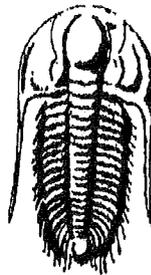


24-18s-27w

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JUN 22 2009

KCC



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Larson Engineering Inc**

562 W State Rd 4  
Olmitz, KS 67564

15-101-22155

ATTN: Bob Lewellyn

27  
24-18s-24w Lane, Ks

'B'  
McLeish #1-24

Start Date: 2009.03.02 @ 16:20:44

End Date: 2009.03.02 @ 22:05:53

Job Ticket #: 34260 DST #: 1

*kw  
4/25/09*

Larson Engineering Inc

McLeish #1-24

24-18s-24w Lane, Ks

DST # 1

Allamont

2009.03.02

24-18s-24w

Range is 27, not 24 as printed

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Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering Inc

**McLeish #1-24**

562 W State Rd 4  
Olmitz, KS 67564

**24-18s-24w Lane, Ks**

ATTN: Bob Lewellyn

Job Ticket: 34260

DST#: 1

Test Start: 2009.03.02 @ 16:20:44

## GENERAL INFORMATION:

Formation: **Altamont**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:05:54  
 Time Test Ended: 22:05:53  
 Interval: **4442.00 ft (KB) To 4472.00 ft (KB) (TVD)**  
 Total Depth: **4472.00 ft (KB) (TVD)**  
 Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole  
 Tester: Brandon Turley  
 Unit No: 35  
 Reference Elevations: 2663.00 ft (KB)  
 2658.00 ft (CF)  
 KB to GRVCF: 5.00 ft

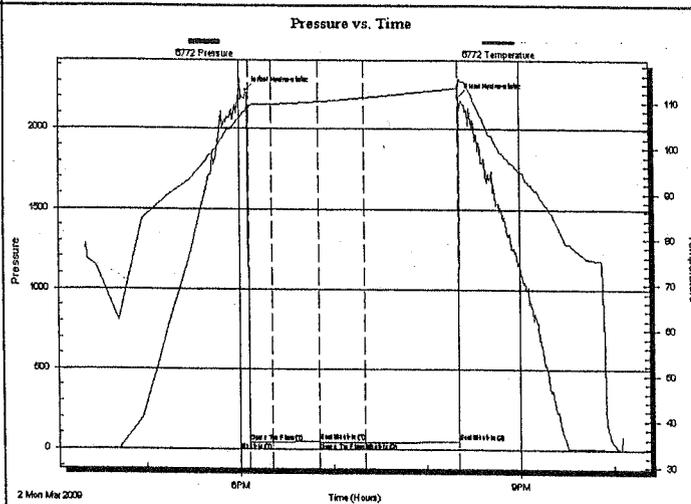
## Serial #: 6772

Inside

Press@RunDepth: 39.61 psig @ 4452.00 ft (KB)  
 Start Date: 2009.03.02 End Date: 2009.03.02  
 Start Time: 16:20:44 End Time: 22:05:53

Capacity: 7000.00 psig  
 Last Calib.: 2009.03.02  
 Time On Btm: 2009.03.02 @ 18:04:24  
 Time Off Btm: 2009.03.02 @ 20:21:09

TEST COMMENT: IF: 1/2 blow died in 10 min.  
 IS: No return.  
 FF: No blow.  
 FS: No return.



## PRESSURE SUMMARY

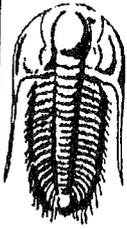
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2239.63	108.00	Initial Hydro-static
2	40.59	108.09	Open To Flow (1)
17	40.55	109.56	Shut-In (1)
47	50.30	110.12	End Shut-In (1)
47	40.95	110.13	Open To Flow (2)
76	39.61	111.01	Shut-In (2)
137	50.40	113.19	End Shut-In (2)
137	2199.77	113.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud 100% m	0.07

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

JUN 22 2009 **TOOL DIAGRAM**

Larson Engineering Inc

**McLeish #1-24**  
REC

562 W State Rd 4  
Olmitz, KS 67564

**24-18s-24w Lane, Ks**

Job Ticket: 34260

**DST#: 1**

ATTN: Bob Lewellyn

Test Start: 2009.03.02 @ 16:20:44

**Tool Information**

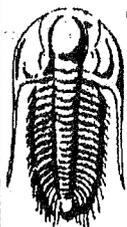
Drill Pipe:	Length: 4267.00 ft	Diameter: 3.80 inches	Volume: 59.85 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 156.00 ft	Diameter: 2.25 inches	Volume: 0.77 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 60.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4442.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	62.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4420.00	
Shut In Tool	5.00			4425.00	
Hydraulic tool	5.00			4430.00	
Jars	5.00			4435.00	
Safety Joint	2.00			4437.00	
Packer	5.00			4442.00	23.00 Bottom Of Top Packer
Blank	5.00			4447.00	39.00 Tool Interval
Packer	4.00			4451.00	
Stubb	1.00			4452.00	
Recorder	0.00	6772	inside	4452.00	
Recorder	0.00	8373	inside	4452.00	
Perforations	24.00			4476.00	
Bullnose	5.00			4481.00	1000061.00 Bottom Packers & Anchor

