

15-135-24628

10-17s-2lw



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil CO**

PO Box 372
Hays KS 67601

ATTN: Ron Nelson

10 17 21 Ness KS

Bek # 1-10

Start Date: 2007.04.22 @ 22:55:48

End Date: 2007.04.23 @ 06:24:03

Job Ticket #: 27474

DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Downing-Nelson Oil CO

Bek # 1-10

PO Box 372
Hays KS 67601

10 17 21 Ness KS

Job Ticket: 27474

DST#: 1

ATTN: Ron Nelson

Test Start: 2007.04.22 @ 22:55:48

GENERAL INFORMATION:

Formation: **Cher Sd**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 01:38:33

Time Test Ended: 06:24:03

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 38

Interval: **4053.00 ft (KB) To 4106.00 ft (KB) (TVD)**

Reference Elevations: 2203.00 ft (KB)

Total Depth: 4106.00 ft (KB) (TVD)

2198.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GRVCF: 5.00 ft

Serial #: 6741

Inside

Press@RunDepth: 169.97 psig @ 4056.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2007.04.22

End Date:

2007.04.23

Last Calib.:

2007.04.23

Start Time: 22:55:50

End Time:

06:24:03

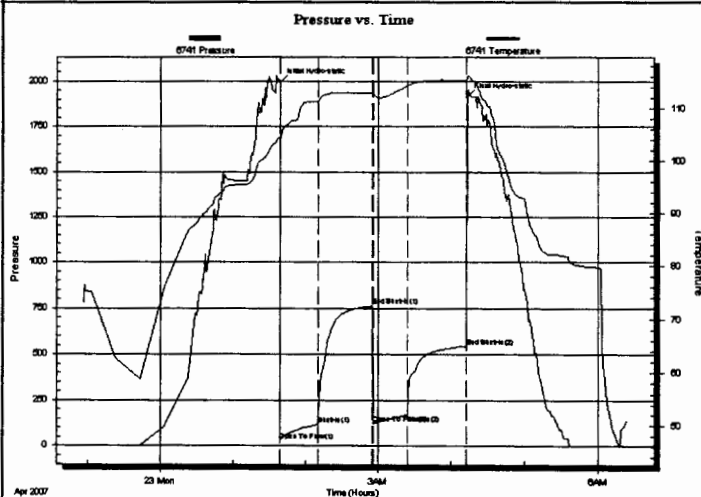
Time On Btm:

2007.04.23 @ 01:38:18

Time Off Btm:

2007.04.23 @ 04:13:18

TEST COMMENT: IF Strong B-B in 5 min
ISI Weak building to 1 "
FF Strong B-B in 25 min
FSI Weak building to 1/2 "



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1994.14	104.45	Initial Hydro-static
1	27.96	103.98	Open To Flow (1)
32	117.15	111.40	Shut-In (1)
78	763.69	112.99	End Shut-In (1)
78	123.58	112.74	Open To Flow (2)
107	169.97	114.26	Shut-In (2)
155	545.80	115.38	End Shut-In (2)
155	1912.59	115.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
275.00	OCGsyM 10%G 40%O 50%M	3.86
125.00	OCGsyO 10%G 90%O	1.75
0.00	775 GIP	0.00

