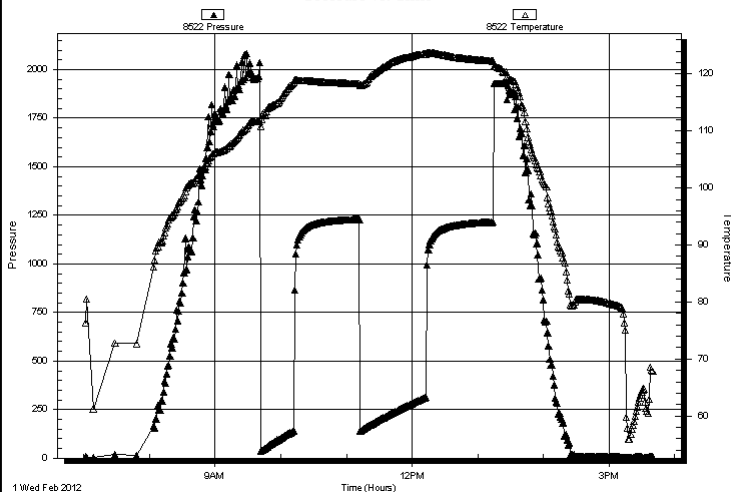
**Serial #: 8522**

**Inside**

Press @ Run Depth: psig @ 4105.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.02.01 End Date: 2012.02.01 Last Calib.: 2012.02.01  
 Start Time: 07:01:45 End Time: 15:40:15 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF: BOB @ 13 min.  
 IS: No return.  
 FF: BOB @ 19 min.  
 FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
570.00	mcw 10m 90w (oilspots)	2.80
140.00	sow cm 1o 25w 74m	0.69

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44416

**DST#: 1**

ATTN: Robert Stolzle

Test Start: 2012.02.01 @ 07:02:00

## Tool Information

Drill Pipe:	Length: 4103.00 ft	Diameter: 2.25 inches	Volume: 20.18 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 20.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4102.00 ft			Final 56000.00 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:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4076.00	
Shut In Tool	5.00			4081.00	
Hydraulic tool	5.00			4086.00	
Jars	5.00			4091.00	
Safety Joint	2.00			4093.00	
Packer	5.00			4098.00	27.00 Bottom Of Top Packer
Packer	4.00			4102.00	
Stubb	1.00			4103.00	
Perforations	2.00			4105.00	
Recorder	0.00	8677	Inside	4105.00	
Recorder	0.00	8522	Inside	4105.00	
Perforations	6.00			4111.00	
Change Over Sub	1.00			4112.00	
Drill Pipe	64.00			4176.00	
Change Over Sub	1.00			4177.00	
Bullnose	3.00			4180.00	78.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>105.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44416

**DST#: 1**

ATTN: Robert Stolzle

Test Start: 2012.02.01 @ 07:02:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

70000 ppm

Viscosity: 72.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
570.00	mcw 10m 90w (oilspots)	2.803
140.00	sow cm 1o 25w 74m	0.688

Total Length: 710.00 ft      Total Volume: 3.491 bbl

Num Fluid Samples: 0

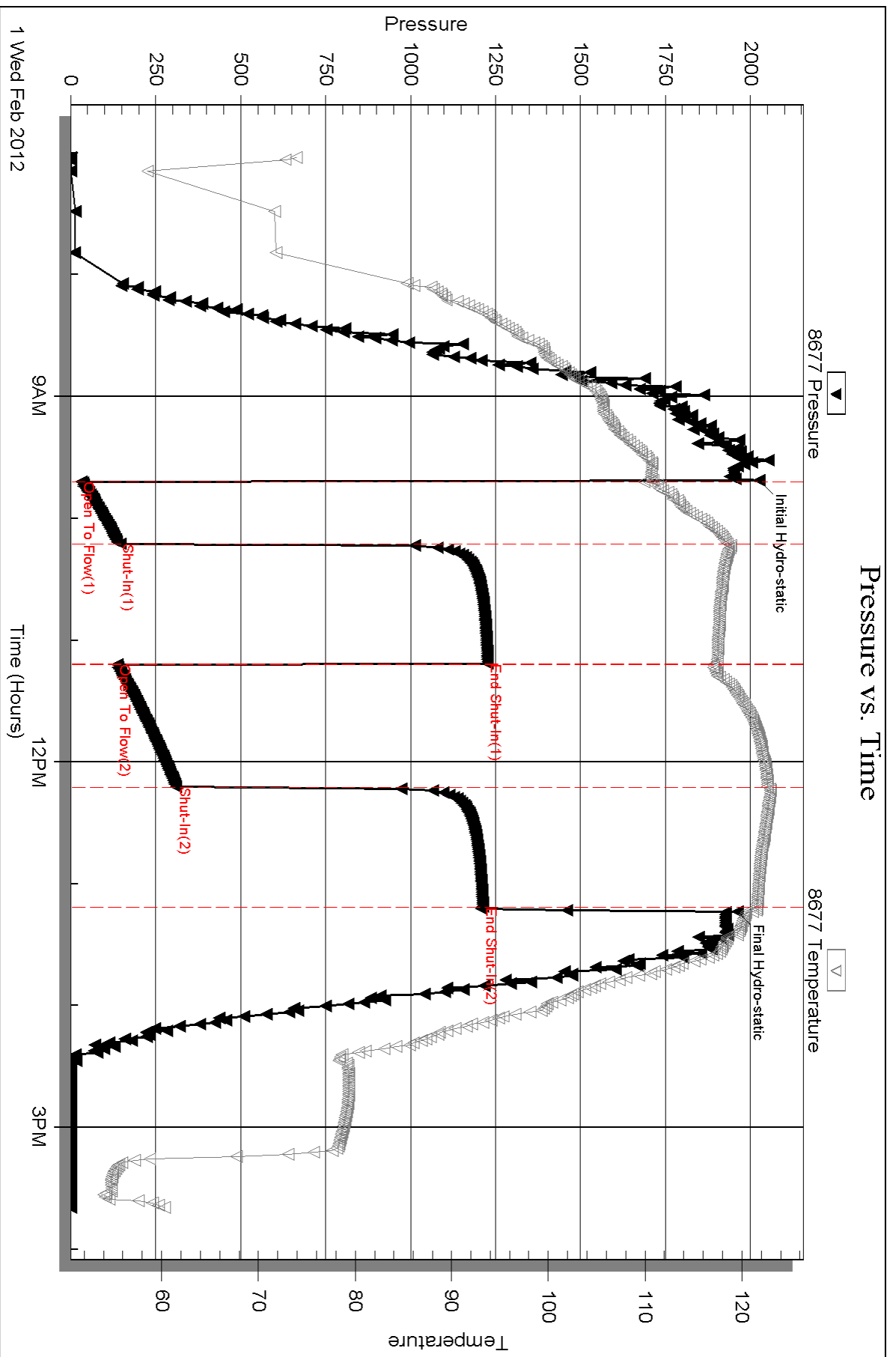
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .142 @ 56F = 70000 ppm