**Total Tool Length: 62.00**



**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Larson Engineering Inc

McLeish #1-24

562 W State Rd 4  
Olmritz, KS 67564

24-18s-24w Lane, Ks

Job Ticket: 34260

DST#: 1

ATTN: Bob Lewellyn

Test Start: 2009.03.02 @ 16:20:44

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
15.00	mud 100% <sub>m</sub>	0.074

Total Length:

15.00 ft

Total Volume:

0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6772

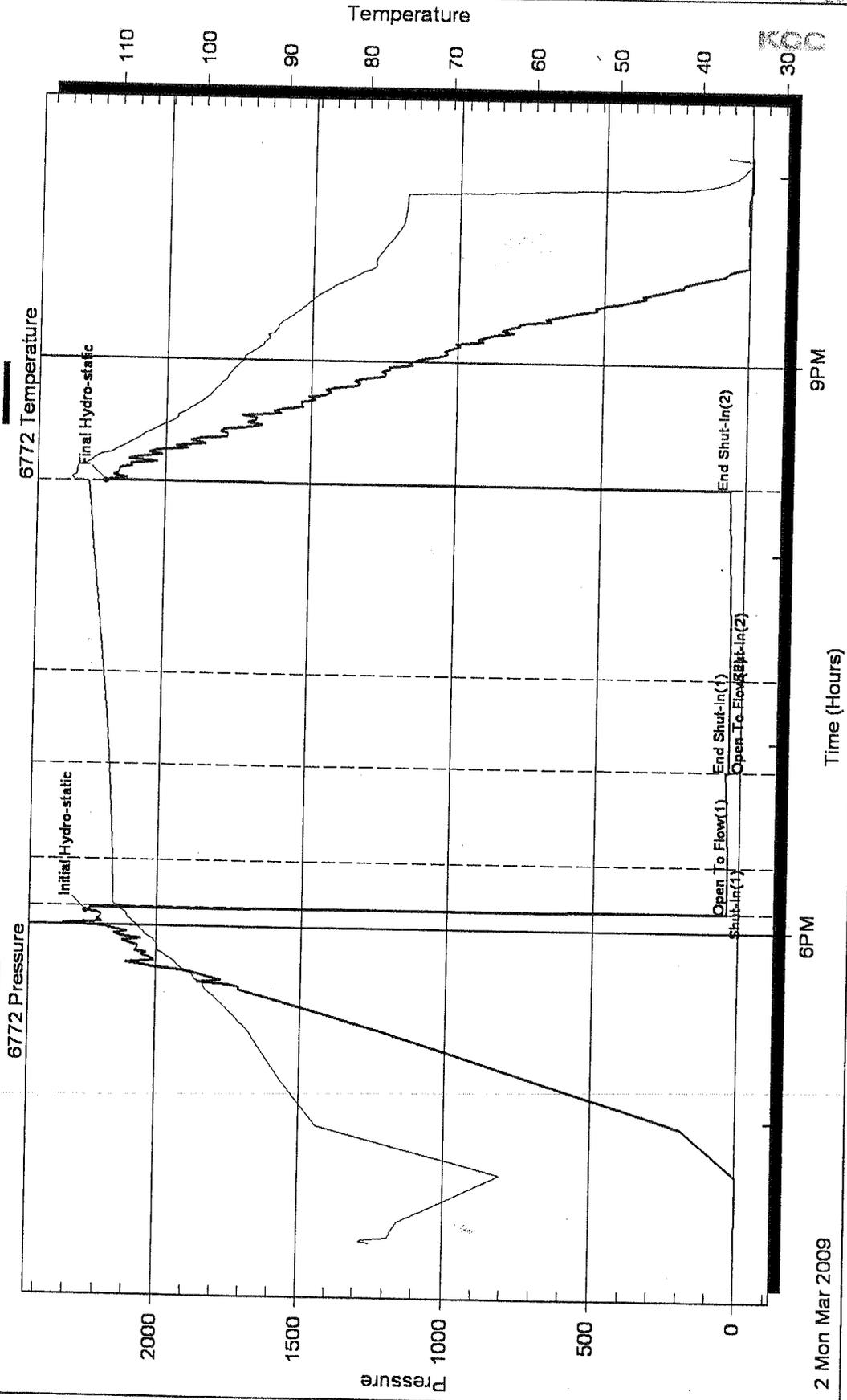
Inside

Larson Engineering Inc

24-18s-24w Lane, Ks

DST Test Number: 1

### Pressure vs. Time



2 Mon Mar 2009

6PM

Time (Hours)

9PM

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JUN 22 2009

Trilobite Testing, Inc

Ref. No: 34260

Printed: 2009.03.09 @ 10:19:14 Page 5

CONFIDENTIAL

JUN 22 2009

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**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc**