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil CO

Bek # 1-10

PO Box 372
Hays KS 67601

10 17 21 Ness KS

ATTN: Ron Nelson

Job Ticket: 27474

DST#: 1

Test Start: 2007.04.22 @ 22:55:48

Tool Information

Drill Pipe:	Length: 3975.00 ft	Diameter: 3.80 inches	Volume: 55.76 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 62.00 ft	Diameter: 3.80 inches	Volume: 0.87 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	55000.00 lb
		Total Volume:	56.63 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	4053.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	53.00 ft				
Tool Length:	82.00 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			4025.00		
Shut In Tool	5.00			4030.00		
Hydraulic tool	5.00			4035.00		
Jars	5.00			4040.00		
Safety Joint	3.00			4043.00		
Packer	5.00			4048.00	29.00	Bottom Of Top Packer
Packer	5.00			4053.00		
Stubb	1.00			4054.00		
Perforations	1.00			4055.00		
Change Over Sub	1.00			4056.00		
Recorder	0.00	6741	Inside	4056.00		
Drill Pipe	32.00			4088.00		
Change Over Sub	1.00			4089.00		
Recorder	0.00	13254	Outside	4089.00		
Perforations	14.00			4103.00		
Bullnose	3.00			4106.00	53.00	Bottom Packers & Anchor
Total Tool Length:		82.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil CO

Bek # 1-10

PO Box 372
Hays KS 67601

10 17 21 Ness KS

Job Ticket: 27474

DST#: 1

ATTN: Ron Nelson

Test Start: 2007.04.22 @ 22:55:48

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 12000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
275.00	OCCsyM 10%G 40%O 50%M	3.858
125.00	CGsyO 10%G 90%O	1.753
0.00	775 GIP	0.000

