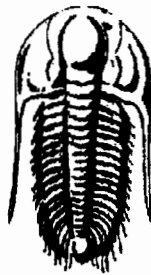


15-051-25787



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Downing Nelson**

PO Box 372  
Hays KS 67601

ATTN: Marc Downing

**25 12S 20W Ellis KS**

**Miller # 1-25**

Start Date: 2008.05.25 @ 03:47:36

End Date: 2008.05.25 @ 10:10:36

Job Ticket #: 32013                      DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Downing Nelson

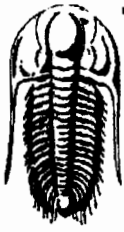
Miller # 1-25

25 12S 20W Ellis KS

DST # 1

Plattsmouth

2008.05.25



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

ATTN: Marc Downing

Job Ticket: 32013

**DST#: 1**

Test Start: 2008.05.25 @ 03:47:36

## GENERAL INFORMATION:

Formation: **Plattsmouth**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:30:36  
 Time Test Ended: 10:10:36

Test Type: Conventional Bottom Hole  
 Tester: Jason McLemore  
 Unit No: 32

Interval: **3413.00 ft (KB) To 3456.00 ft (KB) (TVD)**  
 Total Depth: 3456.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2200.00 ft (KB)  
 2192.00 ft (CF)  
 KB to GRVCF: 8.00 ft

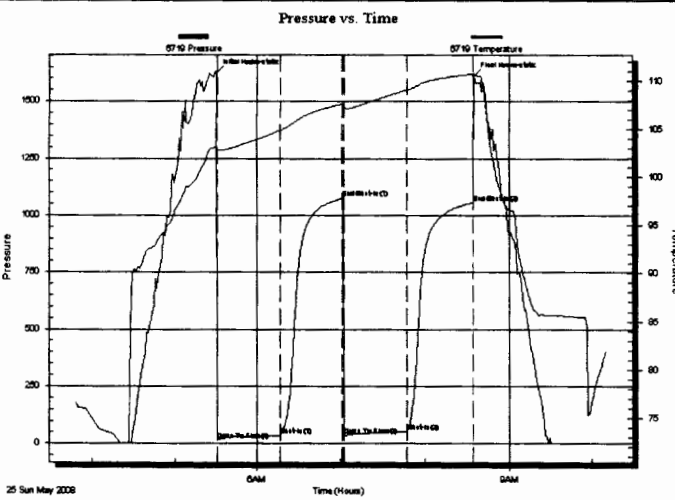
## Serial #: 6719

Inside

Press@RunDepth: 53.31 psig @ 3417.00 ft (KB)  
 Start Date: 2008.05.25 End Date: 2008.05.25  
 Start Time: 03:47:38 End Time: 10:10:36

Capacity: 7000.00 psig  
 Last Calib.: 2008.05.25  
 Time On Btm: 2008.05.25 @ 05:30:06  
 Time Off Btm: 2008.05.25 @ 08:34:36

TEST COMMENT: IFP Good blow BOB in 36 min.  
 ISI Dead  
 FFP Good blow BOB in 32 min.  
 FSI Weak blow back for 10 min.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1623.41	103.13	Initial Hydro-static
1	14.40	102.62	Open To Flow (1)
47	35.23	104.83	Shut-In(1)
91	1073.83	107.58	End Shut-In(1)
93	36.11	107.26	Open To Flow (2)
137	53.31	109.01	Shut-In(2)
184	1056.26	110.68	End Shut-In(2)
185	1609.94	110.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCWM 10%O 40%W 50%M	0.07
60.00	MCO 60%O 40%M	0.70
15.00	Free Oil	0.21
0.00	150' GIP	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32013

**DST#: 1**

ATTN: Marc Downing

Test Start: 2008.05.25 @ 03:47:36

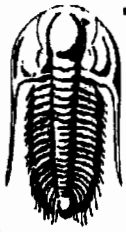
### Tool Information

Drill Pipe:	Length: 3390.00 ft	Diameter: 3.80 inches	Volume: 47.55 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 47.70 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3413.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	64.00 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			3393.00	
Shut In Tool	5.00			3398.00	
Hydraulic tool	5.00			3403.00	
Packer	5.00			3408.00	21.00 Bottom Of Top Packer
Packer	5.00			3413.00	
Stubb	1.00			3414.00	
Perforations	2.00			3416.00	
Recorder	0.00	8360	Outside	3416.00	
Change Over Sub	1.00			3417.00	
Recorder	0.00	6719	Inside	3417.00	
Blank Spacing	32.00			3449.00	
Change Over Sub	1.00			3450.00	
Perforations	3.00			3453.00	
Bullnose	3.00			3456.00	43.00 Bottom Packers & Anchor

**Total Tool Length: 64.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32013      **DST#: 1**

ATTN: Marc Downing

Test Start: 2008.05.25 @ 03:47:36

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 52.00 sec/qt  
Water Loss: 8.78 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 2600.00 ppm  
Filter Cake: inches

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

Oil API: 34 deg API  
Water Salinity: 44000 ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	OCWM 10%O 40%W 50%M	0.074
60.00	MCO 60%O 40%M	0.696
15.00	Free Oil	0.210
0.00	150' GIP	0.000

Total Length: 90.00 ft      Total Volume: 0.980 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

