



## DRILL STEM TEST REPORT

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

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Saman Sharifaie

### **Burk Trust 'D' #4-23**

### **23-1s-36w Rawlins,KS**

Start Date: 2014.05.07 @ 11:53:00

End Date: 2014.05.07 @ 20:18:30

Job Ticket #: 58156                      DST #: 1

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

Printed: 2014.05.13 @ 11:06:47



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58156

**DST#: 1**

ATTN: Saman Sharifaie

Test Start: 2014.05.07 @ 11:53:00

## GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:13:30

Time Test Ended: 20:18:30

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

**Interval: 4082.00 ft (KB) To 4140.00 ft (KB) (TVD)**

Reference Elevations: 3287.00 ft (KB)

Total Depth: 4140.00 ft (KB) (TVD)

3276.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 131.06 psig @ 4083.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.07

End Date:

2014.05.07

Last Calib.:

2014.05.07

Start Time: 11:53:05

End Time:

20:18:29

Time On Btm:

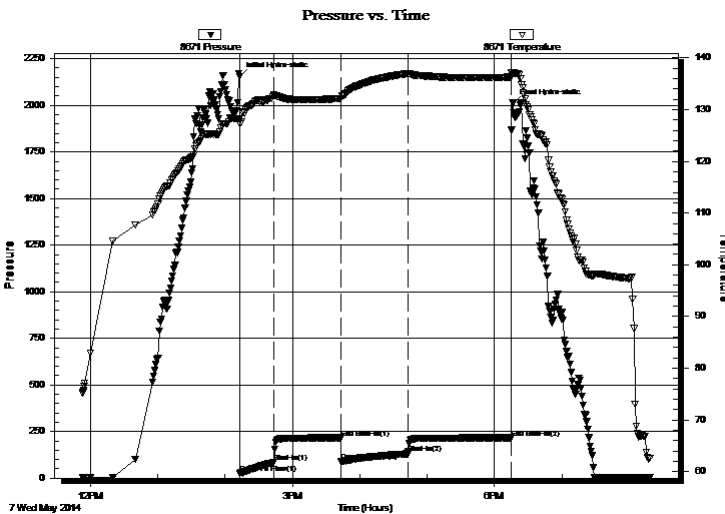
2014.05.07 @ 14:13:15

Time Off Btm:

2014.05.07 @ 18:16:15

**TEST COMMENT:** 30 - IF: Blow built to 7"  
60 - IS: No blow back  
60 - FF: Blow built to 7 1/2"  
90 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	215.78	128.24	Initial Hydro-static
1	25.81	127.26	Open To Flow (1)
31	83.81	132.79	Shut-In(1)
90	216.14	132.15	End Shut-In(1)
91	88.62	132.10	Open To Flow (2)
150	131.06	136.99	Shut-In(2)
242	215.64	136.28	End Shut-In(2)
243	2011.82	137.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
176.00	SOCWM 51%m, 42%w, 4%o, 3%g	0.87
42.00	OWCM 73%m, 14%w, 8%o, 5%g	0.33
40.00	CO 93%o, 4%m, 3%g	0.56
0.00	GIP = 45'	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.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58156

**DST#: 1**

ATTN: Saman Sharifaie

Test Start: 2014.05.07 @ 11:53:00

## Tool Information

Drill Pipe:	Length: 3879.00 ft	Diameter: 3.80 inches	Volume: 54.41 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: 204.00 ft	Diameter: 2.25 inches	Volume: 1.00 bbl	Weight to Pull Loose: 92000.00 lb
			<u>Total Volume: 55.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4082.00 ft			Final 81000.00 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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4059.00	
Hydraulic tool	5.00			4064.00	
Jars	5.00			4069.00	
Safety Joint	3.00			4072.00	
Packer	5.00			4077.00	28.00 Bottom Of Top Packer
Packer	5.00			4082.00	
Stubb	1.00			4083.00	
Recorder	0.00	8671	Inside	4083.00	
Recorder	0.00	8320	Outside	4083.00	
Perforations	20.00			4103.00	
Blank Spacing	34.00			4137.00	
Bullnose	3.00			4140.00	58.00 Bottom Packers & Anchor

**Total Tool Length: 86.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58156

**DST#: 1**

ATTN: Saman Sharifaie

Test Start: 2014.05.07 @ 11:53:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 56.00 sec/qt  
Water Loss: 6.78 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 600.00 ppm  
Filter Cake: 2.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: 24.8 deg API  
Water Salinity: 12500 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
176.00	SOCWM 51% <i>m</i> , 42% <i>w</i> , 4% <i>o</i> , 3% <i>g</i>	0.866
42.00	OWCM 73% <i>m</i> , 14% <i>w</i> , 8% <i>o</i> , 5% <i>g</i>	0.334
40.00	CO 93% <i>o</i> , 4% <i>m</i> , 3% <i>g</i>	0.561
0.00	GIP = 45'	0.000