Total Length: 400.00 ft

Total Volume: 5.611 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

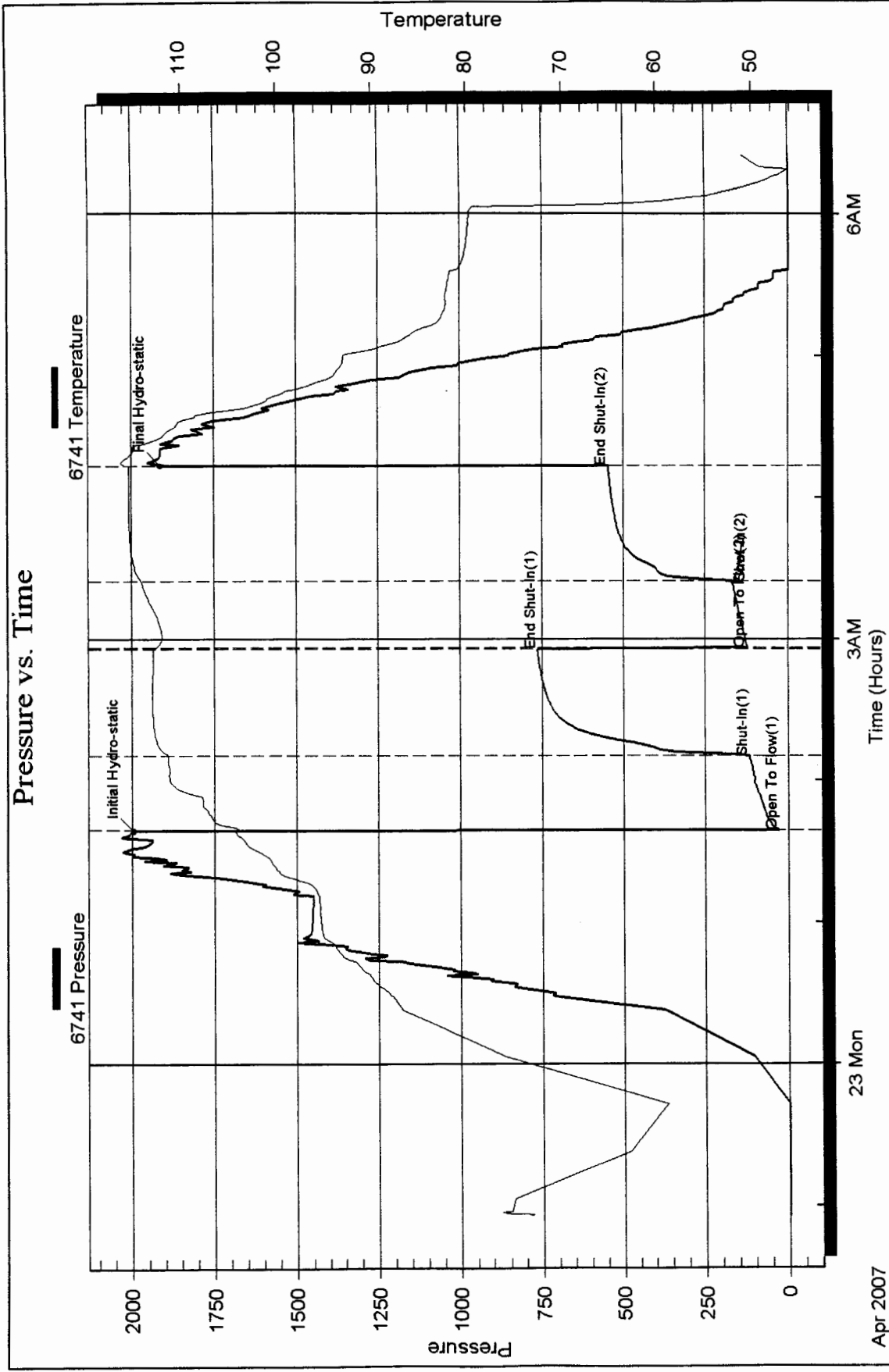
Serial #: 6741

Inside

Dowling-Nelson Oil Co

10 17 21 Ness KS

DST Test Number: 1





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil CO**

PO Box 372
Hays KS 67601

ATTN: Ron Nelson

10 17 21 Ness KS

Bek # 1-10

Start Date: 2007.04.23 @ 14:00:21

End Date: 2007.04.23 @ 21:52:51

Job Ticket #: 27475 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

Downing-Nelson Oil CO

PO Box 372
Hays KS 67601

ATTN: Ron Nelson

Bek # 1-10

10 17 21 Ness KS

Job Ticket: 27475

DST#: 2

Test Start: 2007.04.23 @ 14:00:21

GENERAL INFORMATION:

Formation: **Cher Sd**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 16:21:41

Time Test Ended: 21:52:51

Test Type: **Conventional Bottom Hole**

Tester: **Dan Bangle**

Unit No: **38**

Interval: **4105.00 ft (KB) To 4130.00 ft (KB) (TVD)**

Total Depth: **4130.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2203.00 ft (KB)**

2198.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 6741

Inside

Press@RunDepth: **61.12 psig @ 4106.00 ft (KB)**

Start Date: **2007.04.23**

End Date:

2007.04.23

Capacity: **7000.00 psig**

Last Calib.:

2007.04.23

Start Time: **14:00:23**

End Time:

21:52:51

Time On Btm:

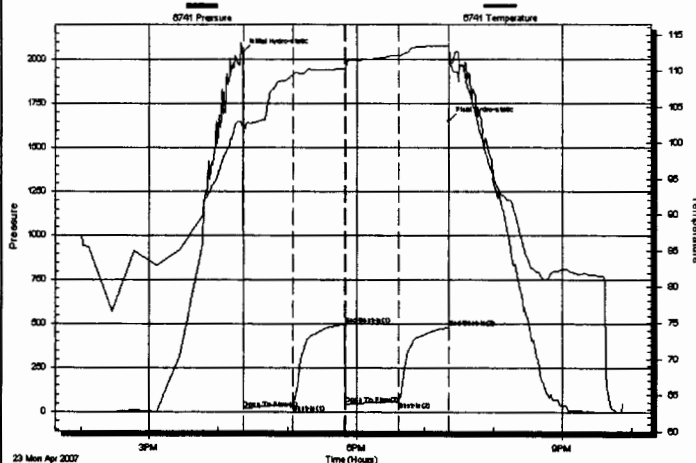
2007.04.23 @ 16:21:31

Time Off Btm:

2007.04.23 @ 19:21:06

TEST COMMENT: IF Weak building to 1 "
FF Weak building to 1 1/4 "

