



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67202

ATTN: Clayton Erickson

Burk Trust C #1-22

22-1s-36w Rawlins,KS

Start Date: 2013.09.15 @ 03:13:00

End Date: 2013.09.15 @ 13:03:40

Job Ticket #: 53518 DST #: 1

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

Printed: 2013.09.20 @ 11:02:34

Murfin Drilling Co. 22-1s-36w Rawlins,KS Burk Trust C #1-22 DST # 1 Oread 2013.09.15



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.

22-1s-36w Rawlins, KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53518

DST#: 1

ATTN: Clayton Erickson

Test Start: 2013.09.15 @ 03:13:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:59:30

Time Test Ended: 13:03:40

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Nichols

Unit No: 41

Interval: 4014.00 ft (KB) To 4047.00 ft (KB) (TVD)

Total Depth: 4047.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3225.00 ft (KB)

3220.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 289.65 psig @ 4015.00 ft (KB)

Start Date: 2013.09.15

End Date: 2013.09.15

Start Time: 03:13:01

End Time: 13:03:40

Capacity: 8000.00 psig

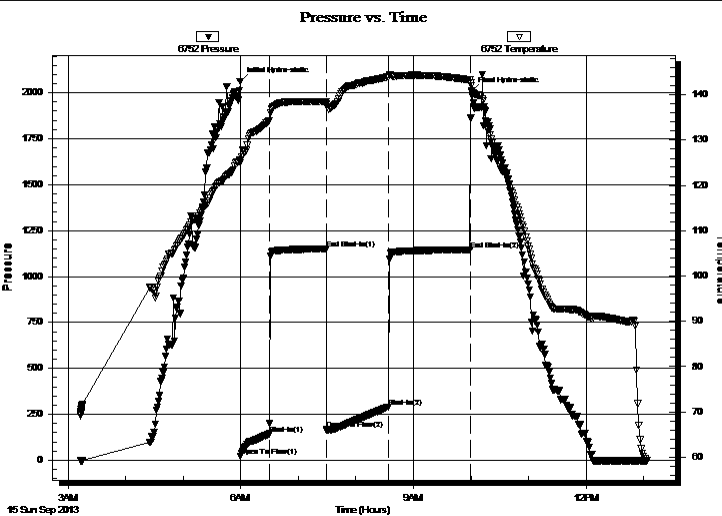
Last Calib.: 2013.09.15

Time On Btm: 2013.09.15 @ 05:59:20

Time Off Btm: 2013.09.15 @ 10:00:20

TEST COMMENT: 30 IF - Surface blow built to BoB @ 13 mins
60 ISI - Surface blow started @ 5 mins built to 2 1/2"
60 FF - Surface blow built to BoB @ 17 mins
90 FSI - Surface blow started @ 10 mins built to 3 1/4"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2061.73	125.51	Initial Hydro-static
1	23.09	125.06	Open To Flow (1)
31	144.39	134.36	Shut-In(1)
90	1150.26	138.46	End Shut-In(1)
90	168.16	138.09	Open To Flow (2)
155	289.65	143.93	Shut-In(2)
240	1146.44	143.25	End Shut-In(2)
242	2007.71	142.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	OCM - 50%o - 50%M	0.62
618.00	GO - 15%G - 85%o	8.20

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

22-1s-36w Rawlins, KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53518

DST#: 1

ATTN: Clayton Erickson

Test Start: 2013.09.15 @ 03:13:00

Tool Information

Drill Pipe:	Length: 3827.00 ft	Diameter: 3.80 inches	Volume: 53.68 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:	250000.0 lb
Drill Collar:	Length: 177.00 ft	Diameter: 2.25 inches	Volume: 0.87 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 54.55 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	4014.00 ft			Final	54000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	33.00 ft				
Tool Length:	60.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3988.00	
Shut In Tool	5.00			3993.00	
Hydraulic tool	5.00			3998.00	
Jars	5.00			4003.00	
Safety Joint	2.00			4005.00	
Packer	5.00			4010.00	27.00 Bottom Of Top Packer
Packer	4.00			4014.00	
Stubb	1.00			4015.00	
Recorder	0.00	6752	Inside	4015.00	
Recorder	0.00	8322	Outside	4015.00	
Perforations	29.00			4044.00	
Bullnose	3.00			4047.00	33.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

22-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53518

DST#: 1

ATTN: Clayton Erickson

Test Start: 2013.09.15 @ 03:13:00

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: 76.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

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
126.00	OCM - 50%o - 50%M	0.620
618.00	GO - 15%G - 85%o	8.204

Total Length: 744.00 ft Total Volume: 8.824 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

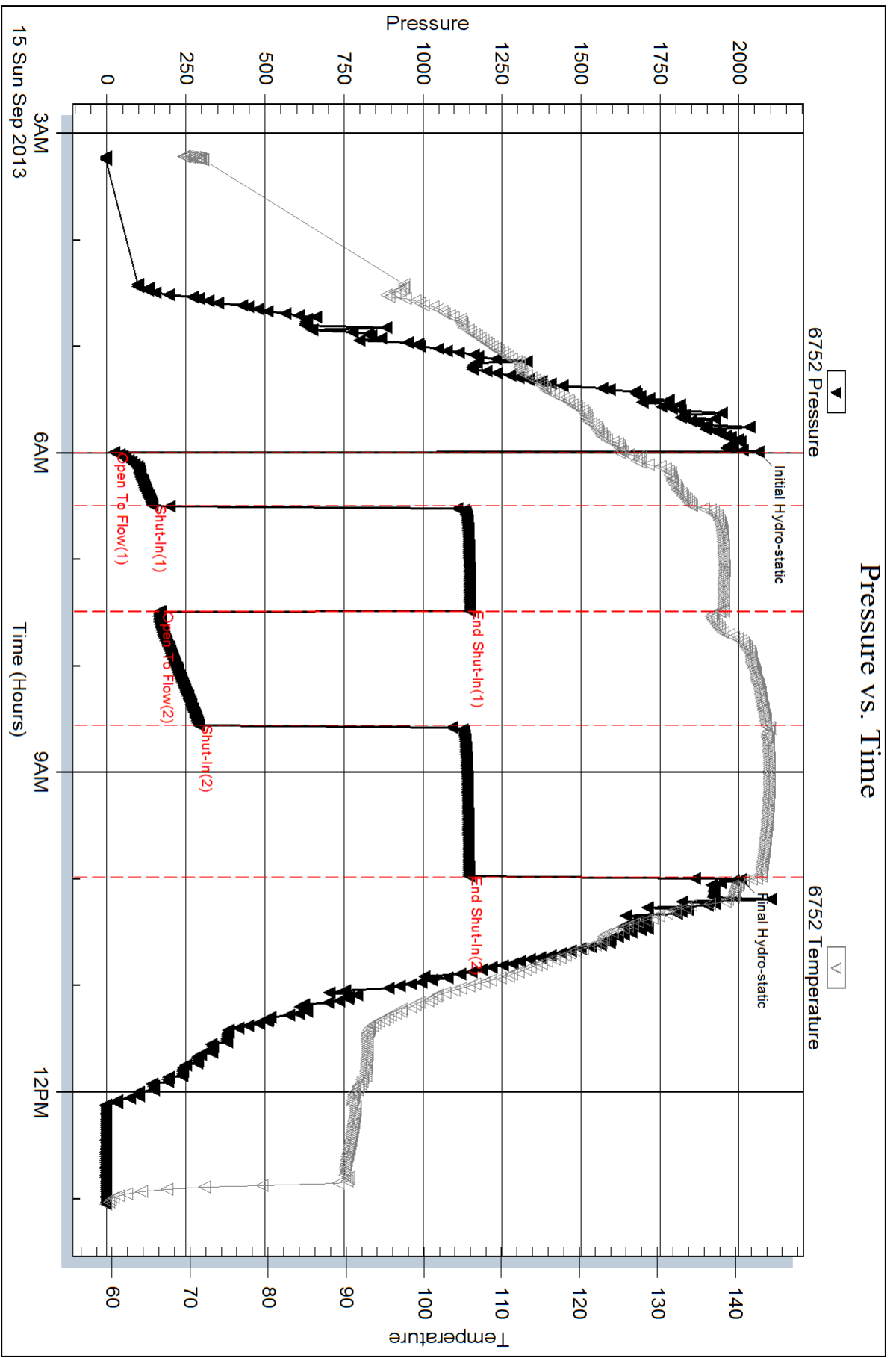
Serial #: 6752

Inside

Murfin Drilling Co.