562 W State Rd 4  
Olmits, KS 67564

ATTN: Bob Lewellyn

**24-18s-24w Lane, Ks**

**McLeish #1-24**

Start Date: 2009.03.03 @ 15:08:37

End Date: 2009.03.03 @ 20:05:16

Job Ticket #: 34261                      DST #: 2

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PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Larson Engineering Inc

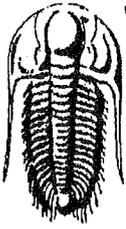
McLeish #1-24

24-18s-24w Lane, Ks

DST # 2

Ft. Scott

2009.03.03



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Larson Engineering Inc

**McLeish #1-24**

562 W State Rd 4  
Olmritz, KS 67564

**24-18s-24w Lane, Ks**

Job Ticket: 34261

DST#: 2

ATTN: Bob Lewellyn

Test Start: 2009.03.03 @ 15:08:37

## GENERAL INFORMATION:

Formation: **Ft. Scott**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:49:47  
 Time Test Ended: 20:05:16

Test Type: Conventional Bottom Hole  
 Tester: Brandon Turley  
 Unit No: 35

Interval: **4506.00 ft (KB) To 4565.00 ft (KB) (TVD)**  
 Total Depth: 4565.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches-Hole Condition: Good

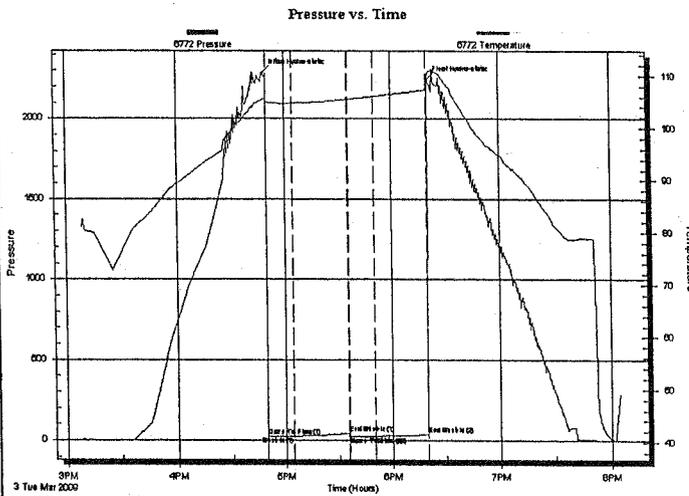
Reference Elevations: 2663.00 ft (KB)  
 2658.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 6772** Inside

Press@RunDepth: 26.10 psig @ 4516.00 ft (KB)  
 Start Date: 2009.03.03 End Date: 2009.03.03  
 Start Time: 15:08:37 End Time: 20:05:16

Capacity: 7000.00 psig  
 Last Calib.: 2009.03.03  
 Time On Btm: 2009.03.03 @ 16:48:02  
 Time Off Btm: 2009.03.03 @ 18:20:17

TEST COMMENT: IF: 1/4 blow died in 8 min.  
 IS: No return.  
 FF: No blow.  
 FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2281.82	105.47	Initial Hydro-static
2	25.17	105.03	Open To Flow (1)
16	25.35	104.73	Shut-In(1)
48	43.66	105.49	End Shut-In(1)
48	25.87	105.49	Open To Flow (2)
62	26.10	106.06	Shut-In(2)
92	36.32	107.32	End Shut-In(2)
93	2242.07	109.96	Final Hydro-static

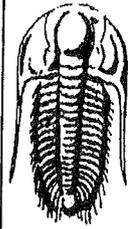
## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.02

## Gas Rates

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

JUN 22 2009



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Larson Engineering Inc

McLeish #1-24

562 W State Rd 4  
Olmitz, KS 67564

24-18s-24w Lane, Ks

Job Ticket: 34261

DST#: 2

ATTN: Bob Lewellyn

Test Start: 2009.03.03 @ 15:08:37

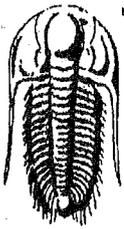
**Tool Information**

Drill Pipe:	Length: 4357.00 ft	Diameter: 3.80 inches	Volume: 61.12 bbl	Tool Weight: 2000.00 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: 156.00 ft	Diameter: 2.25 inches	Volume: 0.77 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 61.89 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4506.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	91.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4484.00	
Shut In Tool	5.00			4489.00	
Hydraulic tool	5.00			4494.00	
Jars	5.00			4499.00	
Safety Joint	2.00			4501.00	
Packer	5.00			4506.00	23.00 Bottom Of Top Packer
Blank	5.00			4511.00	68.00 Tool Interval
Packer	4.00			4515.00	
Stubb	1.00			4516.00	
Recorder	0.00	6772	Inside	4516.00	
Recorder	0.00	8373	Inside	4516.00	
Perforations	20.00			4536.00	
Change Over Sub	1.00			4537.00	
Drill Pipe	31.00			4568.00	
Change Over Sub	1.00			4569.00	
Bullnose	5.00			4574.00	1000090.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>91.00</b>				



