

15-195-22240

Note township is 13
24-13s-21w

15-195-22240

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KCC WICHITA



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

Box 372
Hays Ks, 67601

ORIGINAL

ATTN: Ron Nelson

¹³
~~24-11~~-21w Ellis Ks

Clyde Lang #2-24

Start Date: 2003.11.07 @ 15:58:36

End Date: 2003.11.07 @ 21:36:35

Job Ticket #: 18202 DST #: 1

Downing-Nelson Oil Co Inc
Clyde Lang #2-24
24-¹³~~11~~-21w Ellis Ks
DST # 1
LKC
2003.11.07

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

ORIGINAL



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dowling-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

Job Ticket: 18202 **DST#: 1**

ATTN: Ron Nelson

Test Start: 2003.11.07 @ 15:58:36

GENERAL INFORMATION:

Formation: **LKC**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 17:51:05
Time Test Ended: 21:36:35

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Test Type: **Conventional Bottom Hole**
Tester: **Ray Schwager**
Unit No: **28**

Interval: **3617.00 ft (KB) To 3640.00 ft (KB) (TVD)**
Total Depth: **3640.00 ft (KB) (TVD)**
Hole Diameter: **7.85 inches** Hole Condition: **Fair**

Reference Elevations: **2258.00 ft (KB)**
2250.00 ft (CF)
KB to GR/CF: **8.00 ft**

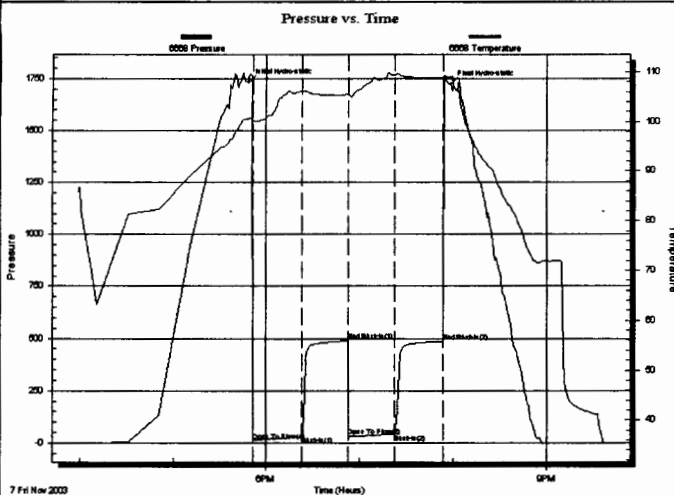
Serial #: 6668

Inside

Press@RunDepth: **42.25 psig @ 3618.01 ft (KB)**
Start Date: **2003.11.07** End Date: **2003.11.07**
Start Time: **15:58:36** End Time: **21:36:35**

Capacity: **7000.00 psig**
Last Calib.: **2003.11.07**
Time On Btm: **2003.11.07 @ 17:48:05**
Time Off Btm: **2003.11.07 @ 19:58:35**

TEST COMMENT: **FFP-weak blow thru-out 1/4" to 1 1/2" blow**
FFP-weak blow thru-out 1/4" blow
Times 30-30-30-30



PRESSURE SUMMARY


Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1733.47	100.52	Initial Hydro-static
3	10.35	100.28	Open To Flow (1)
35	30.68	106.09	Shut-In (1)
65	487.71	105.47	End Shut-In (1)
65	31.27	105.27	Open To Flow (2)
95	42.25	109.35	Shut-In (2)
126	485.79	108.88	End Shut-In (2)
131	1722.82	109.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	oil	0.01
59.00	MW 40% mud 60% water	0.83