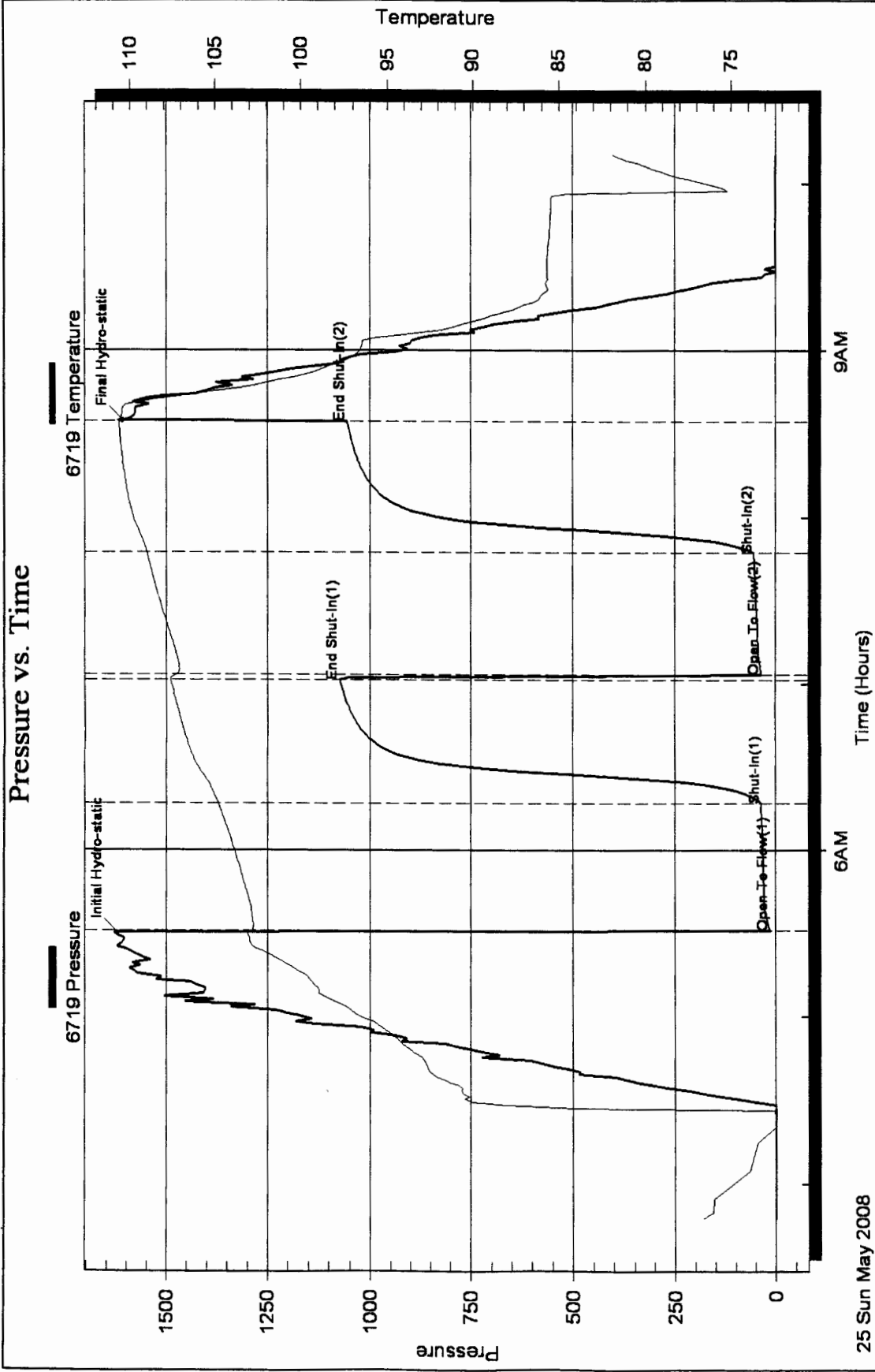
Serial #: 6719

Inside

Downing Nelson

25 12S 20W Ellis KS

DST Test Number: 1



Serial #: 8360

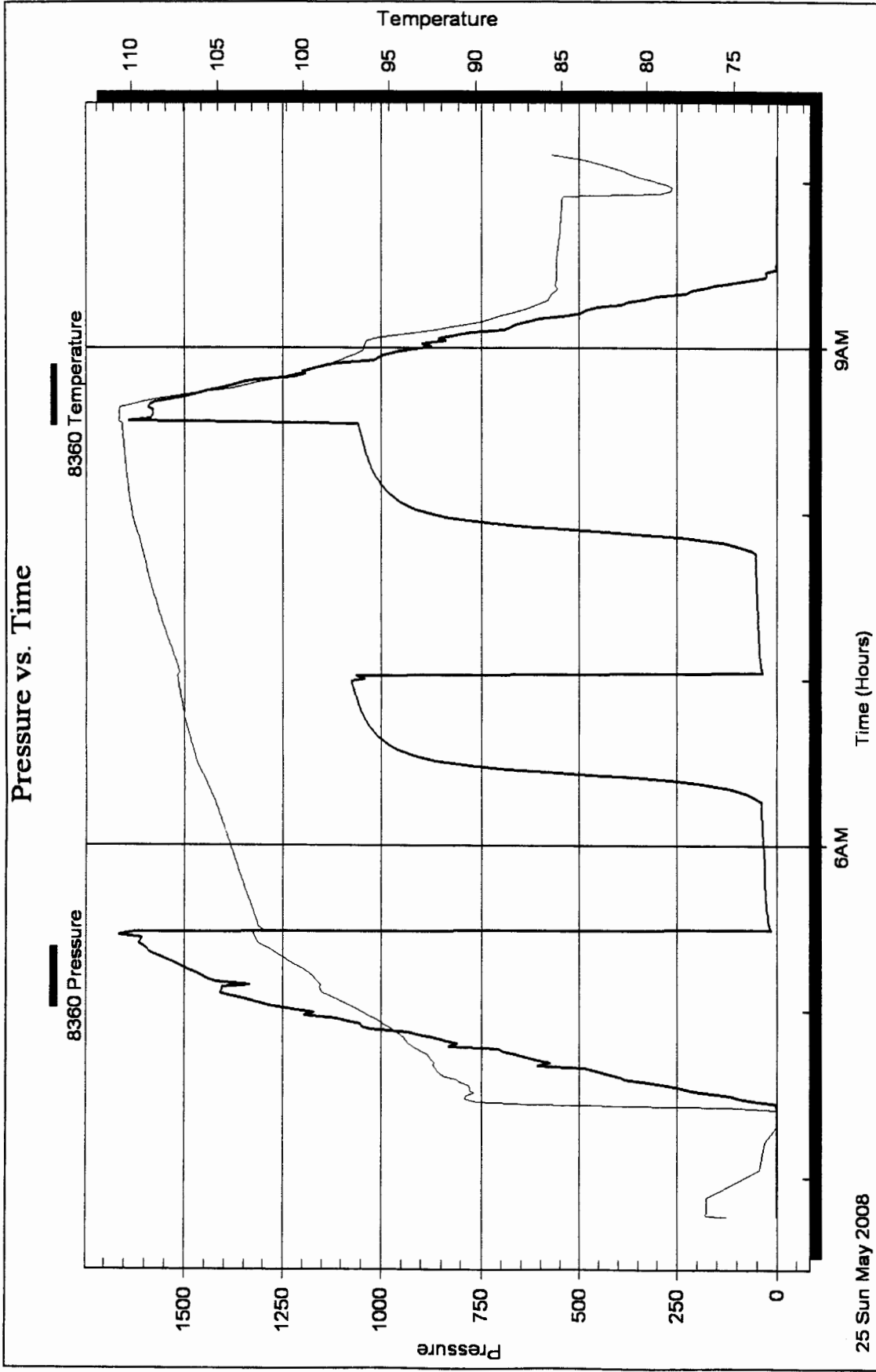
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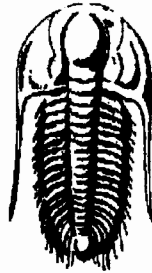
Downing Nelson

25 12S 20W Ellis KS

DST Test Number: 1

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Downing Nelson**

PO Box 372  
Hays KS 67601

ATTN: Marc Downing

**25 12S 20W Ellis KS**

**Miller # 1-25**

Start Date: 2008.05.25 @ 21:13:42

End Date: 2008.05.26 @ 03:21:12

Job Ticket #: 32014                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Downing Nelson

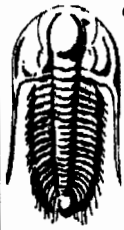
Miller # 1-25

25 12S 20W Ellis KS

DST # 2

C-D

2008.05.25



