



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202 + 1216

ATTN: Shauna Gunzelman

Gottschalk #1-28

28-14s-18w Ellis,KS

Start Date: 2013.03.22 @ 19:33:13

End Date: 2013.03.23 @ 03:31:22

Job Ticket #: 48509 DST #: 1

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

Printed: 2013.03.27 @ 11:42:16



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202 + 1216
ATTN: Shauna Gunzelman

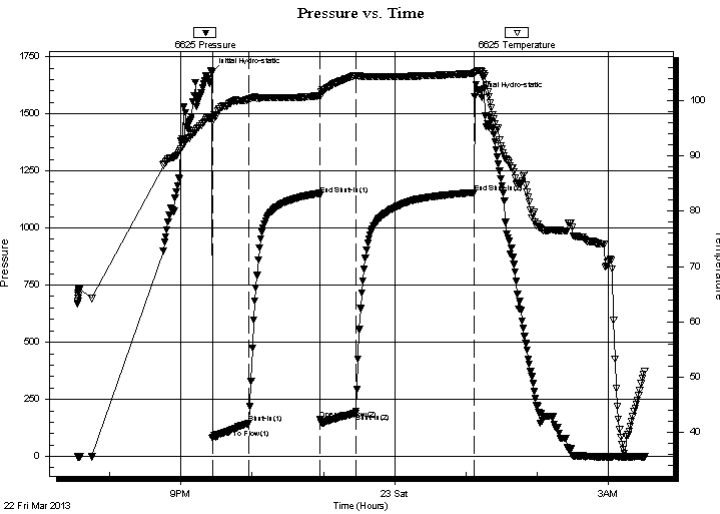
28-14s-18w Ellis,KS
Gottschalk #1-28
Job Ticket: 48509 **DST#: 1**
Test Start: 2013.03.22 @ 19:33:13

GENERAL INFORMATION:

Formation: **Oread-Lans B**
Deviated: No Whipstock: ft (KB) Test Type: Conventional (Initial)
Time Tool Opened: 21:26:33 Tester: Jeff
Time Test Ended: 03:31:22 Unit No: 67
Interval: 3257.00 ft (KB) To 3393.00 ft (KB) (TVD) Reference Elevations: 2059.00 ft (KB)
Total Depth: 3393.00 ft (KB) (TVD) 2054.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 6625 Outside
Press @ Run Depth: 188.44 psig @ 3361.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.03.22 End Date: 2013.03.23 Last Calib.: 2013.03.23
Start Time: 19:33:14 End Time: 03:30:23 Time On Btm: 2013.03.22 @ 21:26:23
Time Off Btm: 2013.03.23 @ 01:07:13

TEST COMMENT: IFP=Strong blow BOB in 4 min
ISI=Weak surface blow back built to 1 1/2" died back to 3/4"
FFP=Strong blow BOB in 3 min
FSI=Fair blow back built to 6"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1681.34	96.75	Initial Hydro-static
1	80.44	96.26	Open To Flow (1)
31	144.44	100.27	Shut-In(1)
91	1143.95	100.90	End Shut-In(1)
91	161.94	100.77	Open To Flow (2)
121	188.44	104.59	Shut-In(2)
221	1153.88	104.92	End Shut-In(2)
221	1574.94	105.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	SOCGWM 10%G 10%O 10%W 70%M	1.50
189.00	GOCM 30%G 20%O 50%M	2.65
0.00	819-GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

28-14s-18w Ellis,KS

250 N Water Ste 300
Wichita KS 67202 + 1216

Gottschalk #1-28

Job Ticket: 48509

DST#: 1

ATTN: Shauna Gunzelman

Test Start: 2013.03.22 @ 19:33:13

Tool Information

Drill Pipe:	Length: 3233.00 ft	Diameter: 3.80 inches	Volume: 45.35 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 45.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3257.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	136.00 ft			
Tool Length:	156.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3238.00	
Shut In Tool	5.00			3243.00	
Hydraulic tool	5.00			3248.00	
Packer	4.00			3252.00	20.00 Bottom Of Top Packer
Packer	5.00			3257.00	
Stubb	1.00			3258.00	
Perforations	6.00			3264.00	
Change Over Sub	1.00			3265.00	
Drill Pipe	95.00			3360.00	
Change Over Sub	1.00			3361.00	
Recorder	0.00	6625	Outside	3361.00	
Recorder	0.00	8679	Inside	3361.00	
Perforations	29.00			3390.00	
Bullnose	3.00			3393.00	136.00 Bottom Packers & Anchor

Total Tool Length: 156.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

28-14s-18w Ellis,KS

250 N Water Ste 300
Wichita KS 67202 + 1216

Gottschalk #1-28

Job Ticket: 48509

DST#: 1

ATTN: Shauna Gunzelman

Test Start: 2013.03.22 @ 19:33:13

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: 70.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
126.00	SOCGWM 10%G 10%O 10%W 70%M	1.503
189.00	GOCM 30%G 20%O 50%M	2.651
0.00	819-GIP	0.000

Total Length: 315.00 ft Total Volume: 4.154 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

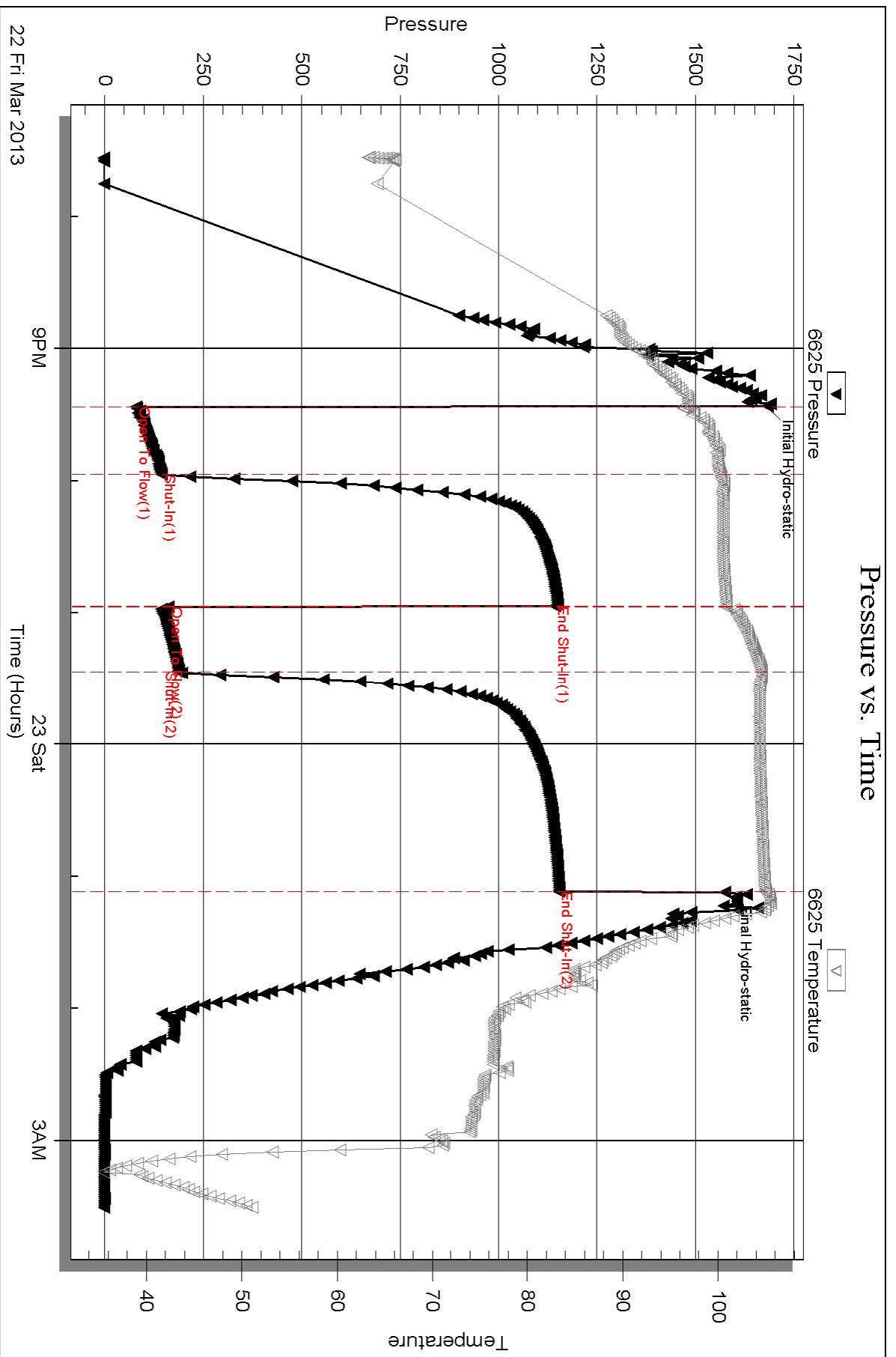
Recovery Comments:

Serial #: 6625

Outside Murfin Drilling Co Inc

Gottschalk #1-28

DST Test Number: 1



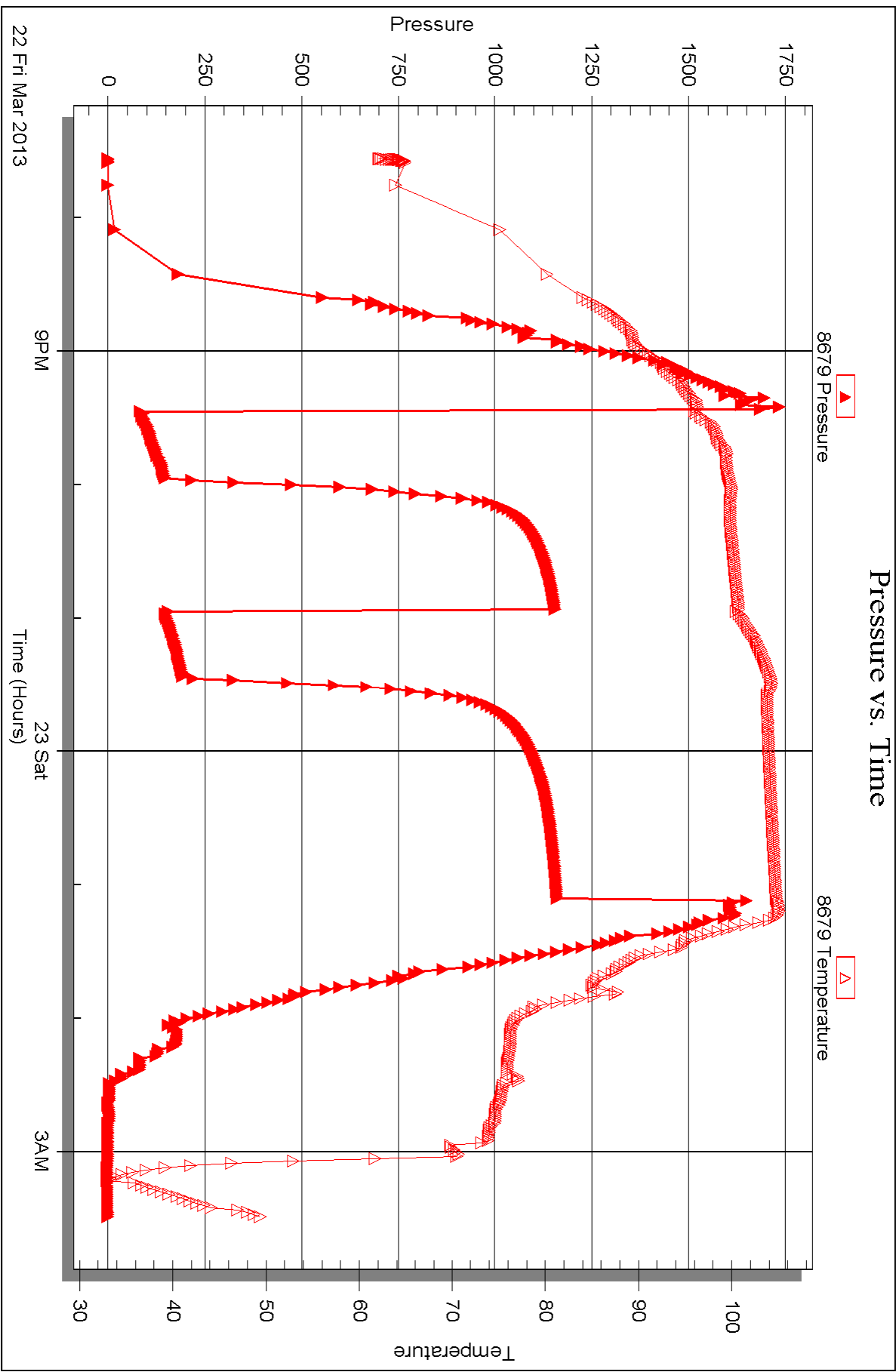
Serial #: 8679

Inside

Murfin Drilling Co Inc

Gottschalk #1-28

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202 + 1216

ATTN: Shauna Gunzelman

Gottschalk #1-28

28-14s-18w Ellis,KS

Start Date: 2013.03.23 @ 11:08:29

End Date: 2013.03.23 @ 18:10:08

Job Ticket #: 40510 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.27 @ 11:41:33



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202 + 1216
 ATTN: Shauna Gunzelman

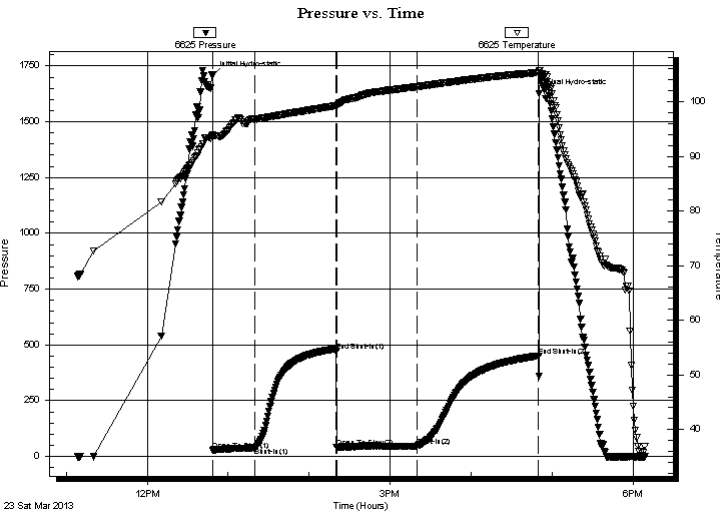
28-14s-18w Ellis, KS
Gottschalk #1-28
 Job Ticket: 40510 **DST#: 2**
 Test Start: 2013.03.23 @ 11:08:29

GENERAL INFORMATION:

Formation: **Lans-D-F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:48:49
 Time Test Ended: 18:10:08
 Interval: **3391.00 ft (KB) To 3445.00 ft (KB) (TVD)**
 Total Depth: 3445.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional (Reset)
 Tester: Jeff
 Unit No: 67
 Reference Elevations: 2059.00 ft (KB)
 2054.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6625 Outside
 Press @ Run Depth: 46.73 psig @ 3427.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.03.23 End Date: 2013.03.23 Last Calib.: 2013.03.23
 Start Time: 11:08:30 End Time: 18:09:09 Time On Btm: 2013.03.23 @ 12:48:39
 Time Off Btm: 2013.03.23 @ 16:50:29

TEST COMMENT: IFP=Weak blow built to 2 3/4"
 ISI=Weak surface blow back
 FFP=Weak blow built to 2 1/4"
 FSI=Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1708.27	93.90	Initial Hydro-static
1	28.49	93.54	Open To Flow (1)
32	39.42	96.73	Shut-In(1)
92	471.25	99.28	End Shut-In(1)
92	41.50	99.22	Open To Flow (2)
152	46.73	102.73	Shut-In(2)
242	451.15	105.32	End Shut-In(2)
242	1625.24	105.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	V SOCGM 3%G 2%O 95%M	0.30

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202 + 1216
ATTN: Shauna Gunzelman

28-14s-18w Ellis, KS
Gottschalk #1-28
Job Ticket: 40510 **DST#: 2**
Test Start: 2013.03.23 @ 11:08:29

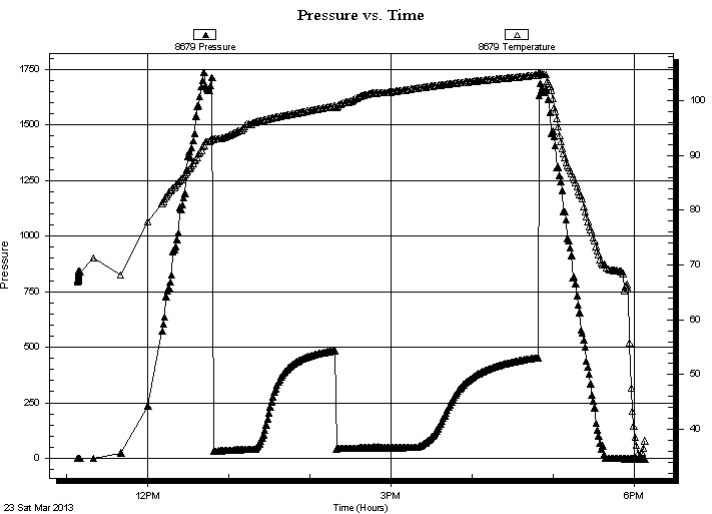
GENERAL INFORMATION:

Formation: **Lans-D-F**
Deviated: No Whipstock: ft (KB) Test Type: Conventional (Reset)
Time Tool Opened: 12:48:49 Tester: Jeff
Time Test Ended: 18:10:08 Unit No: 67
Interval: 3391.00 ft (KB) To 3445.00 ft (KB) (TVD) Reference Elevations: 2059.00 ft (KB)
Total Depth: 3445.00 ft (KB) (TVD) 2054.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8679 Inside

Press @ Run Depth: psig @ 3427.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.03.23 End Date: 2013.03.23 Last Calib.: 2013.03.23
Start Time: 11:08:20 End Time: 18:07:49 Time On Btm:
Time Off Btm:

TEST COMMENT: IFP=Weak blow built to 2 3/4"
ISI=Weak surface blow back
FFP=Weak blow built to 2 1/4"
FSI=Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
40.00	V SOCGM 3%G 2%O 95%M	0.30

* 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

28-14s-18w Ellis,KS

250 N Water Ste 300
Wichita KS 67202 + 1216

Gottschalk #1-28

Job Ticket: 40510

DST#: 2

ATTN: Shauna Gunzelman

Test Start: 2013.03.23 @ 11:08:29

Tool Information

Drill Pipe:	Length: 3360.00 ft	Diameter: 3.80 inches	Volume: 47.13 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 47.27 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	43000.00 lb
Depth to Top Packer:	3391.00 ft			Final	43000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	54.00 ft				
Tool Length:	74.00 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			3372.00	
Shut In Tool	5.00			3377.00	
Hydraulic tool	5.00			3382.00	
Packer	4.00			3386.00	20.00 Bottom Of Top Packer
Packer	5.00			3391.00	
Stubb	1.00			3392.00	
Perforations	2.00			3394.00	
Change Over Sub	1.00			3395.00	
Drill Pipe	31.00			3426.00	
Change Over Sub	1.00			3427.00	
Recorder	0.00	6625	Outside	3427.00	
Recorder	0.00	8679	Inside	3427.00	
Perforations	15.00			3442.00	
Bullnose	3.00			3445.00	54.00 Bottom Packers & Anchor