Gas Rates

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

 <p style="font-size: 2em; font-weight: bold; margin: 0;">TRILOBITE TESTING, INC</p>	DRILL STEM TEST REPORT		TOOL DIAGRAM																																																																								
	Dow ning-Nelson Oil Co Inc Box 372 Hays Ks 67601 ATTN: Ron Nelson	Clyde Lang #2-24 24-11-21w Ellis Ks Job Ticket: 18202 DST#: 1 Test Start: 2003.11.07 @ 15:58:36																																																																									
<p>Tool Information</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Drill Pipe:</td> <td style="width: 15%;">Length: 3626.00 ft</td> <td style="width: 15%;">Diameter: 3.80 inches</td> <td style="width: 15%;">Volume: 50.86 bbl</td> <td style="width: 15%;">Tool Weight: 2200.00 lb</td> </tr> <tr> <td>Heavy Wt. Pipe:</td> <td>Length: 0.00 ft</td> <td>Diameter: 0.00 inches</td> <td>Volume: 0.00 bbl</td> <td>Weight set on Packer: 25000.00 lb</td> </tr> <tr> <td>Drill Collar:</td> <td>Length: 0.00 ft</td> <td>Diameter: 0.00 inches</td> <td>Volume: 0.00 bbl</td> <td>Weight to Pull Loose: 45000.00 lb</td> </tr> <tr> <td colspan="3"></td> <td style="text-align: center;">Total Volume: 50.86 bbl</td> <td>Tool Chased 0.00 ft</td> </tr> <tr> <td>Drill Pipe Above KB:</td> <td>30.00 ft</td> <td colspan="2"></td> <td>String Weight: Initial 40000.00 lb</td> </tr> <tr> <td>Depth to Top Packer:</td> <td>3617.00 ft</td> <td colspan="2"></td> <td style="text-align: right;">Final 40000.00 lb</td> </tr> <tr> <td>Depth to Bottom Packer:</td> <td>ft</td> <td colspan="3"></td> </tr> <tr> <td>Interval between Packers:</td> <td>23.02 ft</td> <td colspan="3"></td> </tr> <tr> <td>Tool Length:</td> <td>44.02 ft</td> <td colspan="3"></td> </tr> <tr> <td>Number of Packers:</td> <td>2</td> <td>Diameter:</td> <td>6.75 inches</td> <td></td> </tr> <tr> <td colspan="5">Tool Comments:</td> </tr> </table>				Drill Pipe:	Length: 3626.00 ft	Diameter: 3.80 inches	Volume: 50.86 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb				Total Volume: 50.86 bbl	Tool Chased 0.00 ft	Drill Pipe Above KB:	30.00 ft			String Weight: Initial 40000.00 lb	Depth to Top Packer:	3617.00 ft			Final 40000.00 lb	Depth to Bottom Packer:	ft				Interval between Packers:	23.02 ft				Tool Length:	44.02 ft				Number of Packers:	2	Diameter:	6.75 inches		Tool Comments:																					
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<p style="font-size: 1.5em; font-weight: bold; margin: 0;">RECEIVED</p> <p style="font-size: 1.2em; font-weight: bold; margin: 0;">MAR 04 2004</p> <p style="font-size: 1.2em; font-weight: bold; margin: 0;">KCC WICHITA</p>																																																																											
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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

Job Ticket: 18202 DST#: 1

ATTN: Ron Nelson

Test Start: 2003.11.07 @ 15:58:36

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:	38000 ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.93 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	oil	0.014
59.00	MW 40% mud 60% w ater	0.828

Total Length: 60.00 ft Total Volume: 0.842 bbl

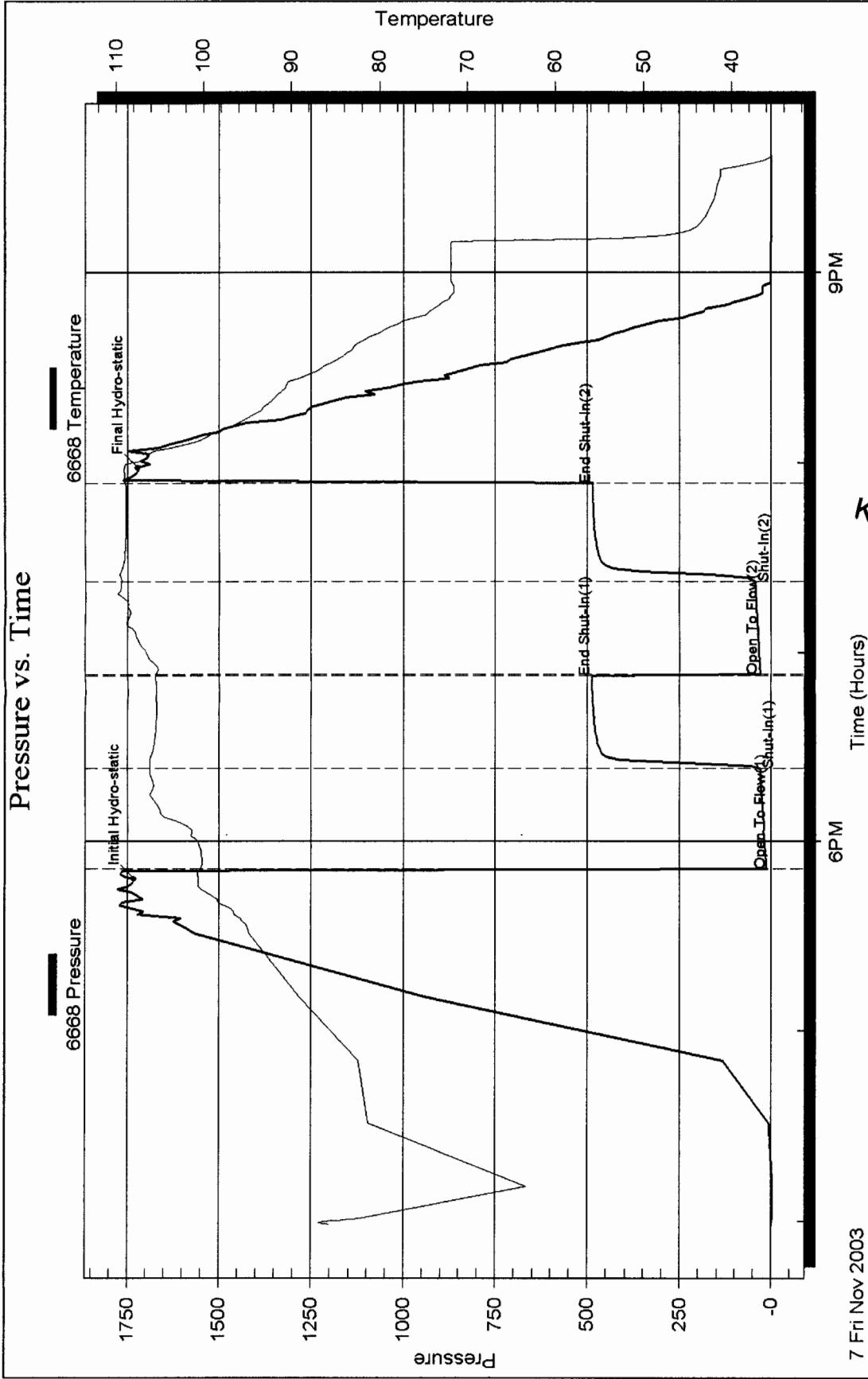
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW .34@40F