Burk Trust C#1-22

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 53518

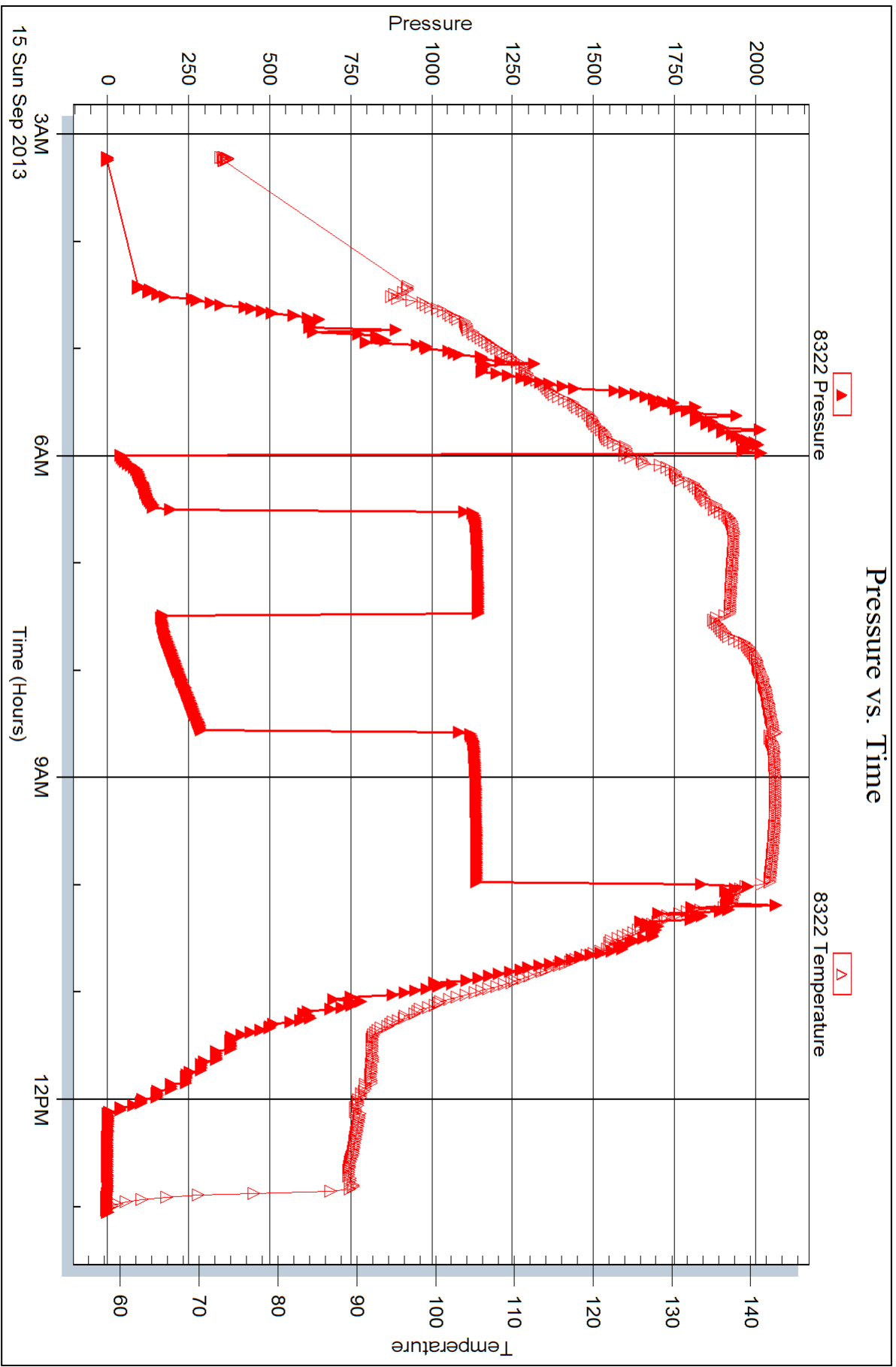
Printed: 2013.09.20 @ 11:02:36

Serial #: 8322

Outside Murfin Drilling Co.

Burk Trust C#1-22

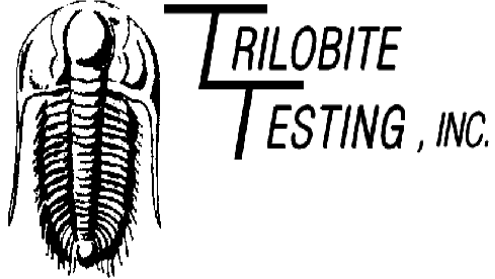
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 53518

Printed: 2013.09.20 @ 11:02:36



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67202

ATTN: Clayton Erickson

Burk Trust C #1-22

22-1s-36w Rawlins,KS

Start Date: 2013.09.16 @ 22:02:00

End Date: 2013.09.17 @ 08:58:30

Job Ticket #: 53519 DST #: 2

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

Printed: 2013.09.20 @ 11:01:53

Murfin Drilling Co.
22-1s-36w Rawlins,KS
Burk Trust C #1-22
DST # 2
LKC " D "
2013.09.16



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.

22-1s-36w Rawlins, KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53519

DST#: 2

ATTN: Clayton Erickson

Test Start: 2013.09.16 @ 22:02:00

GENERAL INFORMATION:

Formation: **LKC " D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:29:20

Time Test Ended: 08:58:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 41

Interval: 4160.00 ft (KB) To 4220.00 ft (KB) (TVD)

Reference Elevations: 3225.00 ft (KB)

Total Depth: 4220.00 ft (KB) (TVD)

3220.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6752

Inside

Press @ Run Depth: 471.27 psig @ 4161.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.16

End Date: 2013.09.16

Last Calib.: 2013.09.16

Start Time: 10:02:01

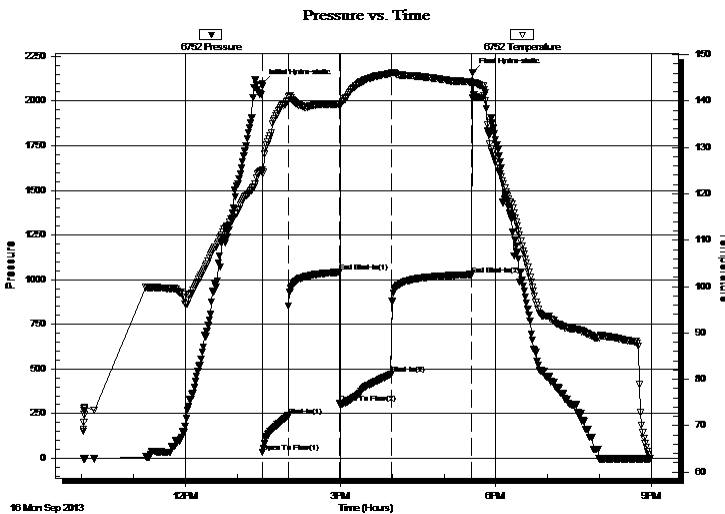
End Time: 20:58:30

Time On Btm: 2013.09.16 @ 13:29:10

Time Off Btm: 2013.09.16 @ 17:33:09

TEST COMMENT: 30 IF - 1" blow built to BoB @ 7 mins
60 ISI - Surface blow return started @ 1 min built to 3"
60 FF - 1/2" blow built to BoB @ 10 mins
90 FSI - Surface blow return started @ 3 mins built to 1"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2097.73	125.17	Initial Hydro-static
1	33.15	124.80	Open To Flow (1)
30	237.44	140.13	Shut-In(1)
90	1041.99	139.30	End Shut-In(1)
90	307.84	139.09	Open To Flow (2)
150	471.27	145.98	Shut-In(2)
243	1028.37	144.02	End Shut-In(2)
244	2160.19	143.35	Final Hydro-static

