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KCC WICHITA



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg Co Inc**

250 N Water, Ste 300
Wichita Ks 67202

15-065-22908

ATTN: David Doyel

26-6s-22w Graham Ks

Standley #1-26

Start Date: 2003.04.06 @ 23:04:18

End Date: 2003.04.07 @ 07:10:17

Job Ticket #: 16979 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drlg Co Inc
Standley #1-26
26-6s-22w Graham Ks
DST # 1
LKC B-C-E
2003.04.06

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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drlg Co Inc

250 N Water, Ste 300
Wichita Ks 67202

ATTN: David Doyel

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APR 2 2 2003
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Standley #1-26

26-6s-22w Graham Ks

Job Ticket: 16979 **DST#: 1**

Test Start: 2003.04.06 @ 23:04:18

GENERAL INFORMATION:

Formation: **LKC B-C-E**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:16:17
Time Test Ended: 07:10:17

Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 16

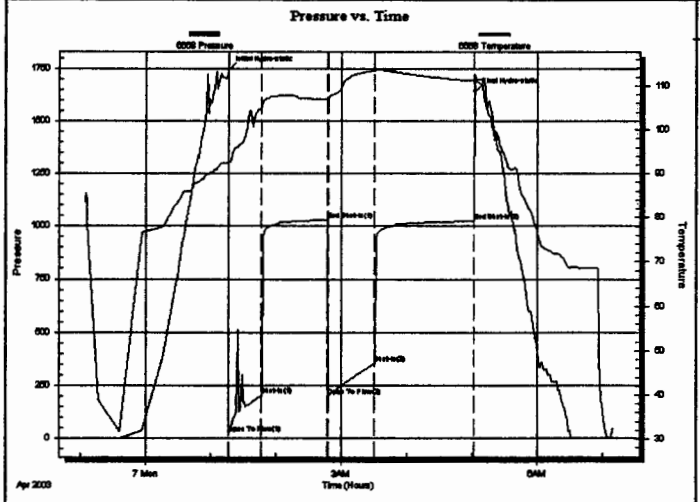
Interval: 3580.00 ft (KB) To 3641.00 ft (KB) (TVD)
Total Depth: 3641.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2304.00 ft (KB)
2299.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6668 **Inside**
Press@RunDepth: 353.07 psig @ 3583.01 ft (KB)
Start Date: 2003.04.06 End Date: 2003.04.07
Start Time: 23:04:18 End Time: 07:10:17

Capacity: 7000.00 psig
Last Calib.: 2003.04.07
Time On Btm: 2003.04.07 @ 01:15:47
Time Off Btm: 2003.04.07 @ 05:02:17

TEST COMMENT: IFP-w k to strg in 12 min
FFP-w k to strg in 30 min
Times 30-60-45-90
No bl bk on shut-in



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1745.22	92.66	Initial Hydro-static
1	22.23	92.51	Open To Flow (1)
31	202.40	104.86	Shut-In(1)
91	1028.09	106.91	End Shut-In(1)
92	201.16	106.81	Open To Flow (2)
135	353.07	113.43	Shut-In(2)
226	1023.21	111.14	End Shut-In(2)
227	1640.45	111.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
540.00	w ater RW .25@44F	5.94
180.00	MW 25%mud 75%w ater w/show of oil	2.52

Gas Rates

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

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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg Co Inc

250 N Water, Ste 300
Wichita Ks 67202

ATTN: David Doyel

KCC
APR 2 2 2003
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Standley #1-26

26-6s-22w Graham Ks

Job Ticket: 16979 **DST#: 1**

Test Start: 2003.04.06 @ 23:04:18

Tool Information

Drill Pipe:	Length:	3397.00 ft	Diameter:	3.80 inches	Volume:	47.65 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	180.00 ft	Diameter:	2.25 inches	Volume:	0.89 bbl	
					Total Volume:	48.54 bbl	

Drill Pipe Above KB:	20.00 ft
Depth to Top Packer:	3580.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	61.02 ft
Tool Length:	84.02 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2200.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	55000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	44000.00 lb
Final	47000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3558.00		
Shut In Tool	5.00			3563.00		
Hydraulic tool	5.00			3568.00		
Safety Joint	2.00			3570.00		
Packer	5.00			3575.00	23.00	Bottom Of Top Packer
Packer	5.00			3580.00		
Stubb	1.00			3581.00		
Perforations	1.00			3582.00		
Change Over Sub	1.00			3583.00		
Recorder	0.01	6668	Inside	3583.01		
Blank Spacing	31.00			3614.01		
Change Over Sub	1.00			3615.01		
Perforations	23.00			3638.01		
Recorder	0.01	11085	Outside	3638.02		
Bullnose	3.00			3641.02	61.02	Bottom Packers & Anchor
Total Tool Length:	**84.02**					