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Pressure vs. Time



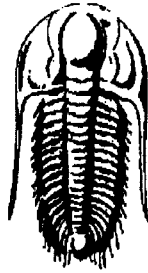
7 Fri Nov 2003

9PM

6PM

Time (Hours)

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 KCC WICHITA



**TRILOBITE
TESTING, INC.**

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MAR 04 2004
KCC WICHITA

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

Box 372
Hays Ks 67601

ATTN: Ron Nelson

24-11-21w Ellis Ks

Clyde Lang #2-24

Start Date: 2003.11.07 @ 21:43:36

End Date: 2003.11.08 @ 04:07:05

Job Ticket #: 18203 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

Dow ning-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

ATTN: Ron Nelson

Job Ticket: 18203 **DST#:2**

Test Start: 2003.11.07 @ 21:43:36

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: **No Whipstock:** ft (KB)
Time Tool Opened: 23:09:35
Time Test Ended: 04:07:05

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Test Type: Conventional Straddle
Tester: Ray Schwager
Unit No: 28

Interval: **3469.00 ft (KB) To 3501.00 ft (KB) (TVD)**
Total Depth: 3640.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

**MAR 04 2004
KCC WICHITA**

Reference Elevations: 2258.00 ft (KB)
2250.00 ft (CF)
KB to GR/CF: 8.00 ft

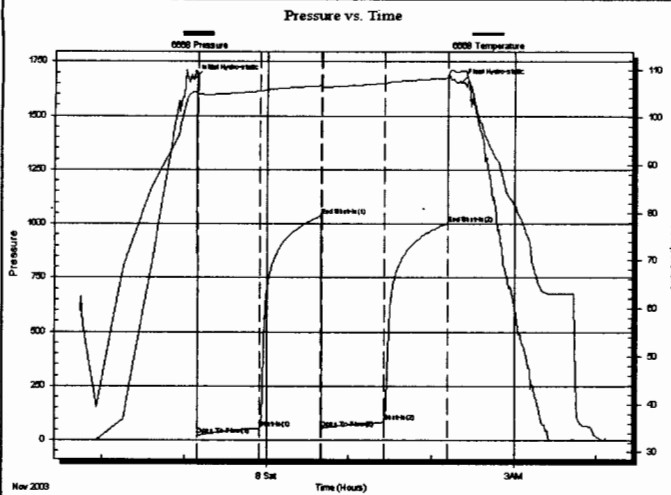
Serial #: 6668

Inside

Press@RunDepth: 83.03 psig @ 3482.02 ft (KB)
Start Date: 2003.11.07 End Date: 2003.11.08
Start Time: 21:43:36 End Time: 04:07:05

Capacity: 7000.00 psig
Last Calib.: 2003.11.08
Time On Btm: 2003.11.07 @ 23:06:35
Time Off Btm: 2003.11.08 @ 02:20:35

TEST COMMENT: FFP-weak blow thru-out 1/2"to 2"blow
FFP-weak blow thru-out 1/4"to 1/2"blow
Times 30-30-30



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1669.92	105.31	Initial Hydro-static
3	21.77	104.97	Open To Flow (1)
49	55.49	105.44	Shut-In(1)
93	1036.29	106.63	End Shut-In(1)
94	55.62	106.42	Open To Flow (2)
139	83.03	107.10	Shut-In(2)
185	1001.69	108.22	End Shut-In(2)
194	1654.91	109.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
130.00	MW 20% mud 80% water	1.82
0.00	w/ show of oil RW .28@39F	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