**TRILOBITE TESTING, INC**

**DRILL STEM TEST REPORT**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32014

**DST#: 2**

ATTN: Marc Downing

Test Start: 2008.05.25 @ 21:13:42

**GENERAL INFORMATION:**

Formation: **C-D**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:38:12  
 Time Test Ended: 03:21:12

Test Type: Conventional Bottom Hole  
 Tester: Jason McLemore  
 Unit No: 32

Interval: **3525.00 ft (KB) To 3569.00 ft (KB) (TVD)**  
 Total Depth: 3569.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2200.00 ft (KB)  
 2192.00 ft (CF)  
 KB to GR/CF: 8.00 ft

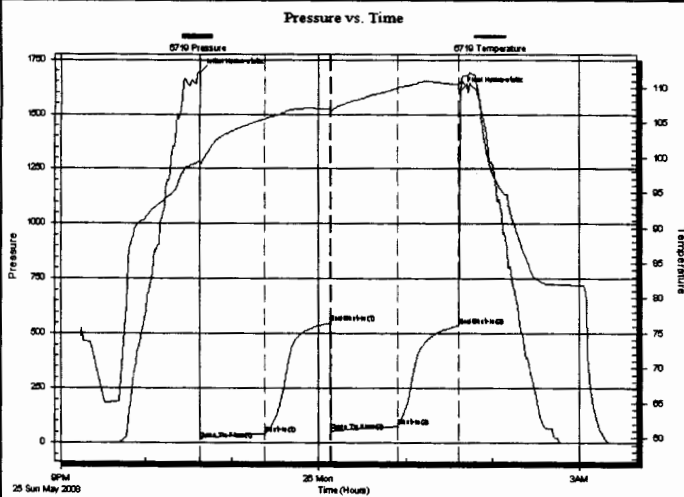
**Serial #: 6719**

**Inside**

Press@RunDepth: 75.63 psig @ 3531.00 ft (KB)  
 Start Date: 2008.05.25 End Date: 2008.05.26  
 Start Time: 21:13:44 End Time: 03:21:12