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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg Co Inc

250 N Water, Ste 300
Wichita Ks 67202

ATTN: David Doyel

Standley #1-26

26-6s-22w Graham Ks

Job Ticket: 16979 **DST#: 1**

Test Start: 2003.04.06 @ 23:04:18

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:	50000 ppm
Viscosity:	42.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.78 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

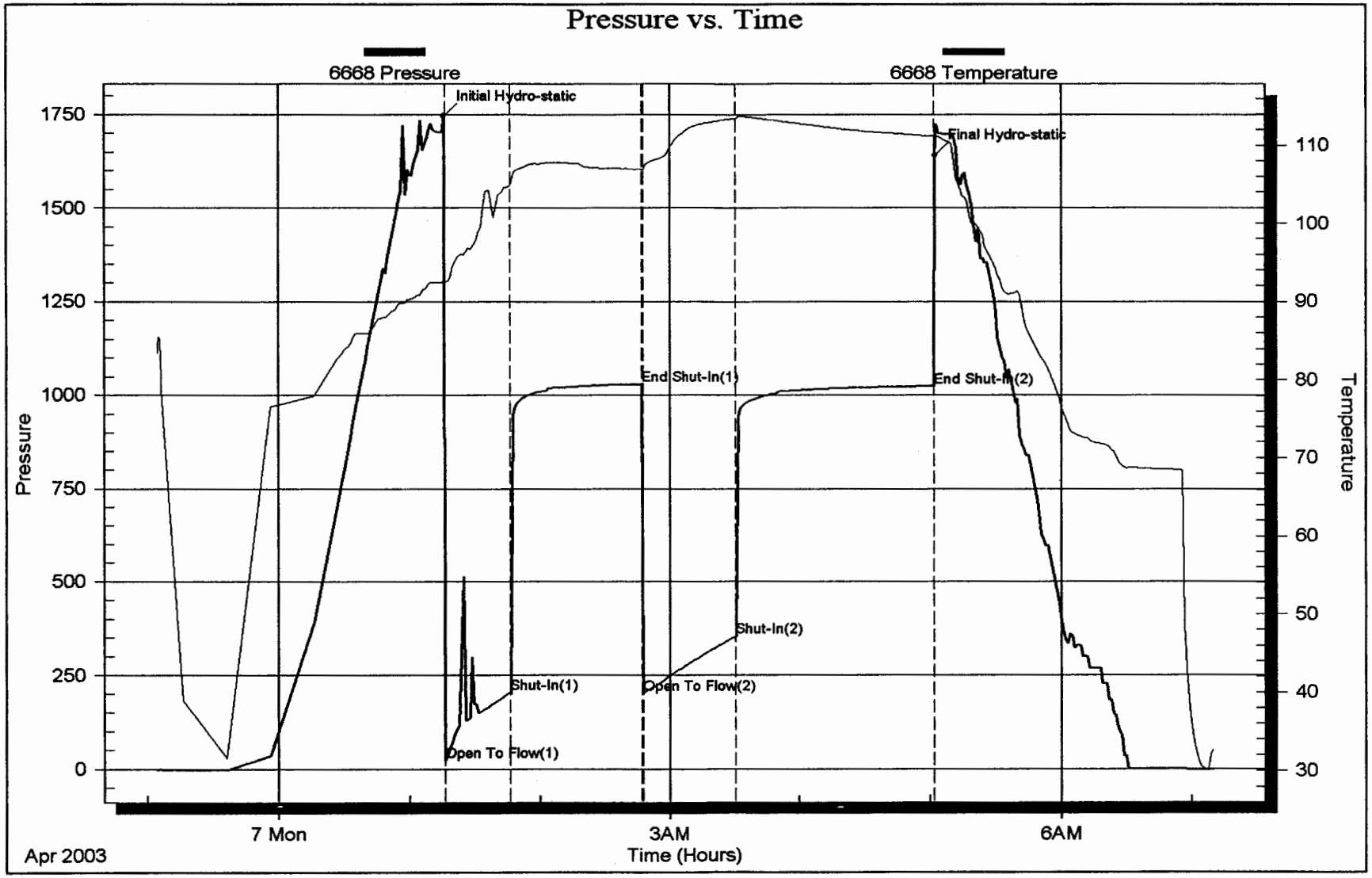
Length ft	Description	Volume bbl
540.00	water RW .25@44F	5.935
180.00	MW 25%mud 75%water w/show of oil	2.525