Job Ticket: 18203 **DST#: 2**

ATTN: Ron Nelson

Test Start: 2003.11.07 @ 21:43:36

Tool Information

Drill Pipe:	Length: 3469.00 ft	Diameter: 3.80 inches	Volume: 48.66 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 48.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3469.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	3501.02 ft			
Interval between Packers:	32.02 ft			
Tool Length:	197.03 ft			
Number of Packers:	3	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			3449.00	
Shut In Tool	5.00			3454.00	
Hydraulic tool	5.00			3459.00	
Packer	5.00			3464.00	21.00 Bottom Of Top Packer
Packer	5.00			3469.00	
Stubb	1.00			3470.00	
Recorder	0.01	11085	Outside	3470.01	
Perforations	12.00			3482.01	
Recorder	0.01	6668	Inside	3482.02	
Perforations	16.00			3498.02	
Blank Off Sub	1.00			3499.02	
Blank Spacing	2.00			3501.02	32.02 Tool Interval
Packer	5.00			3506.02	
Stubb	1.00			3507.02	
Perforations	8.00			3515.02	
Change Over Sub	1.00			3516.02	
Recorder	0.01	13547	Below	3516.03	
Blank Spacing	125.00			3641.03	
Change Over Sub	1.00			3642.03	
Bullnose	3.00			3645.03	144.01 Bottom Packers & Anchor
Total Tool Length:	197.03				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

Job Ticket: 18203

DST#: 2

ATTN: Ron Nelson

Test Start: 2003.11.07 @ 21:43:36

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: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.93 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
130.00	MW 20% mud 80% water	1.824
0.00	w/ show of oil RW .28@39F	0.000

Total Length: 130.00 ft Total Volume: 1.824 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