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2037.22	102.45	Initial Hydro-static
1	18.19	102.00	Open To Flow (1)
44	43.51	109.48	Shut-In (1)
89	495.31	110.31	End Shut-In (1)
89	42.81	110.33	Open To Flow (2)
136	61.12	112.16	Shut-In (2)
180	478.50	113.43	End Shut-In (2)
180	1651.76	113.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	OCM 40%O 60%M	1.26
30.00	CO	0.42

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil CO

Bek # 1-10

PO Box 372
Hays KS 67601

10 17 21 Ness KS

Job Ticket: 27475

DST#: 2

ATTN: Ron Nelson

Test Start: 2007.04.23 @ 14:00:21

Tool Information

Drill Pipe:	Length: 4037.00 ft	Diameter: 3.80 inches	Volume: 56.63 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 62.00 ft	Diameter: 3.80 inches	Volume: 0.87 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 57.50 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4105.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	54.00 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			4077.00	
Shut In Tool	5.00			4082.00	
Hydraulic tool	5.00			4087.00	
Jars	5.00			4092.00	
Safety Joint	3.00			4095.00	
Packer	5.00			4100.00	29.00 Bottom Of Top Packer
Packer	5.00			4105.00	
Stubb	1.00			4106.00	
Recorder	0.00	6741	Inside	4106.00	
Perforations	21.00			4127.00	
Recorder	0.00	13254	Outside	4127.00	
Bullnose	3.00			4130.00	25.00 Bottom Packers & Anchor

Total Tool Length: 54.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil CO

Bek # 1-10

PO Box 372
Hays KS 67601

10 17 21 Ness KS

Job Ticket: 27475

DST#: 2

ATTN: Ron Nelson

Test Start: 2007.04.23 @ 14:00:21

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: 76.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 15000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	OCM 40%O 60%M	1.262
30.00	CO	0.421

