

CONFIDENTIAL

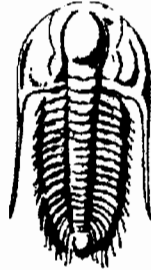
7-9s-18w
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JUL 08 2003

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TRILOBITE
TESTING, INC.

Release
AUG 31 2004
From
Confidential

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water, suite 300
Wichita Ks 67202

ATTN: Jim Danials

7-9s-18W Rooks Ks

Palmberg #1-7

Start Date: 2003.06.11 @ 20:43:22

End Date: 2003.06.12 @ 04:34:51

Job Ticket #: 17173 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drilling Co Inc

Palmberg #1-7

7-9s-18W Rooks Ks

DST # 1

LKC B-F

2003.06.11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water, suite 300
Wichita Ks 67202
ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17173 **DST#: 1**
Test Start: 2003.06.11 @ 20:43:22

GENERAL INFORMATION:

Formation: **LKC B-F**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: **22:58:51**
Time Test Ended: **04:34:51**
Interval: 3274.00 ft (KB) To 3333.00 ft (KB) (TVD)
Total Depth: **3333.00 ft (KB) (TVD)**
Hole Diameter: **7.85 inches** Hole Condition: **Fair**

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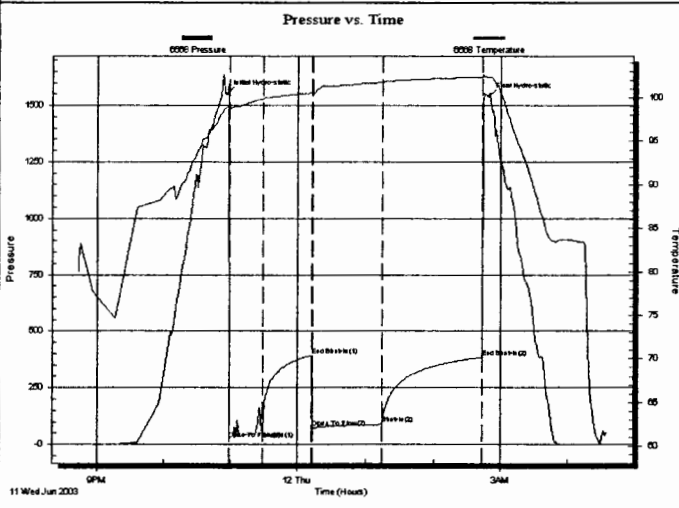
Test Type: **Conventional Bottom Hole**
Tester: **Ray Schwager**
Unit No: **16**
Reference Elevations: **2059.00 ft (KB)**
2054.00 ft (CF)
KB to GR/CF: **5.00 ft**

Serial #: 6668

Inside

Press@RunDepth: **87.79 psig @ 3280.01 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2003.06.11** End Date: **2003.06.12** Last Calib.: **2003.06.12**
Start Time: **20:43:22** End Time: **04:34:51** Time On Btm: **2003.06.11 @ 22:56:21**
Time Off Btm: **2003.06.12 @ 02:48:21**

TEST COMMENT: FFP-w k bl thru-out 1/2" to 1 1/4" bl
FFP-w k bl thru-out 1/4" bl
Times 30-45-60-90



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1549.34	98.86	Initial Hydro-static
3	22.26	98.82	Open To Flow (1)
33	57.76	99.85	Shut-In(1)
76	392.87	100.53	End Shut-In(1)
77	71.92	100.44	Open To Flow (2)
138	87.79	101.77	Shut-In(2)
227	384.48	102.36	End Shut-In(2)
232	1540.18	102.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	MW 45% mud 55% water RW.3@64F	0.61
0.00	w/show of oil in tool	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
250 N Water, suite 300
Wichita Ks 67202

ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17173 **DST#: 1**
Test Start: 2003.06.11 @ 20:43:22