Capacity: 7000.00 psig  
 Last Calib.: 2008.05.26  
 Time On Btrn: 2008.05.25 @ 22:37:42  
 Time Off Btrn: 2008.05.26 @ 01:37:42

**TEST COMMENT:** IFF Good Blow BOB in 15 Min.  
 ISI Blow back built to 2 "  
 FFP Good blow BOB in 5 Min.  
 FSI Blow back built to 3-1/2 "



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1690.08	99.49	Initial Hydro-static
1	16.21	99.19	Open To Flow (1)
45	42.63	105.50	Shut-in(1)
90	548.02	106.98	End Shut-in(1)
91	53.68	106.77	Open To Flow (2)
137	75.63	109.94	Shut-in(2)
179	536.58	110.52	End Shut-in(2)
180	1607.40	110.70	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
150.00	GsyMO 25%G 40%O 35%M	1.82
0.00	630' GIP	0.00

**Gas Rates**

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32014

**DST#: 2**

ATTN: Marc Downing

Test Start: 2008.05.25 @ 21:13:42

### Tool Information

Drill Pipe:	Length: 3484.00 ft	Diameter: 3.80 inches	Volume: 48.87 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
		Total Volume: 49.02 bbl		Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	56000.00 lb
Depth to Top Packer:	3525.00 ft			Final	57000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	44.00 ft				
Tool Length:	65.00 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			3505.00	
Shut In Tool	5.00			3510.00	
Hydraulic tool	5.00			3515.00	
Packer	5.00			3520.00	21.00 Bottom Of Top Packer
Packer	5.00			3525.00	
Stubb	1.00			3526.00	
Perforations	4.00			3530.00	
Recorder	0.00	8360	Outside	3530.00	
Change Over Sub	1.00			3531.00	
Recorder	0.00	6719	Inside	3531.00	
Blank Spacing	31.00			3562.00	
Change Over Sub	1.00			3563.00	
Perforations	3.00			3566.00	
Bullnose	3.00			3569.00	44.00 Bottom Packers & Anchor

**Total Tool Length: 65.00**



**TRILOBITE**  
TESTING, INC

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32014

**DST#: 2**

ATTN: Marc Downing

Test Start: 2008.05.25 @ 21:13:42

**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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
150.00	GsyMO 25%G 40%O 35%M	1.822
0.00	630' GIP	0.000

Total Length: 150.00 ft      Total Volume: 1.822 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6719

