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KCC WICHITA



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Ritchie Expl.Inc.**

P.O.Box 783188  
Wichita Ks. 67278

ATTN: Gary Gensch

**1-26s-21w Ford Ks.**

**Kersting #1**

Start Date: 2003.10.05 @ 03:52:57

End Date: 2003.10.05 @ 10:50:42

Job Ticket #: 17903      DST #: 1

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



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TESTING, INC.**

# DRILL STEM TEST REPORT

Ritchie Expl. Inc.

**Kersting #1**

P.O.Box 783188  
Wichita Ks. 67278

**1-26s-21w Ford Ks.**

Job Ticket: 17903

**DST#: 1**

ATTN: Gary Gensch

Test Start: 2003.10.05 @ 03:52:57

## GENERAL INFORMATION:

Formation: **Lans.**  
Deviated: **No Whipstock:** ft (KB)  
Time Tool Opened: 06:00:57  
Time Test Ended: 10:50:42

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Test Type: **Conventional Bottom Hole**  
Tester: **Gary Pevoteaux**  
Unit No: **23**

Interval: **4084.00 ft (KB) To 4110.00 ft (KB) (TVD)**  
Total Depth: **4110.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Poor**

Reference Elevations: **2249.00 ft (KB)**  
**2244.00 ft (CF)**  
KB to GR/CF: **5.00 ft**

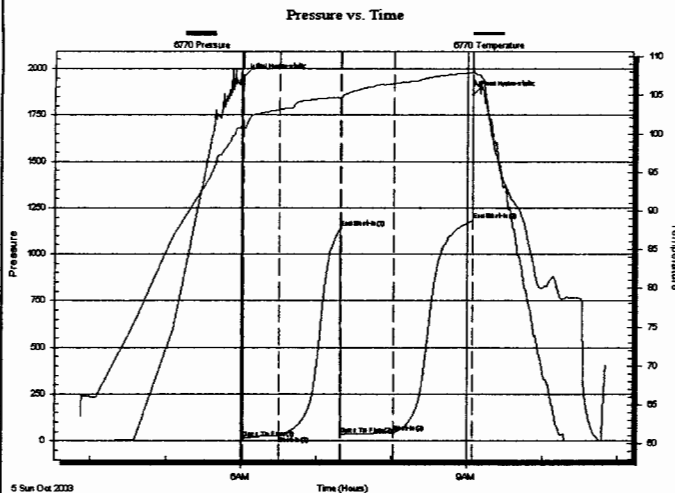
## Serial #: 6770

**Inside**

Press@RunDepth: **42.25 psig @ 4085.00 ft (KB)**  
Start Date: **2003.10.05** End Date: **2003.10.05**  
Start Time: **03:52:58** End Time: **10:50:42**

Capacity: **7000.00 psig**  
Last Calib.: **2003.10.05**  
Time On Btm: **2003.10.05 @ 06:00:42**  
Time Off Btm: **2003.10.05 @ 09:04:27**

TEST COMMENT: IF:Weak blow . 1/2 - 1 1/2".  
IS:No blow .  
FF:Weak blow . 1/4 - 1".  
FS:No blow .



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1955.43	101.03	Initial Hydro-static
1	11.30	100.15	Open To Flow (1)
30	28.66	103.16	Shut-In(1)
78	1139.05	104.65	End Shut-In(1)
79	34.14	104.43	Open To Flow (2)
121	42.25	106.50	Shut-In(2)
184	1180.90	107.92	End Shut-In(2)
184	1860.36	108.30	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	SOCWM 1%o 13%w 86%m	0.37
0.00	trace of gas in pipe	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Ritchie Expl.Inc.