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Larson Engineering Inc

**McLeish #1-24**

562 W State Rd 4  
Olmitz, KS 67564

**24-18s-24w Lane, Ks**

Job Ticket: 34261

**DST#: 2**

ATTN: Bob Lewellyn

Test Start: 2009.03.03 @ 15:08:37

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity:

0 ppm

Viscosity: 47.00 sec/qt

Cushion Volume: bbl

Water Loss: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100% <sub>m</sub>	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

Serial #: 6772

Inside

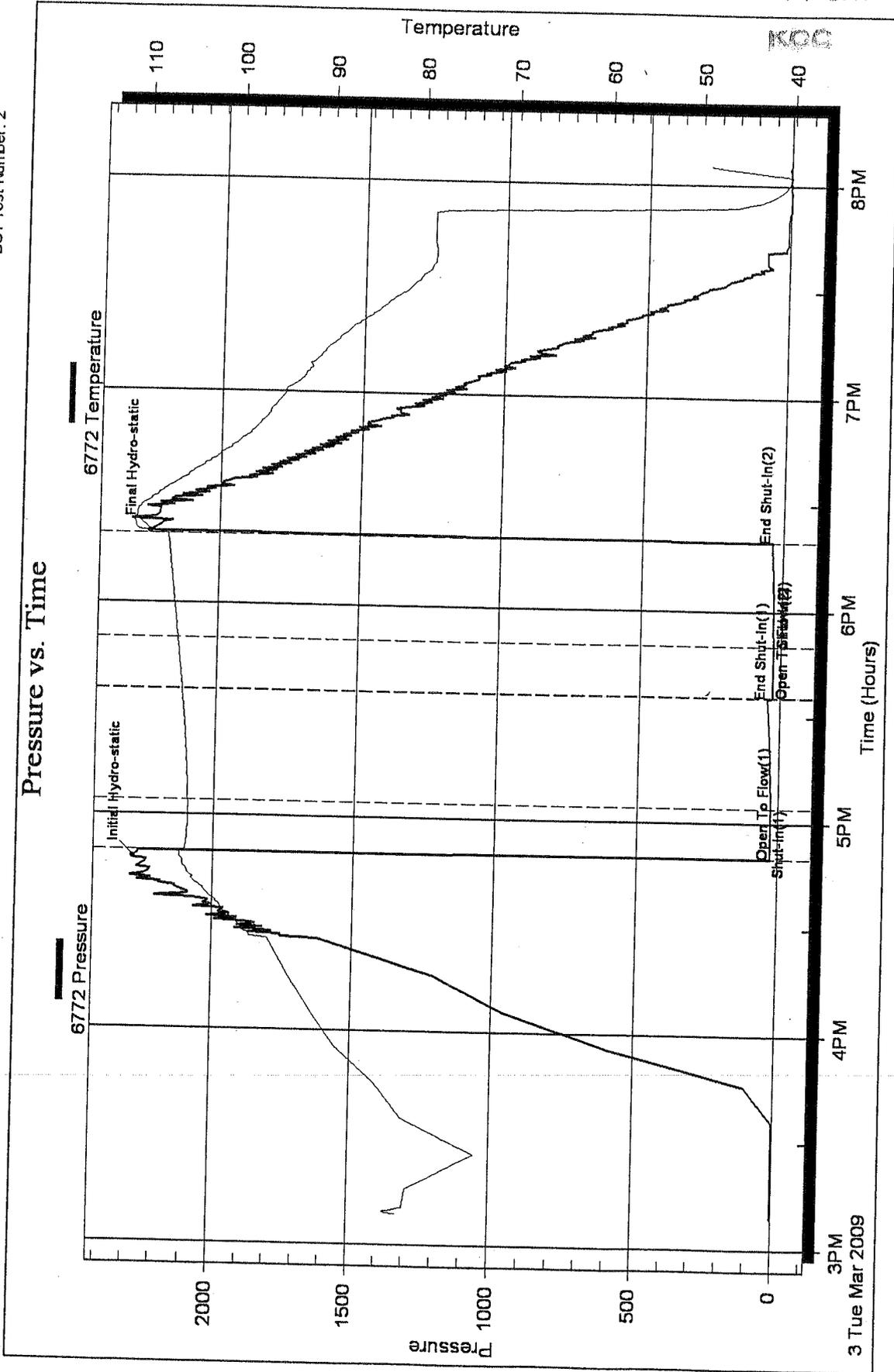
Larson Engineering Inc

24-18s-24w Lane, Ks

DST Test Number: 2

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JUN 22 2009



Trilobite Testing, Inc

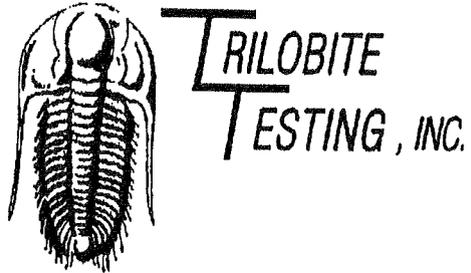
Ref. No: 34261

Printed: 2009.03.09 @ 10:19:34 Page 5

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JUN 23 2009

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## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Bob Lewellyn