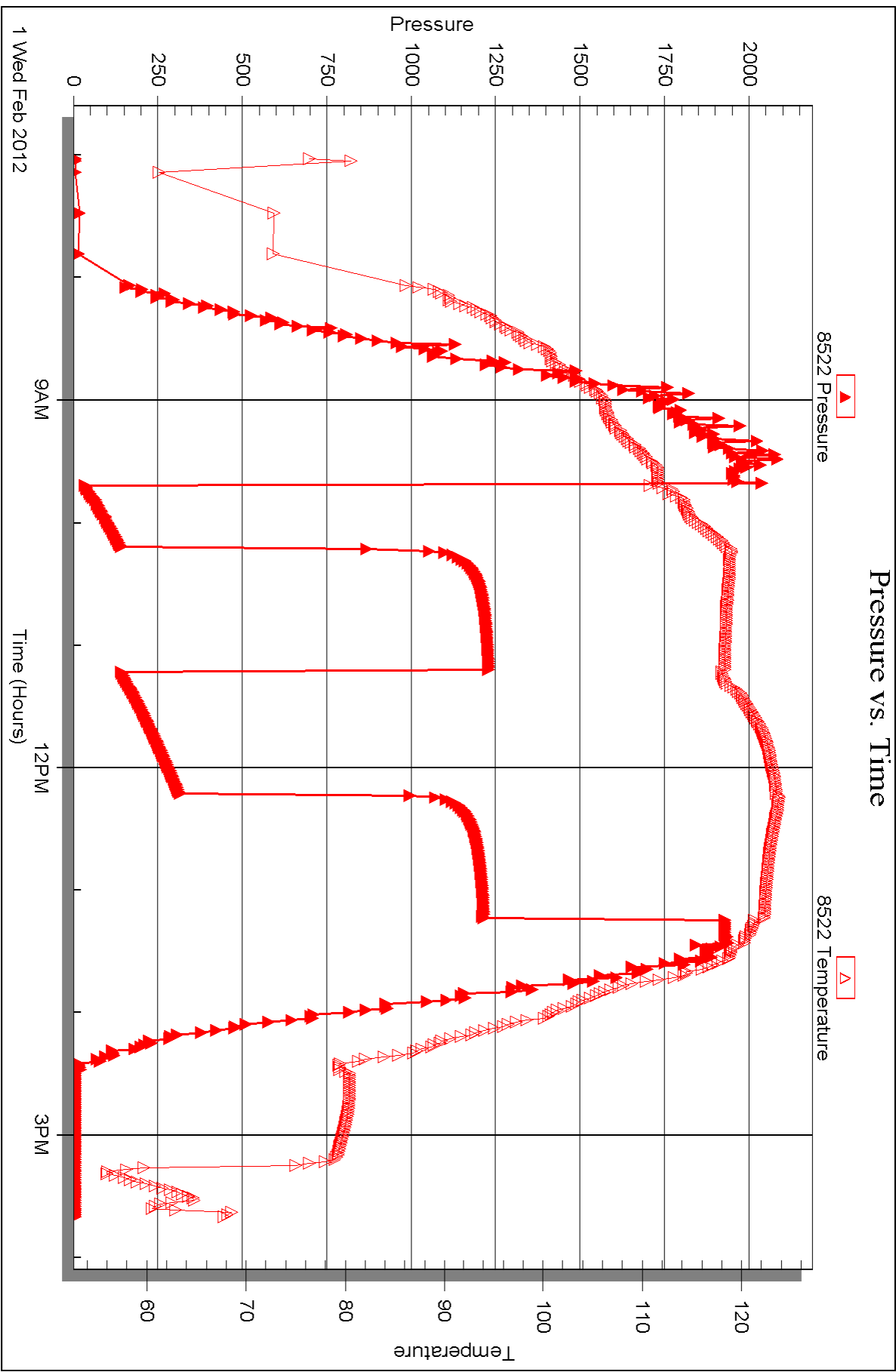
Serial #: 8522

Inside

Murfin Oil Co, Inc.

Frahm A #1-20

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Murfin Oil Co, Inc.**

250 N Water STE 300  
Wichita, KS 67202

ATTN: Robert Stolze

### **Frahm A #1-20**

#### **20-10s-34w Thomas,KS**

Start Date: 2012.02.02 @ 10:47:00

End Date: 2012.02.02 @ 18:51:00

Job Ticket #: 44417                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.02.16 @ 10:24:59

Murfin Oil Co, Inc.  
20-10s-34w Thomas,KS  
Frahm A #1-20  
DST # 2  
LKC H-J  
2012.02.02





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44417

**DST#: 2**

ATTN: Robert Stolzle

Test Start: 2012.02.02 @ 10:47:00

## GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:40:00

Time Test Ended: 18:51:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

**Interval: 4283.00 ft (KB) To 4379.00 ft (KB) (TVD)**

Reference Elevations: 3244.00 ft (KB)

Total Depth: 4379.00 ft (KB) (TVD)

3231.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

**Serial #: 8677**

**Inside**

Press @ Run Depth: 1280.53 psig @ 4286.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.02

End Date:

2012.02.02

Last Calib.:

2012.02.02

Start Time: 10:47:15

End Time:

18:51:00

Time On Btm:

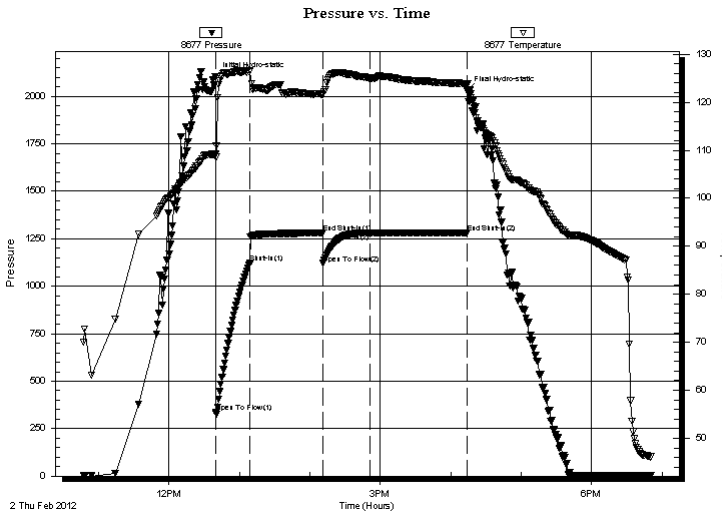
2012.02.02 @ 12:39:45

Time Off Btm:

2012.02.02 @ 16:14:15

**TEST COMMENT:** IF: BOB @ 1 min.  
IS: No return.  
FF: BOB @ 2 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2104.45	109.14	Initial Hydro-static
1	335.70	108.54	Open To Flow (1)
30	1121.70	126.47	Shut-In (1)
92	1280.56	121.62	End Shut-In (1)
92	1120.36	121.61	Open To Flow (2)
132	1280.53	124.99	Shut-In (2)
214	1281.07	123.81	End Shut-In (2)
215	2028.75	123.77	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2540.00	mcw 3m 97w	12.49
190.00	mcw 30m 70w	0.93

## Gas Rates

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

\* Recovery from multiple tests



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# DRILL STEM TEST REPORT

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44417

**DST#: 2**

ATTN: Robert Stolze

Test Start: 2012.02.02 @ 10:47:00

### GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:40:00

Time Test Ended: 18:51:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

**Interval: 4283.00 ft (KB) To 4379.00 ft (KB) (TVD)**

Total Depth: 4379.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3244.00 ft (KB)

3231.00 ft (CF)

KB to GR/CF: 13.00 ft

**Serial #: 8522** Inside

Press @ Run Depth: psig @ 4286.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.02 End Date: 2012.02.02

Last Calib.: 2012.02.02

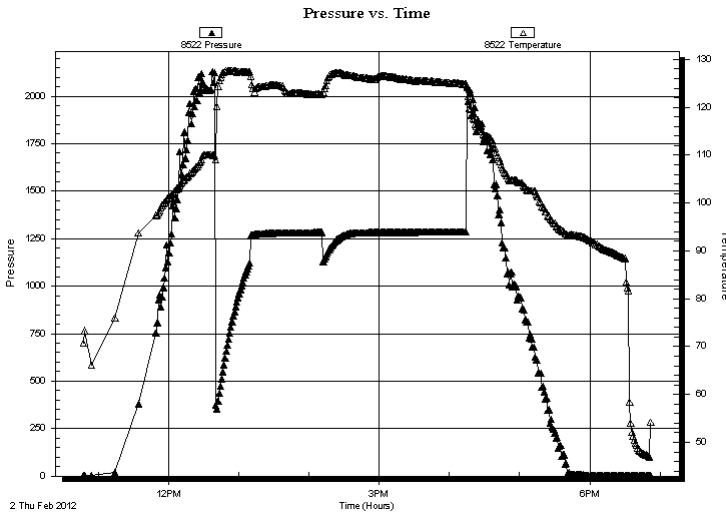
Start Time: 10:47:00 End Time: 18:52:00

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF: BOB @ 1 min.  
IS: No return.  
FF: BOB @ 2 min.  
FS: No return.

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
2540.00	mcw 3m 97w	12.49
190.00	mcw 30m 70w	0.93

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44417

**DST#: 2**

ATTN: Robert Stolzle

Test Start: 2012.02.02 @ 10:47:00

## Tool Information

Drill Pipe:	Length: 4262.00 ft	Diameter: 2.25 inches	Volume: 20.96 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 20.96 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4283.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	96.00 ft			
Tool Length:	123.00 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			4257.00	
Shut In Tool	5.00			4262.00	
Hydraulic tool	5.00			4267.00	
Jars	5.00			4272.00	
Safety Joint	2.00			4274.00	
Packer	5.00			4279.00	27.00 Bottom Of Top Packer
Packer	4.00			4283.00	
Stubb	1.00			4284.00	
Perforations	2.00			4286.00	
Recorder	0.00	8677	Inside	4286.00	
Recorder	0.00	8522	Inside	4286.00	
Perforations	24.00			4310.00	
Change Over Sub	1.00			4311.00	
Drill Pipe	64.00			4375.00	
Change Over Sub	1.00			4376.00	
Bullnose	3.00			4379.00	96.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>123.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44417

**DST#: 2**

ATTN: Robert Stolze

Test Start: 2012.02.02 @ 10:47:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

115000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2540.00	mcw 3m 97w	12.491
190.00	mcw 30m 70w	0.934

