



WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1050508

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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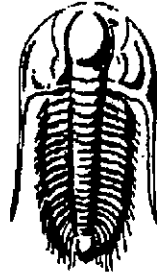
Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	Eldridge 4-32
Doc ID	1050508

Tops

Name	Top	Datum
Lansing-KC	1644	-134
Mississippi	2612	-1102
Kinderhook	2918	-1408
Hunton	3070	-1560
Viola	3271	-1761
Simpson Sh	3352	-1842
Simpson Dol	3370	-1860
Simpson Sd	3384	-1874







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

## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 W.State Rd.4  
Olmitz KS 67564

ATTN: Larry Nicholson

**32-14-10Wabaunsee,KS**

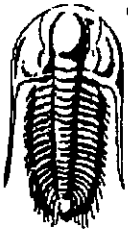
**Eldridge #4-32**

Start Date: 2010.10.20 @ 09:52:59

End Date: 2010.10.20 @ 17:29:29

Job Ticket #: 38823                      DST #: 1

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.

562 W.State Rd.4  
Olmitz KS 67564

ATTN: Larry Nicholson

**Eldridge #4-32**

**32-14-10Wabaunsee,KS**

Job Ticket: 38823

DST#: 1

Test Start: 2010.10.20 @ 09:52:59

## GENERAL INFORMATION:

Formation: Viola

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:07:59

Time Test Ended: 17:29:29

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 39

Interval: 3265.00 ft (KB) To 3271.00 ft (KB) (TVD)

Total Depth: 3271.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1510.00 ft (KB)

1500.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8370

Outside

Press@RunDepth: 14.48 psig @ 3266.00 ft (KB)

Start Date: 2010.10.20

End Date:

2010.10.20

Start Time: 09:53:04

End Time:

17:29:28

Capacity: 8000.00 psig

Last Calib.: 2010.10.20

Time On Btm: 2010.10.20 @ 13:06:14

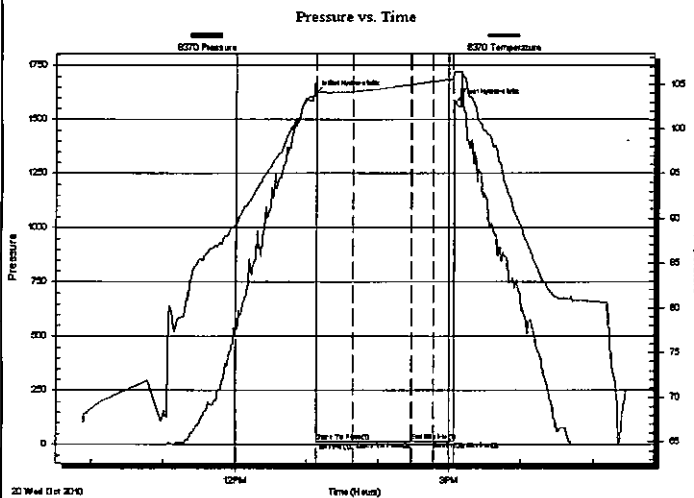
Time Off Btm: 2010.10.20 @ 15:04:59

TEST COMMENT: IF:Weak blow . Dead in 12 mins.

IS:No blow .

FF:No blow .

FST:No blow .



## PRESSURE SUMMARY

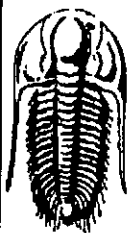
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1616.89	104.14	Initial Hydro-static
2	13.93	104.02	Open To Flow (1)
32	12.47	104.21	Shut-In(1)
81	15.27	104.98	End Shut-In(1)
82	13.83	105.00	Open To Flow (2)
101	14.48	105.33	Shut-In(2)
118	15.13	105.65	End Shut-In(2)
119	1578.49	106.39	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	Drig.mud	0.01

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Larson Engineering Inc.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