**24-18s-24w Lane, Ks**

**McLeish #1-24**

Start Date: 2009.03.04 @ 07:59:18

End Date: 2009.03.04 @ 14:34:42

Job Ticket #: 34262                      DST #: 3

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JUN 23 2009  
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PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Larson Engineering Inc

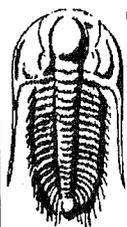
McLeish #1-24

24-18s-24w Lane, Ks

DST # 3

Johnson-Deftrial

2009.03.04



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering Inc

**McLeish #1-24**

562 W State Rd 4  
Olmitz, KS 67564

**24-18s-24w Lane, Ks**

Job Ticket: 34262

DST#: 3

ATTN: Bob Lewellyn

Test Start: 2009.03.04 @ 07:59:18

## GENERAL INFORMATION:

Formation: **Johnson- Detrital**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:35:43

Time Test Ended: 14:34:42

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4554.00 ft (KB) To 4630.00 ft (KB) (TVD)**

Reference Elevations: 2663.00 ft (KB)

Total Depth: 4630.00 ft (KB) (TVD)

2658.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6772**

Inside

Press@RunDepth: 32.38 psig @ 4564.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2009.03.04

End Date:

2009.03.04

Last Calib.: 2009.03.04

Start Time: 07:59:18

End Time:

14:34:42

Time On Btm: 2009.03.04 @ 10:33:43

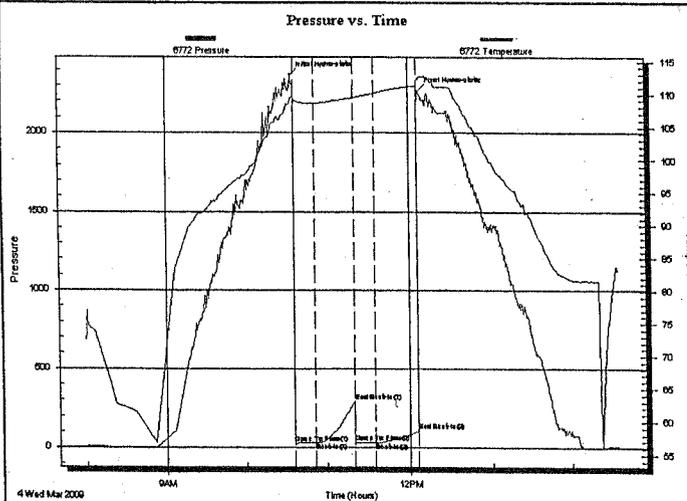
Time Off Btm: 2009.03.04 @ 12:06:43

TEST COMMENT: IF: 1/4 blow died in 11 min.

IS: No return.

FF: No blow.

FS: No return.



## PRESSURE SUMMARY

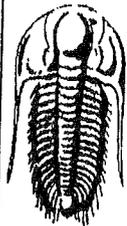
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2363.00	109.22	Initial Hydro-static
2	27.70	108.54	Open To Flow (1)
18	29.94	108.62	Shut-In(1)
47	290.51	109.46	End Shut-In(1)
47	28.87	109.35	Open To Flow (2)
62	32.38	110.14	Shut-In(2)
92	103.67	111.33	End Shut-In(2)
93	2261.57	112.27	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100% m	0.05

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

JUN 22 2009 **TOOL DIAGRAM**

Larson Engineering Inc

**McLeish #1-24**  
KCOO

562 W State Rd 4  
Olmitz, KS 67564

**24-18s-24w Lane, Ks**

ATTN: Bob Lewellyn

Job Ticket: 34262

DST#: 3

Test Start: 2009.03.04 @ 07:59:18

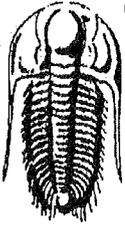
**Tool Information**

Drill Pipe:	Length: 4393.00 ft	Diameter: 3.80 inches	Volume: 61.62 bbl	Tool Weight: 2000.00 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: 156.00 ft	Diameter: 2.25 inches	Volume: 0.77 bbl	Weight to Pull Loose: 90000.00 lb
		<b>Total Volume:</b>	<b>62.39 bbl</b>	Tool Chased: 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4554.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	108.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4532.00	
Shut In Tool	5.00			4537.00	
Hydraulic tool	5.00			4542.00	
Jars	5.00			4547.00	
Safety Joint	2.00			4549.00	
Packer	5.00			4554.00	23.00 Bottom Of Top Packer
Blank	5.00			4559.00	85.00 Tool Interval
Packer	4.00			4563.00	
Stubb	1.00			4564.00	
Recorder	0.00	6772	Inside	4564.00	
Recorder	0.00	8373	Inside	4564.00	
Perforations	7.00			4571.00	
Change Over Sub	1.00			4572.00	
Drill Pipe	61.00			4633.00	
Change Over Sub	1.00			4634.00	
Bullnose	5.00			4639.00	1000107.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>108.00</b>				