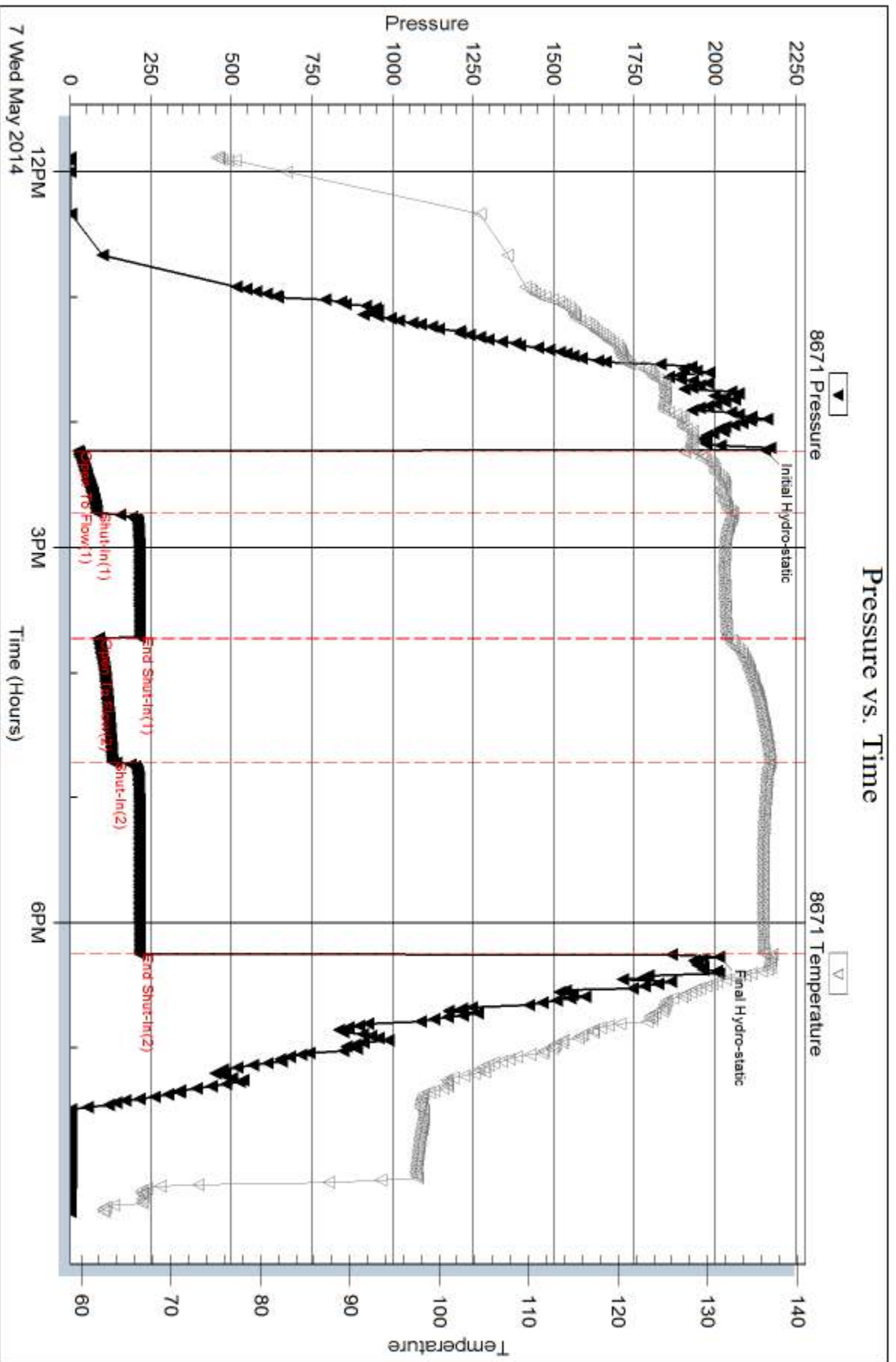
Total Length: 258.00 ft      Total Volume: 1.761 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: Gravity = 25.8 api @ 70 deg F Corrected Gravity = 24.8 api  
RW = .520 ohms @ 70.2 deg F Chlorides = 12,500 ppm  
LCM = 12#