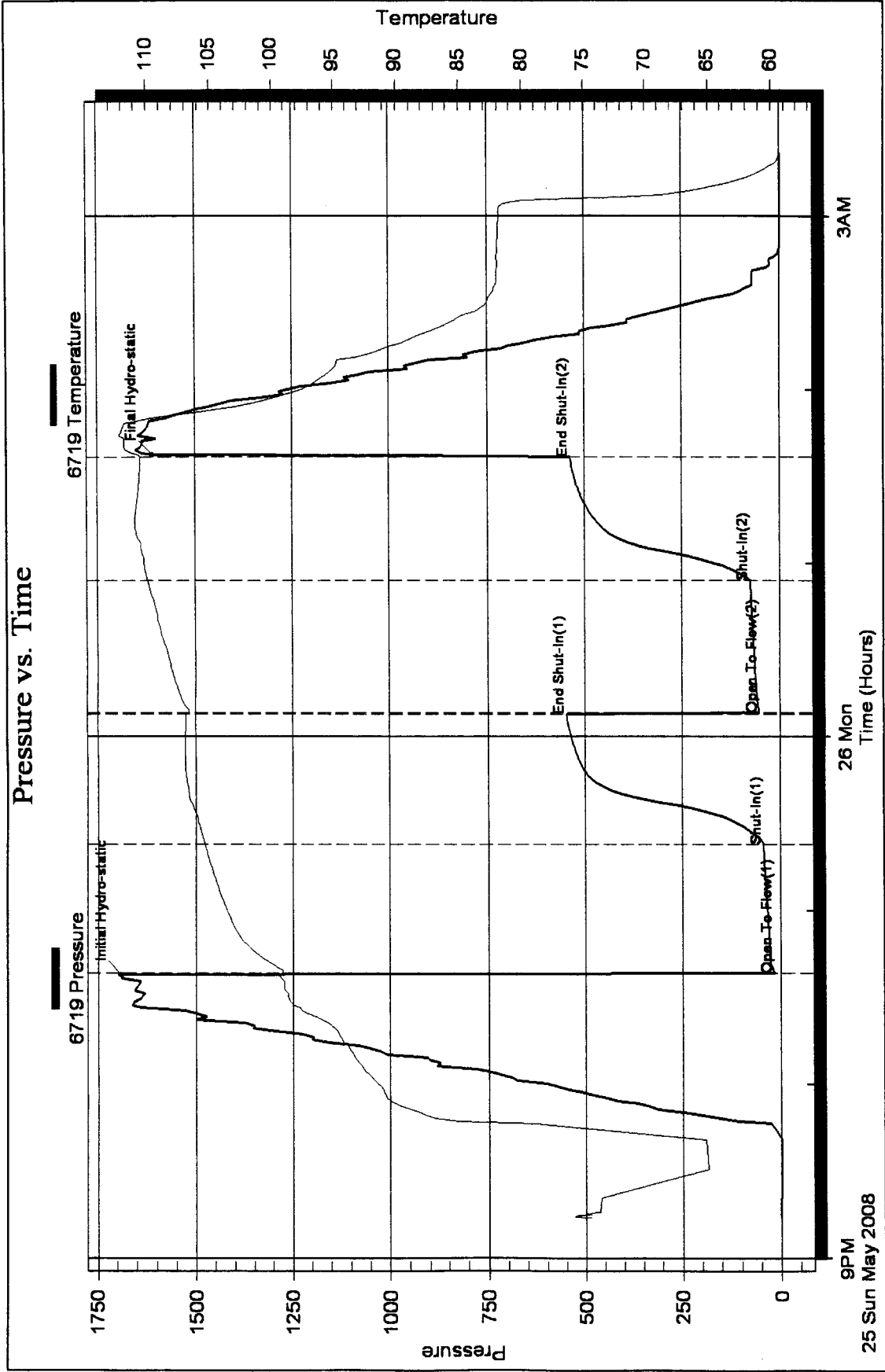
Inside

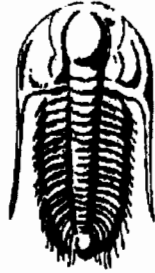
Downing Nelson

25 12S 20W Ellis KS

DST Test Number: 2

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Downing Nelson**

PO Box 372  
Hays KS 67601

ATTN: Marc Downing

**25 12S 20W Ellis KS**

**Miller # 1-25**

Start Date: 2008.05.26 @ 09:56:54

End Date: 2008.05.26 @ 16:06:24

Job Ticket #: 32015                      DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Downing Nelson

Miller # 1-25

25 12S 20W Ellis KS

DST # 3

E-F

2008.05.26



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32015

**DST#: 3**

ATTN: Marc Downing

Test Start: 2008.05.26 @ 09:56:54

## GENERAL INFORMATION:

Formation: **E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:39:24

Time Test Ended: 16:06:24

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Interval: **3564.00 ft (KB) To 3605.00 ft (KB) (TVD)**

Total Depth: 3605.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2200.00 ft (KB)

2192.00 ft (CF)

KB to GRVCF: 8.00 ft

**Serial #: 6719**

**Inside**

Press@RunDepth: 197.25 psig @ 3570.00 ft (KB)

Start Date: 2008.05.26

End Date:

2008.05.26

Start Time: 09:56:56

End Time:

16:06:24

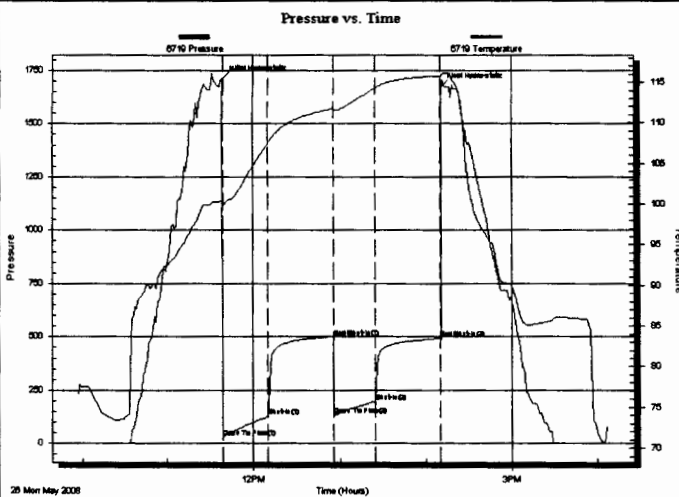
Capacity: 7000.00 psig

Last Calib.: 2008.05.26

Time On Btrt: 2008.05.26 @ 11:38:54

Time Off Btrt: 2008.05.26 @ 14:10:54

**TEST COMMENT:** IFP Good blow BOB in 6 Mn.  
ISI Blow back built to 7 "  
FFP Good blow BOB in 8 Mn.  
FSI Blow back built to BOB at end of period



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1708.31	100.34	Initial Hydro-static
1	28.04	100.04	Open To Flow (1)
32	126.10	107.51	Shut-In(1)
77	499.57	111.73	End Shut-In(1)
77	134.39	111.63	Open To Flow (2)
106	197.25	114.22	Shut-In(2)
151	491.43	115.76	End Shut-In(2)
152	1674.99	115.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
240.00	VSOCMW 3%O 92%W 5%M	3.08
60.00	GOCWM 20%G 10%O 20%W 50%M	0.84
75.00	Free Oil	1.05
0.00	570' GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32015

**DST#: 3**

ATTN: Marc Downing

Test Start: 2008.05.26 @ 09:56:54

### Tool Information

Drill Pipe:	Length: 3546.00 ft	Diameter: 3.80 inches	Volume: 49.74 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
		Total Volume: 49.89 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3564.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	62.00 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			3544.00	
Shut In Tool	5.00			3549.00	
Hydraulic tool	5.00			3554.00	
Packer	5.00			3559.00	21.00 Bottom Of Top Packer
Packer	5.00			3564.00	
Stubb	1.00			3565.00	
Perforations	4.00			3569.00	
Recorder	0.00	8360	Outside	3569.00	
Change Over Sub	1.00			3570.00	
Recorder	0.00	6719	Inside	3570.00	
Blank Spacing	31.00			3601.00	
Change Over Sub	1.00			3602.00	
Bullnose	3.00			3605.00	41.00 Bottom Packers & Anchor