Total Length: 120.00 ft

Total Volume: 1.683 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6741

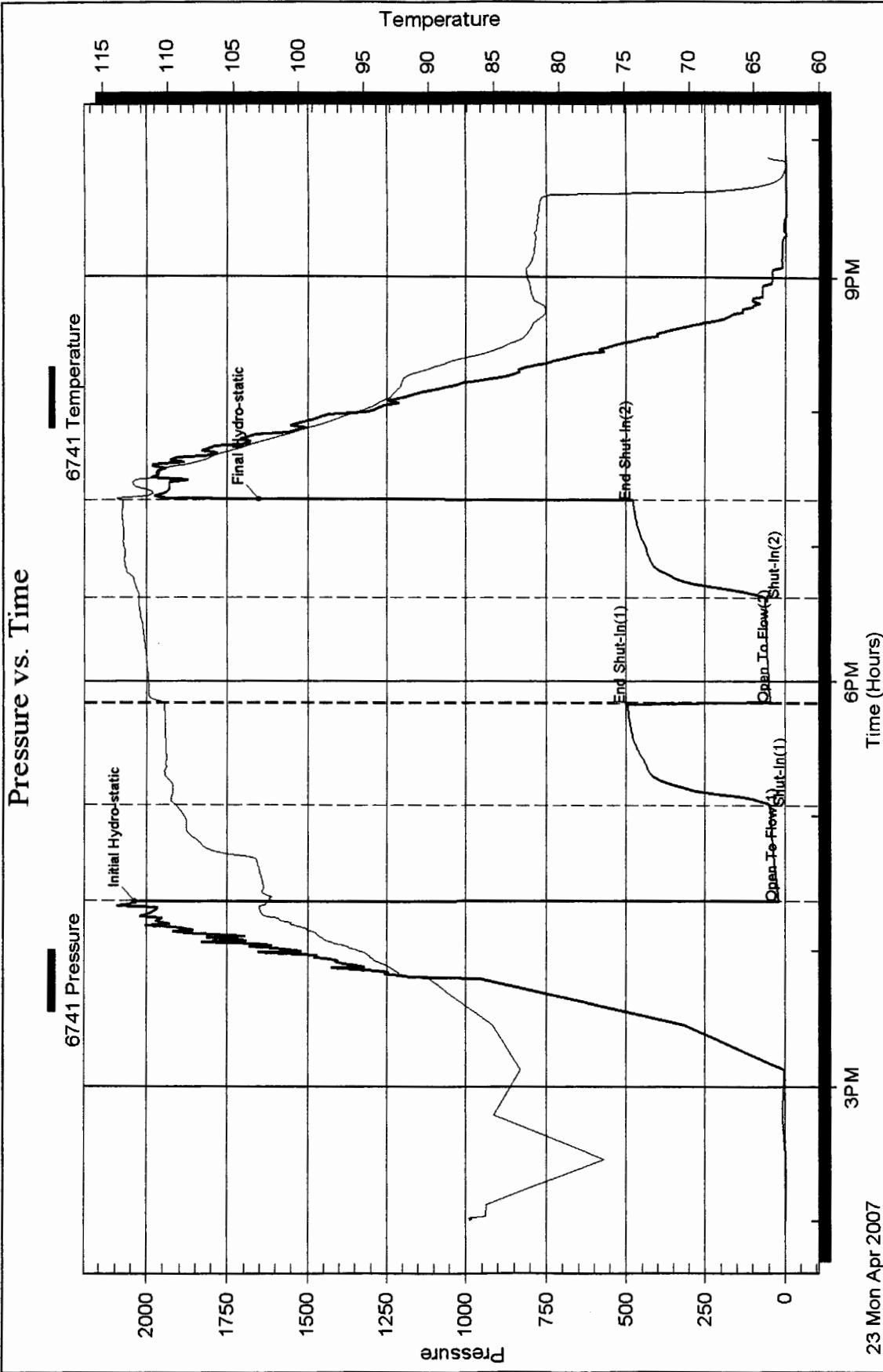
Inside

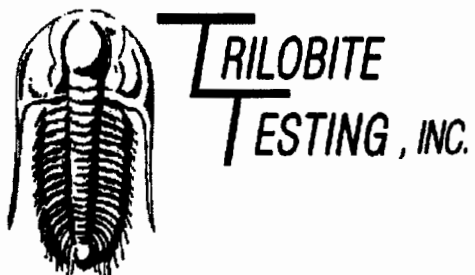
Downing-Nelson Oil Co

10 17 21 Ness KS

DST Test Number: 2

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil CO**

PO Box 372
Hays KS 67601

ATTN: Ron Nelson

10 17 21 Ness KS

Bek # 1-10

Start Date: 2007.04.24 @ 17:20:44

End Date: 2007.04.25 @ 00:24:14

Job Ticket #: 28101 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil CO

PO Box 372
Hays KS 67601

ATTN: Ron Nelson

Bek # 1-10

10 17 21 Ness KS

Job Ticket: 28101

DST#: 3

Test Start: 2007.04.24 @ 17:20:44

GENERAL INFORMATION:

Formation: **Cong**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 19:25:29

Time Test Ended: 00:24:14

Test Type: Conventional Straddle

Tester: Dan Bangle

Unit No: 38

Interval: **4124.00 ft (KB) To 4180.00 ft (KB) (TVD)**

Total Depth: 4249.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2203.00 ft (KB)

2198.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6741

Inside

Press@RunDepth: 20.91 psig @ 4127.00 ft (KB)

Start Date: 2007.04.24

End Date:

2007.04.25

Start Time: 17:20:46

End Time:

00:24:14

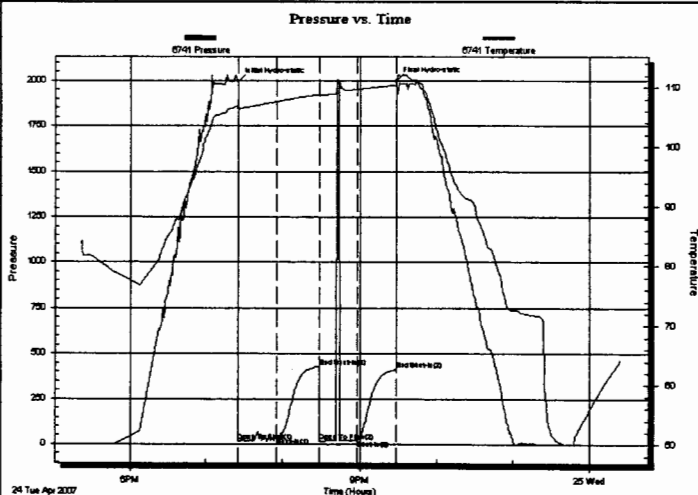
Capacity: 7000.00 psig

Last Calib.: 2007.04.25

Time On Btm: 2007.04.24 @ 19:25:14

Time Off Btm: 2007.04.24 @ 21:27:59

TEST COMMENT: IF Weak died in 10 min
FF No blow - flushed tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1995.09	106.91	Initial Hydro-static
1	14.03	105.77	Open To Flow (1)
31	37.56	107.62	Shut-In (1)
63	429.26	108.82	End Shut-In (1)
63	17.25	108.66	Open To Flow (2)
93	20.91	109.70	Shut-In (2)
123	411.37	110.40	End Shut-In (2)
123	1997.94	110.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	DM	0.14

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil CO

Bek # 1-10

PO Box 372
Hays KS 67601

10 17 21 Ness KS

Job Ticket: 28101

DST#: 3

ATTN: Ron Nelson

Test Start: 2007.04.24 @ 17:20:44

Tool Information

Drill Pipe:	Length: 4060.00 ft	Diameter: 3.80 inches	Volume: 56.95 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 62.00 ft	Diameter: 3.80 inches	Volume: 0.87 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			Total Volume: 57.82 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4124.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	4180.00 ft			
Interval between Packers:	56.00 ft			
Tool Length:	154.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4096.00	
Shut In Tool	5.00			4101.00	
Hydraulic tool	5.00			4106.00	
Jars	5.00			4111.00	
Safety Joint	3.00			4114.00	
Packer	5.00			4119.00	29.00 Bottom Of Top Packer
Packer	5.00			4124.00	
Stubb	1.00			4125.00	
Perforations	1.00			4126.00	
Change Over Sub	1.00			4127.00	
Recorder	0.00	6741	Inside	4127.00	
Drill Pipe	31.00			4158.00	
Change Over Sub	1.00			4159.00	
Recorder	0.00	13254	Outside	4159.00	
Perforations	17.00			4176.00	
Blank Off Sub	1.00			4177.00	
Blank Spacing	3.00			4180.00	56.00 Tool Interval
Packer	2.00			4182.00	
Stubb	1.00			4183.00	
Perforations	4.00			4187.00	
Recorder	0.00	13248	Outside	4187.00	
Drill Pipe	62.00			4249.00	69.00 Bottom Packers & Anchor
Total Tool Length:		154.00			



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil CO

Bek # 1-10

PO Box 372
Hays KS 67601

10 17 21 Ness KS

Job Ticket: 28101

DST#: 3

ATTN: Ron Nelson

Test Start: 2007.04.24 @ 17:20:44

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: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 12000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	DM	0.140