Job Ticket: 38823

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2010.10.20 @ 09:52:59

### Tool Information

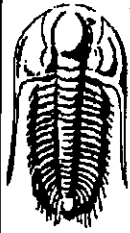
Drill Pipe:	Length: 2877.00 ft	Diameter: 2.76 inches	Volume: 21.29 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 372.00 ft	Diameter: 2.25 inches	Volume: 1.83 bbl	Weight to Pull Loose: 55000.00 lb
			<b>Total Volume: 23.12 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3265.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	6.00 ft			
Tool Length:	34.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3238.00	
Shut in tool	5.00			3243.00	
HMV	5.00			3248.00	
Jars	5.00			3253.00	
Safety Joint	3.00			3256.00	
Packer	4.00			3260.00	28.00 Bottom Of Top Packer
Packer	5.00			3265.00	
Stubb	1.00			3266.00	
Recorder	0.00	8167	Inside	3266.00	
Recorder	0.00	8370	Outside	3266.00	
Bullnose	5.00			3271.00	6.00 Bottom Packers & Anchor

**Total Tool Length: 34.00**





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering Inc.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

Job Ticket: 38823

DST#: 1

ATTN: Larry Nicholson

Test Start: 2010.10.20 @ 09:52:59

### 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:

600 ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.16 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Drig.mud	0.010

Total Length:

2.00 ft

Total Volume:

0.010 bbl

Num Fluid Samples: 0

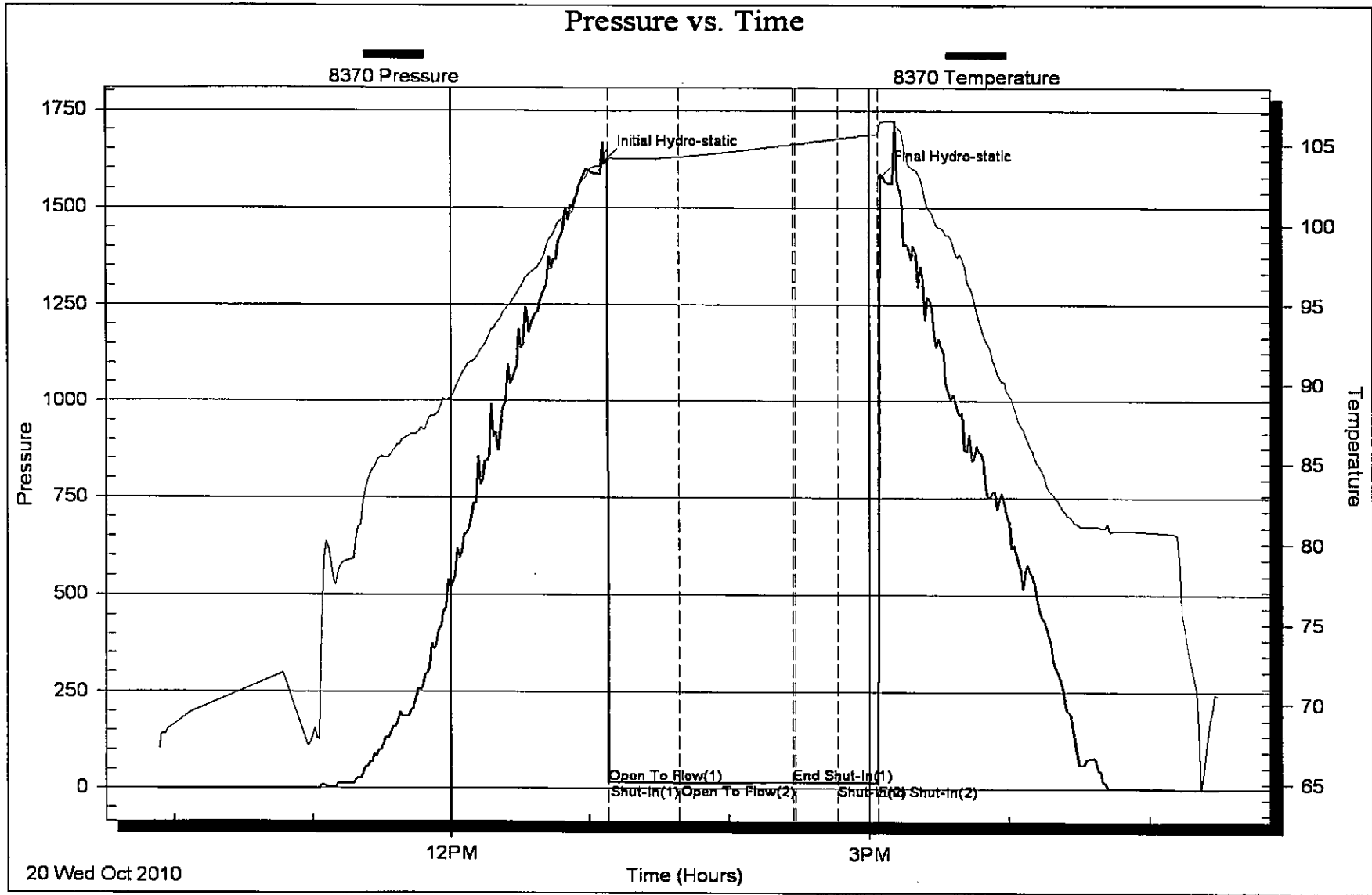
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