### Pressure vs. Time

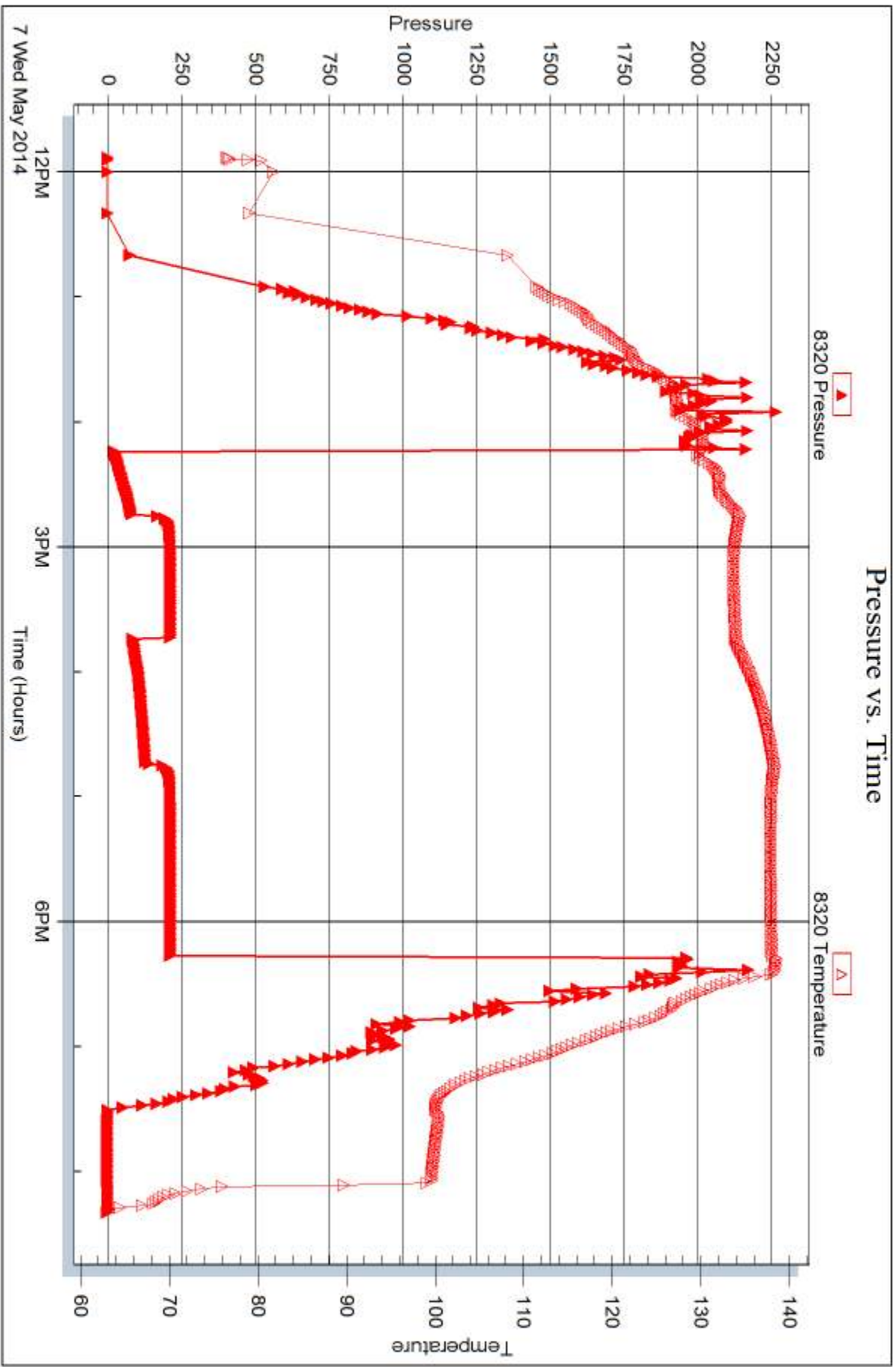


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Burk Trust 'D' #4-23

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58156

Printed: 2014.05.13 @ 11:06:48



## DRILL STEM TEST REPORT

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

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Saman Sharifaie

### **Burk Trust 'D' #4-23**

### **23-1s-36w Rawlins,KS**

Start Date: 2014.05.08 @ 13:50:00

End Date: 2014.05.08 @ 22:12:45

Job Ticket #: 58157                      DST #: 2

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

Printed: 2014.05.13 @ 11:06:25

Murfin Drilling Co., Inc.  
23-1s-36w Rawlins,KS  
Burk Trust 'D' #4-23  
DST # 2  
LKC "D"  
2014.05.08





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins, KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58157

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2014.05.08 @ 13:50:00

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:51:00

Time Test Ended: 22:12:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 4234.00 ft (KB) To 4300.00 ft (KB) (TVD)**

Reference Elevations: 3287.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

3276.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 179.75 psig @ 4235.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.08

End Date:

2014.05.08

Last Calib.:

2014.05.08

Start Time:

13:50:05

End Time:

22:12:44

Time On Btm:

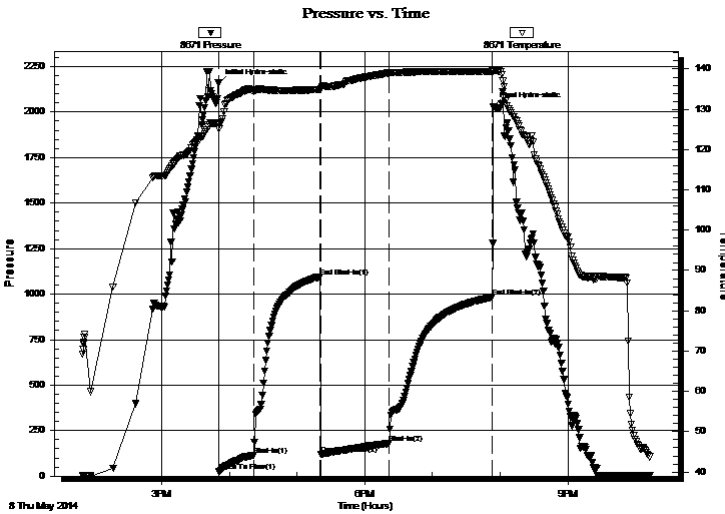
2014.05.08 @ 15:50:45

Time Off Btm:

2014.05.08 @ 19:53:45

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") at 22 min.  
60 - IS: Blow back built to 1/2"  
60 - FF: Blow built to BOB at 33 min.  
90 - FS: Blow back built to 2"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2156.49	126.48	Initial Hydro-static
1	23.85	125.16	Open To Flow (1)
31	116.13	134.55	Shut-In(1)
90	1095.51	134.92	End Shut-In(1)
91	121.05	134.91	Open To Flow (2)
151	179.75	139.02	Shut-In(2)
243	983.55	139.40	End Shut-In(2)
243	2031.82	139.44	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
58.00	OMCW 58%w, 32%m, 10%o	0.29
179.00	SO/WCM 65%m, 26%w, 5%g, 4%o	1.18
63.00	GOWCM 55%m, 18%o mix, 17%w, 10%g	0.88
68.00	CGO 79%o, 17%g, 4%m	0.95
0.00	GIP = 250'	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.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58157