**Total Tool Length: 62.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32015

**DST#: 3**

ATTN: Marc Downing

Test Start: 2008.05.26 @ 09:56:54

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

95000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
240.00	VSOCMW 3%O 92%W 5%M	3.084
60.00	GOCWM 20%G 10%O 20%W 50%M	0.842
75.00	Free Oil	1.052
0.00	570' GP	0.000

Total Length: 375.00 ft

Total Volume: 4.978 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

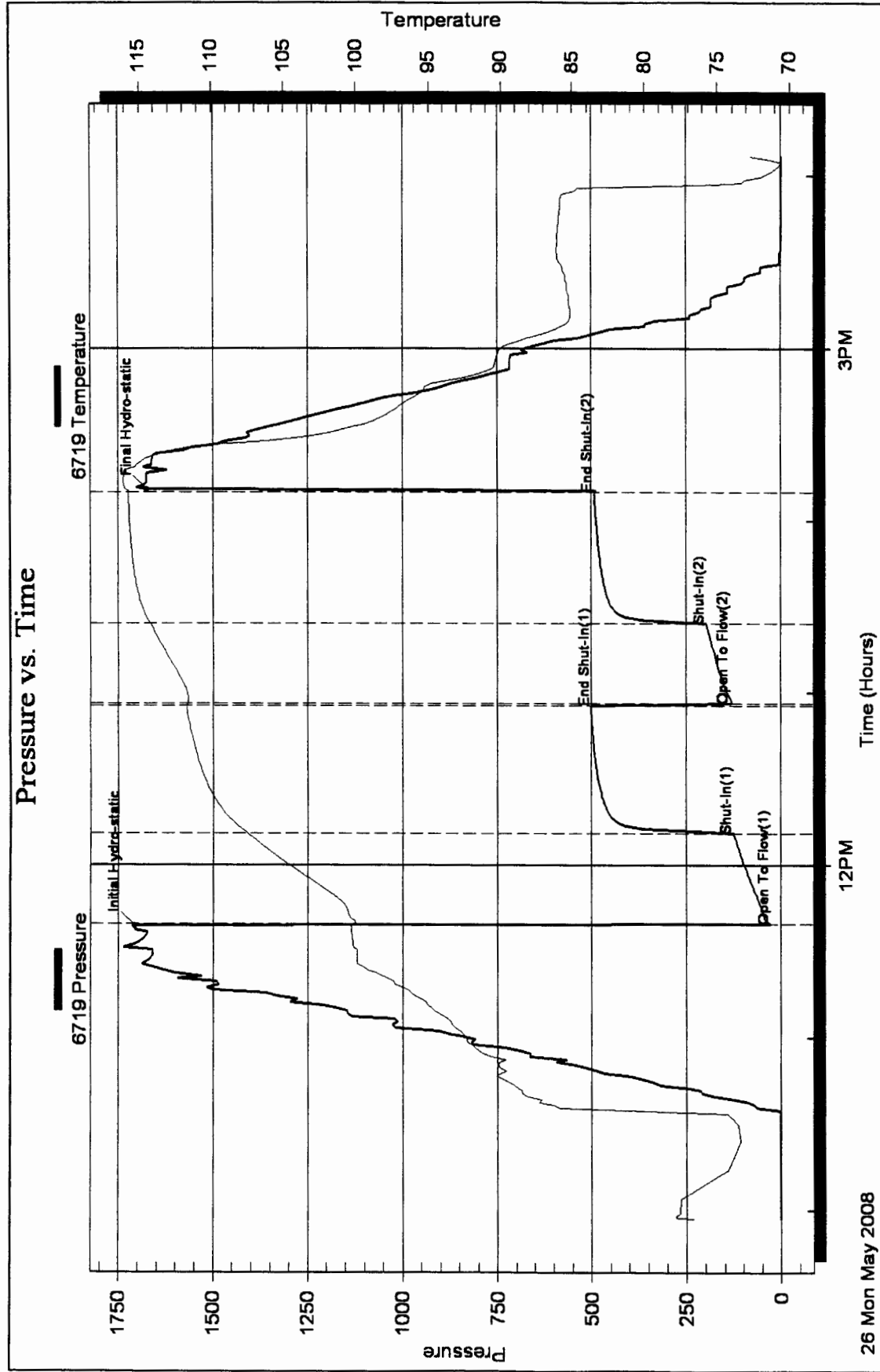
Serial #:

Laboratory Name:

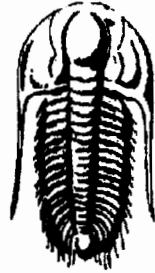
Laboratory Location:

Recovery Comments:

### Pressure vs. Time



26 Mon May 2008



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Downing Nelson**

PO Box 372  
Hays KS 67601

ATTN: Marc Downing

**25 12S 20W Ellis KS**

**Miller # 1-25**

Start Date: 2008.05.27 @ 01:52:07

End Date: 2008.05.27 @ 08:37:07

Job Ticket #: 32016                      DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Downing Nelson