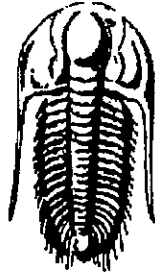
Laboratory Location:

Recovery Comments:



20 Wed Oct 2010

Time (Hours)



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 W.State Rd.4  
Olmitz KS 67564

ATTN: Larry Nicholson

**32-14-10Wabaunsee,KS**

**Eldridge #4-32**

Start Date: 2010.10.21 @ 01:58:45

End Date: 2010.10.21 @ 09:52:30

Job Ticket #: 38824                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Larson Engineering Inc.

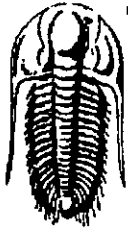
Eldridge #4-32

32-14-10Wabaunsee,KS

DST # 2

Viola

2010.10.21



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Larson Engineering Inc.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

Job Ticket: 38824

DST#: 2

ATTN: Larry Nicholson

Test Start: 2010.10.21 @ 01:58:45

## GENERAL INFORMATION:

Formation: **Viola**  
 Deviated: **No Whipstock:** ft (KB)  
 Time Tool Opened: 04:23:30  
 Time Test Ended: 09:52:30

Test Type: **Conventional Bottom Hole**  
 Tester: **Gary Pevoteaux**  
 Unit No: **39**

Interval: **3269.00 ft (KB) To 3275.00 ft (KB) (TVD)**  
 Total Depth: **3275.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **1510.00 ft (KB)**  
**1500.00 ft (CF)**  
 KB to GR/CF: **10.00 ft**

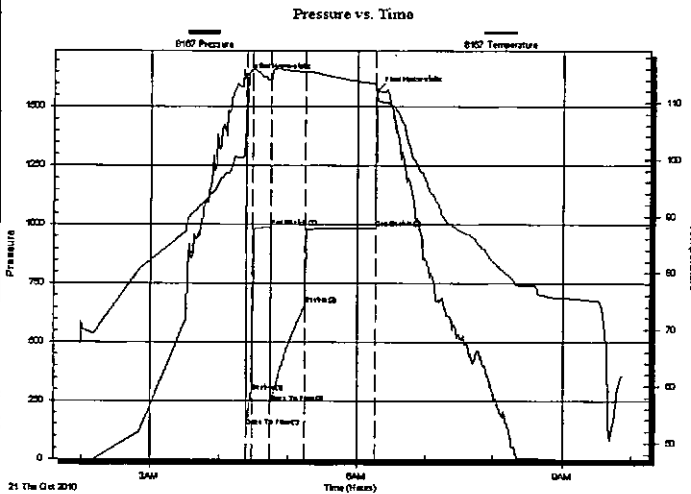
## Serial #: 8167

Inside

Press@RunDepth: **658.51 psig @ 3270.00 ft (KB)**  
 Start Date: **2010.10.21** End Date: **2010.10.21**  
 Start Time: **01:58:50** End Time: **09:52:29**

Capacity: **8000.00 psig**  
 Last Calib.: **2010.10.21**  
 Time On Btm: **2010.10.21 @ 04:21:30**  
 Time Off Btm: **2010.10.21 @ 06:17:45**

TEST COMMENT: IF:Strong blow . B.O.B. in 95 secs.  
 IS:No blow .  
 FF:Strong blow . B.O.B. in 130 secs.  
 FS:No blow .