Total Tool Length: 74.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

28-14s-18w Ellis,KS

250 N Water Ste 300
Wichita KS 67202 + 1216

Gottschalk #1-28

Job Ticket: 40510

DST#: 2

ATTN: Shauna Gunzelman

Test Start: 2013.03.23 @ 11:08:29

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	VSOCGM 3%G 2%O 95%M	0.297

Total Length: 40.00 ft Total Volume: 0.297 bbl

Num Fluid Samples: 0

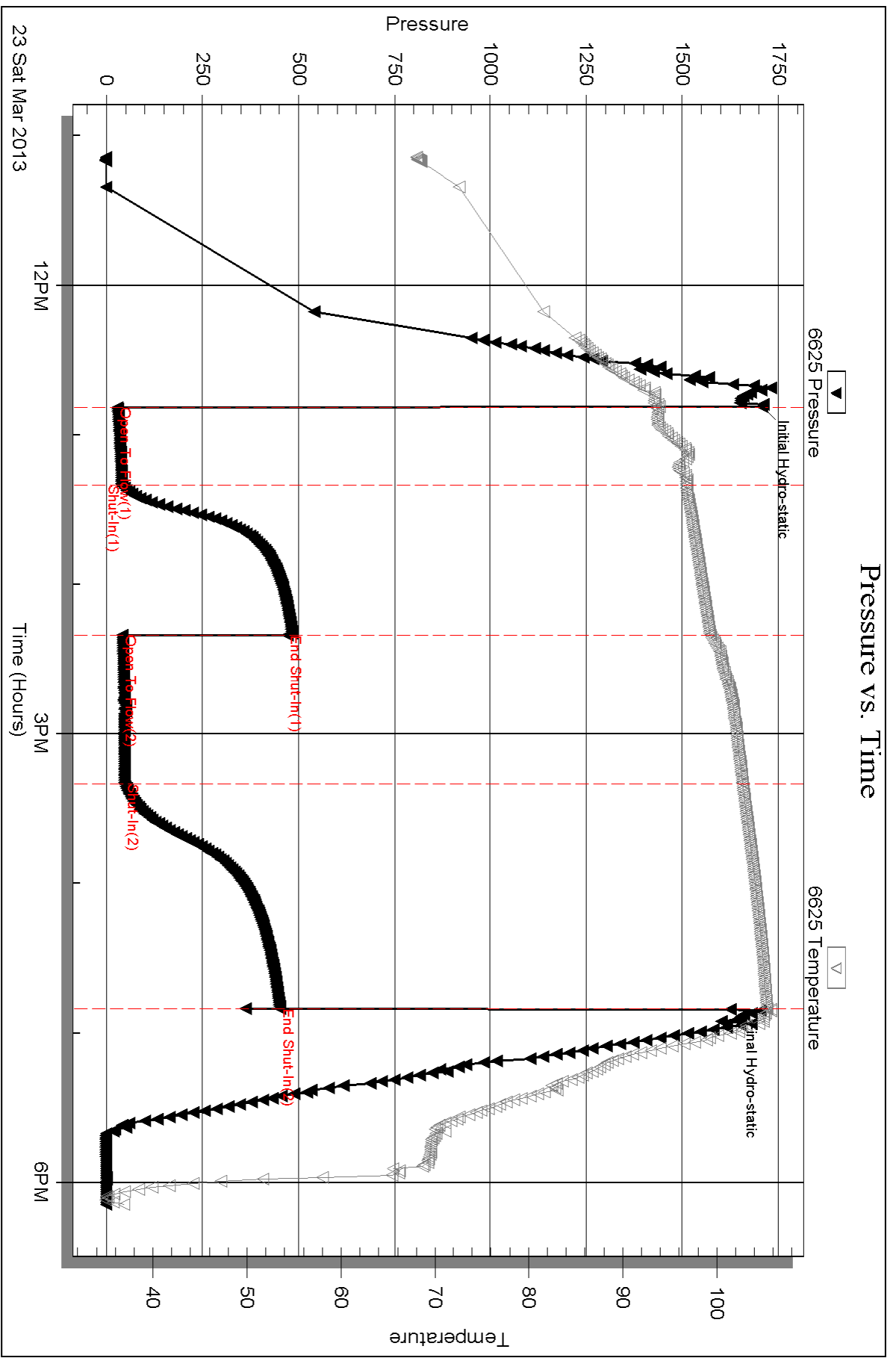
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



23 Sat Mar 2013

12PM

3PM

6PM

Time (Hours)

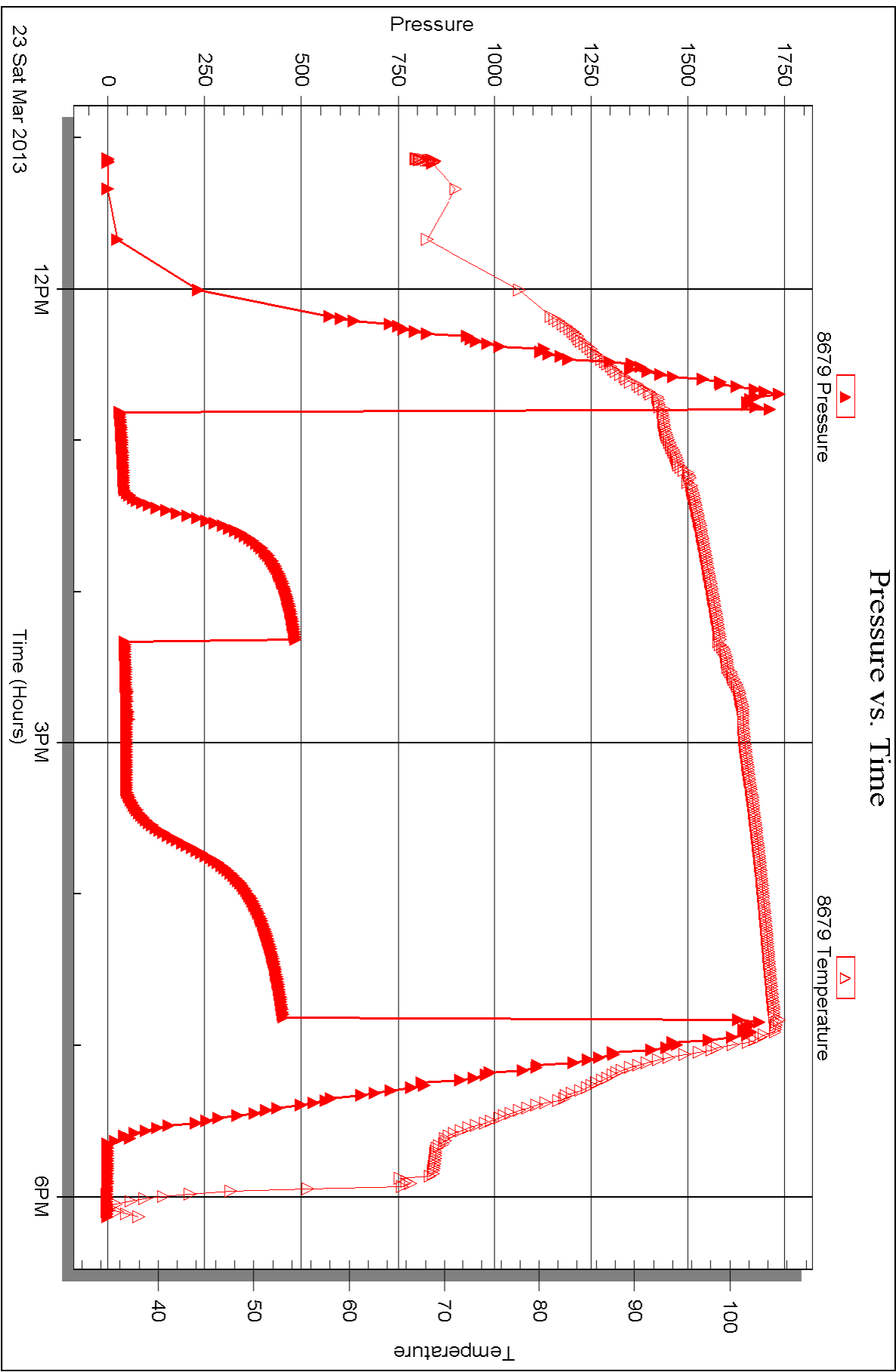
Serial #: 8679

Inside

Murfin Drilling Co Inc

Gottschalk #1-28

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202 + 1216

ATTN: Shauna Gunzelman

Gottschalk #1-28

28-14s-18w Ellis,KS

Start Date: 2013.03.24 @ 07:24:40

End Date: 2013.03.24 @ 14:18:40

Job Ticket #: 48511 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.27 @ 11:40:53



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202 + 1216
 ATTN: Shauna Gunzelman

28-14s-18w Ellis, KS
Gottschalk #1-28
 Job Ticket: 48511 **DST#: 3**
 Test Start: 2013.03.24 @ 07:24:40

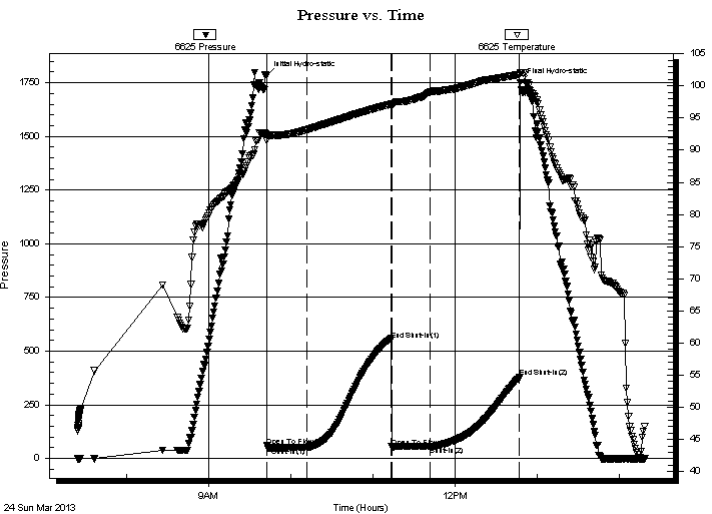
GENERAL INFORMATION:

Formation: **Lans-H-K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:42:30
 Time Test Ended: 14:18:40
 Interval: **3473.00 ft (KB) To 3567.00 ft (KB) (TVD)**
 Total Depth: 3567.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional (Reset)
 Tester: Jeff
 Unit No: 67
 Reference Elevations: 2059.00 ft (KB)
 2054.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 57.69 psig @ 3541.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.03.24 End Date: 2013.03.24 Last Calib.: 2013.03.24
 Start Time: 07:24:41 End Time: 14:18:40 Time On Btm: 2013.03.24 @ 09:42:20
 Time Off Btm: 2013.03.24 @ 12:47:19

TEST COMMENT: IFP=Weak blow built to 2"
 ISI=Dead no blow back
 FFP=Weak blow built to 1/2"
 FSI=Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1782.77	92.45	Initial Hydro-static
1	59.00	91.46	Open To Flow (1)
30	52.60	93.15	Shut-In(1)
91	550.63	97.17	End Shut-In(1)
92	54.59	97.13	Open To Flow (2)
120	57.69	99.05	Shut-In(2)
185	377.42	101.76	End Shut-In(2)
185	1749.80	102.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w ith a scum of oil	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202 + 1216
ATTN: Shauna Gunzelman

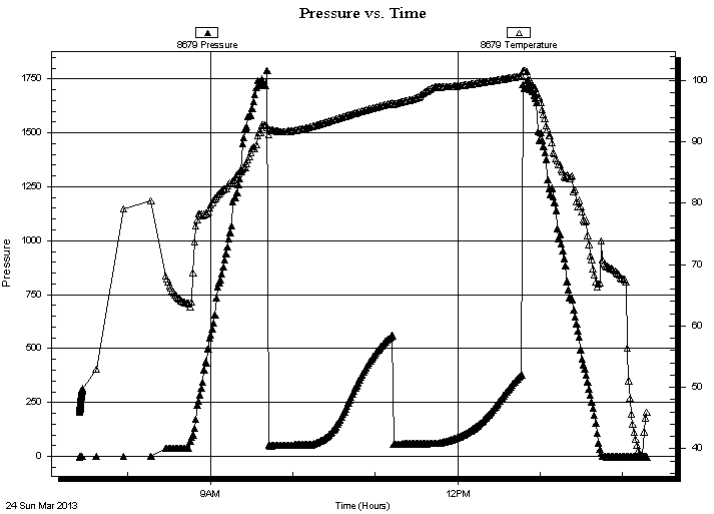
28-14s-18w Ellis,KS
Gottschalk #1-28
Job Ticket: 48511 **DST#: 3**
Test Start: 2013.03.24 @ 07:24:40

GENERAL INFORMATION:

Formation: **Lans-H-K**
Deviated: No Whipstock: ft (KB) Test Type: Conventional (Reset)
Time Tool Opened: 09:42:30 Tester: Jeff
Time Test Ended: 14:18:40 Unit No: 67
Interval: 3473.00 ft (KB) To 3567.00 ft (KB) (TVD) Reference Elevations: 2059.00 ft (KB)
Total Depth: 3567.00 ft (KB) (TVD) 2054.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8679 Inside
Press @ Run Depth: psig @ 3541.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.03.24 End Date: 2013.03.24 Last Calib.: 2013.03.24
Start Time: 07:24:54 End Time: 14:17:23 Time On Btm:
Time Off Btm:

TEST COMMENT: IFP=Weak blow built to 2"
ISI=Dead no blow back
FFP=Weak blow built to 1/2"
FSI=Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w ith a scum of oil	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

28-14s-18w Ellis,KS

250 N Water Ste 300
Wichita KS 67202 + 1216

Gottschalk #1-28

Job Ticket: 48511

DST#: 3

ATTN: Shauna Gunzelman

Test Start: 2013.03.24 @ 07:24:40

Tool Information

Drill Pipe:	Length: 3456.00 ft	Diameter: 3.80 inches	Volume: 48.48 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 48.62 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	43000.00 lb
Depth to Top Packer:	3473.00 ft			Final	43000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	94.00 ft				
Tool Length:	114.00 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			3454.00	
Shut In Tool	5.00			3459.00	
Hydraulic tool	5.00			3464.00	
Packer	4.00			3468.00	20.00 Bottom Of Top Packer
Packer	5.00			3473.00	
Stubb	1.00			3474.00	
Perforations	2.00			3476.00	
Change Over Sub	1.00			3477.00	
Drill Pipe	63.00			3540.00	
Change Over Sub	1.00			3541.00	
Recorder	0.00	6625	Outside	3541.00	
Recorder	0.00	8679	Inside	3541.00	
Perforations	23.00			3564.00	
Bullnose	3.00			3567.00	94.00 Bottom Packers & Anchor

Total Tool Length: 114.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

28-14s-18w Ellis,KS

250 N Water Ste 300
Wichita KS 67202 + 1216

Gottschalk #1-28

Job Ticket: 48511

DST#: 3

ATTN: Shauna Gunzelman

Test Start: 2013.03.24 @ 07:24:40

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	Mud w ith a scum of oil	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:

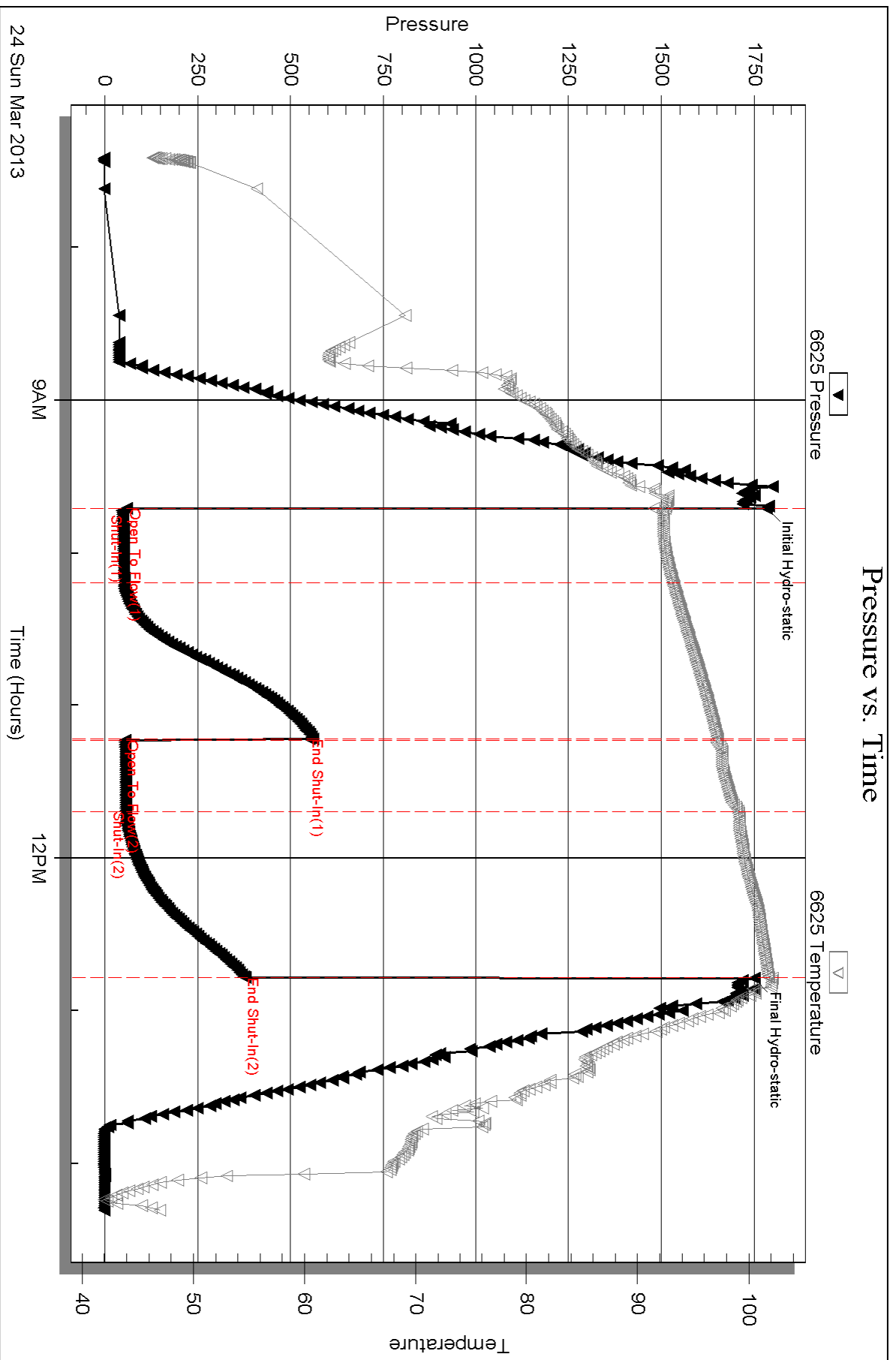
Serial #: 6625

Outside Murfin Drilling Co Inc

Gottschalk #1-28

DST Test Number: 3

Pressure vs. Time



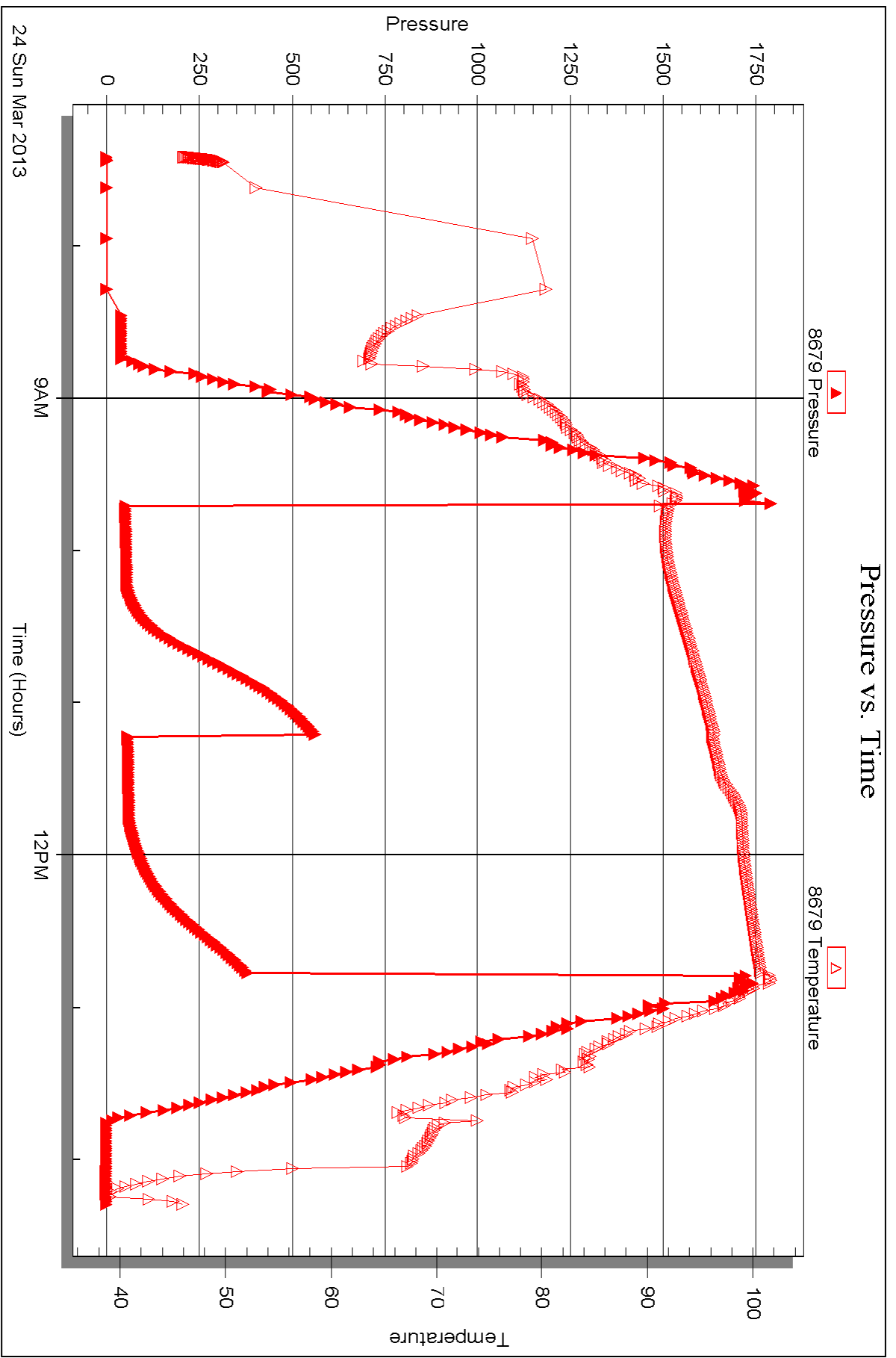
Serial #: 8679

Inside

Murfin Drilling Co Inc

Gottschalk #1-28

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202 + 1216

ATTN: Shauna Gunzelman

Gottschalk #1-28

28-14s-18w Ellis,KS

Start Date: 2013.03.25 @ 04:30:50

End Date: 2013.03.25 @ 11:05:10

Job Ticket #: 48512 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.27 @ 11:40:17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202 + 1216
 ATTN: Shauna Gunzelman

28-14s-18w Ellis, KS
Gottschalk #1-28
 Job Ticket: 48512 **DST#: 4**
 Test Start: 2013.03.25 @ 04:30:50

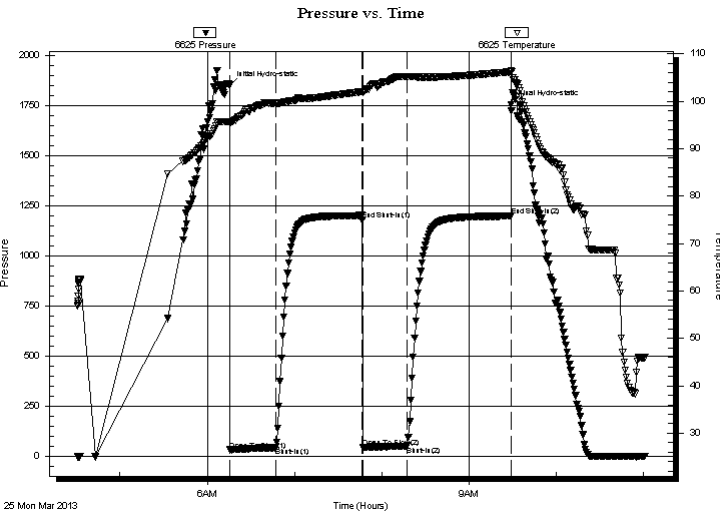
GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:15:50
 Time Test Ended: 11:05:10
 Interval: **3630.00 ft (KB) To 3694.00 ft (KB) (TVD)**
 Total Depth: 3694.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional (Reset)
 Tester: Jeff
 Unit No: 67
 Reference Elevations: 2059.00 ft (KB)
 2054.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 49.79 psig @ 3668.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.03.25 End Date: 2013.03.25 Last Calib.: 2013.03.25
 Start Time: 04:30:51 End Time: 11:01:10 Time On Btm: 2013.03.25 @ 06:15:40
 Time Off Btm: 2013.03.25 @ 09:29:10

TEST COMMENT: IFP=Weak blow built to 2 1/2"
 ISI=Dead no blow back
 FFP=Weak blow built to 1/4"
 FSI=Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1852.14	95.76	Initial Hydro-static
1	31.94	95.39	Open To Flow (1)
32	44.52	99.64	Shut-In(1)
92	1180.00	102.03	End Shut-In(1)
92	45.69	101.87	Open To Flow (2)
122	49.79	105.24	Shut-In(2)
194	1199.33	106.20	End Shut-In(2)
194	1756.36	106.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	Mud with oil spots	0.23

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202 + 1216
 ATTN: Shauna Gunzelman

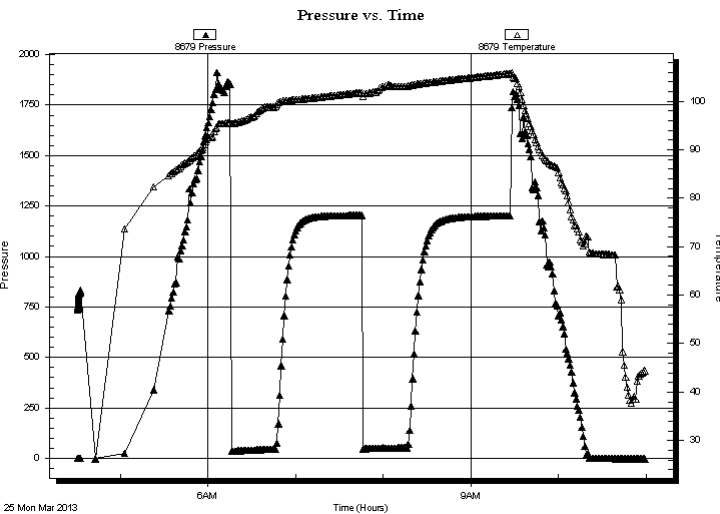
28-14s-18w Ellis, KS
Gottschalk #1-28
 Job Ticket: 48512 **DST#: 4**
 Test Start: 2013.03.25 @ 04:30:50

GENERAL INFORMATION:

Formation: Arbuckle		Test Type: Conventional (Reset)
Deviated: No Whipstock:	ft (KB)	Tester: Jeff
Time Tool Opened: 06:15:50		Unit No: 67
Time Test Ended: 11:05:10		Reference Elevations: 2059.00 ft (KB)
Interval: 3630.00 ft (KB) To 3694.00 ft (KB) (TVD)		2054.00 ft (CF)
Total Depth: 3694.00 ft (KB) (TVD)		KB to GR/CF: 5.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Good	

Serial #: 8679	Inside		
Press @ Run Depth: psig @	3668.00 ft (KB)	Capacity: 8000.00 psig	
Start Date: 2013.03.25	End Date: 2013.03.25	Last Calib.: 2013.03.25	
Start Time: 04:30:35	End Time: 10:59:34	Time On Btm:	
		Time Off Btm:	

TEST COMMENT: IFP=Weak blow built to 2 1/2"
 ISI=Dead no blow back
 FFP=Weak blow built to 1/4"
 FSI=Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
35.00	Mud w ith oil spots	0.23

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202 + 1216
ATTN: Shauna Gunzelman

28-14s-18w Ellis,KS
Gottschalk #1-28
Job Ticket: 48512 **DST#: 4**
Test Start: 2013.03.25 @ 04:30:50

Tool Information

Drill Pipe:	Length: 3614.00 ft	Diameter: 3.80 inches	Volume: 50.69 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 50.83 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	43000.00 lb
Depth to Top Packer:	3630.00 ft			Final	43000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	64.00 ft				
Tool Length:	84.00 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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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3611.00	
Shut In Tool	5.00			3616.00	
Hydraulic tool	5.00			3621.00	
Packer	4.00			3625.00	20.00 Bottom Of Top Packer
Packer	5.00			3630.00	
Stubb	1.00			3631.00	
Perforations	4.00			3635.00	
Change Over Sub	1.00			3636.00	
Drill Pipe	31.00			3667.00	
Change Over Sub	1.00			3668.00	
Recorder	0.00	6625	Outside	3668.00	
Recorder	0.00	8679	Inside	3668.00	
Perforations	23.00			3691.00	
Bullnose	3.00			3694.00	64.00 Bottom Packers & Anchor