Total Length: 2730.00 ft      Total Volume: 13.425 bbl

Num Fluid Samples: 0

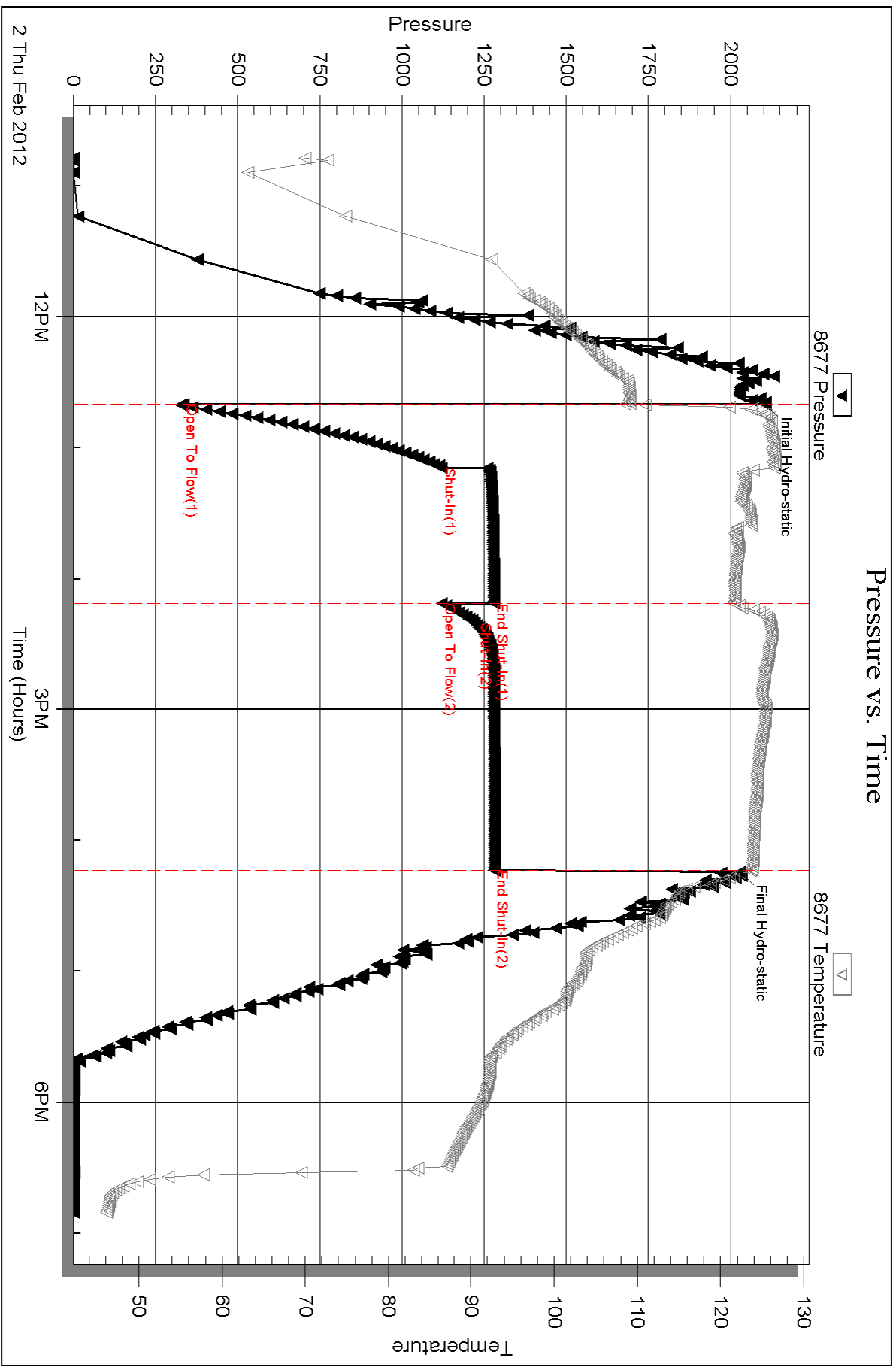
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .099 @ 50



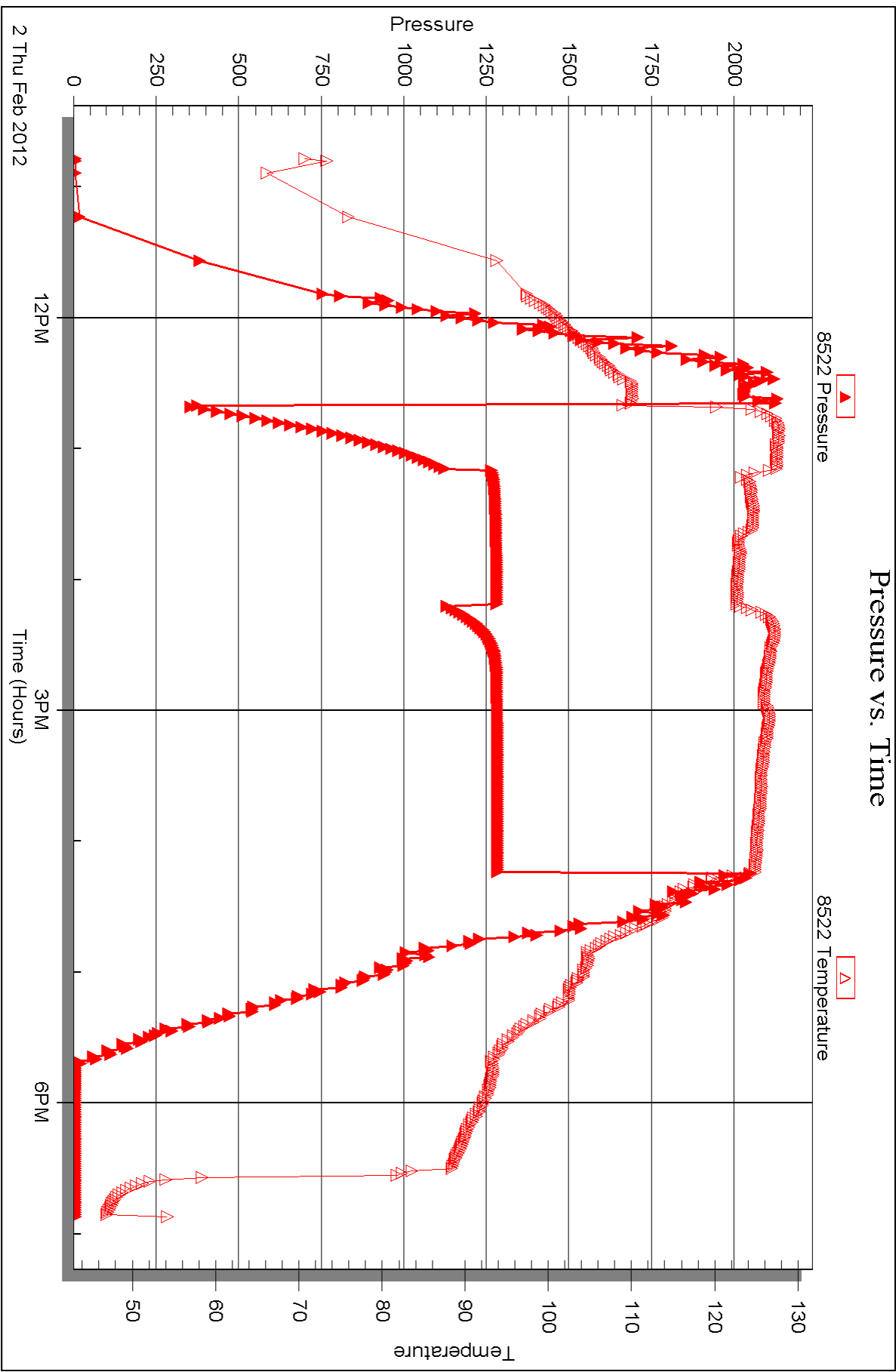
Serial #: 8522

Inside

Murfin Oil Co, Inc.

Frahm A #1-20

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Murfin Oil Co, Inc.**

250 N Water STE 300  
Wichita, KS 67202

ATTN: Robert Stolze

### **Frahm A #1-20**

#### **20-10s-34w Thomas,KS**

Start Date: 2012.02.03 @ 04:07:00

End Date: 2012.02.03 @ 13:37:15

Job Ticket #: 44418                      DST #: 3

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.02.16 @ 10:24:17



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Oil Co, Inc.

**20-10s-34w Thomas, KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44418

**DST#: 3**

ATTN: Robert Stolzle

Test Start: 2012.02.03 @ 04:07:00

## GENERAL INFORMATION:

Formation: **LKC K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:48:30

Time Test Ended: 13:37:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

**Interval: 4376.00 ft (KB) To 4420.00 ft (KB) (TVD)**

Reference Elevations: 3244.00 ft (KB)

Total Depth: 4420.00 ft (KB) (TVD)

3231.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

**Serial #: 8677**

**Inside**

Press @ Run Depth: 257.38 psig @ 4379.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.03

End Date:

2012.02.03

Last Calib.: 2012.02.03

Start Time: 04:07:15

End Time:

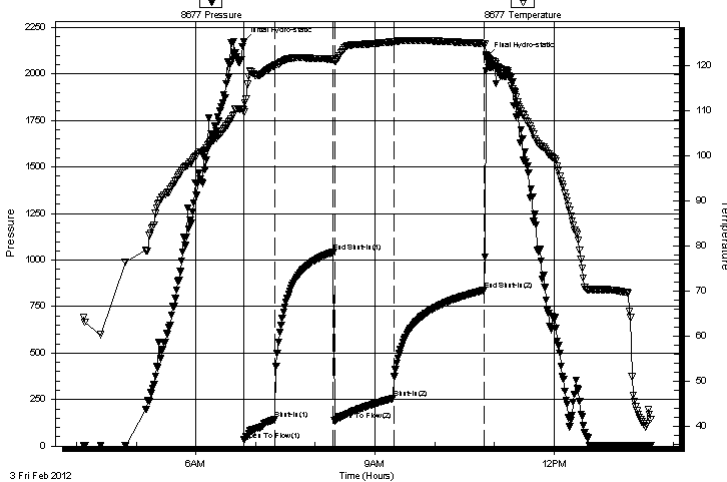
13:37:15

Time On Btm: 2012.02.03 @ 06:48:15

Time Off Btm: 2012.02.03 @ 10:52:00

**TEST COMMENT:** IF: BOB @ 12 min.  
IS: No return.  
FF: BOB @ 22 min.  
FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2171.54	110.31	Initial Hydro-static
1	33.31	109.69	Open To Flow (1)
31	145.00	120.07	Shut-In(1)
90	1043.68	121.42	End Shut-In(1)
91	136.69	120.97	Open To Flow (2)
151	257.38	125.27	Shut-In(2)
242	837.34	124.92	End Shut-In(2)
244	2092.51	122.24	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
510.00	10m 90w	2.51