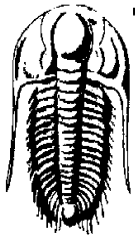
Recovery

Length (ft)	Description	Volume (bbl)
346.00	GOMCW - 20%G - 20%o - 5%M - 55%W	3.24
252.00	GOMCW - 25%G 20%o - 10%M 45%W	3.53
305.00	GOMCW - 20%G - 20%o - 35%M - 35%W	4.28
62.00	GOM - 5%G - 35%o - 60%M	0.87
50.00	GO - %5G - 95%o	0.70
0.00	30' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water STE 300
Wichita KS 67202
ATTN: Clayton Erickson

22-1s-36w Rawlins, KS

Burk Trust C #1-22

Job Ticket: 53519 **DST#: 2**
Test Start: 2013.09.16 @ 22:02:00

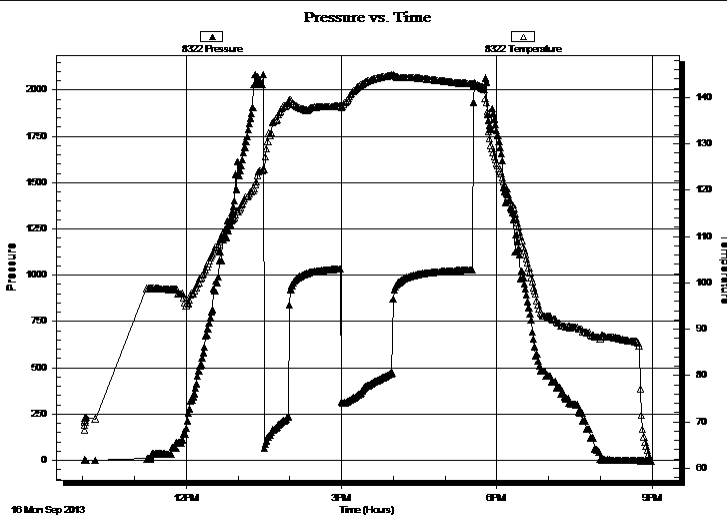
GENERAL INFORMATION:

Formation: LKC " D "		
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 01:29:20		Tester: Ryan Nichols
Time Test Ended: 08:58:30		Unit No: 41
Interval: 4160.00 ft (KB) To 4220.00 ft (KB) (TVD)		Reference Elevations: 3225.00 ft (KB)
Total Depth: 4220.00 ft (KB) (TVD)		3220.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Good	KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

Press @ Run Depth: psig @ 4161.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2013.09.16 End Date: 2013.09.16	Last Calib.: 2013.09.16
Start Time: 10:02:01 End Time: 20:58:30	Time On Btm:
	Time Off Btm:

TEST COMMENT: 30 IF - 1" blow built to BoB @ 7 mins
60 ISI - Surface blow return started @ 1 min built to 3"
60 FF - 1/2" blow built to BoB @ 10 mins
90 FSI - Surface blow return started @ 3 mins built to 1"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
346.00	GOMCW - 20%G - 20%o - 5%M - 55%W	3.24
252.00	GOMCW - 25%G 20%o - 10%M 45%W	3.53
305.00	GOMCW - 20%G - 20%o - 35%M - 35%W	4.28
62.00	GOM - 5%G - 35%o - 60%M	0.87
50.00	GO - %5G - 95%o	0.70
0.00	30' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

22-1s-36w Rawlins, KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53519

DST#: 2

ATTN: Clayton Erickson

Test Start: 2013.09.16 @ 22:02:00

Tool Information

Drill Pipe:	Length: 3986.00 ft	Diameter: 3.80 inches	Volume: 55.91 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: 177.00 ft	Diameter: 2.25 inches	Volume: 0.87 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 56.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4160.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	60.00 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			4134.00	
Shut In Tool	5.00			4139.00	
Hydraulic tool	5.00			4144.00	
Jars	5.00			4149.00	
Safety Joint	2.00			4151.00	
Packer	5.00			4156.00	27.00 Bottom Of Top Packer
Packer	4.00			4160.00	
Stubb	1.00			4161.00	
Recorder	0.00	6752	Inside	4161.00	
Recorder	0.00	8322	Outside	4161.00	
Perforations	29.00			4190.00	
Bullnose	3.00			4193.00	33.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

22-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53519

DST#: 2

ATTN: Clayton Erickson

Test Start: 2013.09.16 @ 22:02:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 65.00 sec/qt
Water Loss: 5.99 in³
Resistivity: ohm.m
Salinity: 700.00 ppm
Filter Cake: 2.00 inches

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

Oil API: 23.8 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

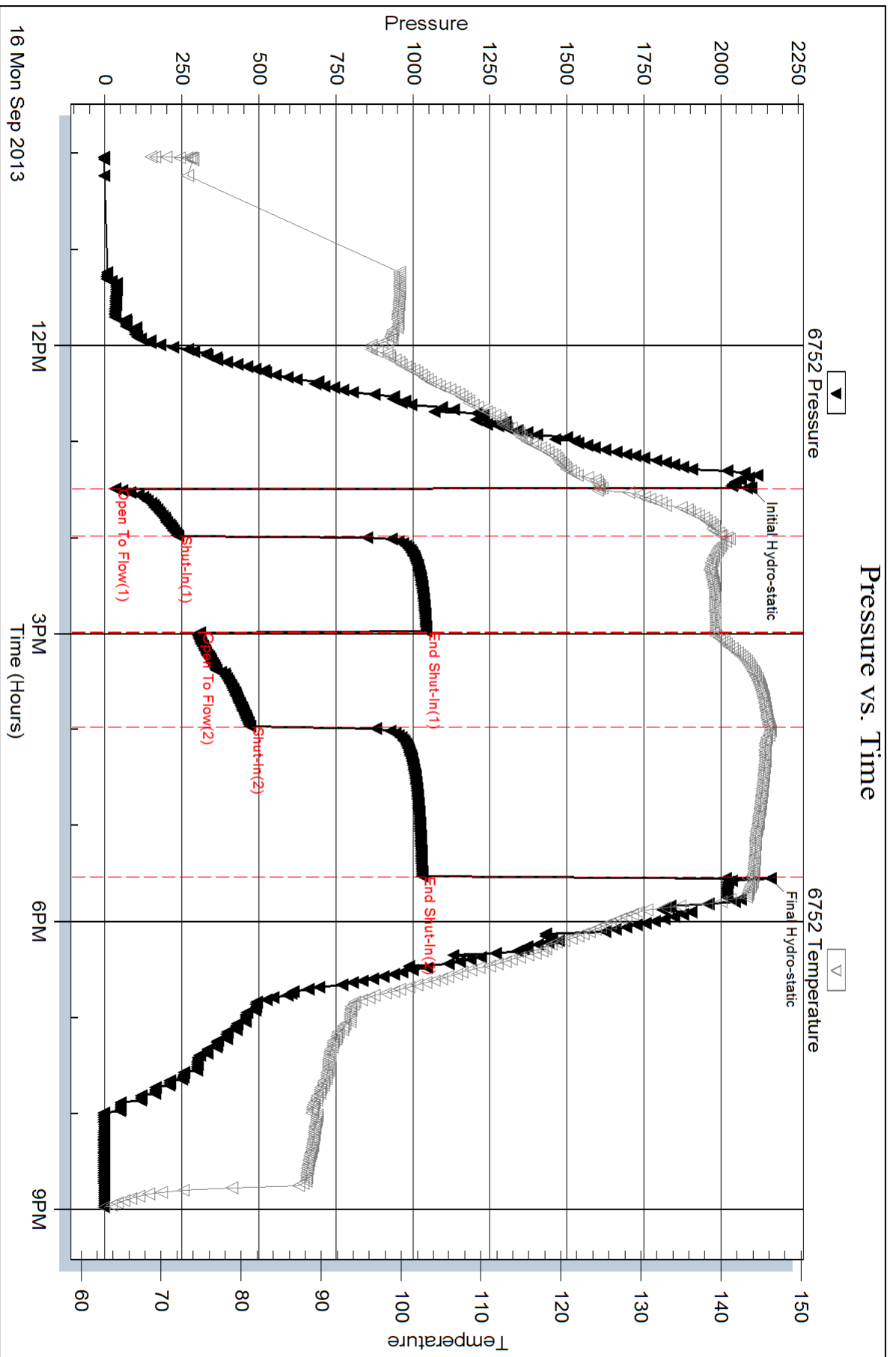
Length ft	Description	Volume bbl
346.00	GOMCW - 20%G - 20%o - 5%M - 55%W	3.241
252.00	GOMCW - 25%G 20%o - 10%M 45%W	3.535
305.00	GOMCW - 20%G - 20%o - 35%M - 35%W	4.278
62.00	GOM - 5%G - 35%o - 60%M	0.870
50.00	GO - %5G - 95%o	0.701
0.00	30' GIP	0.000