## PRESSURE SUMMARY

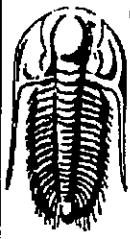
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1625.27	103.23	Initial Hydro-static
2	140.62	108.16	Open To Flow (1)
7	286.65	115.74	Shut-In(1)
23	987.38	113.87	End Shut-In(1)
23	242.95	113.83	Open To Flow (2)
53	658.51	115.42	Shut-In(2)
115	986.66	113.36	End Shut-In(2)
117	1573.22	110.56	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
262.00	SW w/o specs/ Rw .25ohms@49deg	1.29
500.00	SOCW <1%o 99%m	3.43
360.00	OCMW 3%o 8%m 89%w	2.66
250.00	OCMW 13%o 17%m 70%w	1.85
63.00	OCMW 39%o 21%m 40%w	0.47

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Larson Engineering Inc.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

Job Ticket: 38824

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2010.10.21 @ 01:58:45

**Tool Information**

Drill Pipe:	Length: 2878.00 ft	Diameter: 2.76 inches	Volume: 21.30 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 372.00 ft	Diameter: 2.25 inches	Volume: 1.83 bbl	Weight to Pull Loose: 63000.00 lb
		Total Volume: 23.13 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3269.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	6.00 ft			
Tool Length:	34.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

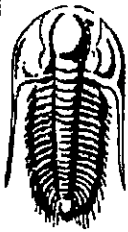
Tool Comments:

**Tool Description**

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3242.00	
Shut in tool	5.00			3247.00	
HMV	5.00			3252.00	
Jars	5.00			3257.00	
Safety Joint	3.00			3260.00	
Packer	4.00			3264.00	28.00 Bottom Of Top Packer
Packer	5.00			3269.00	
Stubb	1.00			3270.00	
Recorder	0.00	8167	Inside	3270.00	
Recorder	0.00	8370	Outside	3270.00	
Bullnose	5.00			3275.00	6.00 Bottom Packers & Anchor

**Total Tool Length: 34.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering Inc.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

Job Ticket: 38824

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2010.10.21 @ 01:58:45

## 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:

41000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
262.00	SW w/o specs/ Rw .25ohms@49deg	1.288
500.00	SOCW <1%o 99%m	3.427
360.00	OCMW 3%o 8%m 89%w	2.664
250.00	OCMW 13%o 17%m 70%w	1.850
63.00	OCMW 39%o 21%m 40%w	0.466