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Serial #: 6668

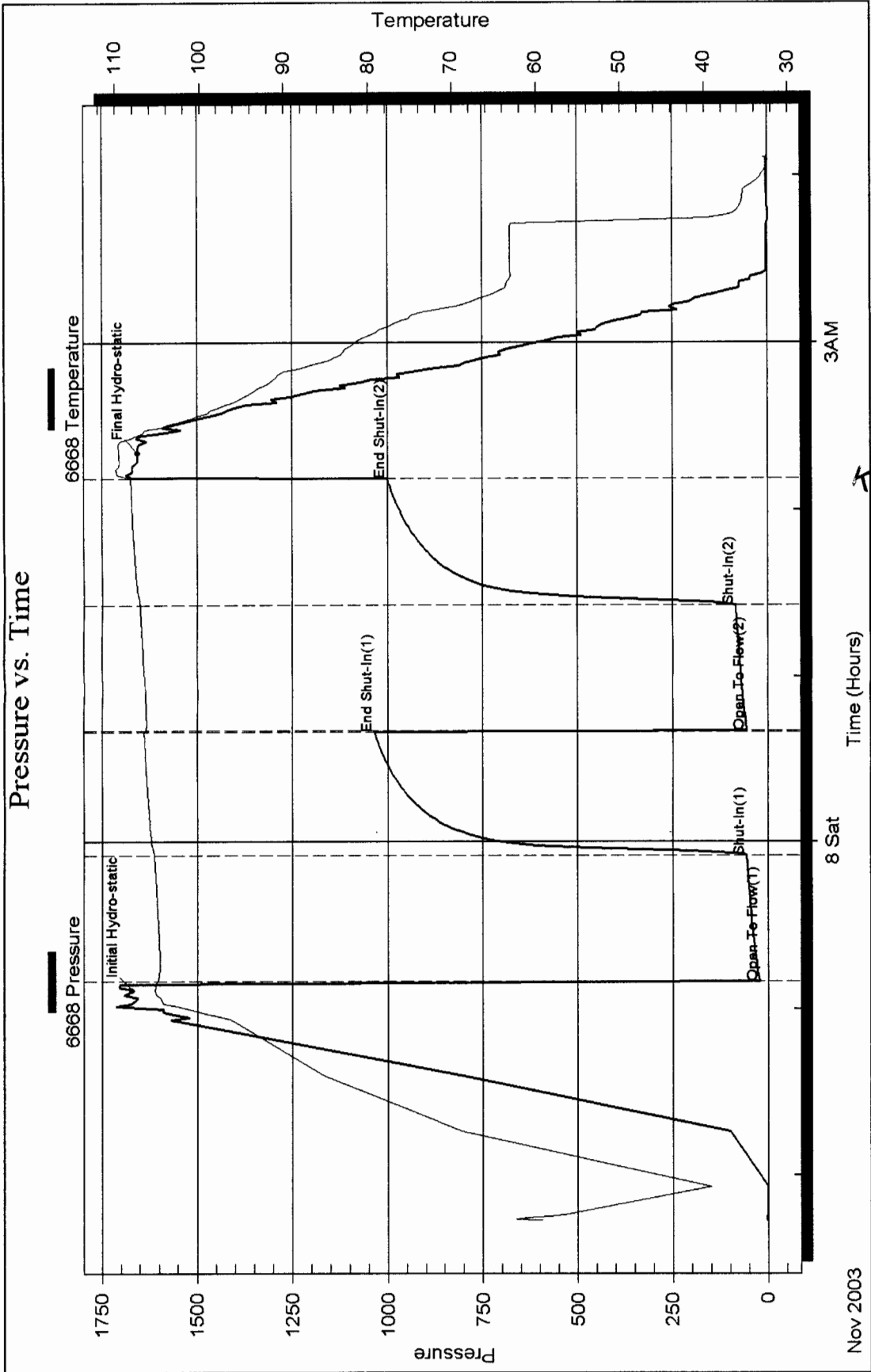
Inside

Downing-Nelson Oil Co Inc

24-11-21w Ellis Ks

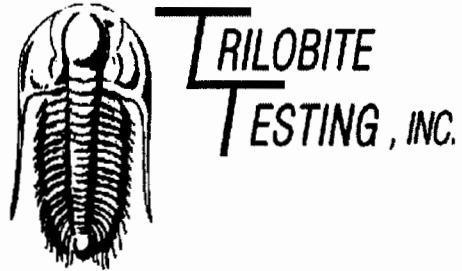
DST Test Number: 2

Pressure vs. Time



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MAR 04 2004
KCC WICHITA



DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

Box 372
Hays Ks 67601

ATTN: Ron Nelson

24-11-21w Ellis Ks

Clyde Lang #2-24

Start Date: 2003.11.09 @ 04:44:05

End Date: 2003.11.09 @ 10:41:34

Job Ticket #: 18204 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Downing-Nelson Oil Co Inc

Clyde Lang #2-24

24-11-21w Ellis Ks

DST # 3

Arbuckle

2003.11.09



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

ATTN: Ron Nelson

Job Ticket: 18204 **DST#: 3**

Test Start: 2003.11.09 @ 04:44:05

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 06:35:34
 Time Test Ended: 10:41:34

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Test Type: **Conventional Bottom Hole**
 Tester: **Ray Schwager**
 Unit No: **28**

Interval: **3895.00 ft (KB) To 3935.00 ft (KB) (TVD)**
 Total Depth: **3935.00 ft (KB) (TVD)**
 Hole Diameter: **7.85 inches** Hole Condition: **Fair**

Reference Elevations: **2258.00 ft (KB)**
2250.00 ft (CF)
 KB to GR/CF: **8.00 ft**

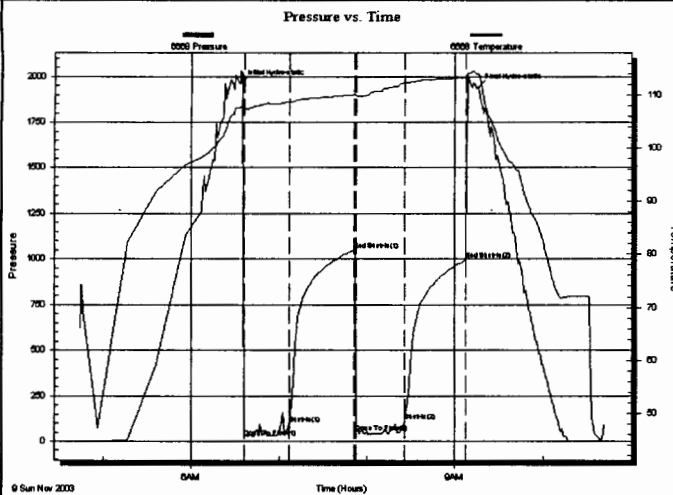
Serial #: 6668

Inside

Press@RunDepth: **110.86 psig @ 3896.01 ft (KB)**
 Start Date: **2003.11.09** End Date: **2003.11.09**
 Start Time: **04:44:05** End Time: **10:41:34**

Capacity: **7000.00 psig**
 Last Calib.: **2003.11.09**
 Time On Btm: **2003.11.09 @ 06:33:04**
 Time Off Btm: **2003.11.09 @ 09:15:34**

TEST COMMENT: **FFP-weak blow thru-out 1/4"to 1 1/2"blow**
FFP-weak blow thru-out 1"to 1 1/2"blow
Times 30-45-30-45



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1962.55	107.68	Initial Hydro-static
3	22.38	107.25	Open To Flow (1)
34	95.28	108.72	Shut-in(1)
78	1049.08	110.10	End Shut-in(1)
79	47.52	109.81	Open To Flow (2)
113	110.86	112.31	Shut-in(2)
155	994.45	113.32	End Shut-in(2)
163	1939.44	114.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	O&GCM 5%gas 10%oil 85%mud	0.35
40.00	HO&GCM 5%gas 35%oil 60%mud	0.56