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Larson Engineering Inc

**McLeish #1-24**

562 W State Rd 4  
Olmritz, KS 67564

**24-18s-24w Lane, Ks**

Job Ticket: 34262

**DST#: 3**

ATTN: Bob Lewellyn

Test Start: 2009.03.04 @ 07:59:18

**Mud and Cushion Information**

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 47.00 sec/qt

Water Loss: 6.38 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: 0 deg API

Water Salinity: 0 ppm

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100% <sub>m</sub>	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

JUN 2 2009

DST Test Number: 3

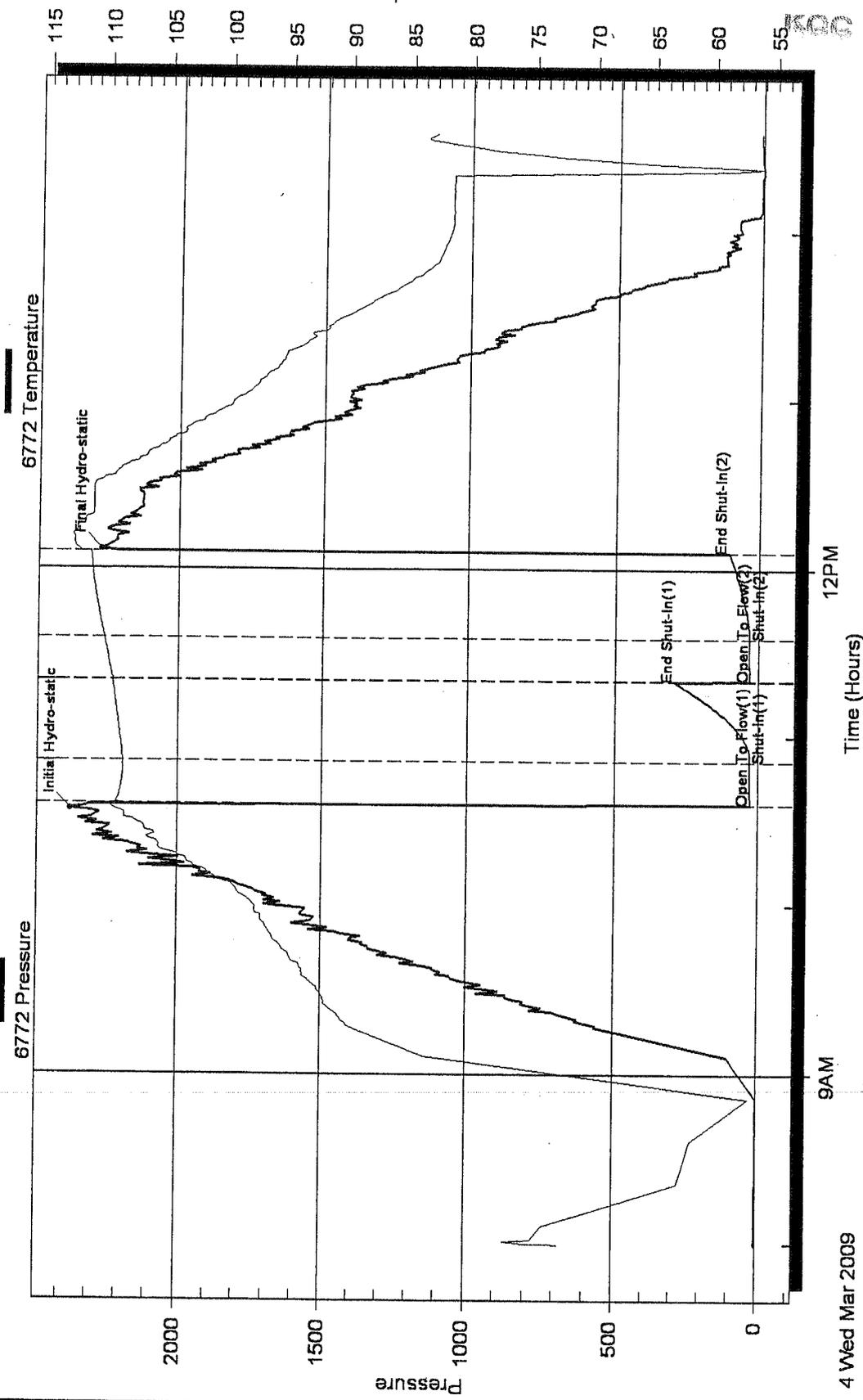
24-18s-24w Lane, Ks

Larson Engineering Inc

Inside

Serial #: 6772

### Pressure vs. Time



Trilobite Testing, Inc

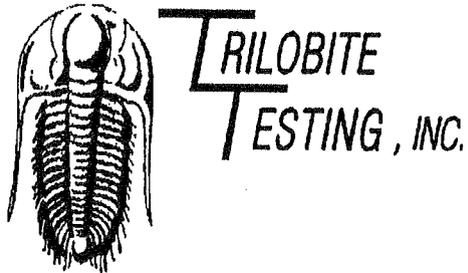
Ref. No: 34262

Printed: 2009.03.09 @ 10:19:52 Page 5

CONFIDENTIAL

JUN 22 2009

KCO



## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Bob Lewellyn

**24-18s-24w Lane, Ks**

**McLeish #1-24**

Start Date: 2009.03.04 @ 23:46:02

End Date: 2009.03.05 @ 05:46:26

Job Ticket #: 34263                      DST #: 4

Larson Engineering Inc

McLeish #1-24

24-18s-24w Lane, Ks

DST # 4

Miss

2009.03.04

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

KANSAS CORPORATION COMMISSION  
JUN 23 2009  
RECEIVED



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering Inc

**McLeish #1-24**

562 W State Rd 4  
Olmitz, KS 67564

**24-18s-24w Lane, Ks**

ATTN: Bob Lewellyn

Job Ticket: 34263

DST#: 4

Test Start: 2009.03.04 @ 23:46:02

## GENERAL INFORMATION:

Formation: **Miss**

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

Time Tool Opened: 01:30:57

Time Test Ended: 05:46:26

Test Type: Conventional Bottom Hole

Tester: Brandon Turley

Unit No: 35

Interval: **4607.00 ft (KB) To 4643.00 ft (KB) (TVD)**

Total Depth: **4643.00 ft (KB) (TVD)**

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

Reference Elevations: **2663.00 ft (KB)**