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44418

**DST#: 3**

ATTN: Robert Stolzle

Test Start: 2012.02.03 @ 04:07:00

## Tool Information

Drill Pipe:	Length: 4357.00 ft	Diameter: 2.25 inches	Volume: 21.43 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 73000.00 lb
			<u>Total Volume: 21.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4376.00 ft			Final 59000.00 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:

## 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			4350.00	
Shut In Tool	5.00			4355.00	
Hydraulic tool	5.00			4360.00	
Jars	5.00			4365.00	
Safety Joint	2.00			4367.00	
Packer	5.00			4372.00	27.00 Bottom Of Top Packer
Packer	4.00			4376.00	
Stubb	1.00			4377.00	
Perforations	2.00			4379.00	
Recorder	0.00	8677	Inside	4379.00	
Recorder	0.00	8522	Inside	4379.00	
Perforations	5.00			4384.00	
Change Over Sub	1.00			4385.00	
Drill Pipe	31.00			4416.00	
Change Over Sub	1.00			4417.00	
Bullnose	3.00			4420.00	44.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>71.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44418

**DST#: 3**

ATTN: Robert Stolze

Test Start: 2012.02.03 @ 04:07:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

63000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
510.00	10m90w	2.508

Total Length: 510.00 ft      Total Volume: 2.508 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .130 @ 59 = 63000ppm

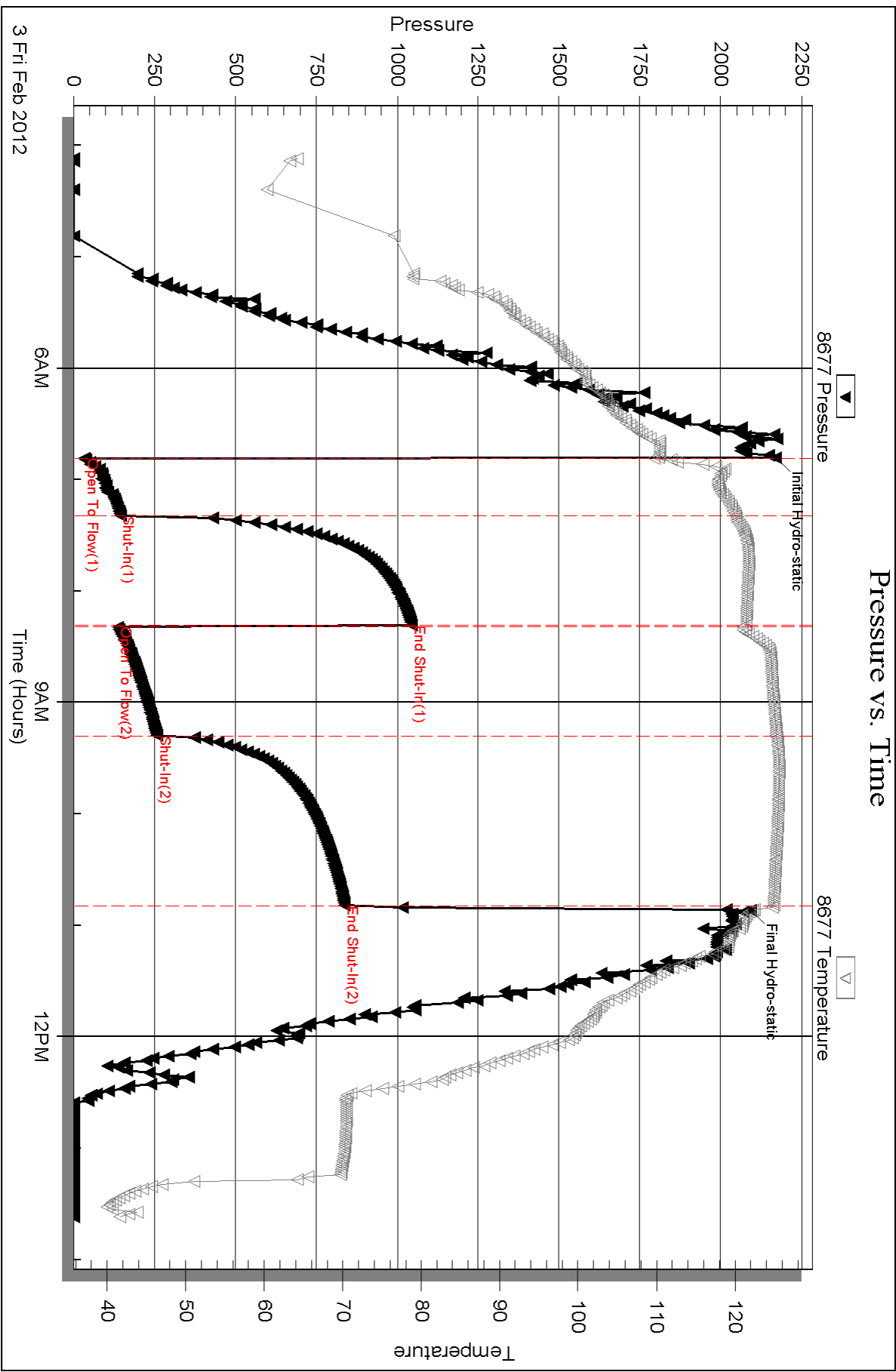
Serial #: 8677

Inside

Murfin Oil Co, Inc.

Frahm A #1-20

DST Test Number: 3



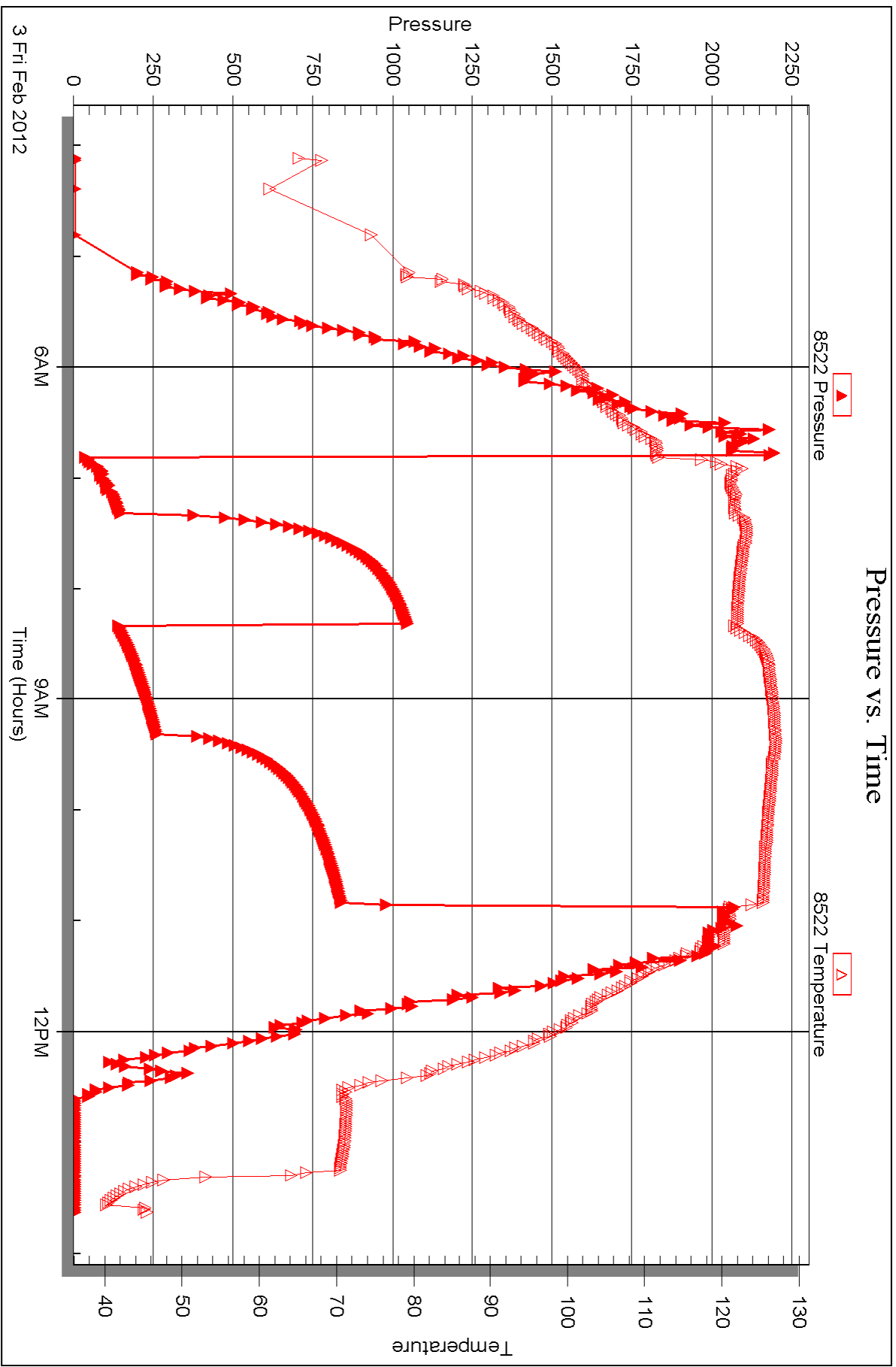
Serial #: 8522

Inside

Murfin Oil Co, Inc.