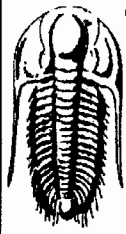
Tool Information

Drill Pipe:	Length: 3088.00 ft	Diameter: 3.80 inches	Volume: 43.32 bbl	Tool Weight: 2200.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 60000.00 lb
			Total Volume: 44.21 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3274.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	59.02 ft			
Tool Length:	80.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3254.00	
Shut In Tool	5.00			3259.00	
Hydraulic tool	5.00			3264.00	
Packer	5.00			3269.00	21.00 Bottom Of Top Packer
Packer	5.00			3274.00	
Stubb	1.00			3275.00	
Perforations	4.00			3279.00	
Change Over Sub	1.00			3280.00	
Recorder	0.01	6668	Inside	3280.01	
Blank Spacing	29.00			3309.01	
Change Over Sub	1.00			3310.01	
Recorder	0.01	11085	Outside	3310.02	
Perforations	20.00			3330.02	
Bullnose	3.00			3333.02	59.02 Bottom Packers & Anchor

Total Tool Length: 80.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water, suite 300
Wichita Ks 67202
ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17173 DST#: 1
Test Start: 2003.06.11 @ 20:43:22

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:	26000 ppm
Viscosity: 46.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.55 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2800.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	MW 45% mud 55% water RW.3@64F	0.615
0.00	w/show of oil in tool	0.000

Total Length: 125.00 ft Total Volume: 0.615 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6668