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2014.05.08 @ 13:50:00

## Tool Information

Drill Pipe:	Length: 4034.00 ft	Diameter: 3.80 inches	Volume: 56.59 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: 204.00 ft	Diameter: 2.25 inches	Volume: 1.00 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 57.59 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4234.00 ft			Final 81000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	94.00 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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Shut In Tool	5.00			4211.00	
Hydraulic tool	5.00			4216.00	
Jars	5.00			4221.00	
Safety Joint	3.00			4224.00	
Packer	5.00			4229.00	28.00 Bottom Of Top Packer
Packer	5.00			4234.00	
Stubb	1.00			4235.00	
Recorder	0.00	8671	Inside	4235.00	
Recorder	0.00	8320	Outside	4235.00	
Perforations	29.00			4264.00	
Blank Spacing	33.00			4297.00	
Bullnose	3.00			4300.00	66.00 Bottom Packers & Anchor

**Total Tool Length: 94.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58157

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2014.05.08 @ 13:50:00

## 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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

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 bbbl
58.00	OMCW 58%w , 32%m, 10%o	0.285
179.00	SO/WCM 65%m, 26%w , 5%g, 4%o	1.181
63.00	GOWCM 55%m, 18%o mix, 17%w , 10%g	0.884
68.00	CGO 79%o, 17%g, 4%m	0.954
0.00	GIP = 250'	0.000

Total Length: 368.00 ft      Total Volume: 3.304 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

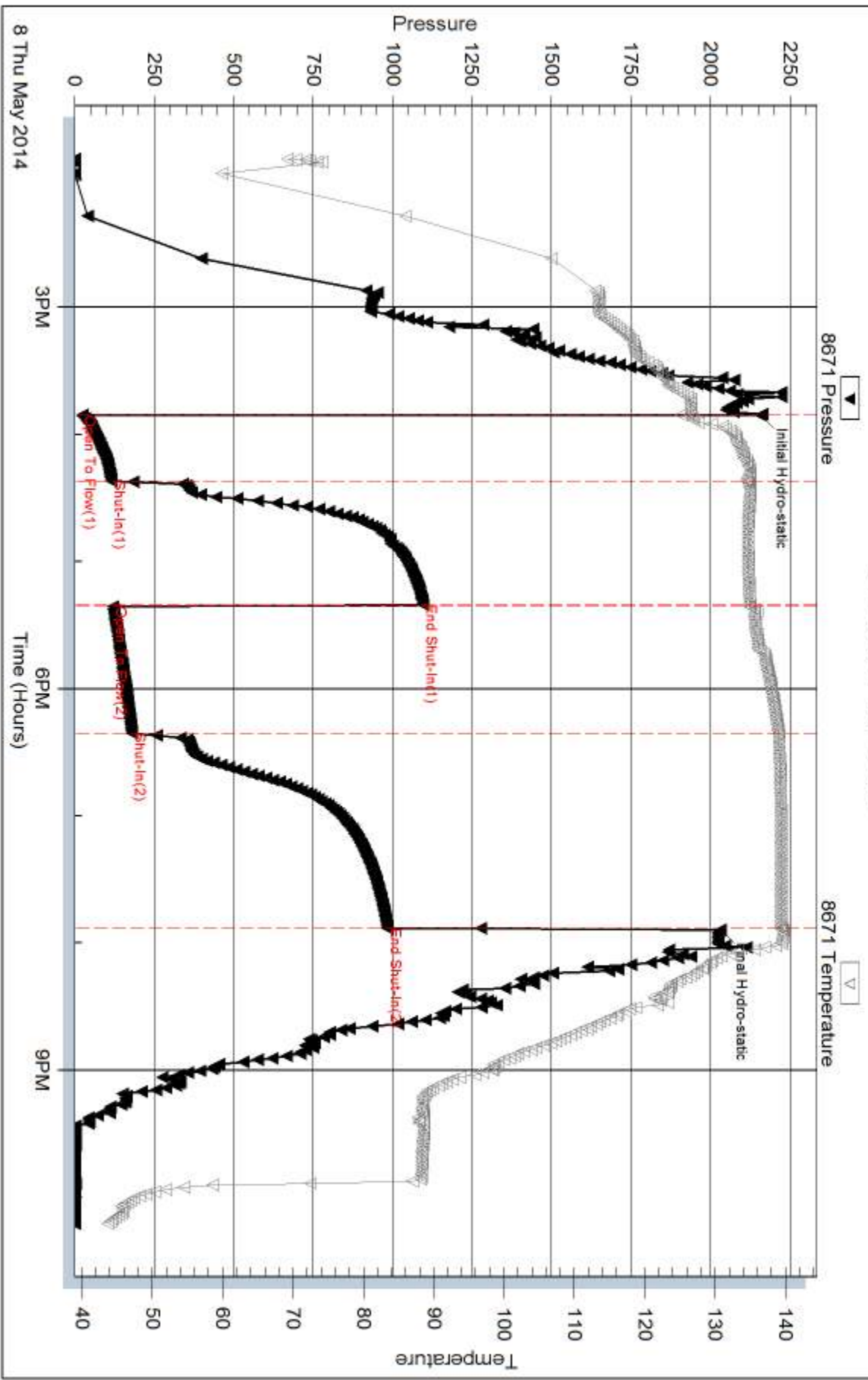
Laboratory Location:

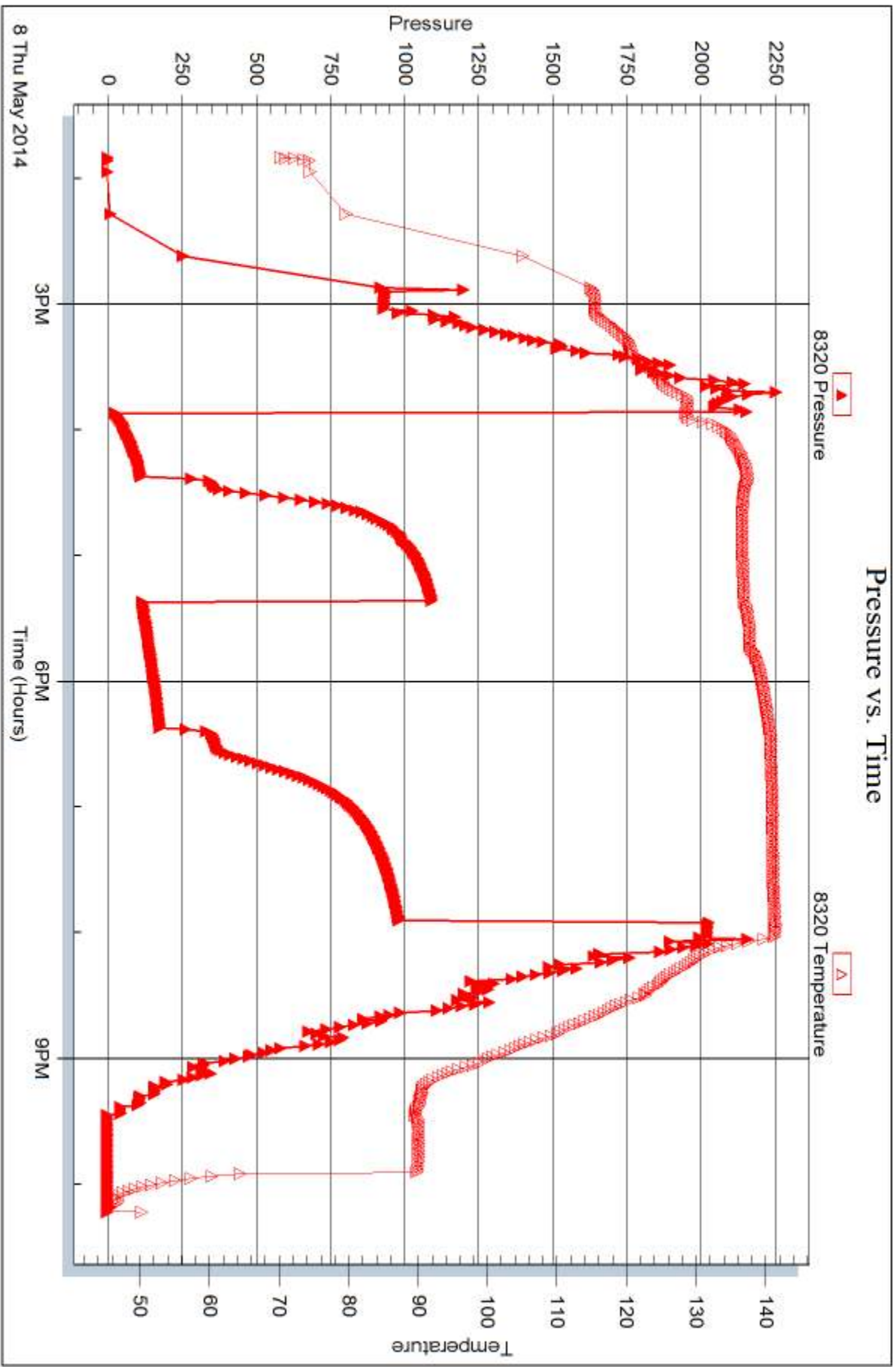
Recovery Comments: Gravity = 23.6 api @ 48 deg F

Corrected Gravity = 24.8 api

Couldn't get clean w ater sample for chloride check

### Pressure vs. Time







## DRILL STEM TEST REPORT

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

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Saman Sharifaie

### **Burk Trust 'D' #4-23**

### **23-1s-36w Rawlins,KS**

Start Date: 2014.05.09 @ 13:40:00

End Date: 2014.05.09 @ 20:50:00

Job Ticket #: 58158                      DST #: 3

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

Printed: 2014.05.13 @ 11:05:50



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins, KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58158

**DST#: 3**

ATTN: Saman Sharifaie

Test Start: 2014.05.09 @ 13:40:00

## GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:44:30

Time Test Ended: 20:50:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 4382.00 ft (KB) To 4440.00 ft (KB) (TVD)**

Reference Elevations: 3287.00 ft (KB)

Total Depth: 4440.00 ft (KB) (TVD)

3276.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 29.69 psig @ 4383.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.09

End Date:

2014.05.09

Last Calib.:

2014.05.09

Start Time:

13:40:05

End Time:

20:49:59

Time On Btm:

2014.05.09 @ 15:44:15

Time Off Btm:

2014.05.09 @ 18:53:15

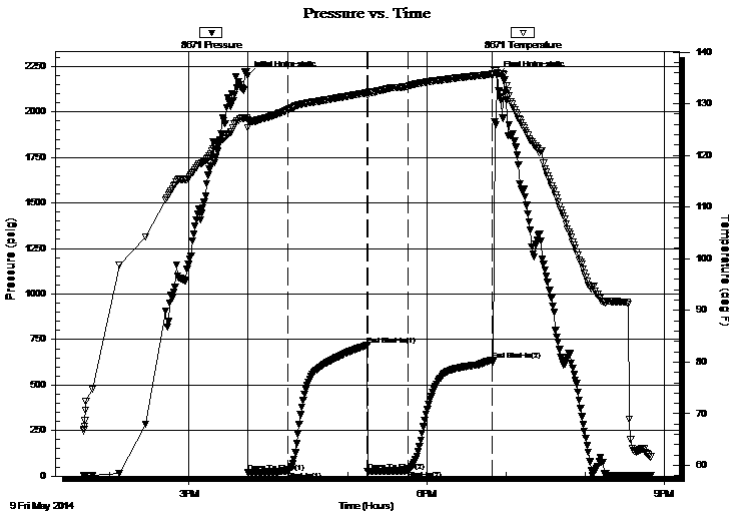
**TEST COMMENT:** 30 - IF: Blow built to 1/2", blew at 1/2" dying slightly by close