Total Length: 1015.00 ft Total Volume: 12.625 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: OIL API = 24 @ 62 DEG F = 23.8 COR 60 DEG F

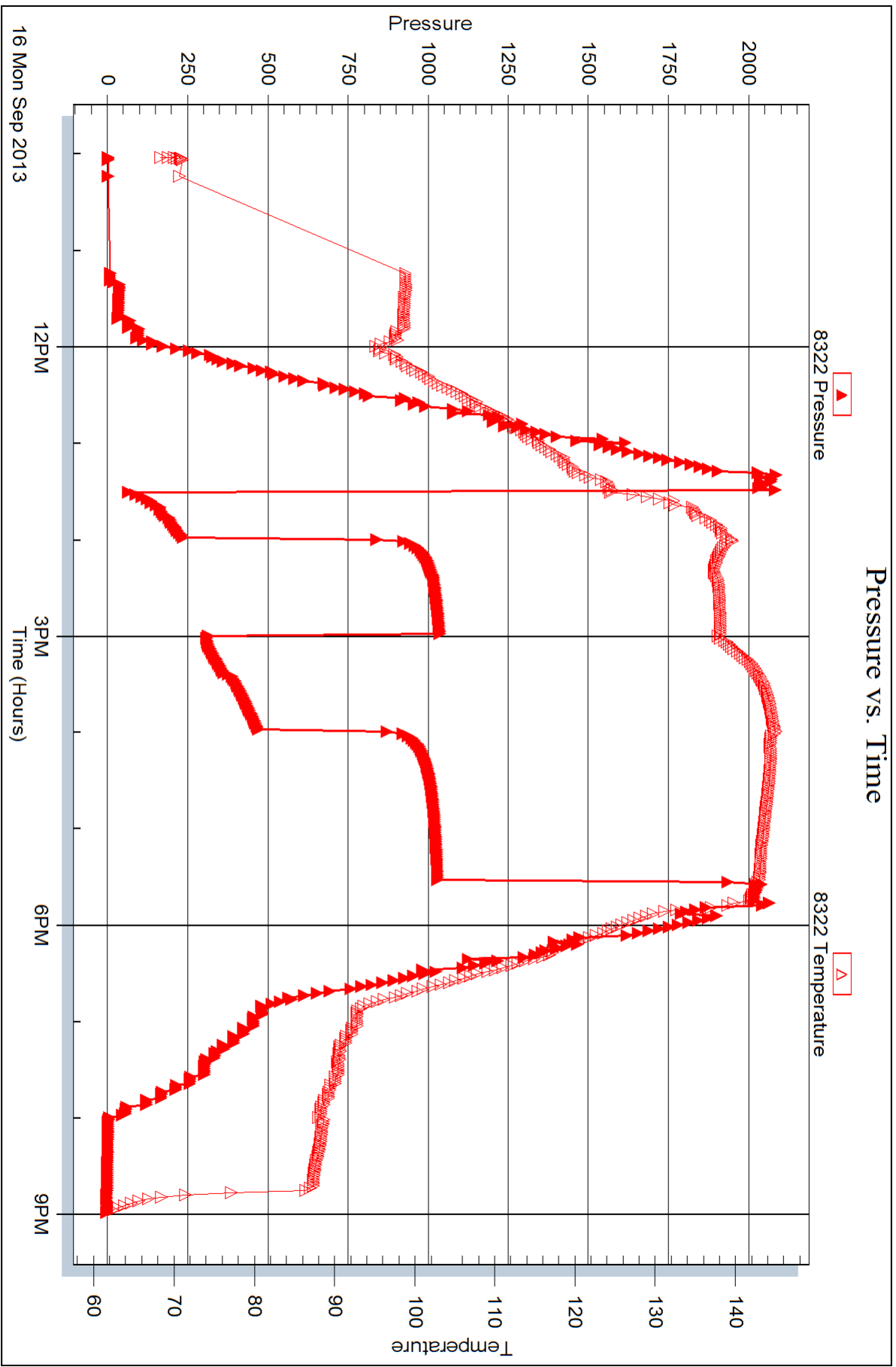


Serial #: 8322

Outside Murfin Drilling Co.

Burk Trust C#1-22

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67202

ATTN: Clayton Erickson

Burk Trust C #1-22

22-1s-36w Rawlins,KS

Start Date: 2013.09.17 @ 11:34:00

End Date: 2013.09.17 @ 21:48:10

Job Ticket #: 53520 DST #: 3

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

Printed: 2013.09.20 @ 11:01:03

Murfin Drilling Co. 22-1s-36w Rawlins,KS Burk Trust C #1-22 DST # 3 LKC " G - G2 " 2013.09.17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.

22-1s-36w Rawlins, KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

ATTN: Clayton Erickson

Job Ticket: 53520

DST#: 3

Test Start: 2013.09.17 @ 11:34:00

GENERAL INFORMATION:

Formation: **LKC " G - G2 "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:20:30

Time Test Ended: 21:48:10

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 41

Interval: 4232.00 ft (KB) To 4300.00 ft (KB) (TVD)

Reference Elevations: 3225.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

3220.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6752

Inside

Press @ Run Depth: 298.93 psig @ 4233.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.17

End Date:

2013.09.17

Last Calib.:

2013.09.17

Start Time: 11:34:01

End Time:

21:48:10

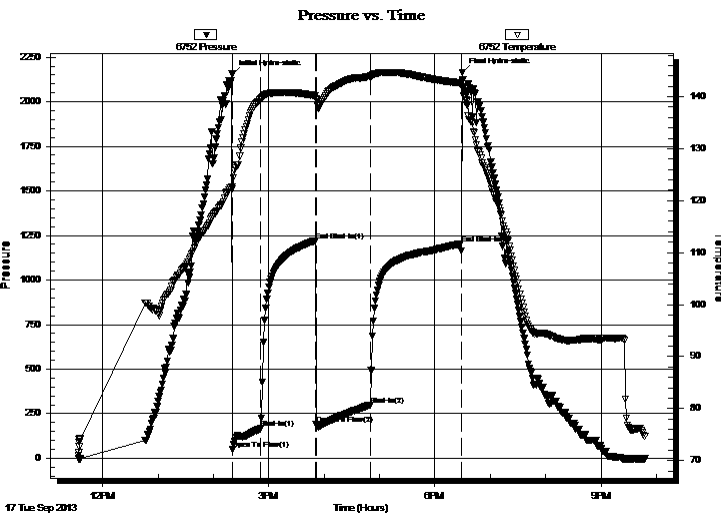
Time On Btm:

2013.09.17 @ 14:20:10

Time Off Btm:

2013.09.17 @ 18:29:39

TEST COMMENT: 30 IF - 1" blow built to BoB @ 7 mins
60 ISI - Surface blow built to BoB @ 30 mins
60 FF - Surface blow built to BoB @ 9 mins
90 FSI - Surface blow built to BoB @ 46 mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2154.90	122.53	Initial Hydro-static
1	48.25	122.32	Open To Flow (1)
31	166.45	139.56	Shut-In(1)
91	1220.91	140.13	End Shut-In(1)
92	188.77	139.57	Open To Flow (2)
150	298.93	143.90	Shut-In(2)
249	1203.47	142.61	End Shut-In(2)
250	2164.87	142.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
303.00	GMCO - 10%G - 20%M - 70%o	2.64
514.00	GO - 35%G - 65%o	7.21
0.00	756' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