**Kersting #1**

P.O.Box 783188  
Wichita Ks. 67278

**1-26s-21w Ford Ks.**

Job Ticket: 17903

**DST#: 1**

ATTN: Gary Gensch

Test Start: 2003.10.05 @ 03:52:57

**Tool Information**

Drill Pipe:	Length: 4021.00 ft	Diameter: 3.80 inches	Volume: 56.40 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Full Loose: 68000.00 lb
			<u>Total Volume: 56.70 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4084.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	48.00 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			4063.00	
Shut In Tool	5.00			4068.00	
Hydraulic tool	5.00			4073.00	
Safety Joint	2.00			4075.00	
Packer	4.00			4079.00	22.00 Bottom Of Top Packer
Packer	5.00			4084.00	
Stubb	1.00			4085.00	
Recorder	0.00	6770	Inside	4085.00	
Perforations	20.00			4105.00	
Recorder	0.00	13222	Outside	4105.00	
Bullnose	5.00			4110.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 48.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Ritchie Expl. Inc.

**Kersting #1**

P.O.Box 783188  
Wichita Ks. 67278

**1-26s-21w Ford Ks.**

Job Ticket: 17903

**DST#: 1**

ATTN: Gary Gensch

Test Start: 2003.10.05 @ 03:52:57

## 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:

5000 ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	SOCWM 1%o 13%w 86%rn	0.365
0.00	trace of gas in pipe	0.000