Frahm A #1-20

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 44418

Printed: 2012.02.16 @ 10:24:20



## DRILL STEM TEST REPORT

Prepared For: **Murfin Oil Co, Inc.**

250 N Water STE 300  
Wichita, KS 67202

ATTN: Robert Stolze

### **Frahm A #1-20**

#### **20-10s-34w Thomas,KS**

Start Date: 2012.02.04 @ 13:35:00

End Date: 2012.02.04 @ 23:38:45

Job Ticket #: 44419                      DST #: 4

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.02.16 @ 10:23:43



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44419

**DST#: 4**

ATTN: Robert Stolzle

Test Start: 2012.02.04 @ 13:35:00

## GENERAL INFORMATION:

Formation: **Myric Station**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:05:30

Time Test Ended: 23:38:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

**Interval: 4612.00 ft (KB) To 4635.00 ft (KB) (TVD)**

Reference Elevations: 3244.00 ft (KB)

Total Depth: 4635.00 ft (KB) (TVD)

3231.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

**Serial #: 8677**

**Inside**

Press @ Run Depth: 104.84 psig @ 4615.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.04

End Date:

2012.02.04

Last Calib.: 2012.02.04

Start Time: 13:35:15

End Time:

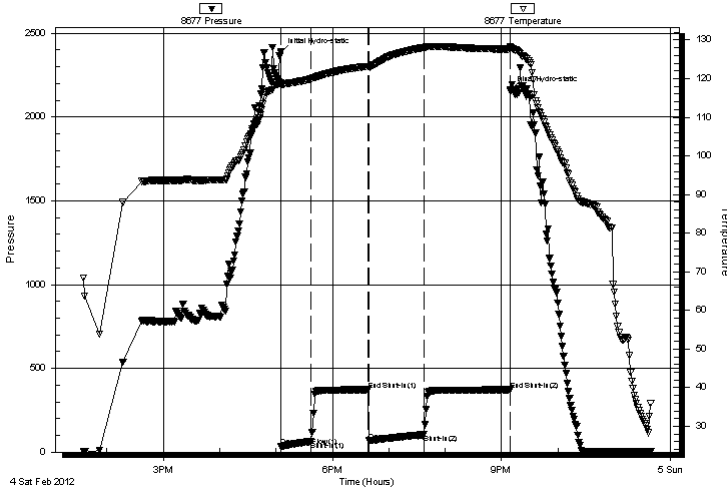
23:38:45

Time On Btm: 2012.02.04 @ 17:05:00

Time Off Btm: 2012.02.04 @ 21:09:00

**TEST COMMENT:** IF: 3" blow.  
IS: No return.  
FF: 5" blow.  
FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2385.19	118.90	Initial Hydro-static
1	34.33	118.31	Open To Flow (1)
32	63.45	119.94	Shut-In(1)
93	372.19	123.19	End Shut-In(1)
94	67.19	123.12	Open To Flow (2)
152	104.84	128.03	Shut-In(2)
244	371.66	127.59	End Shut-In(2)
244	2157.72	128.17	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
140.00	mcw 30m 70w (oil puddle on top)	1.96

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44419

**DST#: 4**

ATTN: Robert Stolzle

Test Start: 2012.02.04 @ 13:35:00

## Tool Information

Drill Pipe:	Length: 4605.00 ft	Diameter: 3.80 inches	Volume: 64.60 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 64.60 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4612.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	50.00 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			4586.00	
Shut In Tool	5.00			4591.00	
Hydraulic tool	5.00			4596.00	
Jars	5.00			4601.00	
Safety Joint	2.00			4603.00	
Packer	5.00			4608.00	27.00 Bottom Of Top Packer
Packer	4.00			4612.00	
Stubb	1.00			4613.00	
Perforations	2.00			4615.00	
Recorder	0.00	8677	Inside	4615.00	
Recorder	0.00	8522	Inside	4615.00	
Perforations	17.00			4632.00	
Bullnose	3.00			4635.00	23.00 Bottom Packers & Anchor

**Total Tool Length: 50.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Oil Co, Inc.

**20-10s-34w Thomas,KS**

250 N Water STE 300  
Wichita, KS 67202

**Frahm A #1-20**

Job Ticket: 44419

**DST#: 4**

ATTN: Robert Stolze

Test Start: 2012.02.04 @ 13:35:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

95000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8200.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
140.00	mcw 30m 70w (oil puddle on top)	1.964

Total Length: 140.00 ft      Total Volume: 0.688 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

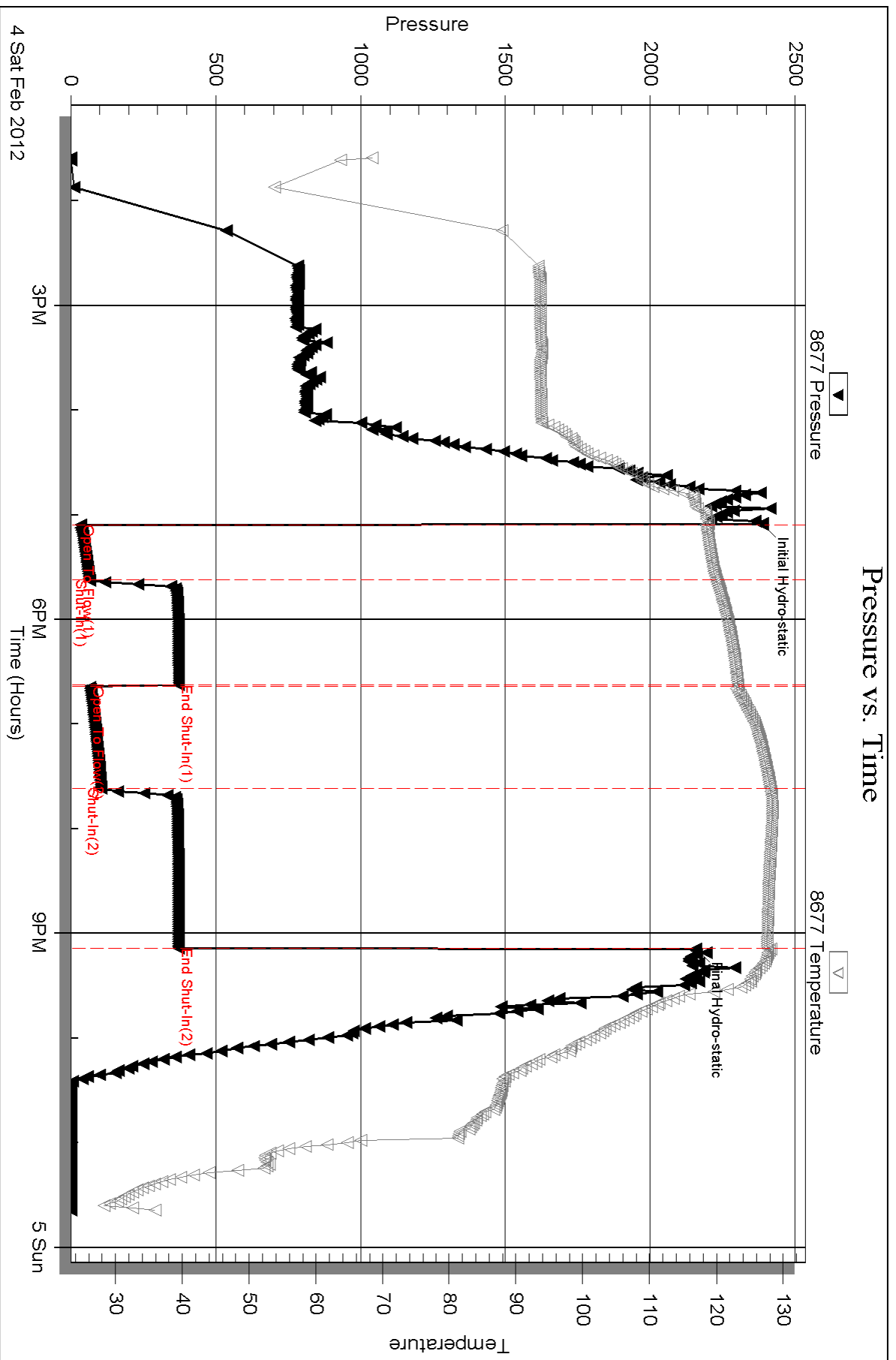
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .185 @ 50 = 95000ppm