60 - ISI: No blow back

30 - FF: No blow

60 - FSI: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2199.71	126.91	Initial Hydro-static
1	18.57	125.40	Open To Flow (1)
31	25.07	128.86	Shut-In(1)
91	718.32	132.11	End Shut-In(1)
91	26.08	131.61	Open To Flow (2)
121	29.69	133.38	Shut-In(2)
185	638.61	135.71	End Shut-In(2)
189	2199.25	135.92	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 88% m, 10% o, 2% g	0.10

## 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.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58158

**DST#: 3**

ATTN: Saman Sharifaie

Test Start: 2014.05.09 @ 13:40:00

## Tool Information

Drill Pipe:	Length: 4161.00 ft	Diameter: 3.80 inches	Volume: 58.37 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: 204.00 ft	Diameter: 2.25 inches	Volume: 1.00 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 59.37 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4382.00 ft			Final 82000.00 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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Shut In Tool	5.00			4359.00	
Hydraulic tool	5.00			4364.00	
Jars	5.00			4369.00	
Safety Joint	3.00			4372.00	
Packer	5.00			4377.00	28.00 Bottom Of Top Packer
Packer	5.00			4382.00	
Stubb	1.00			4383.00	
Recorder	0.00	8671	Inside	4383.00	
Recorder	0.00	8320	Outside	4383.00	
Perforations	21.00			4404.00	
Blank Spacing	33.00			4437.00	
Bullnose	3.00			4440.00	58.00 Bottom Packers & Anchor

**Total Tool Length: 86.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58158

**DST#: 3**

ATTN: Saman Sharifaie

Test Start: 2014.05.09 @ 13:40:00

### 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: 48.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OCM 88% <sub>m</sub> , 10% <sub>o</sub> , 2% <sub>g</sub>	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

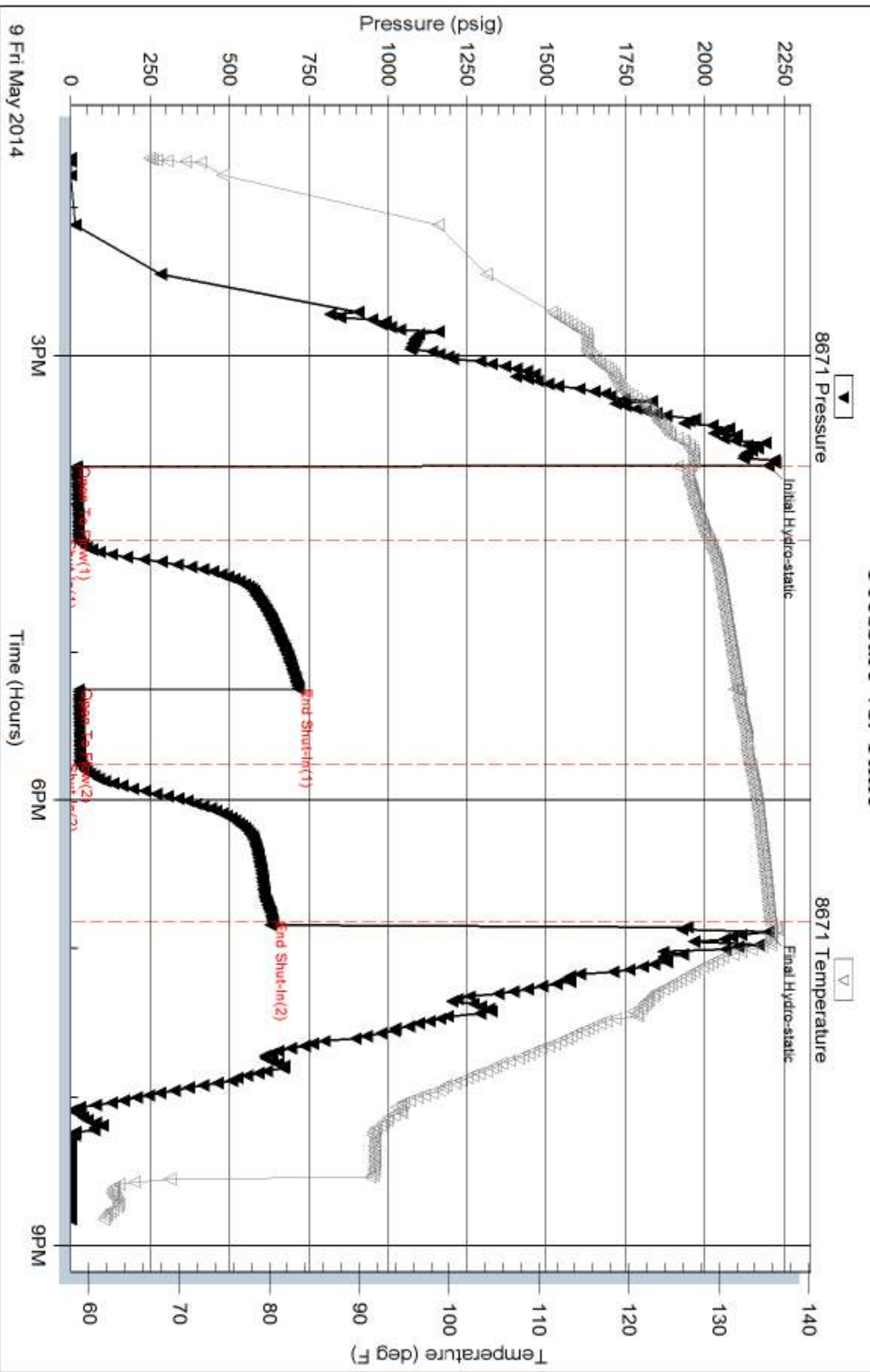
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