Total Tool Length: 84.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

28-14s-18w Ellis,KS

250 N Water Ste 300
Wichita KS 67202 + 1216

Gottschalk #1-28

Job Ticket: 48512

DST#: 4

ATTN: Shauna Gunzelman

Test Start: 2013.03.25 @ 04:30:50

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	Mud w ith oil spots	0.227

Total Length: 35.00 ft Total Volume: 0.227 bbl

Num Fluid Samples: 0

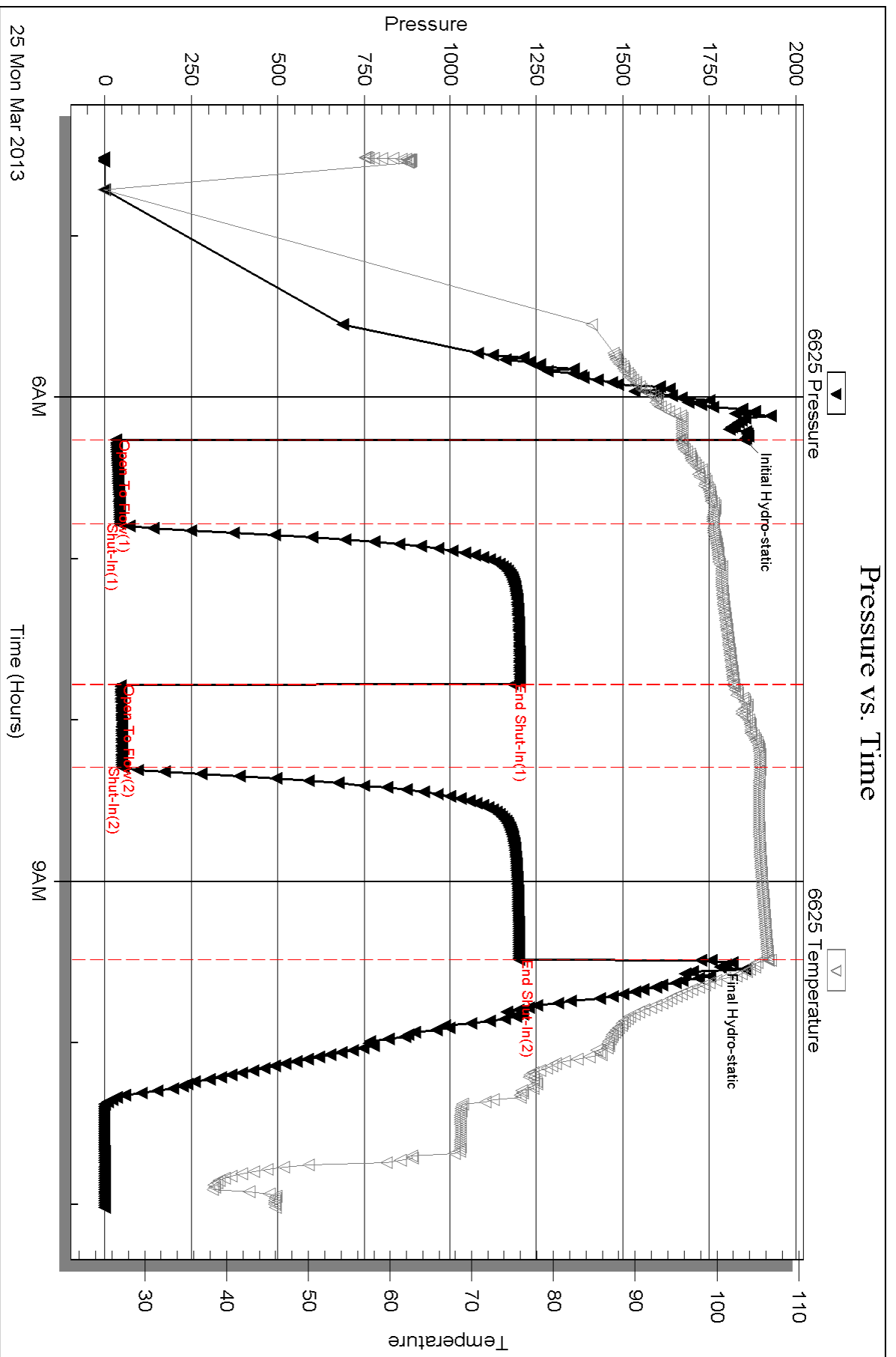
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



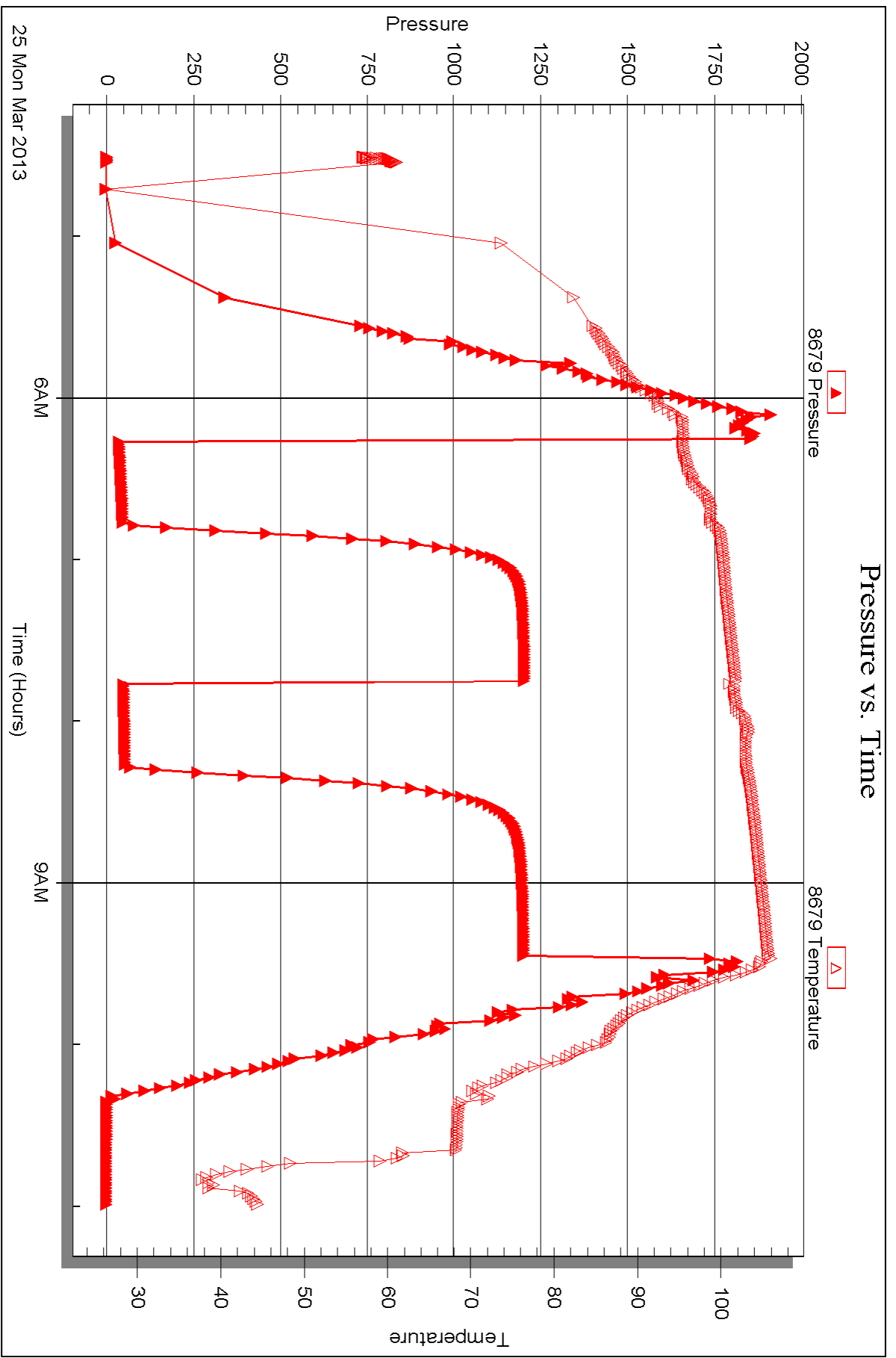
Serial #: 8679

Inside

Murfin Drilling Co Inc

Gottschalk #1-28

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 48512

Printed: 2013.03.27 @ 11:40:20



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202 + 1216

ATTN: Shauna Gunzelman

Gottschalk #1-28

28-14s-18w Ellis,KS

Start Date: 2013.03.25 @ 16:06:55

End Date: 2013.03.25 @ 22:35:34

Job Ticket #: 48513 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.27 @ 11:39:32



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202 + 1216
ATTN: Shauna Gunzelman

28-14s-18w Ellis, KS
Gottschalk #1-28
Job Ticket: 48513 **DST#: 5**
Test Start: 2013.03.25 @ 16:06:55

GENERAL INFORMATION:

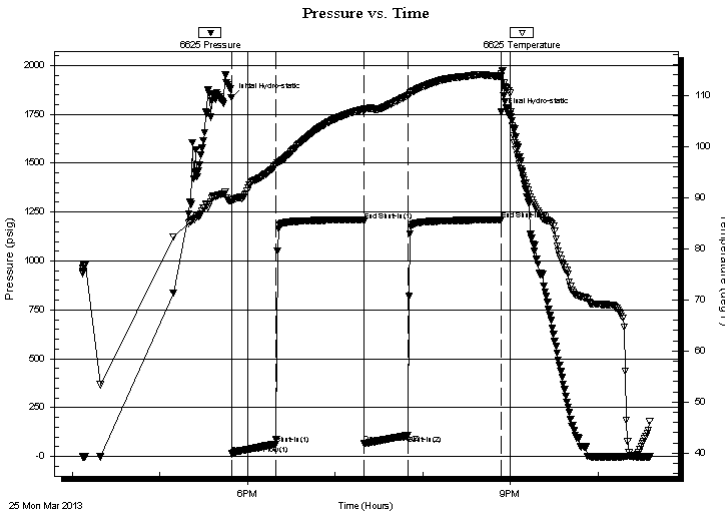
Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:48:55
Time Test Ended: 22:35:34
Interval: **3694.00 ft (KB) To 3704.00 ft (KB) (TVD)**
Total Depth: 3704.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional (Reset)
Tester: Jeff
Unit No: 67
Reference Elevations: 2059.00 ft (KB)
2054.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 108.56 psig @ 3695.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.03.25 End Date: 2013.03.25 Last Calib.: 2013.03.25
Start Time: 16:06:56 End Time: 22:35:35 Time On Btm: 2013.03.25 @ 17:48:45
Time Off Btm: 2013.03.25 @ 20:53:45