### Pressure vs. Time



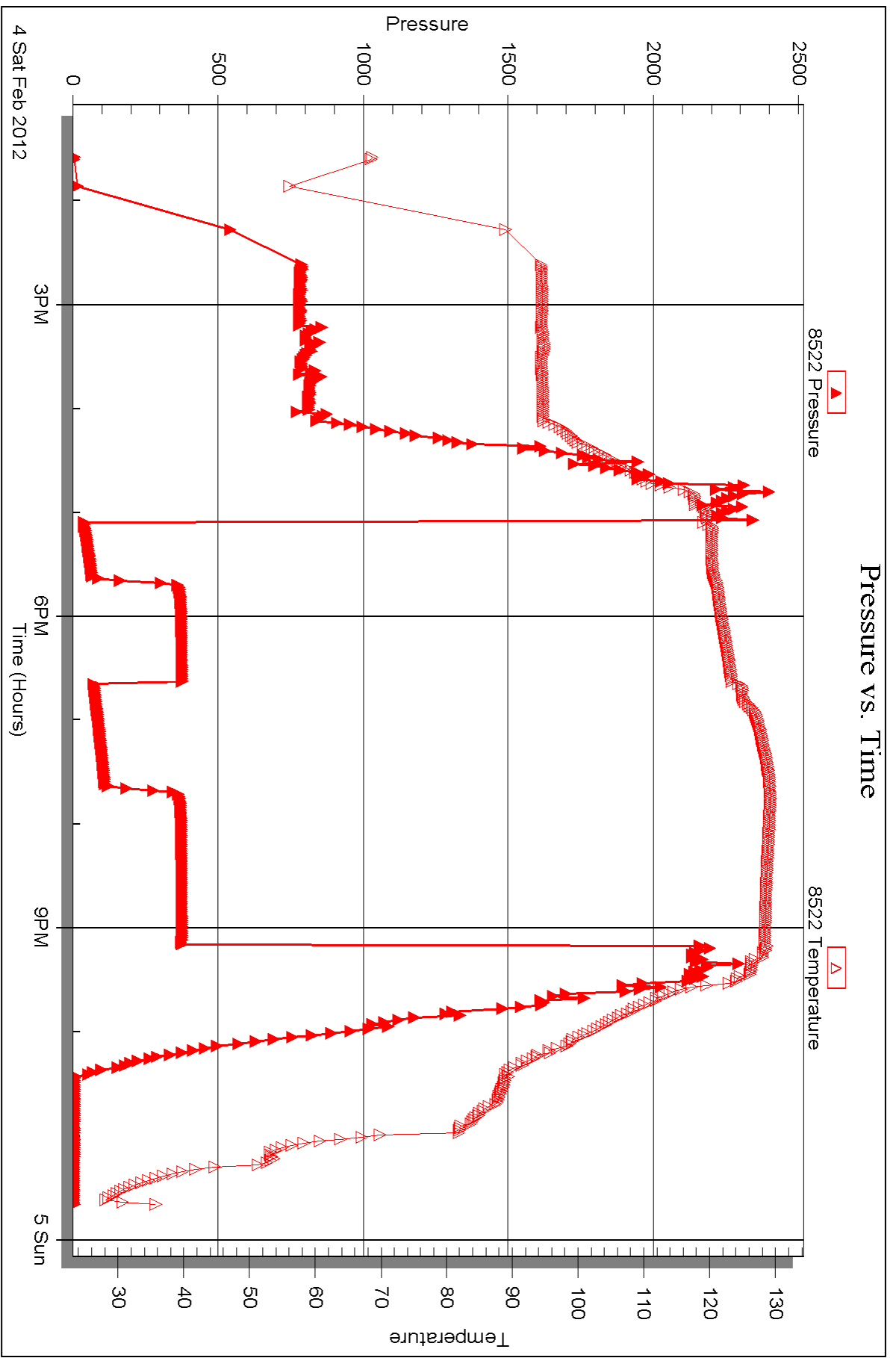
Serial #: 8522

Inside

Murfin Oil Co, Inc.

Frahm A #1-20

DST Test Number: 4





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water Suite 300  
Wichita, KS 67202

ATTN: Rocky Milford

### **Drake #1-22**

#### **22-5s-33w Rawlins KS**

Start Date: 2012.02.12 @ 13:36:00

End Date: 2012.02.12 @ 20:04:30

Job Ticket #: 45569                      DST #: 5

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.02.16 @ 10:01:40



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.  
 250 N. Water Suite 300  
 Wichita, KS 67202  
 ATTN: Rocky Milford

**22-5s-33w Rawlins KS**

**Drake #1-22**

Job Ticket: 45569

**DST#: 5**

Test Start: 2012.02.12 @ 13:36:00

## GENERAL INFORMATION:

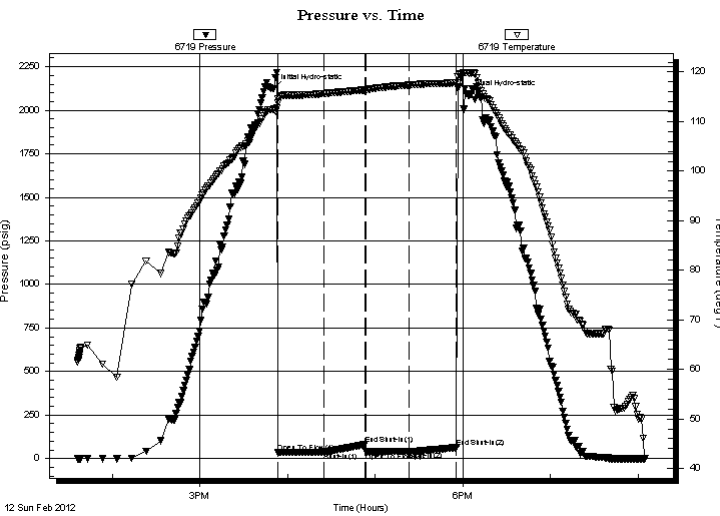
Formation: **Ft. Scott - Celia**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:53:00  
 Time Test Ended: 20:04:30  
 Interval: **4342.00 ft (KB) To 4402.00 ft (KB) (TVD)**  
 Total Depth: 4402.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 57  
 Reference Elevations: 3014.00 ft (KB)  
 3009.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6719

Inside

Press @ Run Depth: 40.25 psig @ 4343.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.02.12 End Date: 2012.02.12 Last Calib.: 2012.02.12  
 Start Time: 13:36:05 End Time: 20:04:29 Time On Btm: 2012.02.12 @ 15:50:30  
 Time Off Btm: 2012.02.12 @ 18:03:30

**TEST COMMENT:** 30 - IF: 1 1/2" surge blow, Bled off, Blow built to 1/8" in 15 min., on/off blow at 1/8" till close  
 30 - IS: Bled off, No blow back (Diesel in Bucket)  
 30 - FF: on/off surface blow, dead after 18 min.  
 30 - FS: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2123.46	112.49	Initial Hydro-static
3	34.00	113.73	Open To Flow (1)
34	37.59	115.66	Shut-In(1)
63	81.76	116.39	End Shut-In(1)
63	38.89	116.40	Open To Flow (2)
93	40.25	117.37	Shut-In(2)
125	63.42	117.85	End Shut-In(2)
133	2087.52	119.84	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
58.00	Mud 100%	0.29
0.00	Trace of oil in Tool	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.

**22-5s-33w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Drake #1-22**

Job Ticket: 45569

**DST#: 5**

ATTN: Rocky Milford

Test Start: 2012.02.12 @ 13:36:00

## Tool Information

Drill Pipe:	Length: 4134.00 ft	Diameter: 3.80 inches	Volume: 57.99 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 187.00 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 58.91 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4342.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	88.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Tool chased 2' to bottom at open - No mud loss at top

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4319.00	
Hydraulic tool	5.00			4324.00	
Jars	5.00			4329.00	
Safety Joint	3.00			4332.00	
Packer	5.00			4337.00	28.00 Bottom Of Top Packer
Packer	5.00			4342.00	
Stubb	1.00			4343.00	
Recorder	0.00	6719	Inside	4343.00	
Recorder	0.00	8320	Outside	4343.00	
Perforations	20.00			4363.00	
Blank Spacing	32.00			4395.00	
Perforations	4.00			4399.00	
Bullnose	3.00			4402.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 88.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**22-5s-33w Rawlins KS**

250 N. Water Suite 300  
Wichita, KS 67202

**Drake #1-22**

Job Ticket: 45569

**DST#: 5**

ATTN: Rocky Milford

Test Start: 2012.02.12 @ 13:36:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

dbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume dbl
58.00	Mud 100%	0.285
0.00	Trace of oil in Tool	0.000

Total Length: 58.00 ft      Total Volume: 0.285 dbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6719