Total Length: 65.00 ft

Total Volume: 0.365 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

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Serial #: 6770

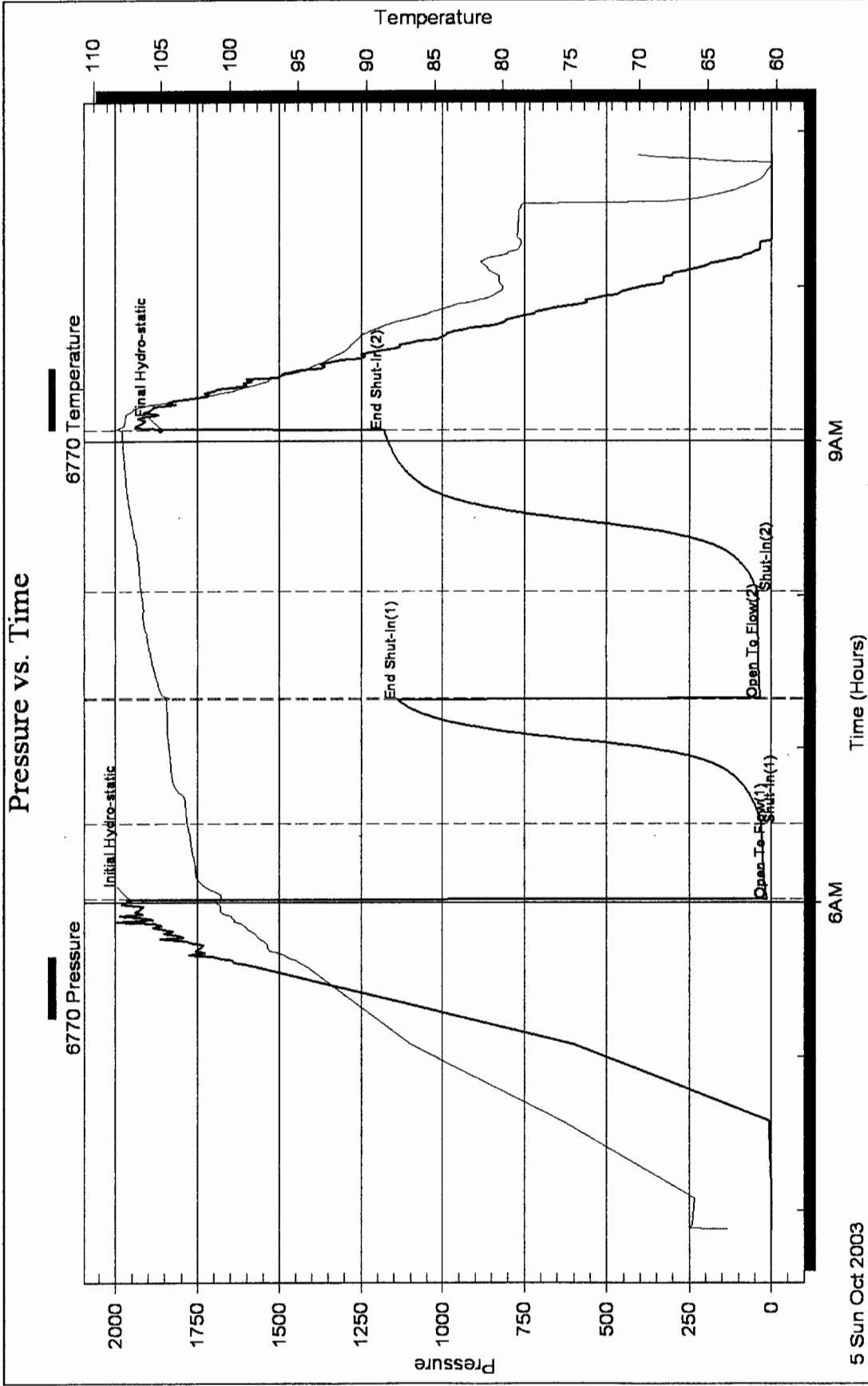
Inside

Ritchie Expl. Inc.

1-26s-21w Ford Ks.

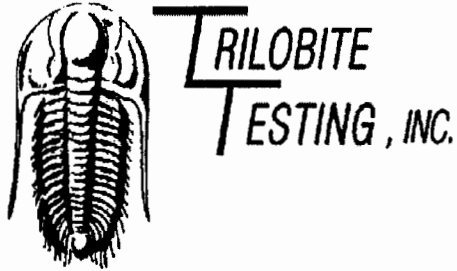
DST Test Number: 1

### Pressure vs. Time



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## DRILL STEM TEST REPORT

Prepared For: **Ritchie Expl.Inc.**

P.O.Box 783188  
Wichita Ks. 67278

ATTN: Gary Gensch

**1-26s-21w Ford Ks.**

**Kersting #1**

Start Date: 2003.10.07 @ 23:23:18

End Date: 2003.10.08 @ 07:03:03

Job Ticket #: 17904                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
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## DRILL STEM TEST REPORT

Ritchie Expl. Inc.

P.O.Box 783188  
Wichita Ks. 67278

ATTN: Gary Gensch

**Kersting #1**

**1-26s-21w Ford Ks.**

Job Ticket: 17904

**DST#: 2**

Test Start: 2003.10.07 @ 23:23:18

### GENERAL INFORMATION:

Formation: **Miss.**

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

Time Tool Opened: 01:47:33

Time Test Ended: 07:03:03

Interval: **4686.00 ft (KB) To 4729.00 ft (KB) (TVD)**

Total Depth: **4729.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Poor**

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Test Type: **Conventional Bottom Hole**

Tester: **Gary Pevoteaux**

Unit No: **23**

Reference Elevations: **2249.00 ft (KB)**

**2244.00 ft (CF)**

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

**Serial #: 6770**

**Inside**

Press@RunDepth: **43.26 psig @ 4687.00 ft (KB)**

Start Date: **2003.10.07**

End Date:

**2003.10.08**

Start Time: **23:23:19**

End Time:

**07:03:03**

Capacity: **7000.00 psig**

Last Calib.: **2003.10.08**

Time On Btm:

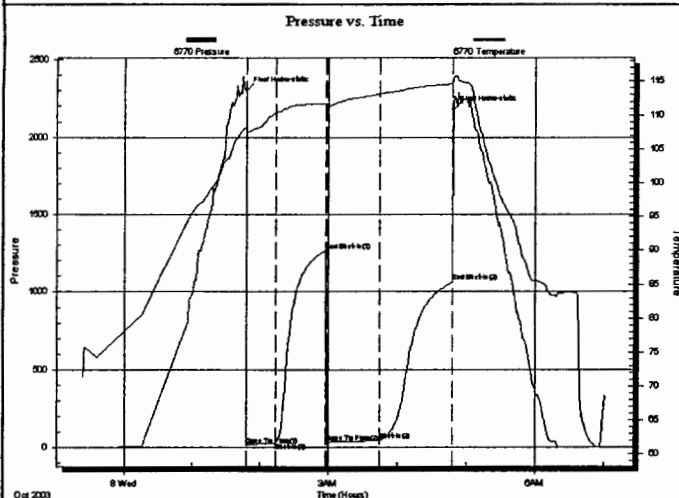
Time Off Btm: **2003.10.08 @ 01:47:18**

TEST COMMENT: **F:Weak blow . 1/4 - 1".**

**IS:No blow .**

**FF:Weak blow . 1/4".**

**FSt:No blow .**



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2303.58	108.10	Final Hydro-static
1	17.30	107.50	Open To Flow (1)
27	30.29	110.28	Shut-In(1)
70	1266.23	111.69	End Shut-In(1)
71	34.10	111.40	Open To Flow (2)
117	43.26	113.12	Shut-In(2)
181	1062.71	114.61	End Shut-In(2)
181	2180.02	115.11	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
66.00	OCWM 6%o 14%w 80%r	0.38
2.00	clean oil	0.03
0.00	trace of gas in pipe	0.00

### Gas Rates

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



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## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ritchie Expl. Inc.

**Kersting #1**

P.O.Box 783188  
Wichita Ks. 67278

**1-26s-21w Ford Ks.**

Job Ticket: 17904

**DST#:2**

ATTN: Gary Gensch

Test Start: 2003.10.07 @ 23:23:18

### Tool Information

Drill Pipe:	Length: 4616.00 ft	Diameter: 3.80 inches	Volume: 64.75 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 70000.00 lb
		<u>Total Volume: 65.05 bbl</u>		Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4686.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	65.00 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
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Change Over Sub	1.00			4665.00	
Shut In Tool	5.00			4670.00	
Hydraulic tool	5.00			4675.00	
Safety Joint	2.00			4677.00	
Packer	4.00			4681.00	22.00 Bottom Of Top Packer
Packer	5.00			4686.00	
Stubb	1.00			4687.00	
Recorder	0.00	6770	Inside	4687.00	
Perforations	37.00			4724.00	
Recorder	0.00	13222	Outside	4724.00	
Bullnose	5.00			4729.00	43.00 Bottom Packers & Anchor

**Total Tool Length: 65.00**



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**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Ritchie Expl. Inc.

**Kersting #1**

P.O.Box 783188  
Wichita Ks. 67278

**1-26s-21w Ford Ks.**

Job Ticket: 17904

**DST#: 2**

ATTN: Gary Gensch

Test Start: 2003.10.07 @ 23:23:18

**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:

5000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
66.00	OCWM 6%o 14%w 80%m	0.379
2.00	clean oil	0.028
0.00	trace of gas in pipe	0.000