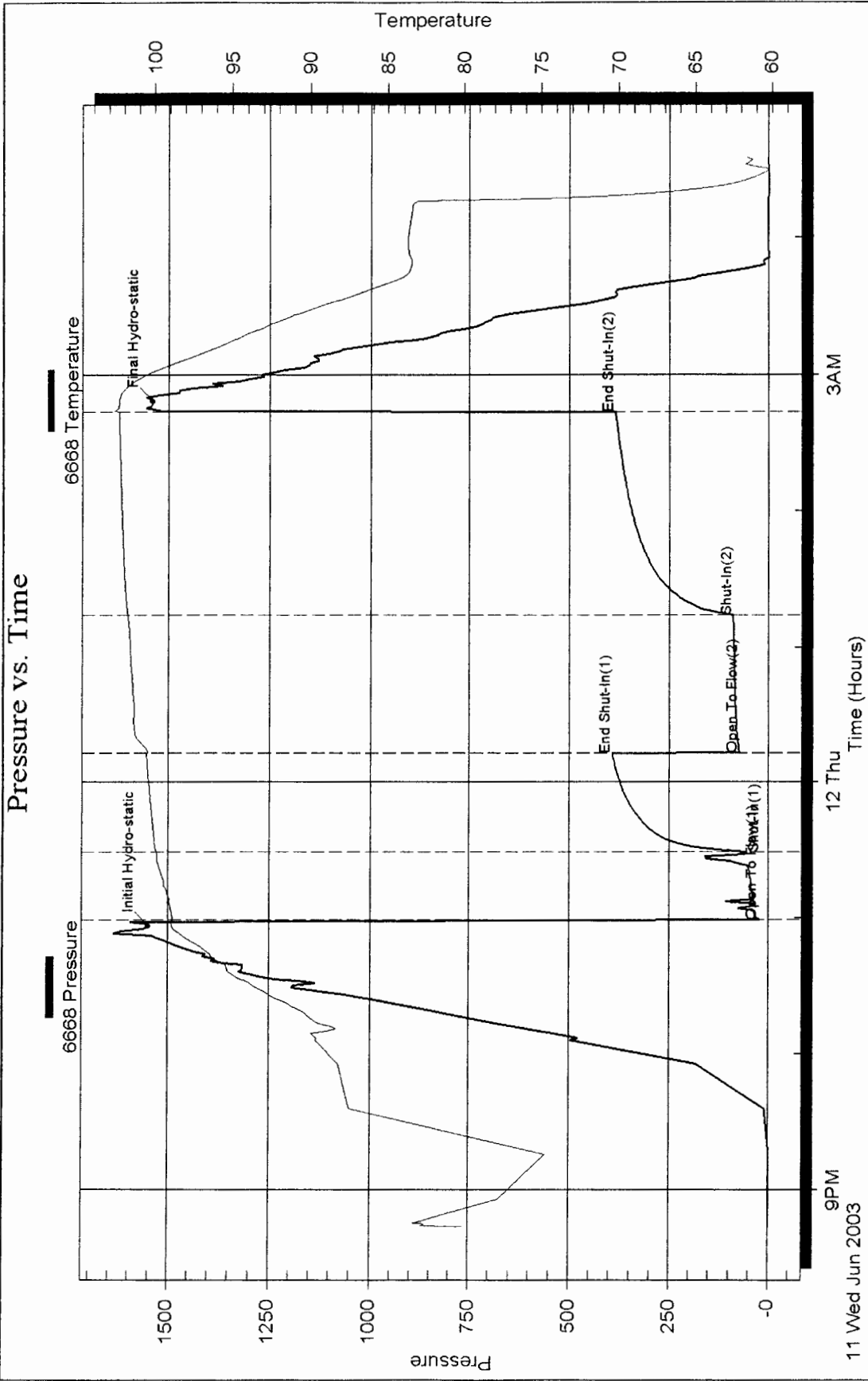
Inside

Murfin Drilling Co Inc

7-9s-18W Rocks Ks

DST Test Number: 1

Pressure vs. Time

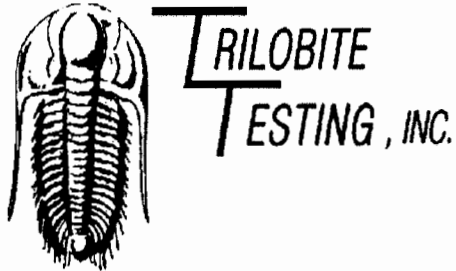


Ref. No: 17173

Triobite Testing, Inc

Printed: 2003.06.19 @ 09:26:11 Page 5

Release
AUG 11 2004
From
Gas Plant



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water, suite 300
Wichita Ks 67202

ATTN: Jim Danials

7-9s-18W Rooks Ks

Palmberg #1-7

Start Date: 2003.06.12 @ 10:38:47

End Date: 2003.06.12 @ 17:22:46

Job Ticket #: 17174 DST #: 2

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water, suite 300
Wichita Ks 67202
ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17174 **DST#: 2**
Test Start: 2003.06.12 @ 10:38:47

GENERAL INFORMATION:

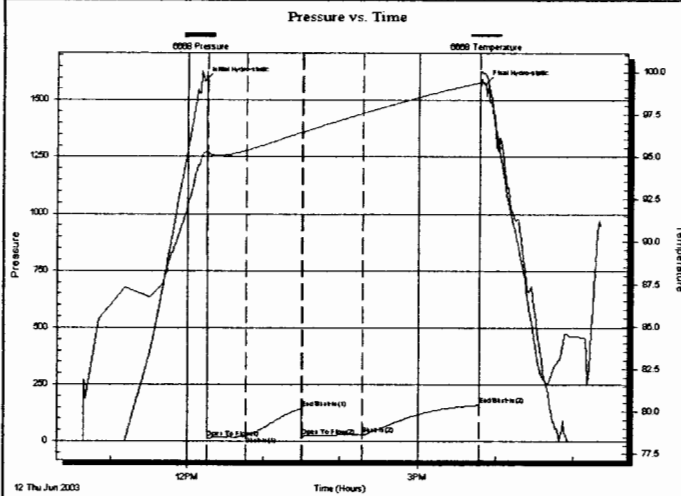
Formation: **LKC "G"**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 12:16:16
Time Test Ended: 17:22:46
Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 16
Interval: **3332.00 ft (KB) To 3365.00 ft (KB) (TVD)**
Reference Elevations: 2059.00 ft (KB)
Total Depth: 3365.00 ft (KB) (TVD) 2054.00 ft (CF)
Hole Diameter: 7.85 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 6668

Inside

Press@RunDepth: 30.81 psig @ 3337.01 ft (KB) Capacity: 7000.00 psig
Start Date: 2003.06.12 End Date: 2003.06.12 Last Calib.: 2003.06.12
Start Time: 10:38:47 End Time: 17:22:46 Time On Btm: 2003.06.12 @ 12:13:46
Time Off Btm: 2003.06.12 @ 15:51:16

TEST COMMENT: FFP-w k bl thru-out 1/4" to surface
FFP-w k surface bl thru-out
Times 30-45-45-90