Total Length: 1435.00 ft

Total Volume: 9.695 bbl

Num Fluid Samples: 0

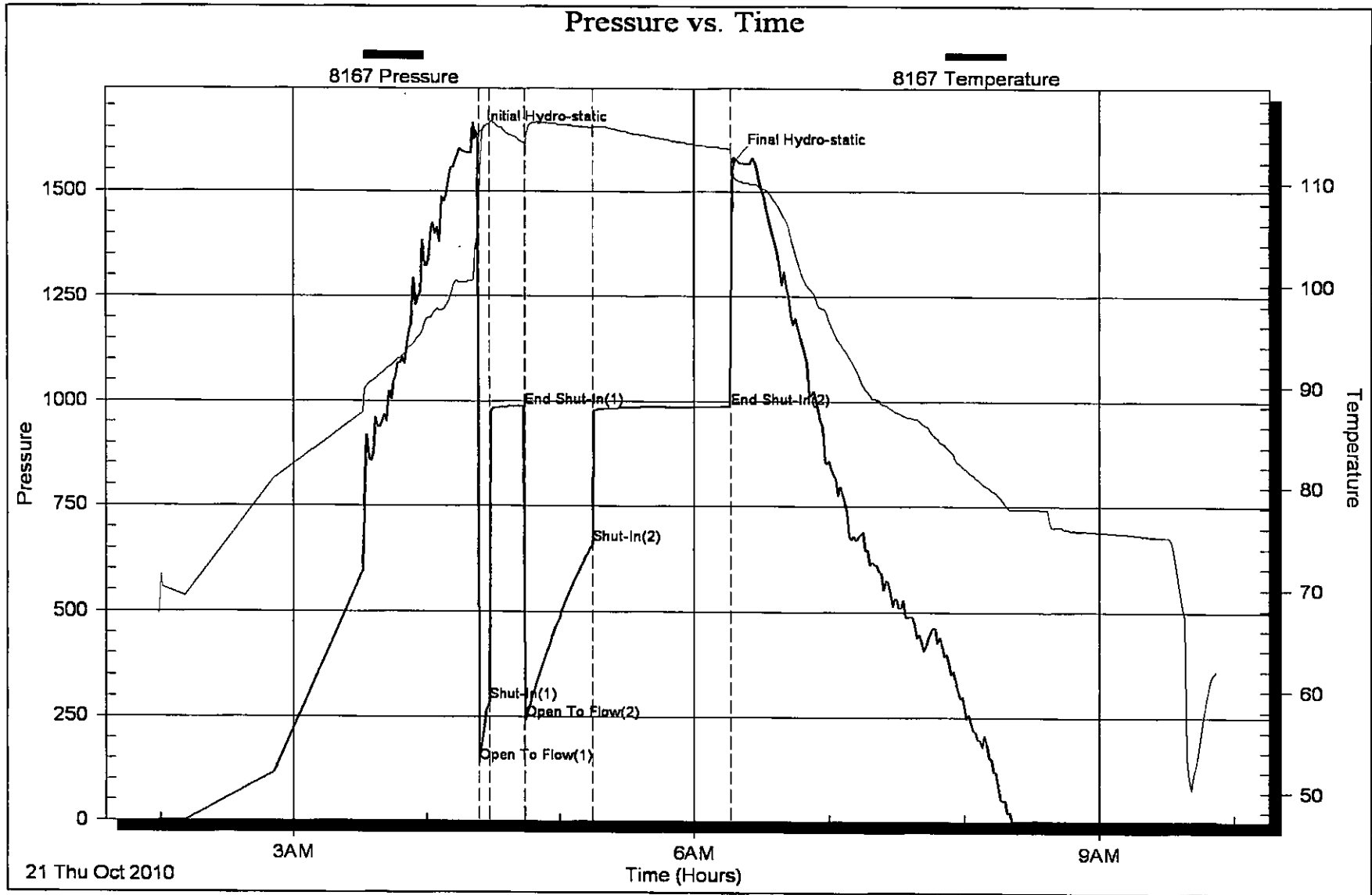
Num Gas Bombs: 0

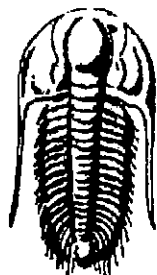
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 W.State Rd.4  
Olimitz KS 67564

ATTN: Larry Nicholson

**32-14-10Wabaunsee,KS**

**Eldridge #4-32**

Start Date: 2010.10.21 @ 17:28:50

End Date: 2010.10.22 @ 01:03:05

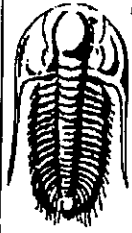
Job Ticket #: 38825                      DST #: 3

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.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

ATTN: Larry Nicholson

Job Ticket: 38825

DST#: 3

Test Start: 2010.10.21 @ 17:28:50

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:54:35

Time Test Ended: 01:03:05

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 39

Interval: **3279.00 ft (KB) To 3286.00 ft (KB) (TVD)**

Reference Elevations: 1510.00 ft (KB)

Total Depth: 3286.00 ft (KB) (TVD)

1500.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GRVCF: 10.00 ft

## Serial #: 8167

Inside

Press@RunDepth: 992.49 psig @ 3280.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.10.21

End Date:

2010.10.22

Last Calib.: 2010.10.22

Start Time: 17:28:55

End Time:

01:03:04

Time On Btm: 2010.10.21 @ 19:53:05

Time Off Btm: 2010.10.21 @ 21:39:05

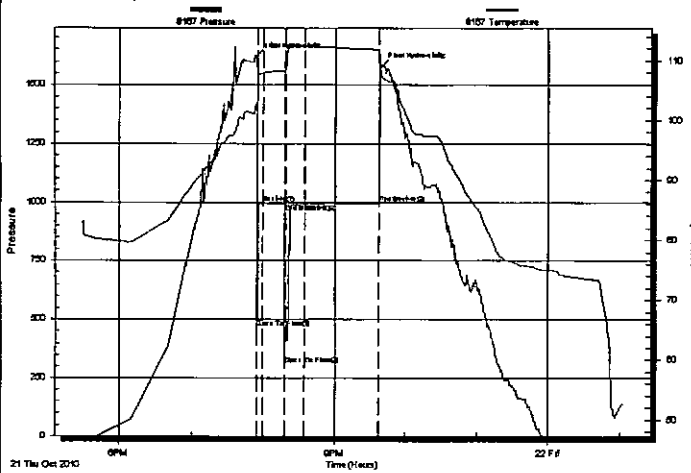
TEST COMMENT: IF:Fair blow . 8 - 9" @ 5 mins.

IS:No blow .

FF:Strong blow : B.O.B. in 85 secs. Decreasing back to 12" after 20 mins.

FST:No blow .

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1617.56	102.55	Initial Hydro-static
2	462.38	103.44	Open To Flow (1)
7	993.85	107.95	Shut-In(1)
25	994.18	108.21	End Shut-In(1)
26	309.41	108.04	Open To Flow (2)
42	992.49	112.39	Shut-In(2)
104	993.73	111.78	End Shut-In(2)
106	1579.58	107.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
255.00	MW 11% m 89% w /Rw .25ohms@51deg	1.25
150.00	MW 40% m 60% w	0.82
120.00	Heavy mud	0.89

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Larson Engineering Inc.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

Job Ticket: 38825

**DST#: 3**

ATTN: Larry Nicholson

Test Start: 2010.10.21 @ 17:28:50

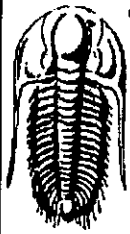
**Tool Information**

Drill Pipe:	Length: 2908.00 ft	Diameter: 2.76 inches	Volume: 21.52 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 372.00 ft	Diameter: 2.25 inches	Volume: 1.83 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 23.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3279.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	7.00 ft			
Tool Length:	35.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3252.00	
Shut in tool	5.00			3257.00	
HMV	5.00			3262.00	
Jars	5.00			3267.00	
Safety Joint	3.00			3270.00	
Packer	4.00			3274.00	28.00 Bottom Of Top Packer
Packer	5.00			3279.00	
Stubb	1.00			3280.00	
Recorder	0.00	8167	Inside	3280.00	
Recorder	0.00	8370	Outside	3280.00	
Perforations	1.00			3281.00	
Bullnose	5.00			3286.00	7.00 Bottom Packers & Anchor

**Total Tool Length: 35.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering Inc.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

Job Ticket: 38825

**DST#: 3**

ATTN: Larry Nicholson

Test Start: 2010.10.21 @ 17:28:50

### 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:

39500 ppm

Viscosity: 41.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.17 in<sup>3</sup>

Gas Cushion Type:

Gas Cushion Pressure:

psig

Resistivity: 0.00 ohm.m

Salinity: 600.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
255.00	MW 11% <i>m</i> 89% <i>w</i> /Rw .25ohms@51deg	1.254
150.00	MW 40% <i>m</i> 60% <i>w</i>	0.820
120.00	Heavy mud	0.888