Total Length: 68.00 ft

Total Volume: 0.407 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

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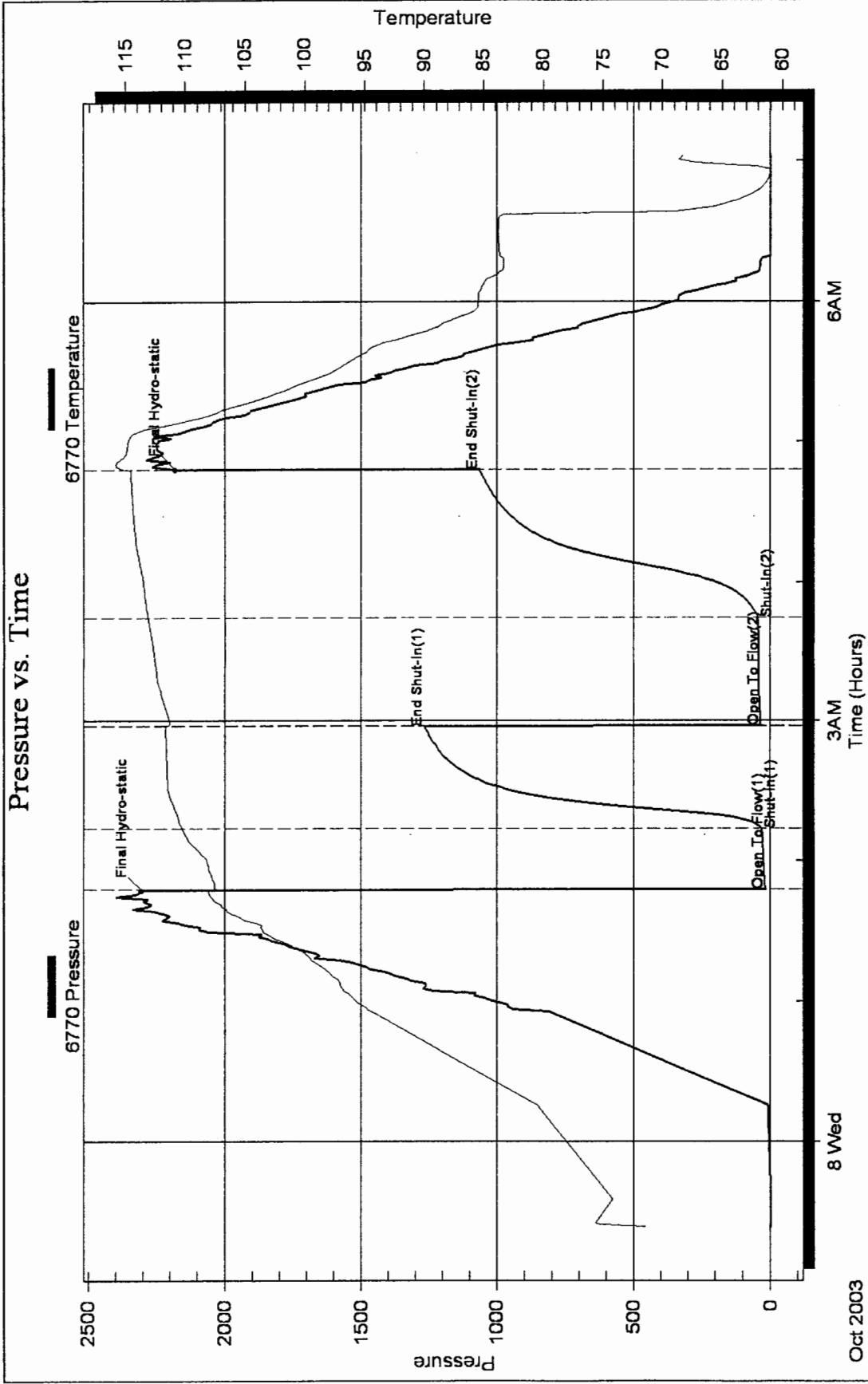
Serial #: 6770

Inside

Ritchie Expl. Inc.

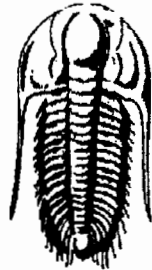
1-26s-21w Ford Ks.

DST Test Number: 2



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## DRILL STEM TEST REPORT

Prepared For: **Ritchie Expl.Inc.**

P.O.Box 783188  
Wichita Ks. 67278

ATTN: Gary Gensch

**1-26s-21w Ford Ks.**

**Kersting #1**

Start Date: 2003.10.08 @ 18:11:47

End Date: 2003.10.09 @ 02:08:02

Job Ticket #: 17905      DST #: 3

Ritchie Expl.Inc.

Kersting #1

1-26s-21w Ford Ks.

DST # 3

Miss.

2003.10.08

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



**TRILOBITE TESTING, INC**

**DRILL STEM TEST REPORT**

Ritchie Expl. Inc.

**Kersting #1**

P.O.Box 783188  
Wichita Ks. 67278

**1-26s-21w Ford Ks.**

Job Ticket: 17905

**DST#: 3**

ATTN: Gary Gensch

Test Start: 2003.10.08 @ 18:11:47

**GENERAL INFORMATION:**

Formation: **Miss.**

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

Time Tool Opened: 20:27:32

Time Test Ended: 02:08:02

Test Type: **Conventional Bottom Hole**

Tester: **Gary Pevoteaux**

Unit No: **23**

Interval: **4726.00 ft (KB) To 4737.00 ft (KB) (TVD)**

Total Depth: **4737.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Floor**

Reference Elevations: **2249.00 ft (KB)**

**2244.00 ft (CF)**

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

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**Serial #: 6770**

**Inside**

Press@RunDepth: **532.67 psig @ 4727.00 ft (KB)**

Start Date: **2003.10.08**

End Date:

**2003.10.09**

Start Time: **18:11:48**

End Time:

**02:08:02**

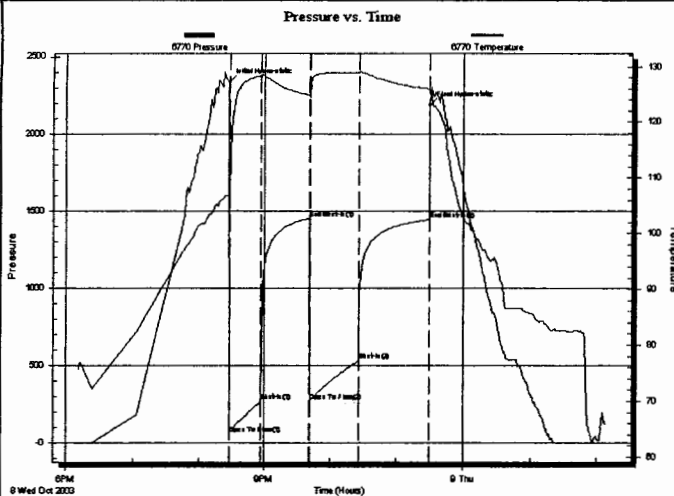
Capacity: **7000.00 psig**

Last Calib.: **2003.10.09**

Time On Btm: **2003.10.08 @ 20:27:17**

Time Off Btm: **2003.10.08 @ 23:29:47**

**TEST COMMENT:** IF: Strong blow . B.O.B. in 9 mins.  
IS: Weak blow . 1/4".  
FF: Strong blow . B.O.B. in 10 mins.  
FS: No blow .



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2334.78	106.75	Initial Hydro-static
1	59.26	105.60	Open To Flow (1)
30	269.14	128.30	Shut-In(1)
74	1450.49	124.90	End Shut-In(1)
75	271.87	124.42	Open To Flow (2)
119	532.67	128.96	Shut-In(2)
183	1441.88	126.02	End Shut-In(2)
183	2184.73	126.37	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
1060.00	SW Rw .18 ohms @ 59 deg.	14.32
90.00	MW with oil scum. 22% m 78% w	1.26
0.00	trace of gas in pipe	0.00

**Gas Rates**

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



**TRILOBITE  
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**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Ritchie Expl.Inc.

**Kersting #1**

P.O.Box 783188  
Wichita Ks. 67278

**1-26s-21w Ford Ks.**

Job Ticket: 17905

**DST#:3**

ATTN: Gary Gensch

Test Start: 2003.10.08 @ 18:11:47

**Tool Information**

Drill Pipe: Length: 4648.00 ft	Diameter: 3.80 inches	Volume: 65.20 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe: Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar: Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 74000.00 lb
	<b>Total Volume: 65.50 bbl</b>		Tool Chased 0.00 ft
Drill Pipe Above KB: 4.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer: 4726.00 ft			Final 65000.00 lb
Depth to Bottom Packer: ft			
Interval between Packers: 11.00 ft			
Tool Length: 33.00 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			4705.00	
Shut In Tool	5.00			4710.00	
Hydraulic tool	5.00			4715.00	
Safety Joint	2.00			4717.00	
Packer	4.00			4721.00	22.00 Bottom Of Top Packer
Packer	5.00			4726.00	
Stubb	1.00			4727.00	
Recorder	0.00	6770	Inside	4727.00	
Perforations	5.00			4732.00	
Recorder	0.00	13222	Outside	4732.00	
Bullnose	5.00			4737.00	11.00 Bottom Packers & Anchor

**Total Tool Length: 33.00**



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**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

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**Kersting #1**

P.O.Box 783188  
Wichita Ks. 67278

**1-26s-21w Ford Ks.**

Job Ticket: 17905

**DST#: 3**

ATTN: Gary Gensch

Test Start: 2003.10.08 @ 18:11:47

**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:

49000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 0.20 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
1060.00	SW Rw .18 ohms @ 59 deg.	14.322
90.00	MW with oil scum. 22% m 78% w	1.262
0.00	trace of gas in pipe	0.000