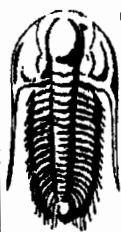
Miller # 1-25

25 12S 20W Ellis KS

DST # 4

J

2008.05.27



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32016

**DST#: 4**

ATTN: Marc Downing

Test Start: 2008.05.27 @ 01:52:07

## GENERAL INFORMATION:

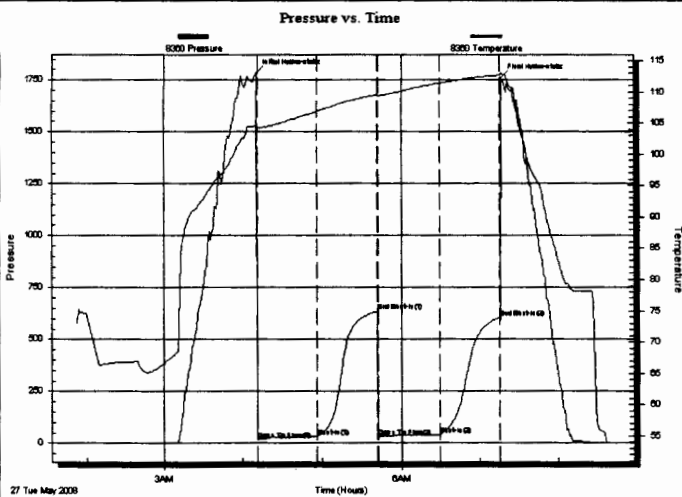
Formation: **J**  
 Deviated: **No** Whipstock: **ft (KB)**  
 Time Tool Opened: 04:11:07  
 Time Test Ended: 08:37:07  
 Interval: **3669.00 ft (KB) To 3694.00 ft (KB) (TVD)**  
 Total Depth: **3694.00 ft (KB) (TVD)**  
 Hole Diameter: **7.80 inches** Hole Condition: **Good**  
 Test Type: **Conventional Bottom Hole**  
 Tester: **Jason McLemore**  
 Unit No: **32**  
 Reference Elevations: **2200.00 ft (KB)**  
**2192.00 ft (CF)**  
**KB to GR/CF: 8.00 ft**

## Serial #: 8360

**Inside**

Press@RunDepth: **40.65 psig @ 3674.00 ft (KB)**  
 Start Date: **2008.05.27** End Date: **2008.05.27**  
 Start Time: **01:52:09** End Time: **08:37:07**  
 Capacity: **7000.00 psig**  
 Last Calib.: **2008.05.27**  
 Time On Btrn: **2008.05.27 @ 04:10:37**  
 Time Off Btrn: **2008.05.27 @ 07:16:07**

TEST COMMENT: **IFP Weak blow built to 5 "**  
**ISI Dead**  
**FFP Weak blow built to 4 "**  
**FSI Dead**



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1782.01	104.70	Initial Hydro-static
1	15.28	103.88	Open To Flow (1)
46	30.75	106.87	Shut-In(1)
91	634.53	109.47	End Shut-In(1)
92	31.82	109.30	Open To Flow (2)
139	40.65	111.37	Shut-In(2)
185	605.35	112.66	End Shut-In(2)
186	1759.46	113.03	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
57.00	OCM 15%O 85%M	0.52
3.00	Free Oil	0.04

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ells KS**

Job Ticket: 32016

**DST#: 4**

ATTN: Marc Downing

Test Start: 2008.05.27 @ 01:52:07

### Tool Information

Drill Pipe:	Length: 3641.00 ft	Diameter: 3.80 inches	Volume: 51.07 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 51.22 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3669.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	25.00 ft				
Tool Length:	46.00 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			3649.00	
Shut In Tool	5.00			3654.00	
Hydraulic tool	5.00			3659.00	
Packer	5.00			3664.00	21.00 Bottom Of Top Packer
Packer	5.00			3669.00	
Stubb	1.00			3670.00	
Perforations	4.00			3674.00	
Recorder	0.00	8360	Inside	3674.00	
Recorder	0.00	6719	Outside	3674.00	
Perforations	17.00			3691.00	
Bullnose	3.00			3694.00	25.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>46.00</b>				



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32016

**DST#: 4**

ATTN: Marc Downing

Test Start: 2008.05.27 @ 01:52:07

**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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
57.00	OCM 15%O 85%M	0.517
3.00	Free Oil	0.042