22-1s-36w Rawlins, KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

ATTN: Clayton Erickson

Job Ticket: 53520

DST#: 3

Test Start: 2013.09.17 @ 11:34:00

GENERAL INFORMATION:

Formation: **LKC " G - G2 "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:20:30

Time Test Ended: 21:48:10

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 41

Interval: 4232.00 ft (KB) To 4300.00 ft (KB) (TVD)

Total Depth: 4300.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3225.00 ft (KB)

3220.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

Press @ Run Depth: psig @ 4233.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.17

End Date:

2013.09.17

Last Calib.:

2013.09.17

Start Time: 11:34:01

End Time:

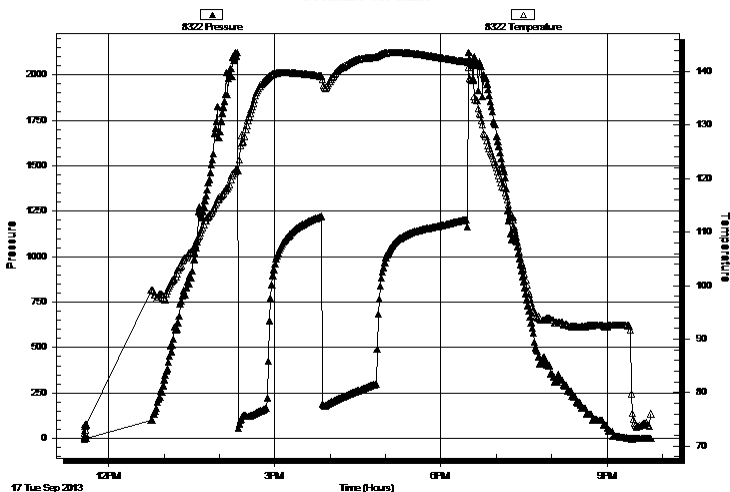
21:48:10

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 IF - 1" blow built to BoB @ 7 mins
60 ISI - Surface blow built to BoB @ 30 mins
60 FF - Surface blow built to BoB @ 9 mins
90 FSI - Surface blow built to BoB @ 46 mins

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
303.00	GMCO - 10%G - 20%M - 70%o	2.64
514.00	GO - 35%G - 65%o	7.21
0.00	756' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

22-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53520

DST#: 3

ATTN: Clayton Erickson

Test Start: 2013.09.17 @ 11:34:00

Tool Information

Drill Pipe:	Length: 4052.00 ft	Diameter: 3.80 inches	Volume: 56.84 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: 177.00 ft	Diameter: 2.25 inches	Volume: 0.87 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 57.71 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	4232.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	68.00 ft				
Tool Length:	95.00 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			4206.00	
Shut In Tool	5.00			4211.00	
Hydraulic tool	5.00			4216.00	
Jars	5.00			4221.00	
Safety Joint	2.00			4223.00	
Packer	5.00			4228.00	27.00 Bottom Of Top Packer
Packer	4.00			4232.00	
Stubb	1.00			4233.00	
Recorder	0.00	6752	Inside	4233.00	
Recorder	0.00	8322	Outside	4233.00	
Perforations	31.00			4264.00	
Change Over Sub	1.00			4265.00	
Drill Pipe	31.00			4296.00	
Change Over Sub	1.00			4297.00	
Bullnose	3.00			4300.00	68.00 Bottom Packers & Anchor

Total Tool Length: 95.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

22-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53520

DST#: 3

ATTN: Clayton Erickson

Test Start: 2013.09.17 @ 11:34:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

27.4 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
303.00	GMCO - 10%G - 20%M - 70%o	2.638
514.00	GO - 35%G - 65%o	7.210
0.00	756' GIP	0.000

Total Length: 817.00 ft Total Volume: 9.848 bbl

Num Fluid Samples: 0

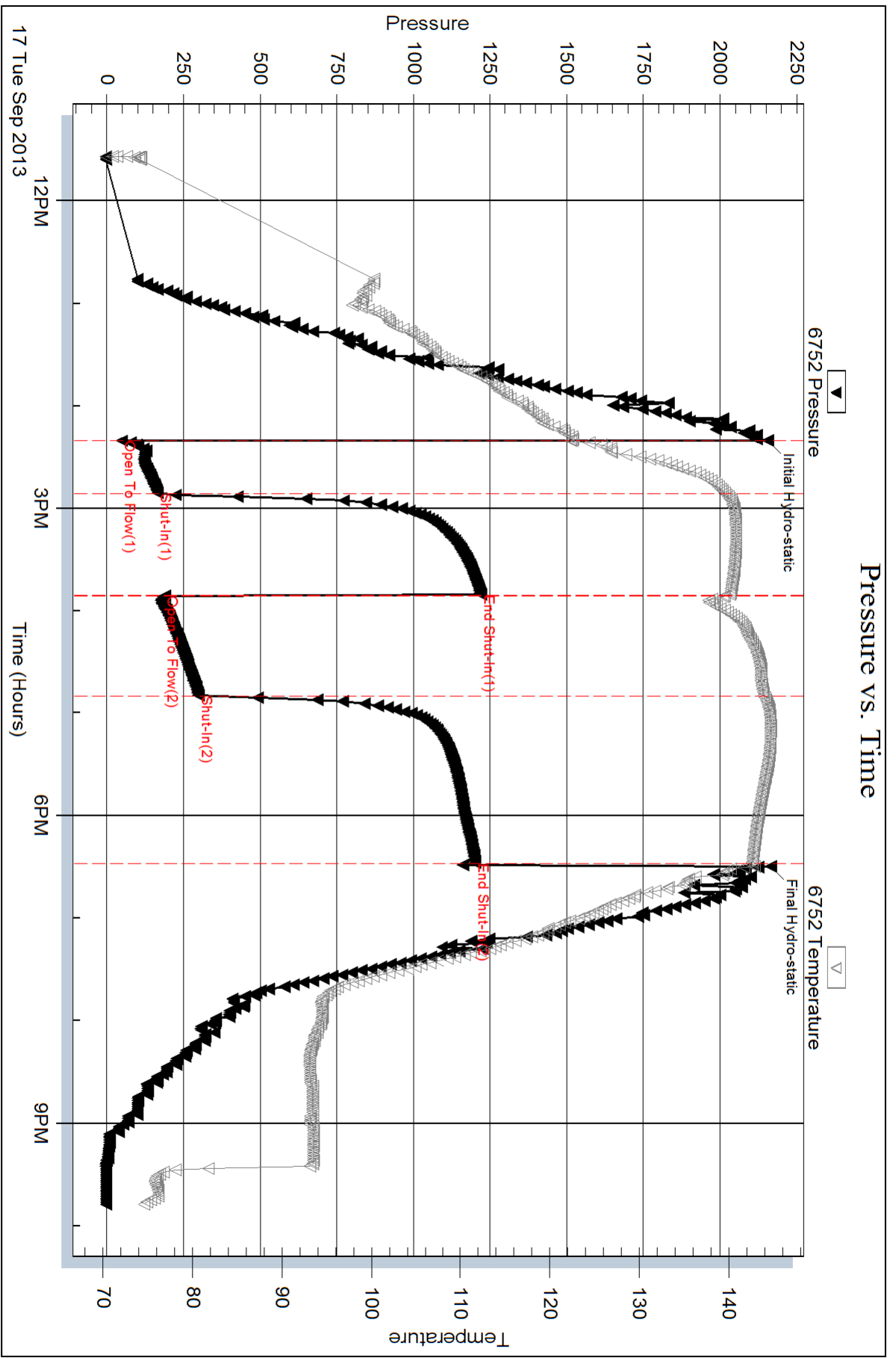
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: OIL API = 30 @ 86 DEG F = 27.4 COR 60 DEG F