PRESSURE SUMMARY

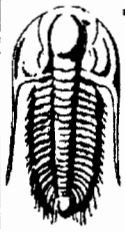
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1584.40	95.25	Initial Hydro-static
3	13.75	95.26	Open To Flow (1)
33	21.76	95.34	Shut-In(1)
77	144.71	96.45	End Shut-In(1)
77	20.36	96.41	Open To Flow(2)
124	30.81	97.55	Shut-In(2)
213	160.31	99.36	End Shut-In(2)
218	1571.61	99.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 5%oil 95%mud	0.10
0.00	40 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
250 N Water, suite 300
Wichita Ks 67202
ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17174 **DST#: 2**
Test Start: 2003.06.12 @ 10:38:47

Tool Information

Drill Pipe:	Length: 3147.00 ft	Diameter: 3.80 inches	Volume: 44.14 bbl	Tool Weight: 2200.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 45.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3332.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.02 ft			
Tool Length:	54.02 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			3312.00	
Shut In Tool	5.00			3317.00	
Hydraulic tool	5.00			3322.00	
Packer	5.00			3327.00	21.00 Bottom Of Top Packer
Packer	5.00			3332.00	
Stubb	1.00			3333.00	
Perforations	4.00			3337.00	
Recorder	0.01	6668	Inside	3337.01	
Perforations	25.00			3362.01	
Recorder	0.01	11085	Outside	3362.02	
Bullnose	3.00			3365.02	33.02 Bottom Packers & Anchor

Total Tool Length: 54.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water, suite 300
Wichita Ks 67202
ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17174 **DST#: 2**
Test Start: 2003.06.12 @ 10:38:47

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.95 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2800.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OCM 5%oil 95%mud	0.098
0.00	40 GIP	0.000