Total Length: 720.00 ft Total Volume: 8.460 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6668 Pressure
6668 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
40
30
7 Mon
3AM
6AM
Apr 2003
Time (Hours)

15-065-22908

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg Co Inc**

250 N Water, Ste 300
Wichita Ks 67202

ATTN: David Doyel

26-6s-22w Graham Ks

Standley #1-26

Start Date: 2003.04.07 @ 19:37:00

End Date: 2003.04.08 @ 03:52:29

Job Ticket #: 16980 DST #: 2

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Murfin Drlg Co Inc

250 N Water, Ste 300
Wichita Ks 67202

ATTN: David Doyel

Standley #1-26

26-6s-22w Graham Ks

Job Ticket: 16980 **DST#: 2**

Test Start: 2003.04.07 @ 19:37:00

GENERAL INFORMATION:

Formation: **LKC H-K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:47:59
Time Test Ended: 03:52:29

Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 16

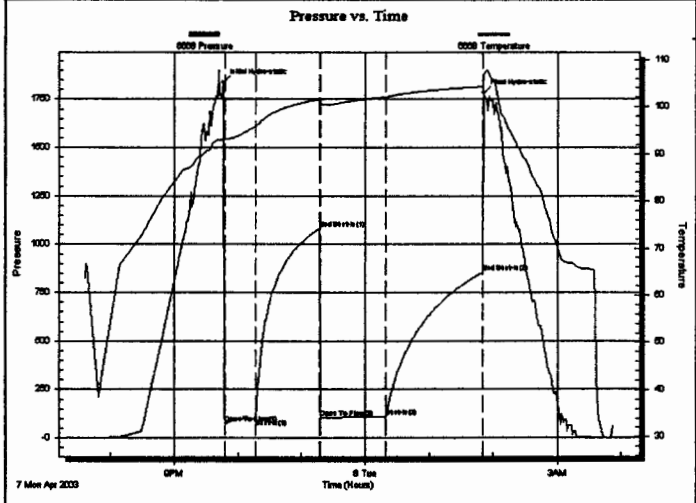
Interval: 3664.00 ft (KB) To 3754.00 ft (KB) (TVD)
Total Depth: 3754.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2304.00 ft (KB)
2299.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6668 **Inside**
Press@RunDepth: 108.78 psig @ 3667.01 ft (KB)
Start Date: 2003.04.07 End Date: 2003.04.08
Start Time: 19:37:00 End Time: 03:52:29

Capacity: 7000.00 psig
Last Calib.: 2003.04.08
Time On Btm: 2003.04.07 @ 21:45:59
Time Off Btm: 2003.04.08 @ 01:50:59

TEST COMMENT: IFP-w k to a fr bl 1/2" to 5" bl
FFP-fr bl thru-out 4" to 4 1/2" bl
Times 30-60-60-90



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1836.41	93.12	Initial Hydro-static
2	75.63	93.11	Open To Flow (1)
31	101.08	95.88	Shut-In(1)
92	1083.38	101.54	End Shut-In(1)
93	104.89	100.82	Open To Flow (2)
153	108.78	102.07	Shut-In(2)
244	854.05	104.25	End Shut-In(2)
245	1783.56	106.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
210.00	MW 20%mud 80%w ater RW.25@34F	1.31

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg Co Inc

250 N Water, Ste 300
Wichita Ks 67202

ATTN: David Doyel

Standley #1-26

26-6s-22w Graham Ks

Job Ticket: 16980 **DST#: 2**

Test Start: 2003.04.07 @ 19:37:00

Tool Information

Drill Pipe:	Length:	3492.00 ft	Diameter:	3.80 inches	Volume:	48.98 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:	49.87 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		31.00 ft					String Weight:	Initial	45000.00 lb
Depth to Top Packer:		3664.00 ft						Final	46000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		90.02 ft							
Tool Length:		113.02 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			3642.00		
Shut In Tool	5.00			3647.00		
Hydraulic tool	5.00			3652.00		
Safety Joint	2.00			3654.00		
Packer	5.00			3659.00	23.00	Bottom Of Top Packer
Packer	5.00			3664.00		
Stubb	1.00			3665.00		
Perforations	1.00			3666.00		
Change Over Sub	1.00			3667.00		
Recorder	0.01	6668	Inside	3667.01		
Blank Spacing	61.00			3728.01		
Change Over Sub	1.00			3729.01		
Perforations	22.00			3751.01		
Recorder	0.01	11085	Outside	3751.02		
Bullnose	3.00			3754.02	90.02	Bottom Packers & Anchor
Total Tool Length:	**113.02**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