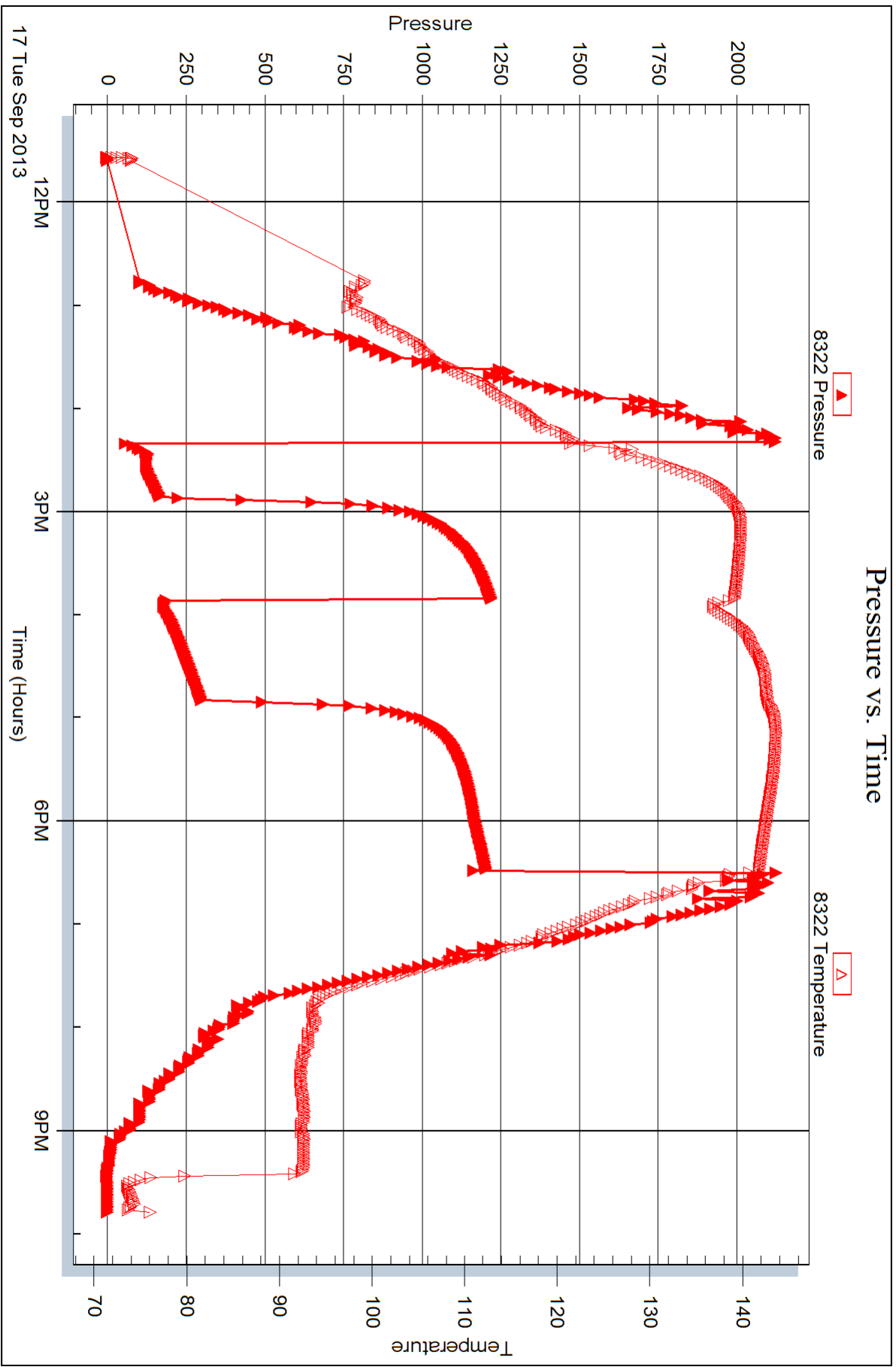


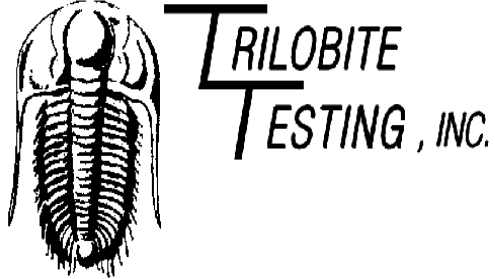
Serial #: 8322

Outside Murfin Drilling Co.

Burk Trust C#1-22

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE 300
Wichita KS 67202

ATTN: Clayton Erickson

Burk Trust C #1-22

22-1s-36w Rawlins,KS

Start Date: 2013.09.18 @ 10:39:00

End Date: 2013.09.18 @ 20:11:10

Job Ticket #: 53521 DST #: 4

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

Printed: 2013.09.20 @ 11:00:18



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.

22-1s-36w Rawlins, KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53521

DST#: 4

ATTN: Clayton Erickson

Test Start: 2013.09.18 @ 10:39:00

GENERAL INFORMATION:

Formation: **LKC " J "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:43:20
 Time Test Ended: 20:11:10
 Interval: **4312.00 ft (KB) To 4370.00 ft (KB) (TVD)**
 Total Depth: 4370.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Nichols
 Unit No: 41
 Reference Elevations: 3225.00 ft (KB)
 3220.00 ft (CF)
 KB to GR/CF: 5.00 ft

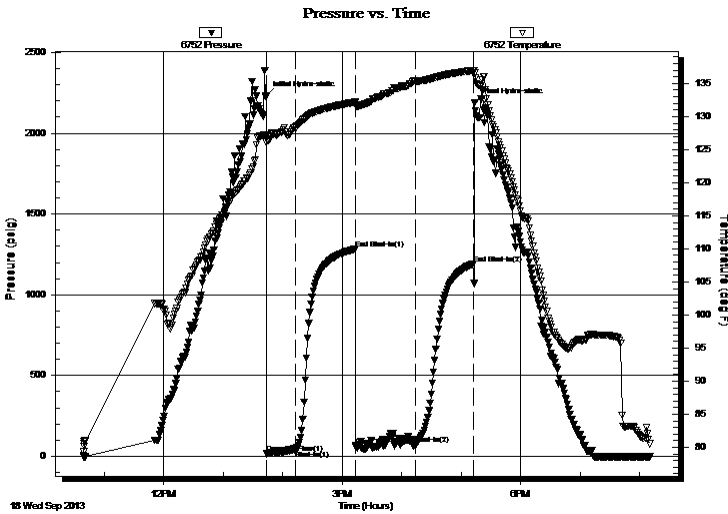
Serial #: 6752

Inside

Press @ Run Depth: 72.53 psig @ 4313.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.18 End Date: 2013.09.18 Last Calib.: 2013.09.18
 Start Time: 10:39:01 End Time: 20:11:10 Time On Btm: 2013.09.18 @ 13:43:10
 Time Off Btm: 2013.09.18 @ 17:14:00

TEST COMMENT: 30 IF - Surface blow built to 1 1/4"
 60 ISI - No return
 60 FF - Surface blow started @ 15 mins built to 1"
 60 FSI - No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2230.70	127.08	Initial Hydro-static
1	16.30	126.13	Open To Flow (1)
30	37.84	128.32	Shut-In(1)
90	1282.69	132.17	End Shut-In(1)
90	59.28	131.82	Open To Flow (2)
151	72.53	135.37	Shut-In(2)
210	1193.34	136.97	End Shut-In(2)
211	2190.58	136.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	OCM - 10%o - 90%M	0.32

* 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.