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

Job Ticket: 18204

DST#: 3

ATTN: Ron Nelson

Test Start: 2003.11.09 @ 04:44:05

Tool Information

Drill Pipe:	Length: 3904.00 ft	Diameter: 3.80 inches	Volume: 54.76 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
		Total Volume: 54.76 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3895.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.02 ft			
Tool Length:	61.02 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			3875.00	
Shut In Tool	5.00			3880.00	
Hydraulic tool	5.00			3885.00	
Packer	5.00			3890.00	21.00 Bottom Of Top Packer
Packer	5.00			3895.00	
Stubb	1.00			3896.00	
Recorder	0.01	6668	Inside	3896.01	
Perforations	36.00			3932.01	
Recorder	0.01	11085	Outside	3932.02	
Bullnose	3.00			3935.02	40.02 Bottom Packers & Anchor
Total Tool Length:	61.02				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

Job Ticket: 18204 **DST#: 3**

ATTN: Ron Nelson

Test Start: 2003.11.09 @ 04:44:05

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: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.17 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	O&GCM 5%gas 10%oil 85%mud	0.351
40.00	HO&GCM 5%gas 35%oil 60%mud	0.561

Total Length: 65.00 ft Total Volume: 0.912 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

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Serial #: 6668

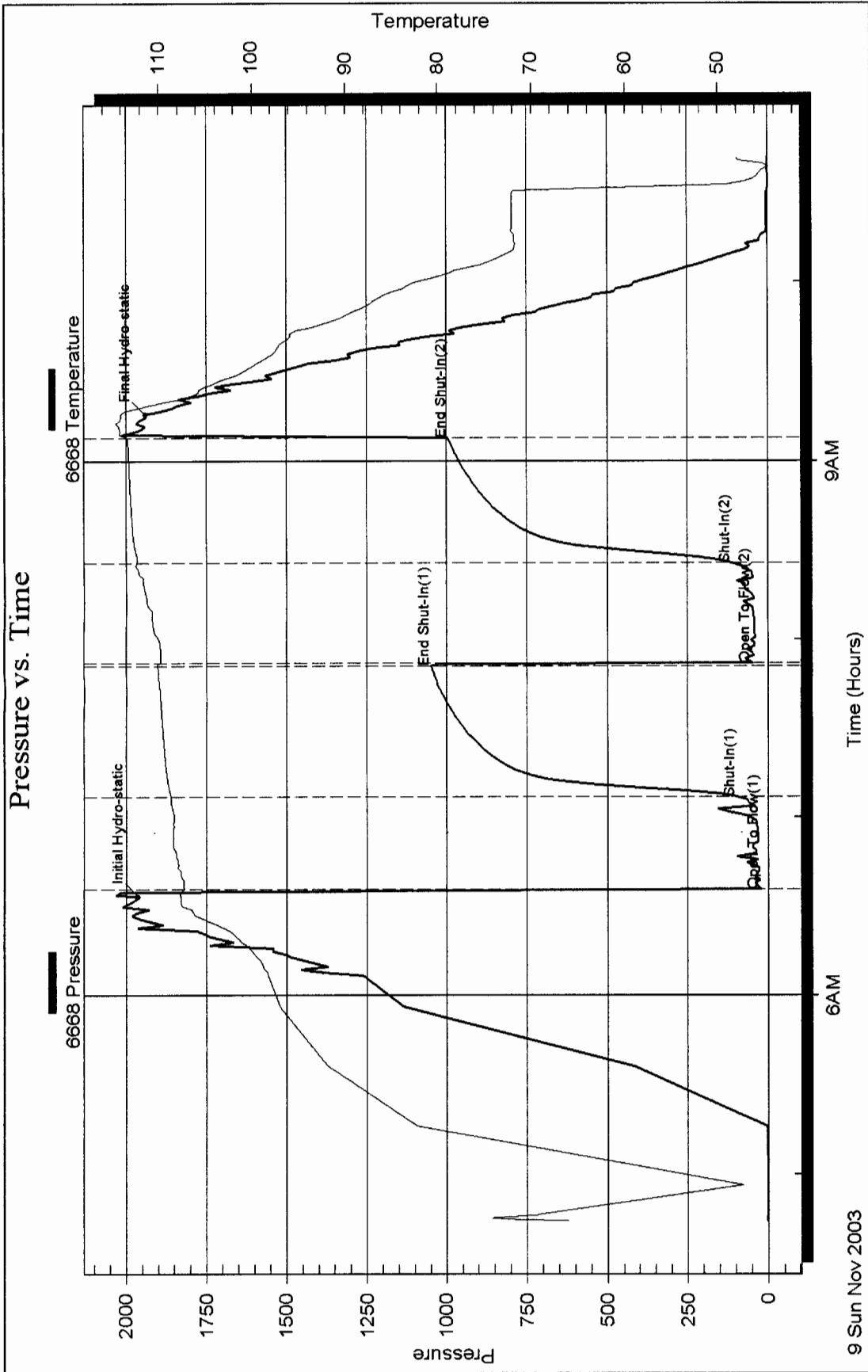
Inside

Dow ning-Nelson Oil Co Inc

24-11-21w Ellis Ks

DST Test Number: 3

Pressure vs. Time

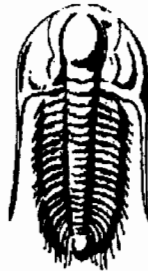


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Trilobite Testing, Inc

Ref. No: 18204

Printed: 2003.11.11 @ 14:36:21 Page 5



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DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

Box 372
Hays Ks 67601

ATTN: Ron Nelson

24-11-21w Ellis Ks

Clyde Lang #2-24

Start Date: 2003.11.09 @ 17:18:14

End Date: 2003.11.09 @ 23:56:43

Job Ticket #: 18205 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

Downing-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

ATTN: Ron Nelson

Job Ticket: 18205

DST#: 4

Test Start: 2003.11.09 @ 17:18:14

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 19:00:13