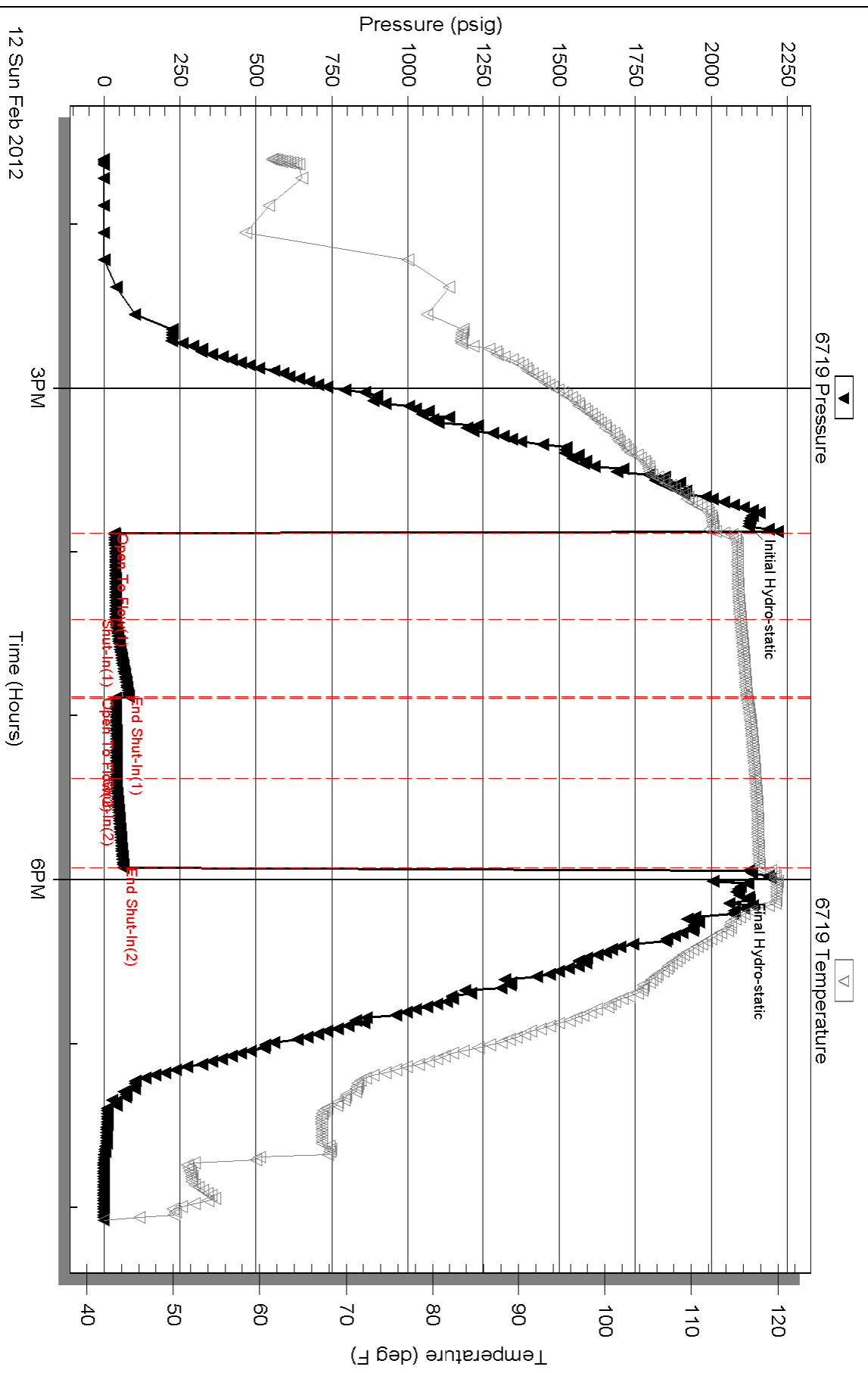
Inside

Murfin Drilling Co., Inc.

Drake #1-22

DST Test Number: 5

# Pressure vs. Time



Triobite Testing, Inc

Ref. No: 45569

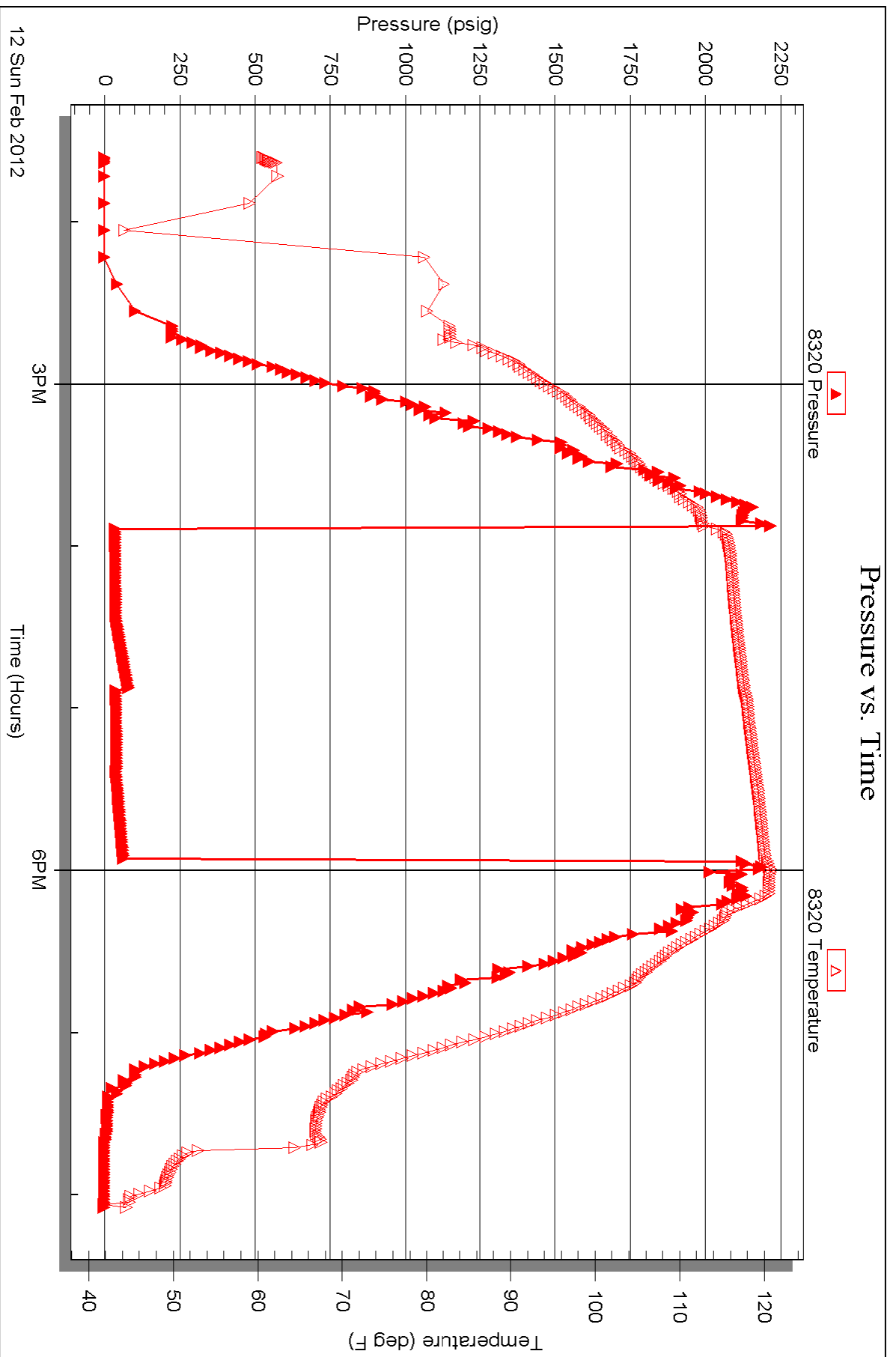
Printed: 2012.02.16 @ 10:01:42

Serial #: 8320

Outside Murfin Drilling Co., Inc.

Drake #1-22

DST Test Number: 5





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
FEB 15 2012

## Test Ticket

NO. 44416

4/10

BY: \_\_\_\_\_

Well Name & No. Frahn A #1-20 Test No. 1 Date 02/01/12  
 Company Murkin Drilling Co, Inc. Elevation 3244 KB 3231 GL  
 Address 250 N Water STE 300 Wichita, ks 67202  
 Co. Rep / Geo. Robert Stolze Rig Murkin 25  
 Location: Sec. 20 Twp. 10S Rge. 34W Co. Thomas State Ks

Interval Tested 4102 - 4180 Zone Tested Toronto - Lkc "A"  
 Anchor Length 78 Drill Pipe Run 4103 Mud Wt. 9.1  
 Top Packer Depth 4097 Drill Collars Run 0 Vis 22  
 Bottom Packer Depth 4102 Wt. Pipe Run 0 WL 6.0  
 Total Depth 4180 Chlorides 4,000 ppm System LCM 6#

Blow Description IF: BOB @ 13 min.  
BSJ: No return.  
FF: BOB @ 19 min  
FSI: No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>170</u>	<u>SO WCM</u>		<u>1</u>	<u>25</u>	<u>74</u>
<u>570</u>	<u>MCW (OIL SPOTS)</u>			<u>90</u>	<u>10</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 710 BHT 122 Gravity — API RW .142 @ 56 °F Chlorides 70,000 ppm

(A) Initial Hydrostatic 2027  Test 1225' T-On Location 0600  
 (B) First Initial Flow 31  Jars 250 T-Started 0702  
 (C) First Final Flow 146  Safety Joint 75' T-Open 0943  
 (D) Initial Shut-In 1228  Circ Sub N/C T-Pulled 1313  
 (E) Second Initial Flow 137  Hourly Standby \_\_\_\_\_ T-Out 1541  
 (F) Second Final Flow 311  Mileage 134 67 R/T 187.60 Comments \_\_\_\_\_  
 (G) Final Shut-In 1214  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1962  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 60  Day Standby \_\_\_\_\_ Total 1737.60  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Sub Total 1737.60  
 Approved By Robert Stolze, Agent 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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RECEIVED  
FEB 15 2012

