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KCC

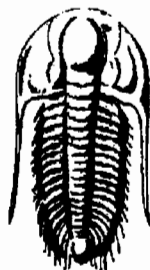
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KCC WICHITA



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **American Warrior**

P.O. Box 399
Garden City, Ks 67846

ATTN: Al Downing

28-32s-19w

Bird #4

Start Date: 2004.02.08 @ 10:29:14

End Date: 2004.02.08 @ 19:08:41

Job Ticket #: 17225 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

American Warrior

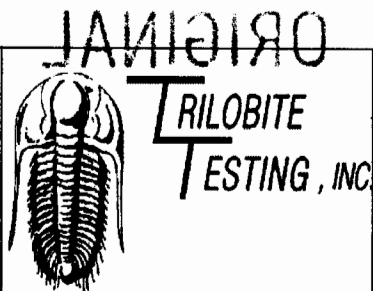
Bird #4

28-32s-19w

DST # 1

Mississippi

2004.02.08



DRILL STEM TEST REPORT

American Warrior

Bird #4

P.O. Box 399
Garden City, Ks 67846

28-32s-19w

ATTN: Al Downing

Job Ticket: 17225

DST#: 1

Test Start: 2004.02.08 @ 10:29:14

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:00:21

Time Test Ended: 19:08:41

Interval: **5042.00 ft (KB) To 5167.00 ft (KB) (TVD)**

Total Depth: 5167.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Nick Budig

Unit No: 17

Reference Elevations: 1939.00 ft (KB)

1926.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 6771

Inside

Press@RunDepth: 1068.71 psig @ 5049.00 ft (KB)

Start Date: 2004.02.08

End Date:

2004.02.08

Start Time: 10:29:19

End Time:

19:08:40

Capacity: 7000.00 psig

Last Calib.: 2004.02.08

Time On Btm: 2004.02.08 @ 12:50:11

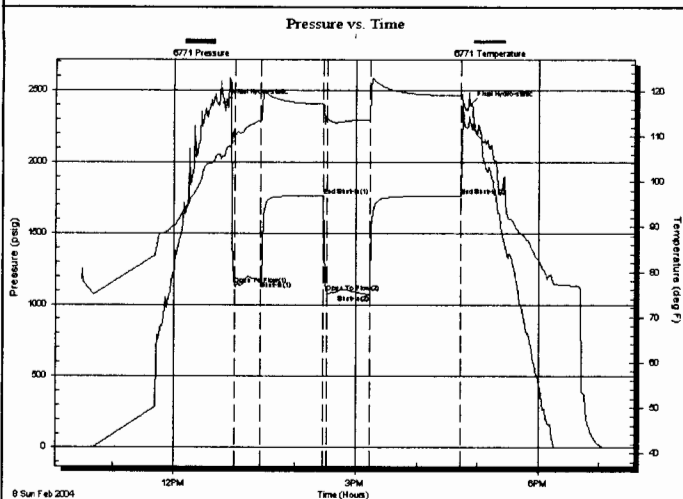
Time Off Btm: 2004.02.08 @ 16:52:11

TEST COMMENT: IF- Strong Blow obb as soon as tool opened, GTS in 2 min

IS- Strong Blow obb

FF- Strong Blow obb as soon as tool opened, gas slowly built to 320 lbs@ 3/4 choke

FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2412.95	105.69	Initial Hydro-static
11	1137.17	110.88	Open To Flow (1)
37	1162.10	113.47	Shut-In(1)
98	1765.23	117.26	End Shut-In(1)
102	1086.29	113.95	Open To Flow(2)
144	1068.71	113.71	Shut-In(2)
234	1765.92	119.14	End Shut-In(2)
242	2400.33	113.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
140.00	Gas cut mud, with slight oil mix	0.69

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	250.00	4129.89
Last Gas Rate	0.75	320.00	5223.28
Max. Gas Rate	0.75	340.00	5535.68



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DRILL STEM TEST REPORT

TOOL DIAGRAM

American Warrior

Bird #4

P.O. Box 399
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28-32s-19w

Job Ticket: 17225

DST#: 1

ATTN: Al Downing

Test Start: 2004.02.08 @ 10:29:14

Tool Information

Drill Pipe:	Length: 4725.00 ft	Diameter: 3.38 inches	Volume: 52.44 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: 23000.00 lb
Drill Collar:	Length: 310.00 ft	Diameter: 2.25 inches	Volume: 1.52 bbl	Weight to Pull Loose: 100000.0 lb
		Total Volume: 53.96 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 83000.00 lb
Depth to Top Packer:	5042.00 ft			Final 83000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	125.00 ft			
Tool Length:	152.00 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			5016.00	
Shut In Tool	5.00			5021.00	
Hydraulic tool	5.00			5026.00	
Jars	5.00			5031.00	
Safety Joint	2.00			5033.00	
Packer	5.00			5038.00	27.00 Bottom Of Top Packer
Packer	4.00			5042.00	
Stubb	1.00			5043.00	
Perforations	5.00			5048.00	
Change Over Sub	1.00			5049.00	
Recorder	0.00	6771	Inside	5049.00	
Blank Spacing	95.00			5144.00	
Bullnose	1.00			5145.00	
Perforations	19.00			5164.00	
Recorder	0.00	13761	Inside	5164.00	
Bullnose	3.00			5167.00	125.00 Bottom Packers & Anchor
Total Tool Length:	152.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