Total Length: 1150.00 ft

Total Volume: 15.584 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

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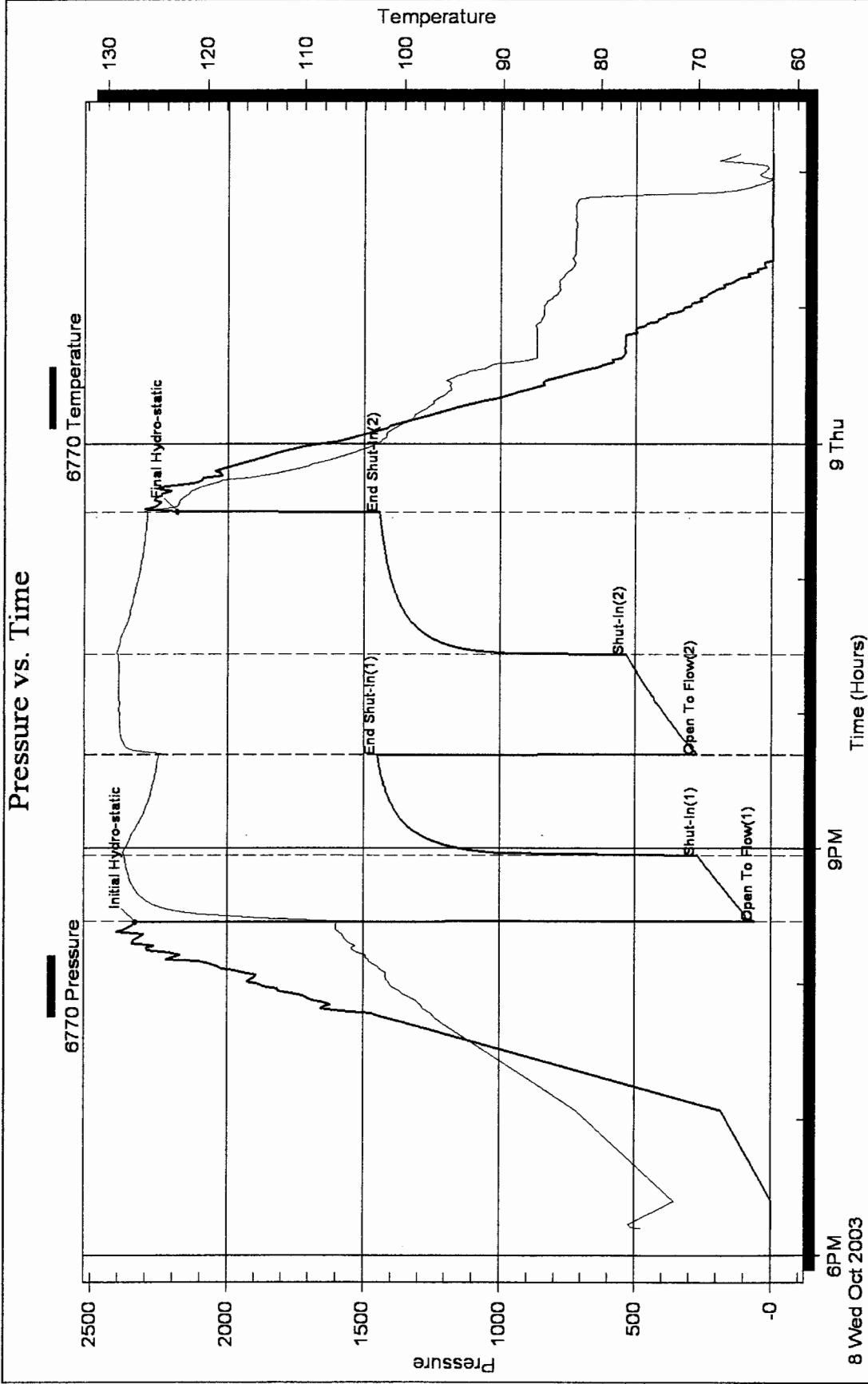
Serial #: 6770

Inside

Ritchie Expl. Inc.

1-26s-21w Ford Ks.

DST Test Number: 3



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