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250 N Water, Ste 300
Wichita Ks 67202

ATTN: David Doyel

Standley #1-26

26-6s-22w Graham Ks

Job Ticket: 16980 **DST#: 2**

Test Start: 2003.04.07 @ 19:37:00

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:	70000 ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.38 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

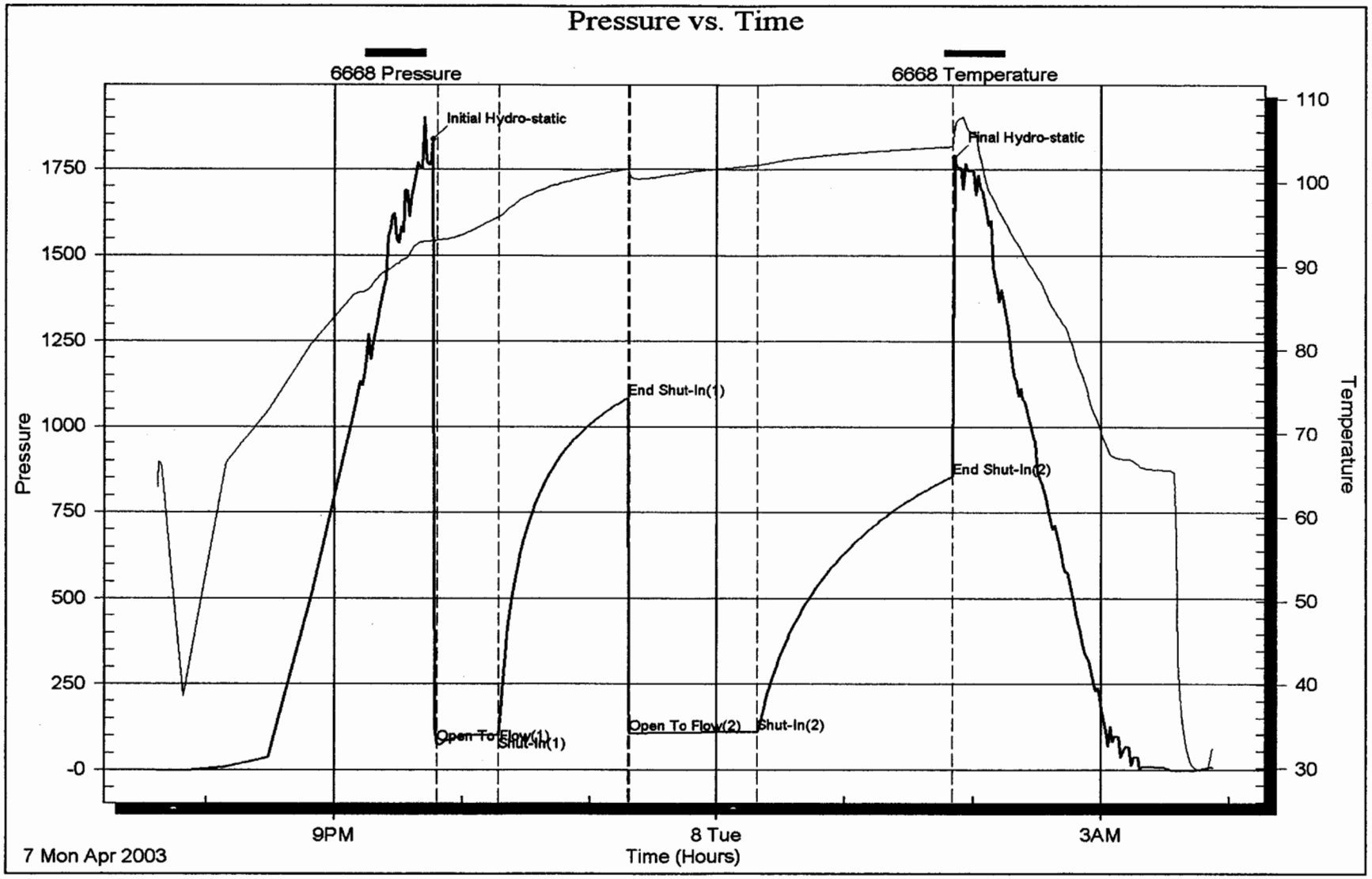
Length ft	Description	Volume bbl
210.00	MW 20%mud 80%water RW.25@34F	1.306

Total Length: 210.00 ft Total Volume: 1.306 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6668 Pressure
6668 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
-0
110
100
90
80
70
60
50
40
30
9PM
8 Tue
3AM
7 Mon Apr 2003
Time (Hours)