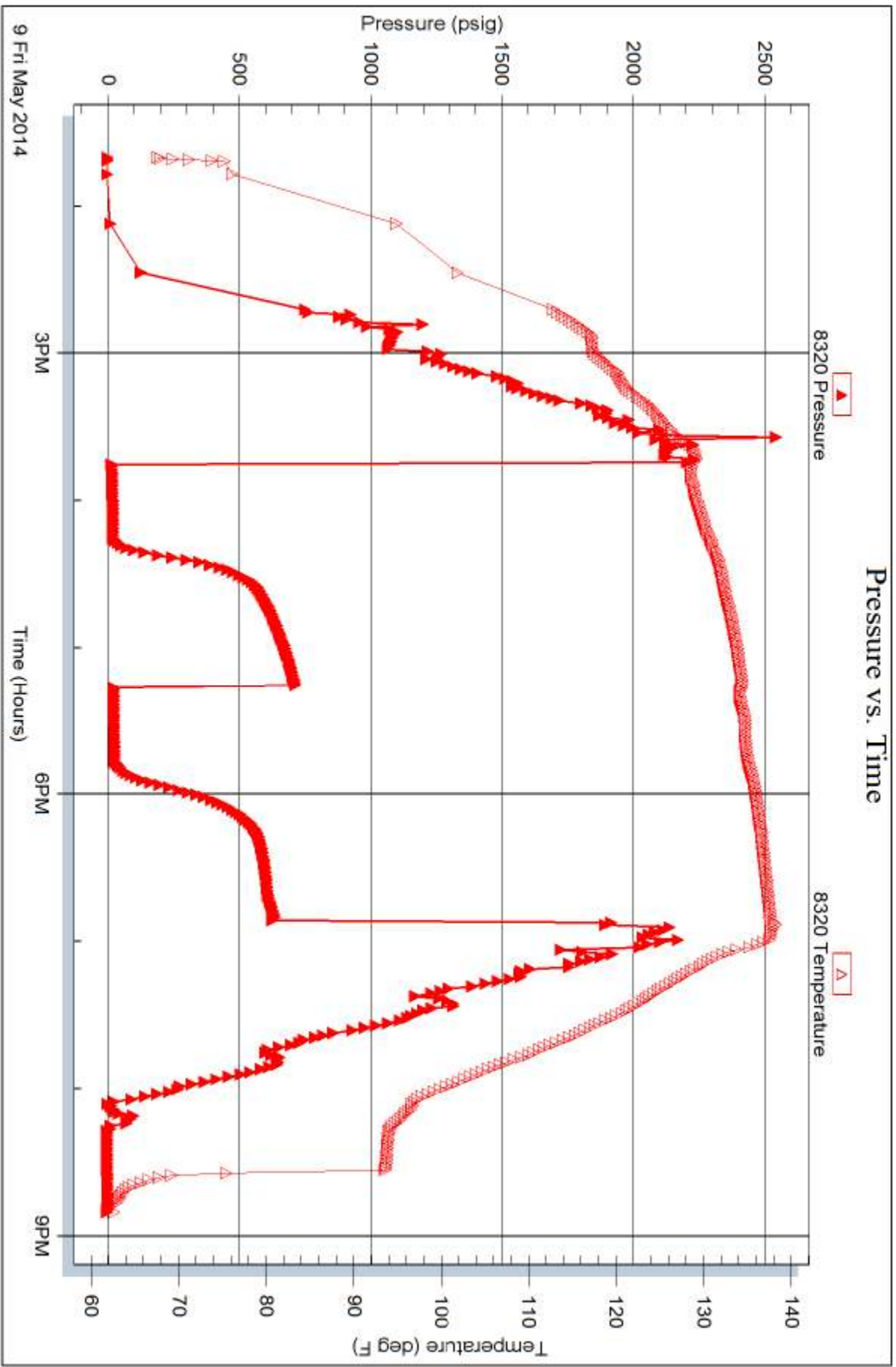


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Burk Trust 'D' #4-23

DST Test Number: 3





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **58156**

4/10

Well Name & No. Burk Trust 'D' #4-23 Test No. 1 Date 5-7-14  
 Company Murfin Drilling Co. Inc. Elevation 3287 KB 3276 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #2  
 Location: Sec. 23 Twp. 1S Rge. 36W Co. Rawlins State KS

Interval Tested 4082 ~~4050~~ - 4140 Zone Tested Oread  
 Anchor Length 58 Drill Pipe Run 3879 Mud Wt. 9.2  
 Top Packer Depth 4073 Drill Collars Run 204 Vis 56  
 Bottom Packer Depth 4078 Wt. Pipe Run - WL 6.8  
 Total Depth 4140 Chlorides 600 ppm System LCM 12