Total Length: 10.00 ft

Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 3

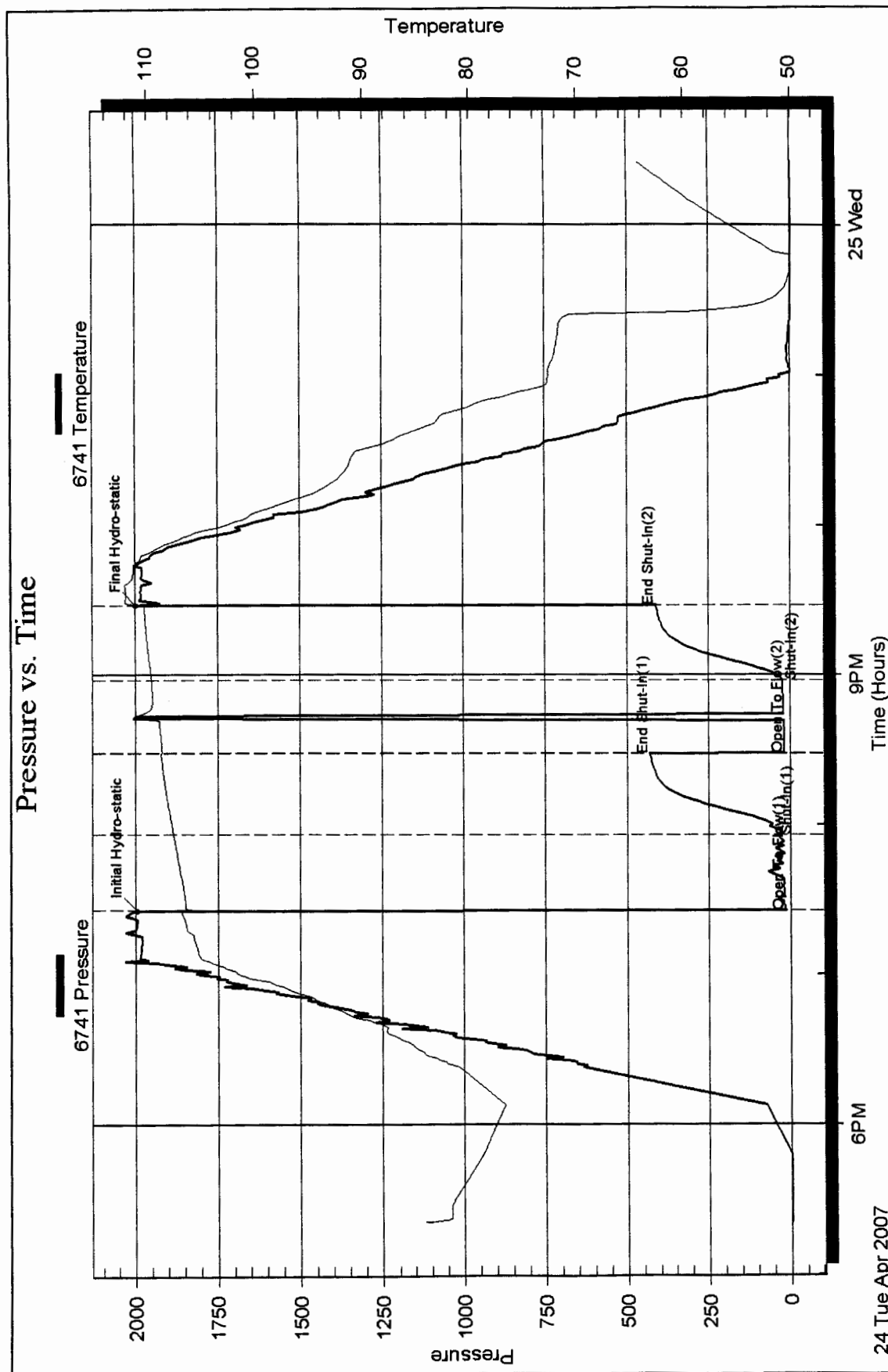
10 17 21 Ness KS

Dowling-Nelson Oil Co

Inside

Serial #: 6741

Pressure vs. Time



Ref. No: 28101

Trilobite Testing, Inc

Printed: 2007.04.25 @ 10:36:36 Page 5