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 #: 6668

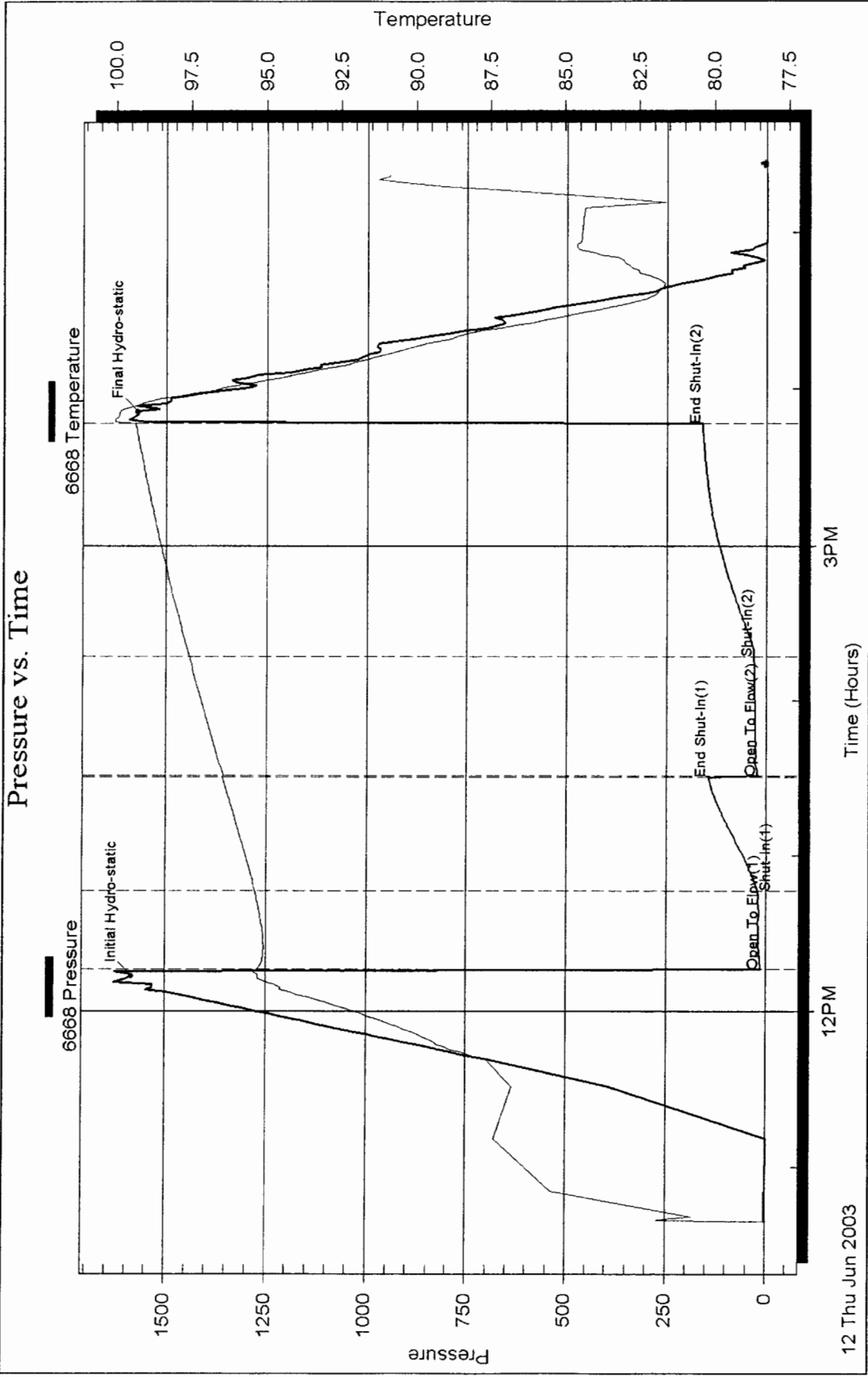
Inside

Murfin Drilling Co Inc

7-9s-18W Rocks Ks

DST Test Number: 2

Pressure vs. Time

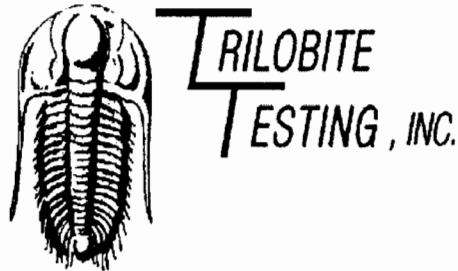


Ref. No: 17174

Trilobite Testing, Inc

Printed: 2003.06.19 @ 09:26:33 Page 5

Release
2004
From
Card 1st



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water, suite 300
Wichita Ks 67202

ATTN: Jim Danials

7-9s-18W Rooks Ks

Palmberg #1-7

Start Date: 2003.06.13 @ 02:48:45

End Date: 2003.06.13 @ 08:52:14

Job Ticket #: 17175 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drilling Co Inc

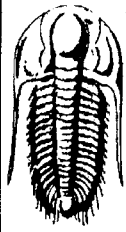
Palmberg #1-7

7-9s-18W Rooks Ks

DST # 3

LKC I,J,K

2003.06.13



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water, suite 300
Wichita Ks 67202
ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17175 **DST#: 3**
Test Start: 2003.06.13 @ 02:48:45

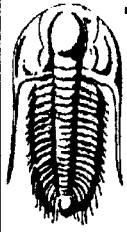
Tool Information

Drill Pipe:	Length: 3216.00 ft	Diameter: 3.80 inches	Volume: 45.11 bbl	Tool Weight: 2200.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 46.00 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3398.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.02 ft			
Tool Length:	99.02 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			3378.00	
Shut In Tool	5.00			3383.00	
Hydraulic tool	5.00			3388.00	
Packer	5.00			3393.00	21.00 Bottom Of Top Packer
Packer	5.00			3398.00	
Stubb	1.00			3399.00	
Perforations	1.00			3400.00	
Change Over Sub	1.00			3401.00	
Recorder	0.01	6668	Inside	3401.01	
Blank Spacing	59.00			3460.01	
Change Over Sub	1.00			3461.01	
Recorder	0.01	11085	Outside	3461.02	
Perforations	12.00			3473.02	
Bullnose	3.00			3476.02	78.02 Bottom Packers & Anchor

Total Tool Length: 99.02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water, suite 300
Wichita Ks 67202
ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17175 **DST#: 3**
Test Start: 2003.06.13 @ 02:48:45

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: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	mud	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6668