Blow Description IF: Blow built to 7"  
ISI: No blowback  
FF: Blow built to 7 1/2"  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>CO</u>	<u>3</u>	<u>93</u>	<u>-</u>	<u>4</u>
<u>42</u>	<u>OWCM</u>	<u>5</u>	<u>8</u>	<u>14</u>	<u>73</u>
<u>176</u>	<u>SOCWM</u>	<u>3</u>	<u>4</u>	<u>42</u>	<u>51</u>
<u>        </u>	<u>GIP=45'</u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

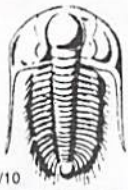
Rec Total 258 BHT 136 Gravity 24.8 API RW .520 @ 70.2 °F Chlorides 12,500 ppm

(A) Initial Hydrostatic 2156  Test 1250 T-On Location 11:00  
 (B) First Initial Flow 26  Jars 250 T-Started 11:53  
 (C) First Final Flow 84  Safety Joint 75 T-Open 14:13  
 (D) Initial Shut-In 216  Circ Sub \_\_\_\_\_ T-Pulled 18:15  
 (E) Second Initial Flow 89  Hourly Standby \_\_\_\_\_ T-Out 20:15  
 (F) Second Final Flow 131  Mileage 120RT 186 Comments \_\_\_\_\_  
 (G) Final Shut-In 216  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2012  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 1761  
 Final Shut-In 90  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1761

Approved By [Signature] Our Representative James Winder

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. **58157**

4/10

Well Name & No. Burk Trust 'D' #4-23 Test No. 2 Date 5-8-14  
 Company Murfin Drilling Co. Inc Elevation 3287 KB 3276 GL  
 Address 250 N. Water STE 300 Wichita, KS 67202  
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #2  
 Location: Sec. 23 Twp. 15 Rge. 36w Co. Rawlins State KS

Interval Tested 4234 - 4300 Zone Tested LKC "D"  
 Anchor Length 66 Drill Pipe Run 4034 Mud Wt. 9.2  
 Top Packer Depth 4229 Drill Collars Run 204 Vis 62  
 Bottom Packer Depth 4234 Wt. Pipe Run - WL 6.0  
 Total Depth 4300 Chlorides 700 ppm System LCM 12

Blow Description IF: Blow built to BOB (11") at 22 min.  
ISI: Blowback built to 1/2"  
FF: Blow built to BOB at 33 min.  
FSI: Blowback built to 2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>68</u>	<u>C60</u>	<u>17</u>	<u>79</u>	<u>-</u>	<u>4</u>
<u>63</u>	<u>60wcm</u>	<u>10</u>	<u>18 mixture</u>	<u>17</u>	<u>55</u>
<u>179</u>	<u>50/wcm</u>	<u>5</u>	<u>4</u>	<u>26</u>	<u>65</u>
<u>58</u>	<u>0mcm</u>	<u>-</u>	<u>10</u>	<u>58</u>	<u>32</u>
<u>        </u>	<u>GIP=250'</u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

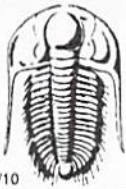
Rec Total 368 BHT 139 Gravity 24.8 API RW          @          °F Chlorides          ppm

(A) Initial Hydrostatic 2156  Test 1250 T-On Location 13:35  
 (B) First Initial Flow 24  Jars 250 T-Started 13:50  
 (C) First Final Flow 116  Safety Joint 75 T-Open 15:51  
 (D) Initial Shut-In 1096  Circ Sub          T-Pulled 19:53  
 (E) Second Initial Flow 121  Hourly Standby          T-Out 22:00  
 (F) Second Final Flow 180  Mileage 120 RT 186 Comments           
 (G) Final Shut-In 984  Sampler           
 (H) Final Hydrostatic 2032  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 1761  
 Final Shut-In 90  Accessibility          MP/DST Disc't           
 Sub Total 1761

Approved By          Our Representative James Winder

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **58158**

4/10

Well Name & No. Burk Trust 'D' #4-23 Test No. 3 Date 5-9-14  
 Company Murfin Drilling Co, Inc. Elevation 3287 KB 3276 GL  
 Address 250 N. Water STE 300 Wichita Ks 67202  
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #2  
 Location: Sec. 23 Twp. 15 Rge. 36w Co. Rawlins State Ks

Interval Tested 4382 - 4440 Zone Tested LKC "J"  
 Anchor Length 58 Drill Pipe Run 4161 Mud Wt. 9.1  
 Top Packer Depth ~~4377~~ 4377 Drill Collars Run 204 Vis 48  
 Bottom Packer Depth 4382 Wt. Pipe Run - WL 6.4  
 Total Depth 4440 Chlorides 600 ppm System LCM 6

Blow Description IF: Blow built to 1/2", blew at 1/2" dieing slightly by close  
ISI: No blowback  
FF: No blow  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>0cm</u>	<u>2</u>	<u>10</u>	<u>-</u>	<u>88</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 136 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2200  Test 1250 T-On Location 12:30  
 (B) First Initial Flow 19  Jars 250 T-Started 13:40  
 (C) First Final Flow 25  Safety Joint 75 T-Open 15:44  
 (D) Initial Shut-In 718  Circ Sub \_\_\_\_\_ T-Pulled 18:49  
 (E) Second Initial Flow 26  Hourly Standby \_\_\_\_\_ T-Out 20:45  
 (F) Second Final Flow 30  Mileage RT 120 186 Comments \_\_\_\_\_  
 (G) Final Shut-In 639  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2200  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1761  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1761

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

Approved By [Signature] Our Representative James Winder

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