American Warrior

Bird #4

P.O. Box 399
Garden City, Ks 67846

28-32s-19w

Job Ticket: 17225

DST#: 1

ATTN: Al Downing

Test Start: 2004.02.08 @ 10:29:14

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: 42.00 sec/qt

Cushion Volume:

bbl

Water Loss: 12.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
140.00	Gas cut mud, with slight oil mix	0.688

Total Length: 140.00 ft

Total Volume: 0.688 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

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DRILL STEM TEST REPORT

GAS RATES

American Warrior

Bird #4

P.O. Box 399
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28-32s-19w

Job Ticket: 17225

DST#: 1

ATTN: Al Downing

Test Start: 2004.02.08 @ 10:29:14

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	10	0.75	250.00	4129.89
1	20	0.75	340.00	5535.68
1	30	0.75	320.00	5223.28
2	10	0.75	260.00	4286.09
2	20	0.75	320.00	5223.28
2	30	0.75	320.00	5223.28
2	40	0.75	320.00	5223.28
2	45	0.75	320.00	5223.28

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DST Test Number: 1

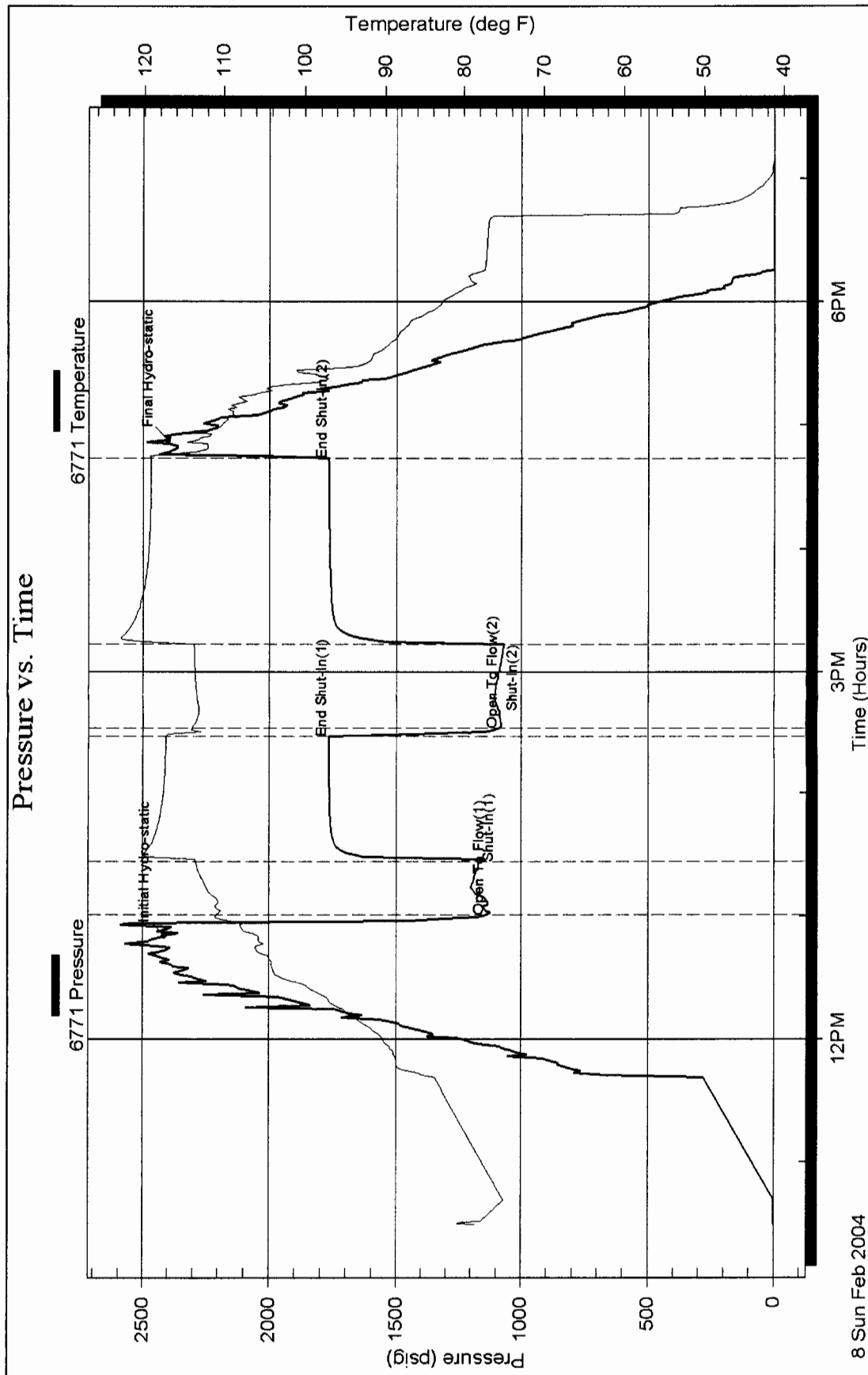
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American Warrior

Inside

Serial #: 6771

Pressure vs. Time



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