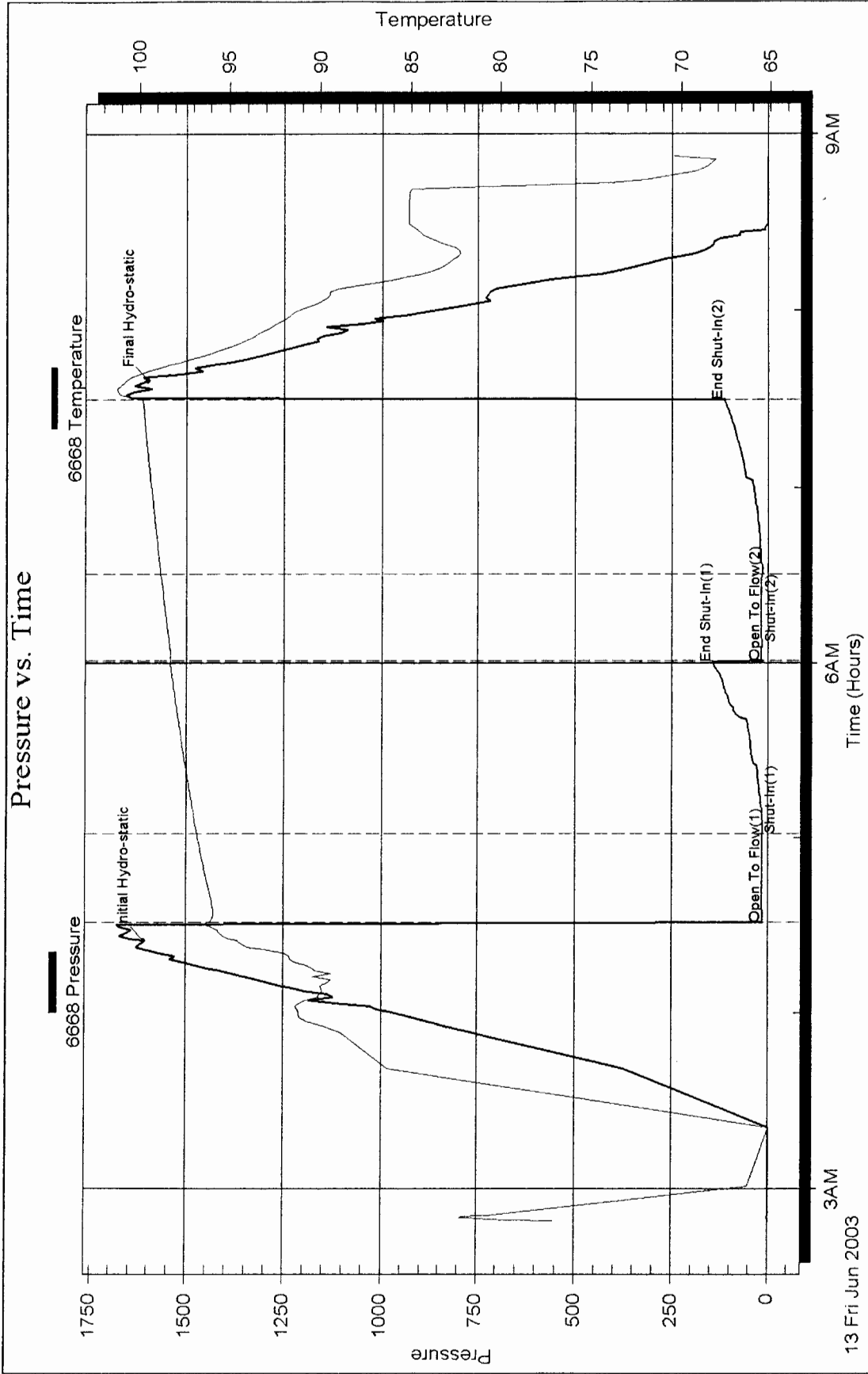
Inside

Murfin Drilling Co Inc

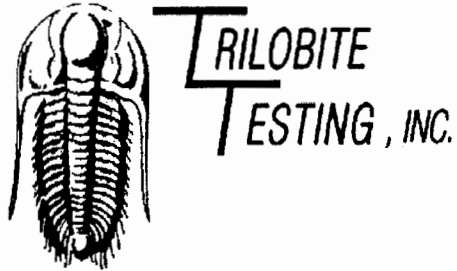
7-9s-18W Rooks Ks

DST Test Number: 3

Pressure vs. Time



Release
AUG 11 2004
From
Garfield tel



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water, suite 300
Wichita Ks 67202