22-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53521

DST#: 4

ATTN: Clayton Erickson

Test Start: 2013.09.18 @ 10:39:00

Tool Information

Drill Pipe:	Length: 4114.00 ft	Diameter: 3.80 inches	Volume: 57.71 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: 177.00 ft	Diameter: 2.25 inches	Volume: 0.87 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 58.58 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4312.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	85.00 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			4286.00	
Shut In Tool	5.00			4291.00	
Hydraulic tool	5.00			4296.00	
Jars	5.00			4301.00	
Safety Joint	2.00			4303.00	
Packer	5.00			4308.00	27.00 Bottom Of Top Packer
Packer	4.00			4312.00	
Stubb	1.00			4313.00	
Recorder	0.00	6752	Inside	4313.00	
Recorder	0.00	8322	Outside	4313.00	
Perforations	21.00			4334.00	
Change Over Sub	1.00			4335.00	
Drill Pipe	31.00			4366.00	
Change Over Sub	1.00			4367.00	
Bullnose	3.00			4370.00	58.00 Bottom Packers & Anchor

Total Tool Length: 85.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

22-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita KS 67202

Burk Trust C #1-22

Job Ticket: 53521

DST#: 4

ATTN: Clayton Erickson

Test Start: 2013.09.18 @ 10:39:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	OCM - 10%o - 90%M	0.320

Total Length: 65.00 ft Total Volume: 0.320 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

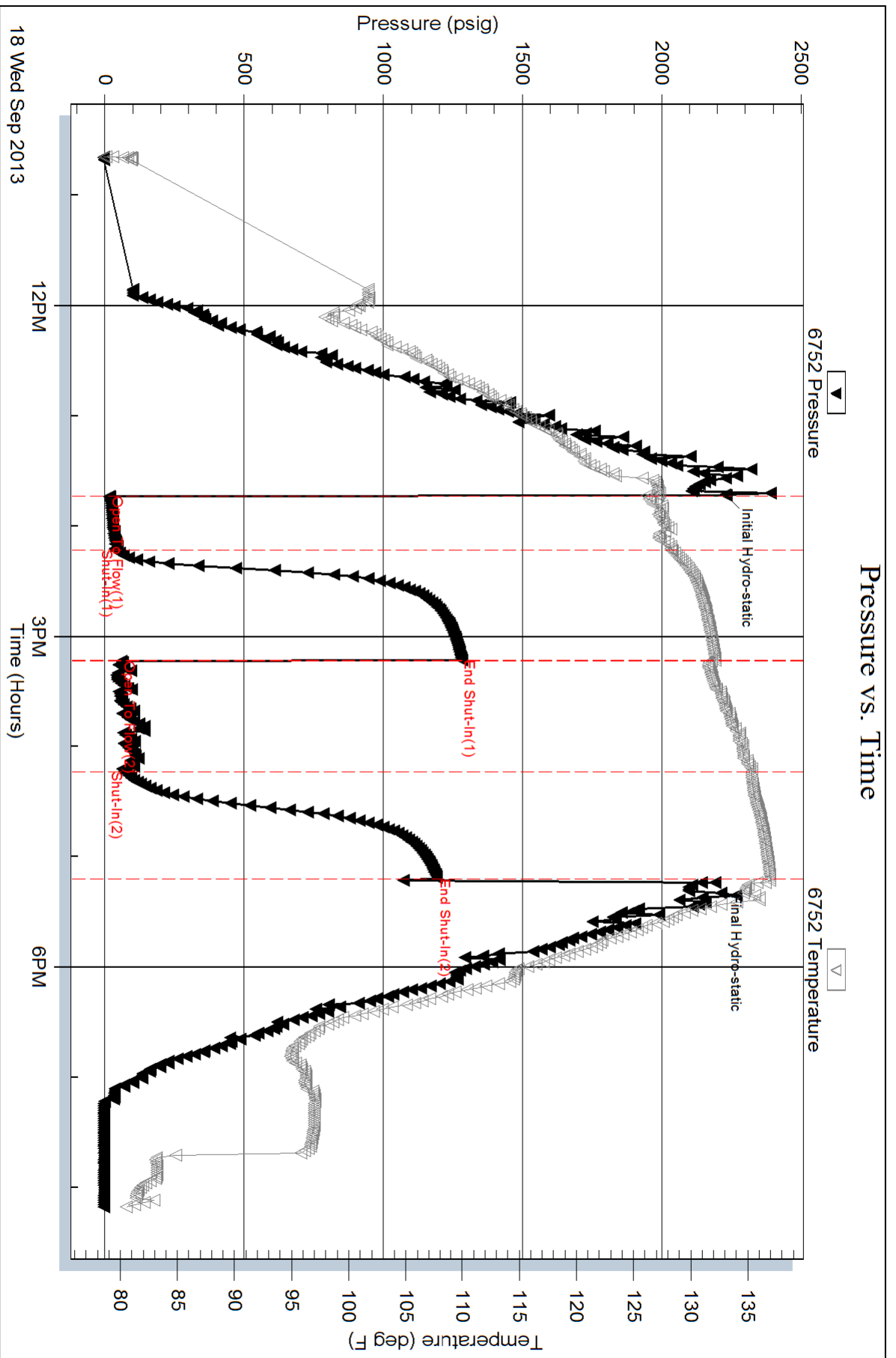
Serial #: 6752

Inside

Murfin Drilling Co.

Burk Trust C#1-22

DST Test Number: 4

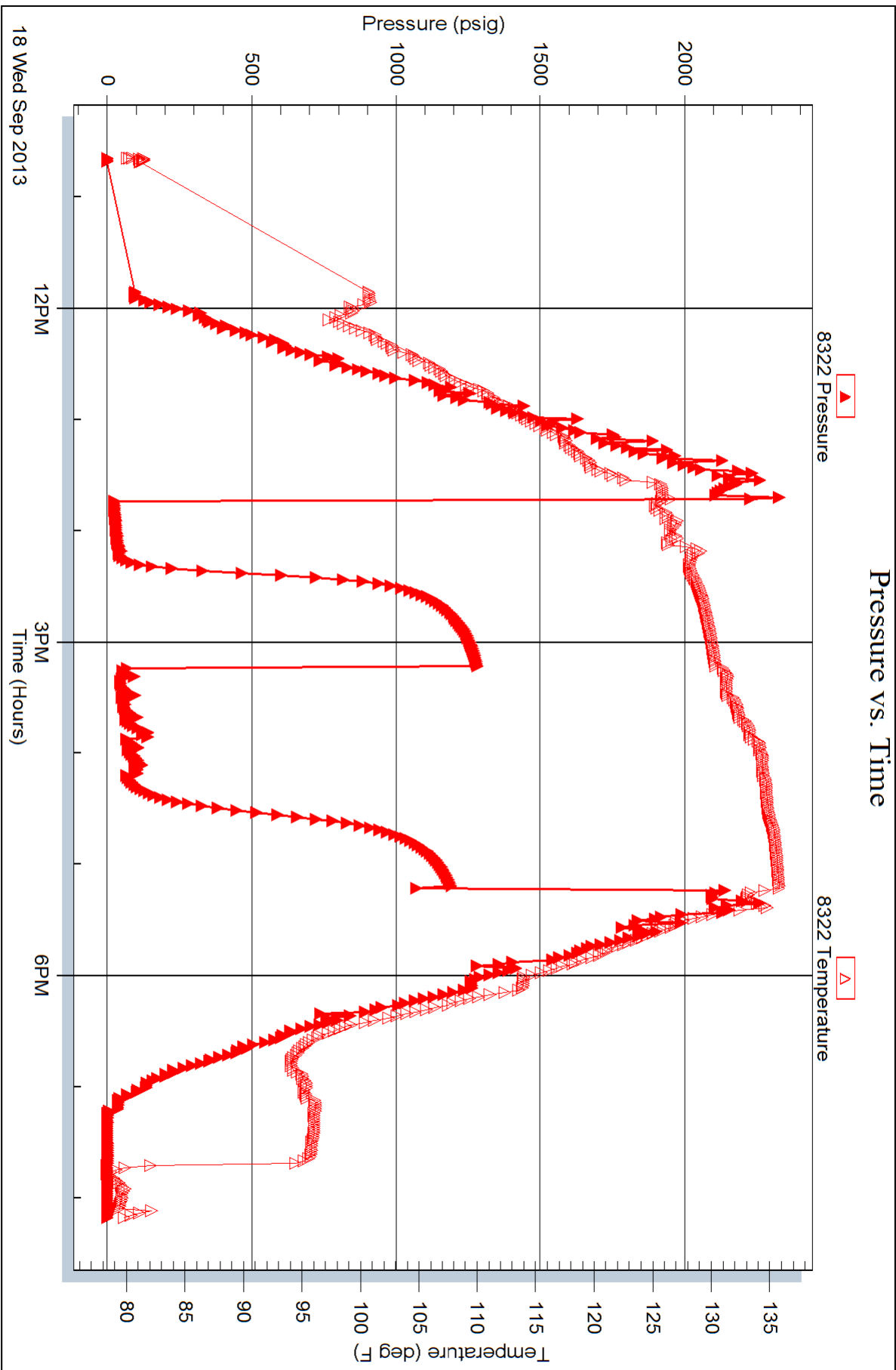


Serial #: 8322

Outside Murfin Drilling Co.