TEST COMMENT: IFP=Good blow BOB in 20 min
ISI=Weak surface blow back
FFP=Good blow BOB 23 1/2 min
FSI=Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1836.95	89.45	Initial Hydro-static
1	13.76	89.22	Open To Flow (1)
31	64.05	96.38	Shut-In(1)
91	1202.92	107.30	End Shut-In(1)
91	67.74	106.85	Open To Flow (2)
121	108.56	109.97	Shut-In(2)
185	1208.82	113.75	End Shut-In(2)
185	1760.68	114.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	MW 10%M 90%W	1.50
94.00	WM 45%W 55%M	1.32

* 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 Inc

28-14s-18w Ellis,KS

250 N Water Ste 300
Wichita KS 67202 + 1216

Gottschalk #1-28

Job Ticket: 48513

DST#: 5

ATTN: Shauna Gunzelman

Test Start: 2013.03.25 @ 16:06:55

Tool Information

Drill Pipe:	Length: 3677.00 ft	Diameter: 3.80 inches	Volume: 51.58 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 51.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3694.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	30.00 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			3675.00	
Shut In Tool	5.00			3680.00	
Hydraulic tool	5.00			3685.00	
Packer	4.00			3689.00	20.00 Bottom Of Top Packer
Packer	5.00			3694.00	
Stubb	1.00			3695.00	
Recorder	0.00	6625	Outside	3695.00	
Recorder	0.00	8679	Inside	3695.00	
Perforations	6.00			3701.00	
Bullnose	3.00			3704.00	10.00 Bottom Packers & Anchor
Total Tool Length:	30.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

28-14s-18w Ellis,KS

250 N Water Ste 300
Wichita KS 67202 + 1216

Gottschalk #1-28

Job Ticket: 48513

DST#: 5

ATTN: Shauna Gunzelman

Test Start: 2013.03.25 @ 16:06:55

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: 56.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
126.00	MW 10%M 90%W	1.503
94.00	WM 45%W 55%M	1.319

Total Length: 220.00 ft Total Volume: 2.822 bbf

Num Fluid Samples: 0

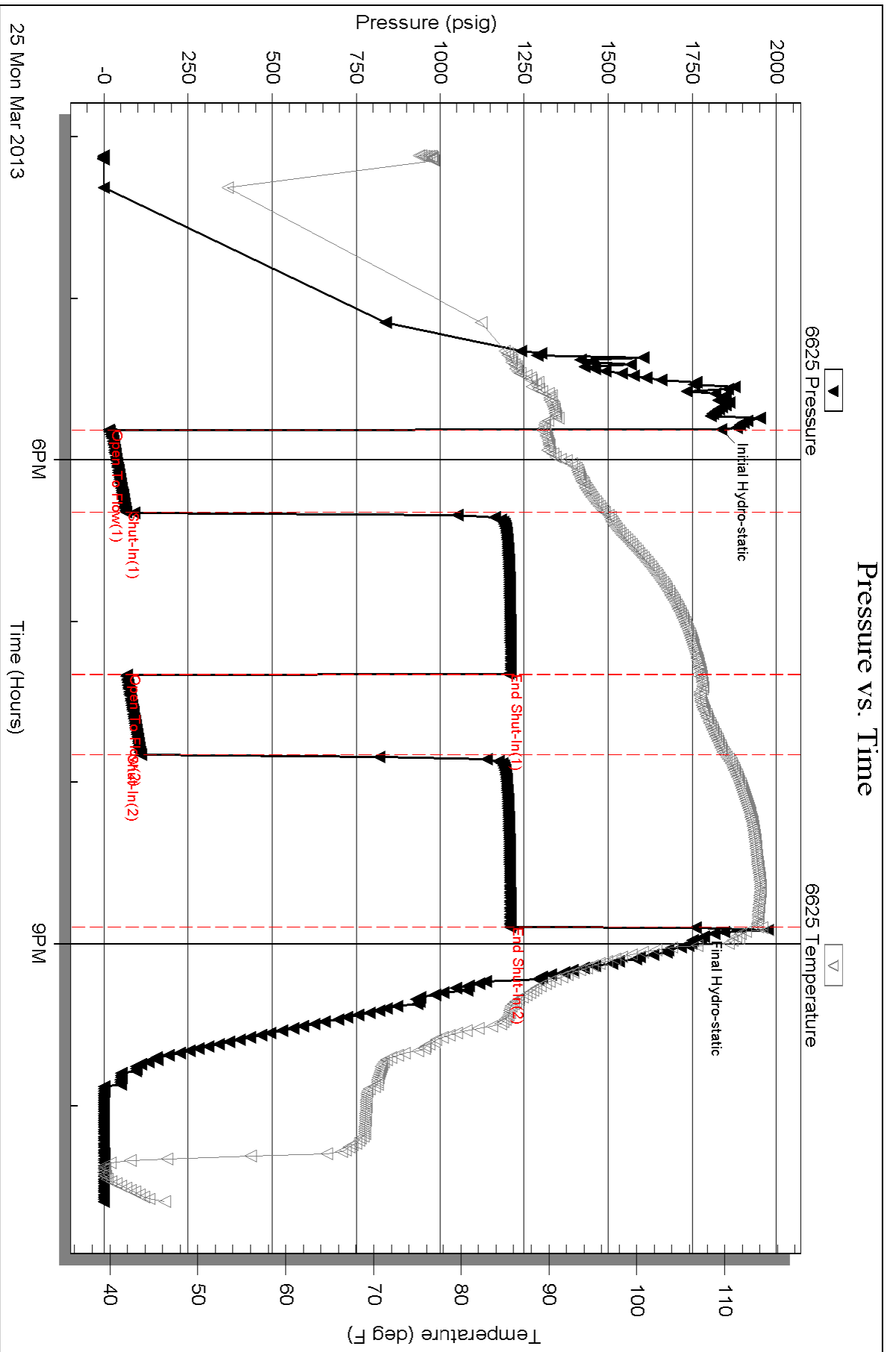
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



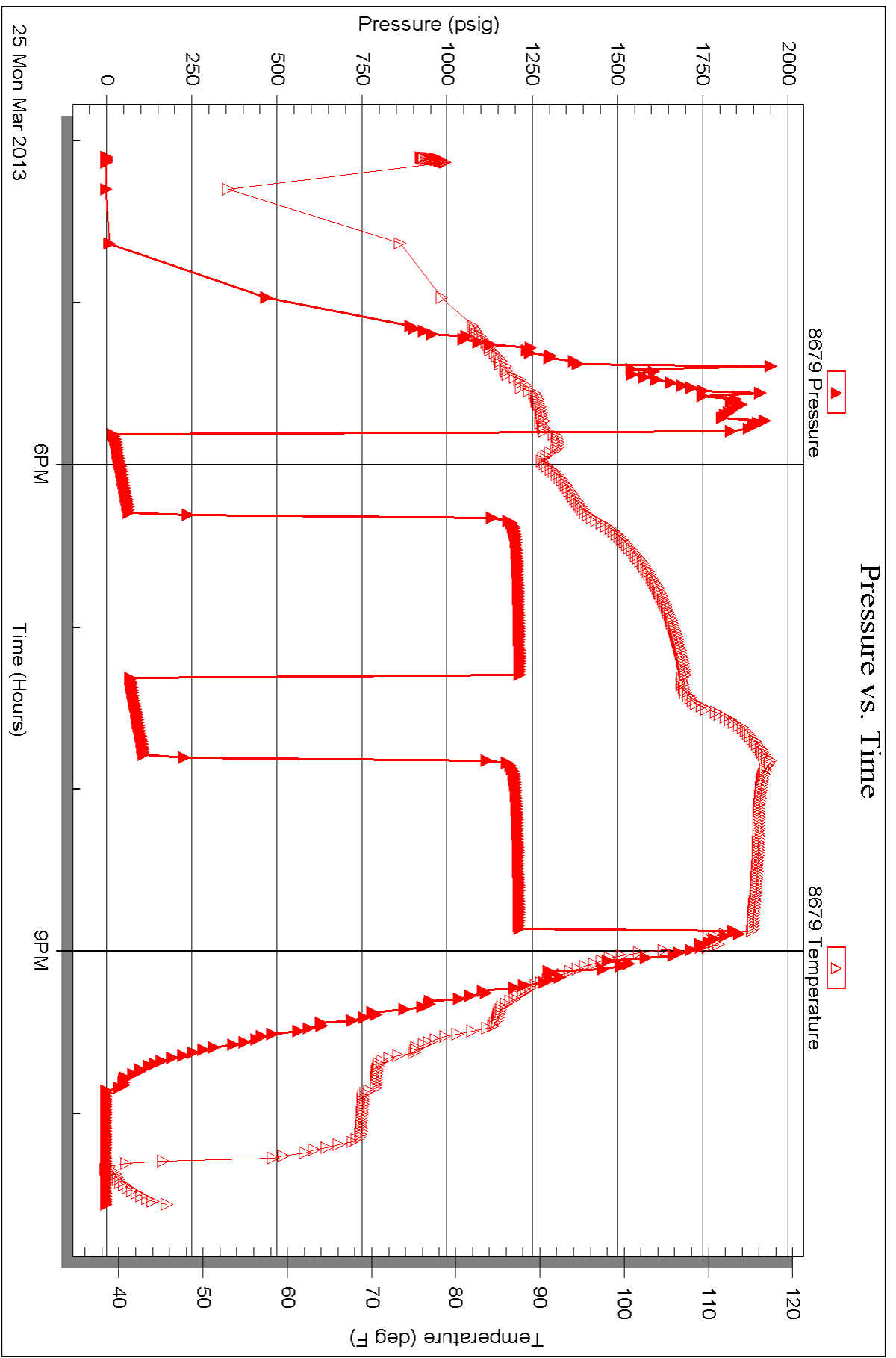
Serial #: 8679

Inside

Murfin Drilling Co Inc

Gottschalk #1-28

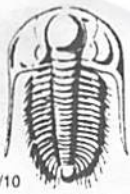
DST Test Number: 5



Triobite Testing, Inc

Ref. No: 48513

Printed: 2013.03.27 @ 11:39:35



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48509

Well Name & No. Gottschalk 1-28 Test No. 1 Date 3-22-13
 Company Murfin Drilling Co Inc Elevation 2059 KB 2054 GL
 Address 250 N Water Ste 300 Wichita KS 67202 + 1214
 Co. Rep / Geo. Rocky Milford Rig Murfin 14
 Location: Sec. 28 Twp. 14S Rge. 18W Co. ELLIS State KS