Total Length: 60.00 ft

Total Volume: 0.559 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8360

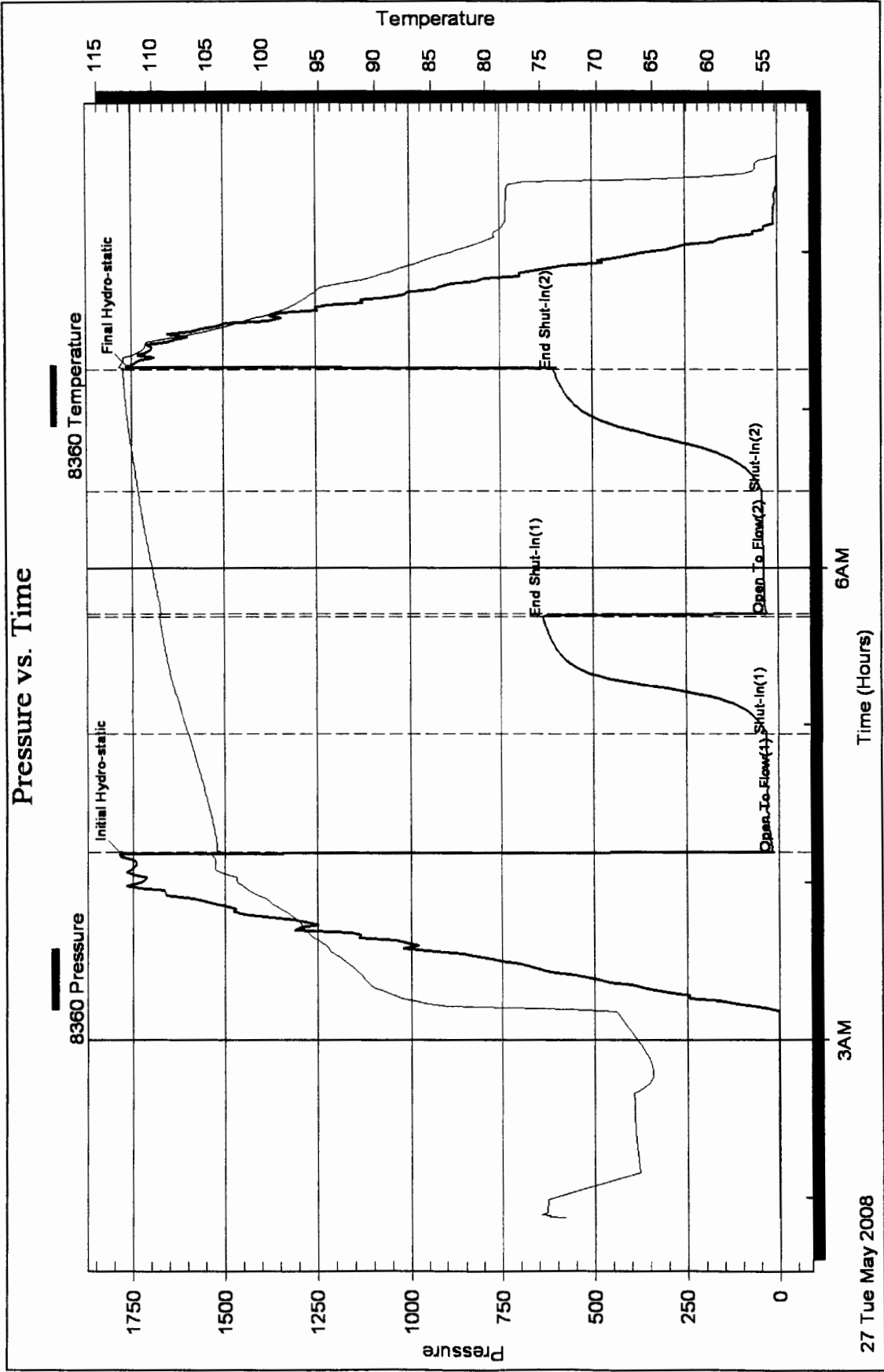
Inside

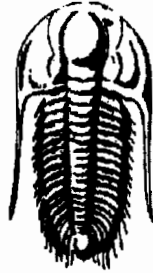
Downing Nelson

25 12S 20W Ellis KS

DST Test Number: 4

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Downing Nelson**

PO Box 372  
Hays KS 67601

ATTN: Marc Downing

**25 12S 20W Ellis KS**

**Miller # 1-25**

Start Date: 2008.05.27 @ 21:43:51

End Date: 2008.05.28 @ 03:46:21

Job Ticket #: 32017                      DST #: 5

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Downing Nelson

Miller # 1-25

25 12S 20W Ellis KS

DST # 5

Conglomerate

2008.05.27





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing Nelson

Miller # 1-25

PO Box 372  
Hays KS 67601

25 12S 20W Ellis KS

Job Ticket: 32017

DST#: 5

ATTN: Marc Downing

Test Start: 2008.05.27 @ 21:43:51

### Tool Information

Drill Pipe:	Length: 3799.00 ft	Diameter: 3.80 inches	Volume: 53.29 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
		<u>Total Volume:</u>	<u>53.44 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3822.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	55.00 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			3802.00	
Shut In Tool	5.00			3807.00	
Hydraulic tool	5.00			3812.00	
Packer	5.00			3817.00	21.00 Bottom Of Top Packer
Packer	5.00			3822.00	
Stubb	1.00			3823.00	
Perforations	4.00			3827.00	
Recorder	0.00	8360	Inside	3827.00	
Recorder	0.00	6719	Outside	3827.00	
Perforations	26.00			3853.00	
Bullnose	3.00			3856.00	34.00 Bottom Packers & Anchor

**Total Tool Length: 55.00**

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**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Downing Nelson

**Miller # 1-25**

PO Box 372  
Hays KS 67601

**25 12S 20W Ellis KS**

Job Ticket: 32017

**DST#: 5**

ATTN: Marc Downing

Test Start: 2008.05.27 @ 21:43:51

**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: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
70.00	MCO 65%O 35%M	0.700

Total Length: 70.00 ft      Total Volume: 0.700 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8360

Inside

Downing Nelson

25 12S 20W Elis KS

DST Test Number: 5

### Pressure vs. Time