ATTN: Jim Danials

7-9s-18W Rooks Ks

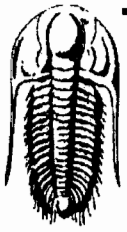
Palmberg #1-7

Start Date: 2003.06.13 @ 15:26:44

End Date: 2003.06.13 @ 20:54:13

Job Ticket #: 17026 DST #: 4

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water, suite 300
Wichita Ks 67202
ATTN: Jim Danials

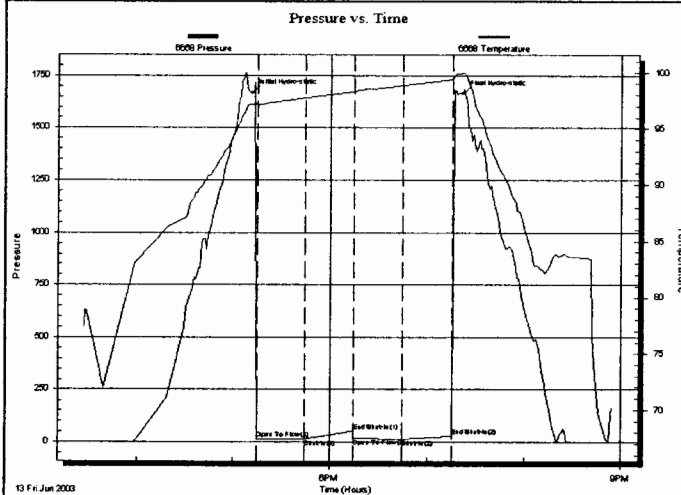
Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17026 **DST#: 4**
Test Start: 2003.06.13 @ 15:26:44

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 17:14:43
Time Test Ended: 20:54:13
Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 16
Interval: **3468.00 ft (KB) To 3505.00 ft (KB) (TVD)**
Reference Elevations: 2059.00 ft (KB)
Total Depth: 3505.00 ft (KB) (TVD) 2054.00 ft (CF)
Hole Diameter: 7.85 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 6668 **Inside**
Press@RunDepth: 14.14 psig @ 3473.01 ft (KB) Capacity: 7000.00 psig
Start Date: 2003.06.13 End Date: 2003.06.13 Last Calib.: 2003.06.13
Start Time: 15:26:44 End Time: 20:54:13 Time On Btm: 2003.06.13 @ 17:11:13
Time Off Btm: 2003.06.13 @ 19:21:13

TEST COMMENT: FFP-w k surface bl died in 14 min
FFP-no bl
Times 30-30-30-30



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1666.25	97.15	Initial Hydro-static
4	14.04	97.06	Open To Flow (1)
33	16.47	97.74	Shut-In(1)
63	50.56	98.28	End Shut-In(1)
64	17.19	98.31	Open To Flow (2)
93	14.14	98.83	Shut-In(2)
124	28.86	99.36	End Shut-In(2)
130	1663.27	99.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	SOCM 1%oil 99%mud	0.01

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, suite 300
Wichita Ks 67202
ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17026 **DST#: 4**
Test Start: 2003.06.13 @ 15:26:44

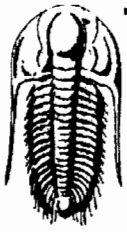
Tool Information

Drill Pipe:	Length: 3276.00 ft	Diameter: 3.80 inches	Volume: 45.95 bbl	Tool Weight: 2200.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 55000.00 lb
			Total Volume: 46.84 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3468.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.02 ft			
Tool Length:	58.02 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			3448.00	
Shut In Tool	5.00			3453.00	
Hydraulic tool	5.00			3458.00	
Packer	5.00			3463.00	21.00 Bottom Of Top Packer
Packer	5.00			3468.00	
Stubb	1.00			3469.00	
Perforations	4.00			3473.00	
Recorder	0.01	6668	Inside	3473.01	
Perforations	29.00			3502.01	
Recorder	0.01	11085	Outside	3502.02	
Bullnose	3.00			3505.02	37.02 Bottom Packers & Anchor

Total Tool Length: 58.02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water, suite 300
Wichita Ks 67202
ATTN: Jim Danials

Palmberg #1-7
7-9s-18W Rooks Ks
Job Ticket: 17026 **DST#: 4**
Test Start: 2003.06.13 @ 15:26:44