Interval Tested 3257 - 3393 Zone Tested Oread - Lans B
 Anchor Length 134 Drill Pipe Run 3233 Mud Wt. 89
 Top Packer Depth 3252 Drill Collars Run 29 Vis 70
 Bottom Packer Depth 3257 Wt. Pipe Run 0 WL 64
 Total Depth 3393 Chlorides 1200 ppm System LCM 1

Blow Description IP-Strong Blow Bob IN 4 min
1st-Weak surface Blow Back Built to 1 1/2 IN Died Back to 3/4 IN
IP-Strong Blow Bob IN 3 min
ISI-Fair Blow ~~Bob IN~~ Back Built to 6 IN

Rec	Feet of	%gas	%oil	%water	%mud
<u>126</u>	<u>Soc Gwm</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>70</u>
<u>189</u>	<u>Gocm</u>	<u>30</u>	<u>20</u>		<u>50</u>
	<u>819-GIP</u>				

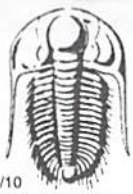
Rec Total 315 BHT _____ Gravity _____ API RW 285 @ 56.6°F Chlorides 31,000 ppm

(A) Initial Hydrostatic 11681 Test 1150 T-On Location 18:32
 (B) First Initial Flow 80 Jars _____ T-Started 19:33
 (C) First Final Flow 144 Safety Joint _____ T-Open 21:28
 (D) Initial Shut-In 1144 Circ Sub _____ T-Pulled 00:58
 (E) Second Initial Flow 1102 Hourly Standby _____ T-Out 3:31
 (F) Second Final Flow 188 Mileage 14 RT 24.80
 (G) Final Shut-In 1154 Sampler _____
 (H) Final Hydrostatic 1575 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30 Ruined Shale Packer _____
 Initial Shut-In 60 Ruined Packer _____
 Final Flow 30 Extra Copies _____
 Final Shut-In 90 Sub Total 0
 Total 1174.80
 Sub Total 1174.80 MP/DST Disc't _____

Approved By _____ Our Representative Jeff Brown

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48510

Well Name & No. GOTTschalk 1-28 Test No. 2 Date 3-23-13
 Company Murfin Drilling Co INC Elevation 2059 KB 2054 GL
 Address 250 N Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #16
 Location: Sec. 28 Twp. 14S Rge. 18W Co. ELLIS State KS

Interval Tested 3391 - 3445 Zone Tested Lens Δ-F
 Anchor Length 54 Drill Pipe Run 3360 Mud Wt. 9.1
 Top Packer Depth 3386 Drill Collars Run 29 Vis 58
 Bottom Packer Depth 3391 Wt. Pipe Run 0 WL 7.2
 Total Depth 3445 Chlorides 1300 ppm System LCM 1

Blow Description IFP-Weak Blow Built to 2 3/4 IN
ISF-Weak surface Blow Back
FFP-Weak Blow Built to 2 1/4 IN
FSI-Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>USOC Gm</u>	<u>3</u>	<u>2</u>	<u>95</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 40 BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1708 Test 1150 T-On Location 10:40
 (B) First Initial Flow 28 Jars _____ T-Started 11:08
 (C) First Final Flow 39 Safety Joint _____ T-Open 12:50
 (D) Initial Shut-In 471 Circ Sub _____ T-Pulled 16:50
 (E) Second Initial Flow 42 Hourly Standby _____ T-Out 18:10
 (F) Second Final Flow 47 Mileage 24.80 Comments _____
 (G) Final Shut-In 451 Sampler _____
 (H) Final Hydrostatic 1625 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

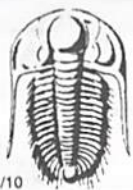
Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Sub Total 1174.80

MP/DST Disc't _____

Approved By _____ Our Representative Jeff Brown

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48511

Well Name & No. GOTTschalk 1-28 Test No. 3 Date 3-24-13
 Company Murfin Drilling Co INC Elevation 2059 KB 2054 GL
 Address 250 N Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #16
 Location: Sec. 28 Twp. 14s Rge. 18 W Co. ELLIS State KS

Interval Tested 3473 - 3567 Zone Tested Lansing - H - K
 Anchor Length 94 Drill Pipe Run 3456 Mud Wt. 9.1
 Top Packer Depth 3468 Drill Collars Run 29 Vis 51
 Bottom Packer Depth 3473 Wt. Pipe Run 0 WL 7.4
 Total Depth 3567 Chlorides 1300 ppm System LCM 1

Blow Description FP-Weak Blow Built to 2 IN
ISI-Dead No Blow Back
FP-Weak Blow Built to 1/2 IN
ISI-Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud with a scum of oil</u>				<u>100</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 102 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1783 Test 1150 T-On Location 7:07
 (B) First Initial Flow 59 Jars _____ T-Started 7:24
 (C) First Final Flow 53 Safety Joint _____ T-Open 9:42
 (D) Initial Shut-In 551 Circ Sub _____ T-Pulled 12:42
 (E) Second Initial Flow 55 Hourly Standby _____ T-Out 14:18
 (F) Second Final Flow 58 Mileage 24.80 Comments _____
 (G) Final Shut-In 377 Sampler _____
 (H) Final Hydrostatic 1750 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

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

Sub Total 1174.80

Approved By _____ Our Representative Jeff Brown

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48512

Well Name & No. GOTTschalk 1-28 Test No. 4 Date 3-25-13
 Company Murfin Drilling Co INC Elevation 2059 KB 2054 GL
 Address 250 N Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #14
 Location: Sec. 28 Twp. 14S Rge. 18W Co. ELLIS State KS

Interval Tested 3430-3494 Zone Tested ArBuckle
 Anchor Length 64 Drill Pipe Run 3414 Mud Wt. 9.3
 Top Packer Depth 3425 Drill Collars Run 29 Vis 560
 Bottom Packer Depth 3430 Wt. Pipe Run 0 WL 7.6
 Total Depth 3494 Chlorides 1500 ppm System LCM 2

Blow Description PP-Weak Blow Built to 2 1/2 IN
IS-Dead No Blow Back
PP-Weak Blow Built to 1/4 IN
IS-Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud with Oil Spots</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

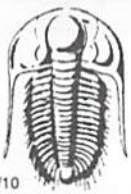
Rec Total 20 BHT 106 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1852 Test 1150 T-On Location 4:12
 (B) First Initial Flow 32 Jars _____ T-Started 4:30
 (C) First Final Flow 45 Safety Joint _____ T-Open 6:16
 (D) Initial Shut-In 1180 Circ Sub _____ T-Pulled 9:16
 (E) Second Initial Flow 46 Hourly Standby _____ T-Out 11:05
 (F) Second Final Flow 50 Mileage 24.80 Comments _____
 (G) Final Shut-In 1199 Sampler _____
 (H) Final Hydrostatic 1756 Straddle _____

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 60 Extra Packer _____ Ruined Packer _____
 Final Flow 30 Extra Recorder _____ Extra Copies _____
 Final Shut-In 60 Day Standby _____ Sub Total 0
 Total 1174.80
 Sub Total 1174.80 Accessibility _____ MP/DST Disc't _____

Approved By _____ Our Representative Jeff Brown

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48513

Well Name & No. GOTTschalk 1-28 Test No. 5 Date 3-25-13
 Company Murfin Drilling Co INC Elevation 2059 KB 2054 GL
 Address 250 N Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #16
 Location: Sec. 28 Twp. 14s Rge. 18 W Co. ELLIS State KS

Interval Tested 3694-3704 Zone Tested ArBuckle
 Anchor Length 10 Drill Pipe Run 3677 Mud Wt. 9.3
 Top Packer Depth 3689 Drill Collars Run 29 Vis 56
 Bottom Packer Depth 3694 Wt. Pipe Run 0 WL 7.6
 Total Depth 3704 Chlorides 1500 ppm System LCM 2
 Blow Description FF-Good Blow BoB IN 20 min
IST-Meak Surface Blow Back
FF-Good Blow BoB IN 23 1/2 min
FF-Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>126</u>	<u>mW</u>			<u>90</u>	<u>10</u>
<u>94</u>	<u>WM</u>			<u>45</u>	<u>55</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 220 BHT 114 Gravity _____ API RW .372 @ 43.3 °F Chlorides 30,000 ppm

(A) Initial Hydrostatic <u>1837</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>15:44</u>
(B) First Initial Flow <u>14</u>	<input type="checkbox"/> Jars _____	T-Started <u>16:06</u>
(C) First Final Flow <u>64</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>17:49</u>
(D) Initial Shut-In <u>1203</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>20:49</u>
(E) Second Initial Flow <u>68</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>22:35</u>
(F) Second Final Flow <u>109</u>	<input checked="" type="checkbox"/> Mileage <u>24.80</u>	Comments _____
(G) Final Shut-In <u>1209</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1761</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1174.80</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1174.80</u>	

Approved By _____ Our Representative Jeff Brown

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