**2658.00 ft (CF)**

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

**Serial #: 6772**

**Inside**

Press@RunDepth: **43.17 psig @ 4617.00 ft (KB)**

Start Date: **2009.03.04**

End Date:

**2009.03.05**

Start Time: **23:46:02**

End Time:

**05:46:26**

Capacity: **7000.00 psig**

Last Calib.: **2009.03.05**

Time On Btm: **2009.03.05 @ 01:28:57**

Time Off Btm: **2009.03.05 @ 03:47:27**

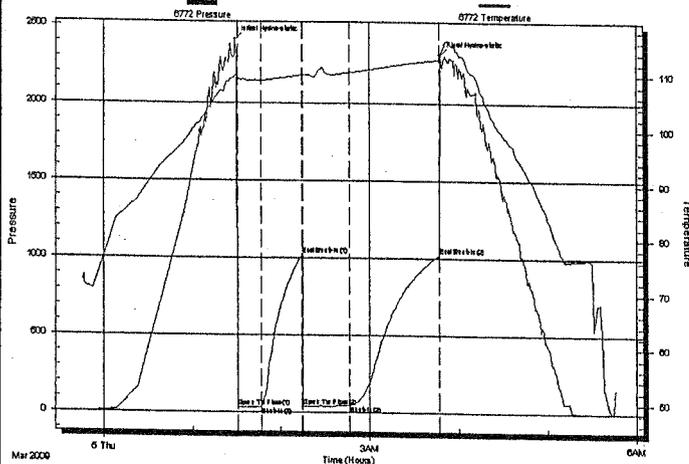
TEST COMMENT: IF: 1/4 blow died in 13 min.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2407.27	109.75	Initial Hydro-static
2	30.51	109.33	Open To Flow (1)
18	34.18	109.00	Shut-In(1)
46	1021.81	110.02	End Shut-In(1)
47	37.75	109.86	Open To Flow (2)
78	43.17	110.54	Shut-In(2)
138	1019.63	112.91	End Shut-In(2)
139	2314.72	113.57	Final Hydro-static

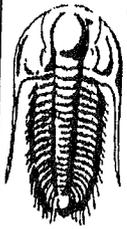
## Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud oil spots 100% m	0.07

## Gas Rates

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

JUN 22 2009



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Larson Engineering Inc

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**Tool Information**

Drill Pipe:	Length: 4443.00 ft	Diameter: 3.80 inches	Volume: 62.32 bbl	Tool Weight: 2000.00 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: 156.00 ft	Diameter: 2.25 inches	Volume: 0.77 bbl	Weight to Pull Loose: 120000.0 lb
		<b>Total Volume:</b>	<b>63.09 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4607.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	68.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4585.00	
Shut In Tool	5.00			4590.00	
Hydraulic tool	5.00			4595.00	
Jars	5.00			4600.00	
Safety Joint	2.00			4602.00	
Packer	5.00			4607.00	23.00 Bottom Of Top Packer
Blank	5.00			4612.00	45.00 Tool Interval
Packer	4.00			4616.00	
Stubb	1.00			4617.00	
Recorder	0.00	6772	Inside	4617.00	
Recorder	0.00	8373	Inside	4617.00	
Perforations	30.00			4647.00	
Bullnose	5.00			4652.00	100067.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>68.00</b>				