Time Test Ended: 23:56:43

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Test Type: **Conventional Bottom Hole**
Tester: **Ray Schwager**
Unit No: **28**

Interval: **3895.00 ft (KB) To 3939.00 ft (KB) (TVD)**
Total Depth: **3939.00 ft (KB) (TVD)**
Hole Diameter: **7.85 inches** Hole Condition: **Fair**

Reference Elevations: **2258.00 ft (KB)**
2250.00 ft (CF)
KB to GR/CF: **8.00 ft**

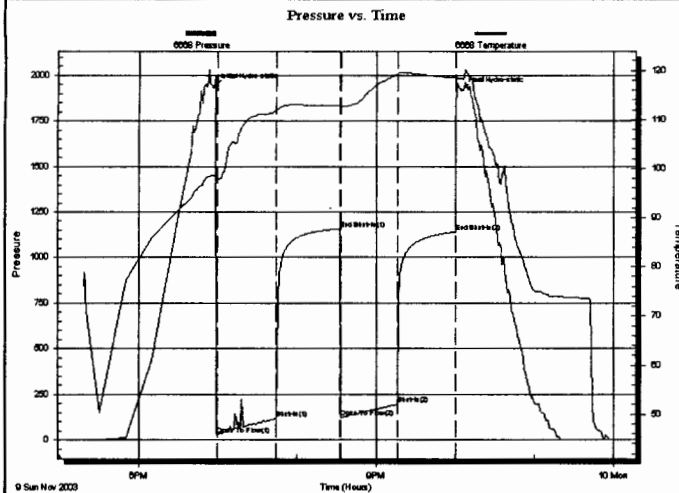
Serial #: 6668

Inside

Press@RunDepth: **194.55 psig @ 3896.01 ft (KB)**
Start Date: **2003.11.09** End Date: **2003.11.09**
Start Time: **17:18:14** End Time: **23:56:43**

Capacity: **7000.00 psig**
Last Calib.: **2003.11.10**
Time On Btm: **2003.11.09 @ 18:57:13**
Time Off Btm: **2003.11.09 @ 22:04:43**

TEST COMMENT: **FFP-weak to a free blow 1"to 9"blow**
FFP-weak to a free blow 1/2"to 4 1/2"blow
Times 45-45-45-45



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1933.71	98.55	Initial Hydro-static
3	25.46	98.23	Open To Flow (1)
48	116.27	111.86	Shut-In(1)
95	1157.90	112.87	End Shut-In(1)
96	122.25	112.62	Open To Flow (2)
139	194.55	119.16	Shut-In(2)
183	1141.16	118.50	End Shut-In(2)
188	1914.89	118.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
206.00	SOCWM 3%oil 47%w ater 50%mud	2.89
124.00	OCMW 3%oil 50%w ater 43%mud	1.74
62.00	SOCMW 3%oil 82%w ater 15%mud	0.87

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

Job Ticket: 18205 **DST#: 4**

ATTN: Ron Nelson

Test Start: 2003.11.09 @ 17:18:14

Tool Information

Drill Pipe:	Length: 3904.00 ft	Diameter: 3.80 inches	Volume: 54.76 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 54.76 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3895.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.02 ft			
Tool Length:	65.02 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			3875.00	
Shut In Tool	5.00			3880.00	
Hydraulic tool	5.00			3885.00	
Packer	5.00			3890.00	21.00 Bottom Of Top Packer
Packer	5.00			3895.00	
Stubb	1.00			3896.00	
Recorder	0.01	6668	Inside	3896.01	
Perforations	40.00			3936.01	
Recorder	0.01	11085	Outside	3936.02	
Bullnose	3.00			3939.02	44.02 Bottom Packers & Anchor
Total Tool Length:	65.02				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