## Test Ticket

NO. 44417

4/10

BY: \_\_\_\_\_

Well Name & No. Frahm A #1-20 Test No. 2 Date 02/02/12  
 Company Murkin Drilling Co, Inc Elevation 3244 KB 3231 GL  
 Address 250 N Water STE 300 Wichita, Ks 67202  
 Co. Rep / Geo. Robert Stolze Rig Murkin 25  
 Location: Sec. 20 Twp. 10s Rge. 34w Co. Thomas State Ks

Interval Tested 4283 - 4397 Zone Tested LKC-HI&J  
 Anchor Length 96' Drill Pipe Run 4262 Mud Wt. 9.1  
 Top Packer Depth 4278 Drill Collars Run Ø Vis 53  
 Bottom Packer Depth 4283 Wt. Pipe Run Ø WL 5.6  
 Total Depth 4397 Chlorides 4800 ppm System LCM 8#  
 Blow Description IF! BOB 1 min.  
ISI! No return  
FF! BOB 2 min.  
FSI! No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>MCW</u>			<u>70</u>	<u>30</u>
<u>2540</u>	<u>MCW</u>			<u>97</u>	<u>3</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2730 BHT 125 Gravity - API RW 0.99 @ 50 °F Chlorides 115,000 ppm

(A) Initial Hydrostatic	<u>2104</u>	<input checked="" type="checkbox"/> Test	<u>1225'</u>	T-On Location	<u>Ø740</u>
(B) First Initial Flow	<u>336</u>	<input checked="" type="checkbox"/> Jars	<u>250'</u>	T-Started	<u>1047</u>
(C) First Final Flow	<u>1122</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75'</u>	T-Open	<u>1240</u>
(D) Initial Shut-In	<u>1281</u>	<input checked="" type="checkbox"/> Circ Sub	<u>N/C</u>	T-Pulled	<u>1610</u>
(E) Second Initial Flow	<u>1120</u>	<input type="checkbox"/> Hourly Standby	<u>1hr 100'</u>	T-Out	<u>1852</u>
(F) Second Final Flow	<u>1281</u>	<input checked="" type="checkbox"/> Mileage	<u>134 R/T 187.60</u>	Comments	
(G) Final Shut-In	<u>1281</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>2029</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>Ø</u>
Final Shut-In	<u>90</u>	<input type="checkbox"/> Day Standby		Total	<u>1837.60</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1837.60</u>		

Approved By Robert Stolze

Our Representative [Signature]

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# TRILOBITE TESTING INC.

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RECEIVED  
FEB 15 2012

## Test Ticket

NO. 44418

4/10

BY: \_\_\_\_\_

Well Name & No. Frahn A # 1-20 Test No. 3 Date 02/03/12  
 Company Martin Drilling Co, Inc Elevation 3244 KB 3231 GL  
 Address 250 N Water STE 300 Wichita, Ks 67202  
 Co. Rep / Geo. Robert Stolze Rig Martin 25  
 Location: Sec. 20 Twp. 16s Rge. 34w Co. Thomas State Ks

Interval Tested 4376 ~~4420 4283 4347~~ Zone Tested LKC "K"  
 Anchor Length 44' Drill Pipe Run 4357 Mud Wt. 9.10  
 Top Packer Depth 4371 Drill Collars Run 0 Vis 53  
 Bottom Packer Depth 4376 Wt. Pipe Run 0 WL 5.6  
 Total Depth 4420 Chlorides 4600 ppm System LCM 6#  
 Blow Description IF: BOB @ 12 min.  
ISI: No return.  
FF: BOB @ 24 min.  
FSI: No return.

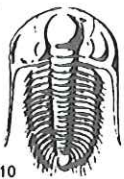
Rec	Feet of	%gas	%oil	%water	%mud
<u>510</u>					

Rec Total 510 BHT 127 Gravity — API RW .130 @ 59 °F Chlorides 63,000 ppm

(A) Initial Hydrostatic <u>2172</u>	<input checked="" type="checkbox"/> Test <u>1225'</u>	T-On Location <u>0330</u>
(B) First Initial Flow <u>33</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0644 0403</u>
(C) First Final Flow <u>145</u>	<input checked="" type="checkbox"/> Safety Joint <u>75'</u>	T-Open <u>0649</u>
(D) Initial Shut-In <u>1044</u>	<input checked="" type="checkbox"/> Circ Sub <u>1/2</u>	T-Pulled <u>1049</u>
(E) Second Initial Flow <u>137</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1337</u>
(F) Second Final Flow <u>257</u>	<input checked="" type="checkbox"/> Mileage <u>134 2/2 187.60</u>	Comments _____
(G) Final Shut-In <u>837</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2093</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1737.60</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1737.60</u>	

Approved By Robert Stolze, Agent Our Representative [Signature]

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# TRILOBITE TESTING INC.

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RECEIVED  
FEB 15 2012  
BY: \_\_\_\_\_

## Test Ticket

NO. 44419

Well Name & No. Frahm #1-20 Test No. 4 Date 02/04/12  
 Company Murkin Drilling Co, Inc Elevation 3244 KB 3231 GL  
 Address 250 N Water STE 300 Wichita, Ks 67202  
 Co. Rep / Geo. Robert Stolzle Rig Murkin 25  
 Location: Sec. 20 Twp. 10S Rge. 34W Co. Thomas State Ks

Interval Tested 4612 - 4635 Zone Tested Myrc Station  
 Anchor Length 23 Drill Pipe Run 4605 Mud Wt. 0.1  
 Top Packer Depth 4607 Drill Collars Run 0 Vis 53  
 Bottom Packer Depth 4612 Wt. Pipe Run 0 WL 6.6  
 Total Depth 4635 Chlorides 8200 ppm System LCM 8<sup>th</sup>  
 Blow Description IF: 3" blow.  
ISI: No return.  
FF: 5" blow.  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>140</u>	<u>mcw 30</u>		<u>70</u>	<u>30</u>	
	<u>ore puddle at Top</u>				

Rec Total 140 BHT 128 Gravity API RW .183 @ 50 ° F Chlorides 75,000 ppm

(A) Initial Hydrostatic 2385  Test 1225 T-On Location 0730  
 (B) First Initial Flow 34  Jars 250 T-Started 1335  
 (C) First Final Flow 63  Safety Joint 75 T-Open 1707  
 (D) Initial Shut-In 372  Circ Sub N/C T-Pulled 2107  
 (E) Second Initial Flow 67  Hourly Standby 6 1/4 hrs 625 T-Out 2340  
 (F) Second Final Flow 105  Mileage 134 R/T 187.60 Comments Survey stuck in string  
 (G) Final Shut-In 372  Sampler  5 hrs to locate/remove  
 (H) Final Hydrostatic 2158  Straddle   Ruined Shale Packer   
 Shale Packer   Ruined Packer   
 Extra Packer   Extra Copies   
 Extra Recorder  Sub Total 0  
 Day Standby 5 hrs Total 2362.60  
 Accessibility  MP/DST Disc't   
 Sub Total 2362.60

Approved By Robert Stolzle, Agent

Our Representative \_\_\_\_\_





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
FEB 15 2012

## Test Ticket

NO. 44420

Well Name & No. Frahm #1-20 BY: \_\_\_\_\_ Test No. 5 Date 02/05/12  
 Company Mudra Drilling Co, Inc Elevation 3244 KB 3231 GL \_\_\_\_\_  
 Address 250 N Water STE 300 Wichita, Ks 67202  
 Co. Rep / Geo. Robert Stolze Rig Mudra 25  
 Location: Sec. 20 Twp. 10s Rge. 34w Co. Thomas State Ks

Interval Tested 4673 4740 Zone Tested Johnson  
 Anchor Length 67 Drill Pipe Run 4666 Mud Wt. 9.2  
 Top Packer Depth 4668 Drill Collars Run 0 Vis 56  
 Bottom Packer Depth 4673 Wt. Pipe Run 0 WL 7.2  
 Total Depth 4740 Chlorides 9700 ppm System LCM 8#  
 Blow Description IF: 5" blow  
ISI: No return  
FF: Bob @ 31 min.  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OIL</u>		<u>100</u>		
<u>140</u>	<u>GMCO</u>	<u>20</u>	<u>50</u>		<u>30</u>
	<u>400' GIP</u>				

Rec Total 145 BHT 122 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2418</u>	<input checked="" type="checkbox"/> Test <u>1225</u>	T-On Location <u>1400</u>
(B) First Initial Flow <u>29</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1557</u>
(C) First Final Flow <u>48</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1817</u>
(D) Initial Shut-In <u>360</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>2217</u>
(E) Second Initial Flow <u>52</u>	<input type="checkbox"/> Hourly Standby <u>1 1/4 hrs 125</u>	T-Out <u>0113 02/06/12</u>
(F) Second Final Flow <u>84</u>	<input checked="" type="checkbox"/> Mileage <u>134 RT 187.60</u>	Comments _____
(G) Final Shut-In <u>355</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2328</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1862.60</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1862.60</u>	

Approved By Robert Stolze Agent Our Representative [Signature]

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