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**FLUID SUMMARY**

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Job Ticket: 34263

DST#: 4

ATTN: Bob Lew ellyn

Test Start: 2009.03.04 @ 23:46:02

**Mud and Cushion Information**

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 50.00 sec/qt  
Water Loss: 6.79 in<sup>3</sup>  
Resistivity: 0.00 ohm.m  
Salinity: 4000.00 ppm  
Filter Cake: 2.00 inches

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

Oil API: 0 deg API  
Water Salinity: 0 ppm

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
15.00	mud oil spots 100%m	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

JUN 22 2009

DST Test Number: 4

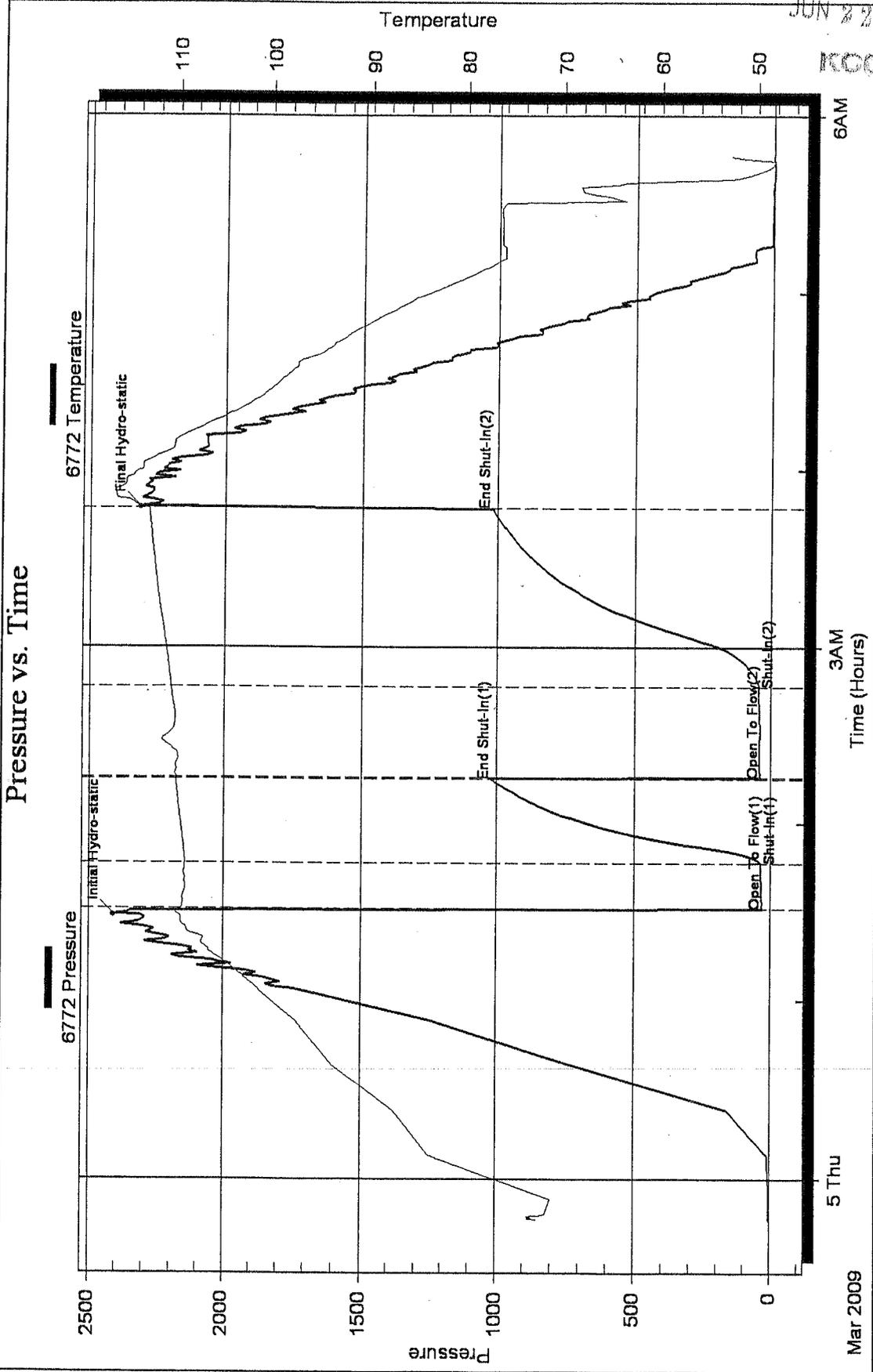
24-18s-24w Lane, Ks

Larson Engineering Inc

Inside

Serial #: 6772

### Pressure vs. Time



Ref. No: 34263

Triobite Testing, Inc