Burk Trust C#1-22

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 53521

Printed: 2013.09.20 @ 11:00:21



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53518

Well Name & No. Burk Trust C #1-22 Test No. 1 Date 9/19/13
 Company Martin Drilling Co. Elevation 3225 KB 3220 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Clayton Erickson Rig Martin #8
 Location: Sec. 22 Twp. 15 Rge. 36W Co. Rawlins State KS

Interval Tested 4014 - 4047 Zone Tested Oread
 Anchor Length 33' Drill Pipe Run 3827' Mud Wt. 9.2
 Top Packer Depth 4009 Drill Collars Run 177' Vis 76
 Bottom Packer Depth 4014 Wt. Pipe Run 0' WL 6.8
 Total Depth 4047 Chlorides 800 ppm System LCM 5

Blow Description IF - Surface blow built to Bob @ 13 mins
ISI - Surface blow started @ 5 mins built to 2 1/2"
FF - Surface blow built to Bob @ 17 mins
FSI - Surface blow started @ 10 mins built to 3 1/4"

Rec	Feet of	%gas	%oil	%water	%mud
<u>618'</u>	<u>60</u>	<u>15</u>	<u>85</u>		
<u>126'</u>	<u>OCM</u>		<u>50</u>		<u>50</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 744' BHT 143° Gravity 24.8 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2062</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>01:30</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>03:13</u>
(C) First Final Flow <u>144</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>05:05</u>
(D) Initial Shut-In <u>1150</u>	<input checked="" type="checkbox"/> Circ Sub <u>NL</u>	T-Pulled <u>09:59</u>
(E) Second Initial Flow <u>168</u>	<input checked="" type="checkbox"/> Hourly Standby <u>1 1/2</u> 150	T-Out <u>13:04</u>
(F) Second Final Flow <u>290</u>	<input checked="" type="checkbox"/> Mileage <u>122 RT</u> 189.10	Comments _____
(G) Final Shut-In <u>1146</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>2008</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____

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

Sub Total 1914.10

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. 53519

Well Name & No. Burk Trust C #1-22 Test No. 2 Date 9/16/13
 Company Murfin Drilling Co. Elevation 3225 KB 3220 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Clayton Erickson Rig Murfin #8
 Location: Sec. 22 Twp. 19 Rge. 36 W Co. Rawlins State KS

Interval Tested 4160 - 4220 Zone Tested 2KC "D"
 Anchor Length 60' Drill Pipe Run 3986' Mud Wt. 9.2
 Top Packer Depth 4155 Drill Collars Run 177' Vis 85
 Bottom Packer Depth 4160 Wt. Pipe Run 0' WL 6.0
 Total Depth 4220 Chlorides 700 ppm System LCM 5

Blow Description IF - 1" blow built to Bob @ 7 mins
ISI - Surface blow started @ 1 min built to 3"
FF - 1/2" blow built to Bob @ 10 mins
FSI - Surface blow started @ 3 mins built to 1"

Rec	Feet of	%gas	%oil	%water	%mud
<u>50'</u>	<u>60</u>	<u>5</u>	<u>95</u>		
<u>62'</u>	<u>GOCM</u>	<u>5</u>	<u>35</u>		<u>60</u>
<u>305'</u>	<u>GOMCW</u>	<u>20</u>	<u>10</u>	<u>35</u>	<u>35</u>
<u>252'</u>	<u>GOMCW</u>	<u>25</u>	<u>20</u>	<u>45</u>	<u>10</u>
<u>346'</u>	<u>GOMCW</u>	<u>20</u>	<u>20</u>	<u>55</u>	<u>5</u>

Rec Total _____ BHT _____ Gravity 23.8 API RW _____ @ _____ °F Chlorides _____ ppm

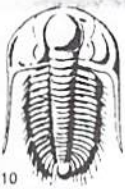
(A) Initial Hydrostatic 2098 Test 1250 T-On Location ~~09:00~~ 09:00
 (B) First Initial Flow 33 Jars 250 T-Started 10:02
 (C) First Final Flow 237 Safety Joint 75 T-Open 13:29
 (D) Initial Shut-In 1042 Circ Sub NC T-Pulled 17:29
 (E) Second Initial Flow 308 Hourly Standby X2 200 T-Out 20:58
 (F) Second Final Flow 471 Mileage 122 RT 189.10

(G) Final Shut-In 1028 Sampler _____
 (H) Final Hydrostatic 2160 Straddle _____
 Ruined Shale Packer _____
 Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Copies _____

Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1964.10
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1964.10

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. 53520

4/10

Well Name & No. Bark Trust C # 1-22 Test No. 3 Date 9/17/13
 Company Murfin Drilling Co. Elevation 3225 KB 3220 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Clayton Erickson Rig Murfin #8
 Location: Sec. 22 Twp. 15 Rge. 36W Co. Rawlins State KS

Interval Tested 4232 - 4300 Zone Tested LKC "G & G2"
 Anchor Length 68' Drill Pipe Run 4052 Mud Wt. 9.2
 Top Packer Depth 4227 Drill Collars Run 177' Vis 67
 Bottom Packer Depth 4232 Wt. Pipe Run 0' WL 6.0
 Total Depth 4300 Chlorides 1500 ppm System LCM 04

Blow Description IF - 1" built to BoB @ 7 mins
ISI - Surface blow built to BoB @ 30 mins
FF - Surface blow built to BoB @ 9 mins
FSI - Surface blow built to BoB @ 46 mins

Rec	Feet of	%gas	%oil	%water	%mud
<u>514</u>	<u>60</u>	<u>35</u>	<u>65</u>		
<u>303'</u>		<u>10</u>	<u>70</u>		<u>20</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 817' BHT 143° Gravity 27.4 API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2155</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>11:15</u>
(B) First Initial Flow <u>48</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>11:34</u>
(C) First Final Flow <u>166</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>14:21</u>
(D) Initial Shut-In <u>1221</u>	<input checked="" type="checkbox"/> Circ Sub <u>—</u>	T-Pulled <u>18:21</u>
(E) Second Initial Flow <u>189</u>	<input type="checkbox"/> Hourly Standby <u>.5h 50</u>	T-Out <u>21:48</u>
(F) Second Final Flow <u>299</u>	<input checked="" type="checkbox"/> Mileage <u>122 RT</u> 189.10	Comments <u>756' GIP</u>
(G) Final Shut-In <u>1203</u>	<input type="checkbox"/> Sampler <u>—</u>	
(H) Final Hydrostatic <u>2165</u>	<input type="checkbox"/> Straddle <u>—</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>

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

Shale Packer —
 Extra Packer —
 Extra Recorder —
 Day Standby —
 Accessibility —

Sub Total 1814.10

Sub Total 1814.10

MP/DST Disc't —

Approved By _____ Our Representative Raymond [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. 53521

Well Name & No. Burk Trust C #1-22 Test No. 4 Date 9/18/13
 Company Murfin Drilling Co. Elevation 3225 KB 3220 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Clayton Erickson Rig Murfin #8
 Location: Sec. 22 Twp. 15 Rge. 36W Co. Rawlins State KS

Interval Tested 4312-4370 Zone Tested LKC "J"
 Anchor Length 58' Drill Pipe Run 4114' Mud Wt. 9.2
 Top Packer Depth 4307 Drill Collars Run 177' Vis 64
 Bottom Packer Depth 4312 Wt. Pipe Run 0' WL 6.0
 Total Depth 4370 Chlorides 1500 ppm System LCM 6
 Blow Description IF - Surface blow built to 1 1/4"
ISI - No return
FF - Surface blow started @ 15 mins built to 1"
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>65'</u>	<u>OCM</u>	<u>10</u>		<u>90</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 65' BHT 1370 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2231</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>10:00</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:39</u>
(C) First Final Flow <u>38</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>13:43</u>
(D) Initial Shut-In <u>1282</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>17:13</u>
(E) Second Initial Flow <u>59</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>20:11</u>
(F) Second Final Flow <u>73</u>	<input checked="" type="checkbox"/> Mileage <u>122 RT</u> 189.10	Comments _____
(G) Final Shut-In <u>1193</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2191</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>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1764.10</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1764.10</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.