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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	SOCM 1%oil 99%mud	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

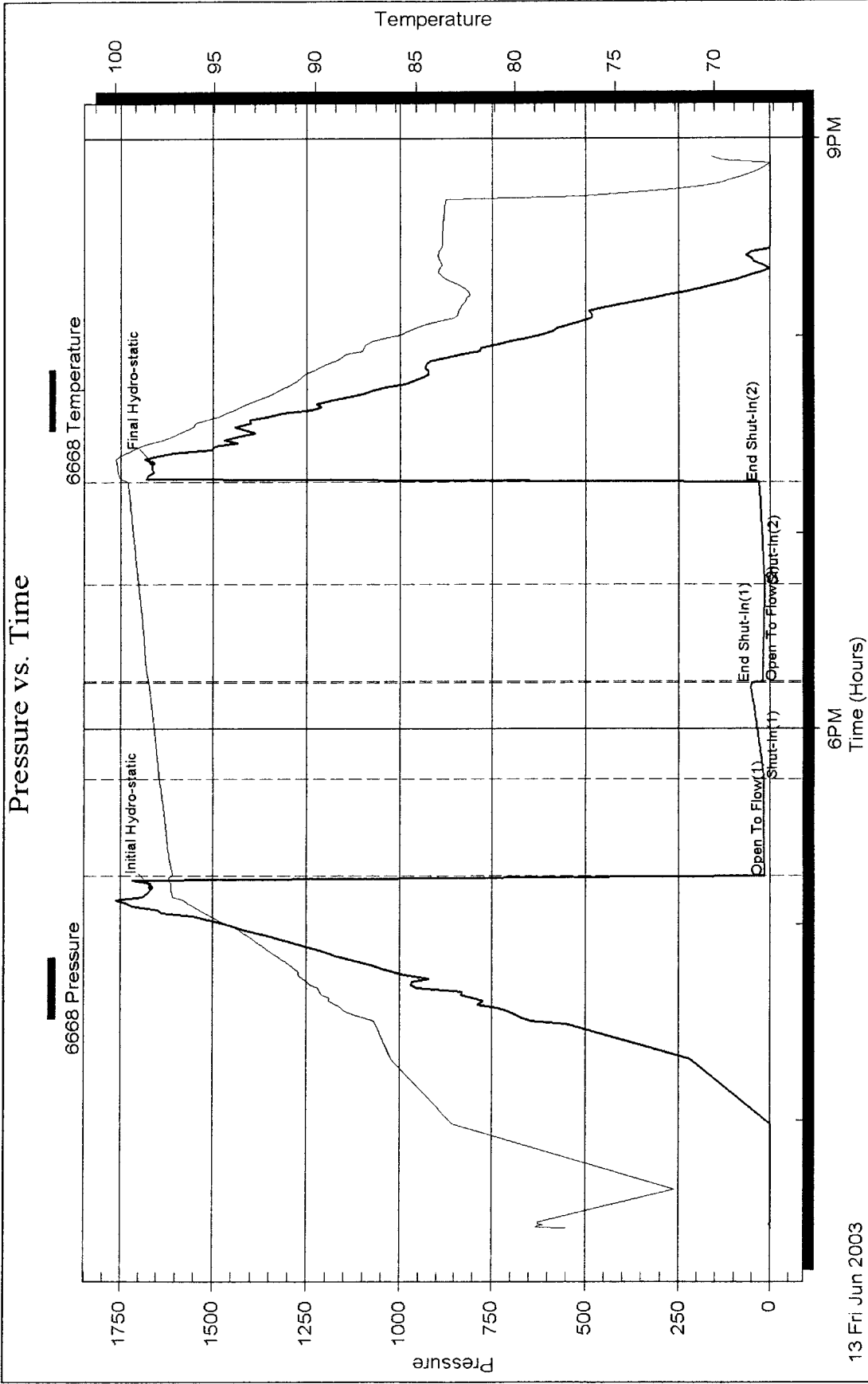
Serial #: 6668

Inside

Murfin Drilling Co Inc

7-9s-18W Rooks Ks

DST Test Number: 4



13 Fri Jun 2003

6PM
Time (Hours)

9PM