Clyde Lang #2-24

Box 372
Hays Ks 67601

24-11-21w Ellis Ks

Job Ticket: 18205 **DST#: 4**

ATTN: Ron Nelson

Test Start: 2003.11.09 @ 17:18:14

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:	19000 ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	7.92 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
206.00	SOCWM 3%oil 47%w ater 50%mud	2.890
124.00	OCMW 3%oil 50%w ater 43%mud	1.739
62.00	SOCMW 3%oil 82%w ater 15%mud	0.870

Total Length: 392.00 ft Total Volume: 5.499 bbl

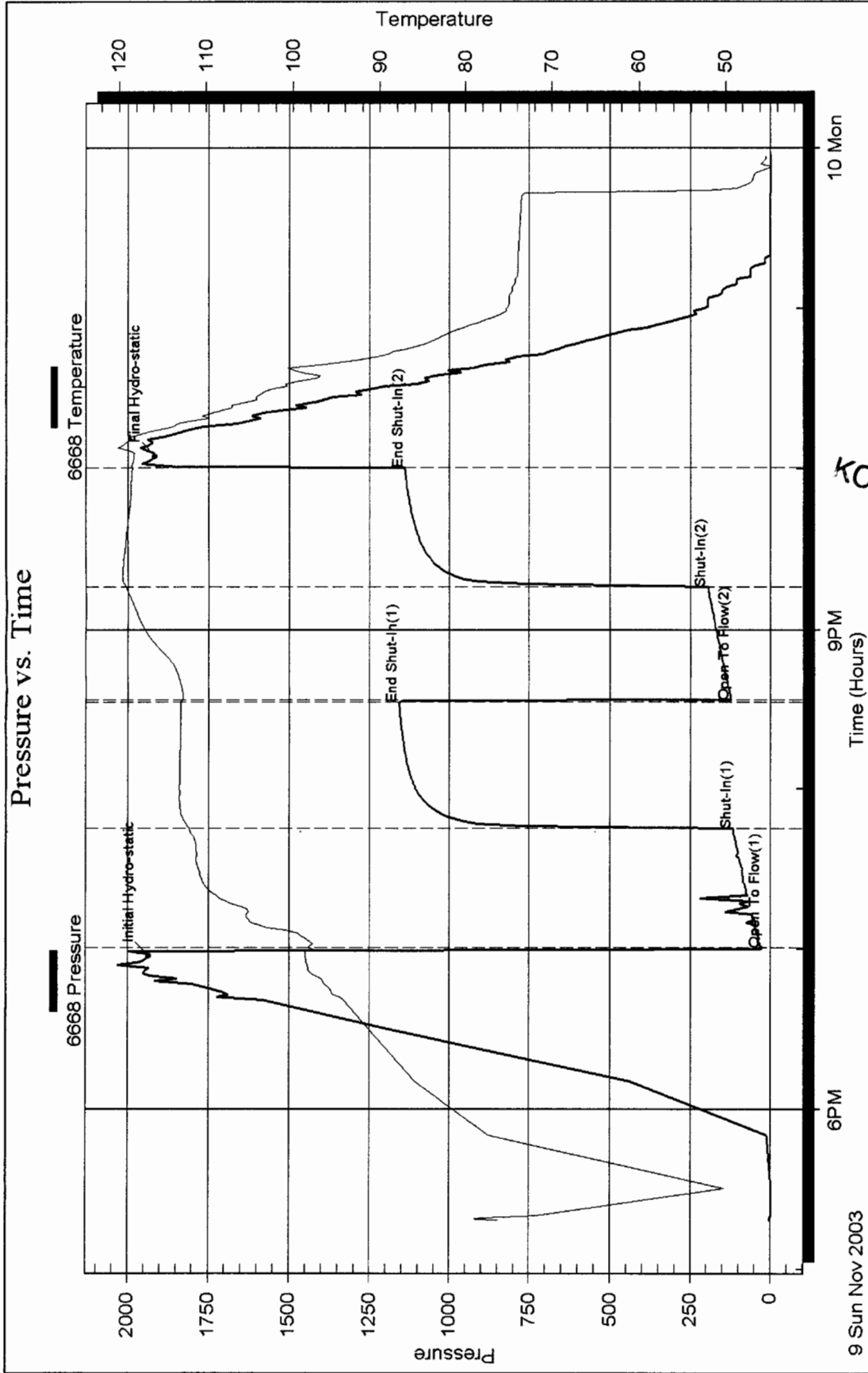
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW.39@65F

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Pressure vs. Time



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