Total Length: 525.00 ft

Total Volume: 2.962 bbl

Num Fluid Samples: 0

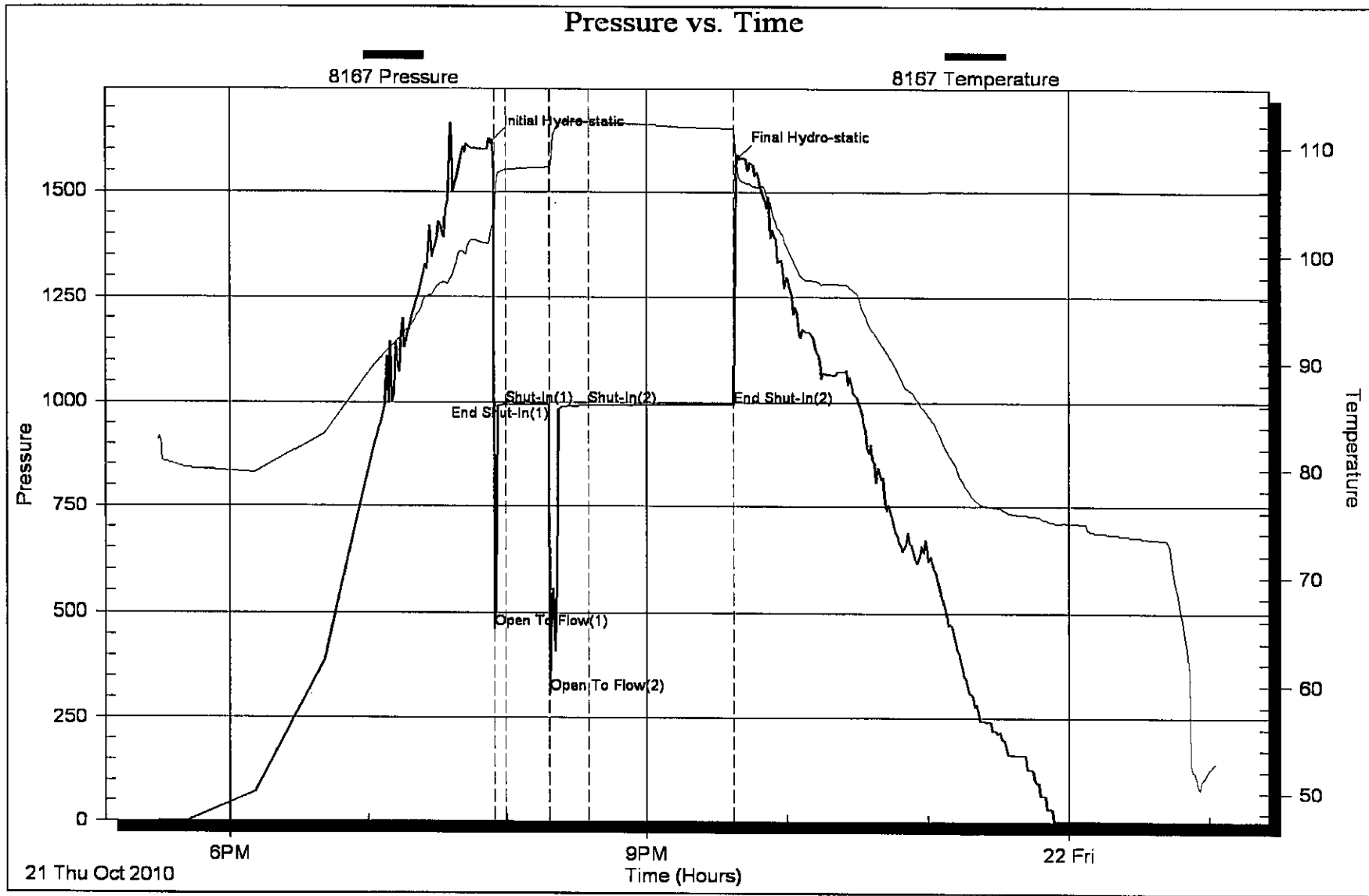
Num Gas Bombs: 0

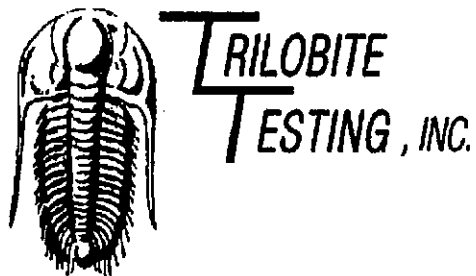
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Recovery had strong sulpher odor





## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 W.State Rd.4  
Olmitz KS 67564

ATTN: Larry Nicholson

**32-14-10Wabaunsee,KS**

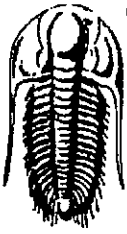
**Eldridge #4-32**

Start Date: 2010.10.22 @ 16:53:51

End Date: 2010.10.22 @ 23:20:51

Job Ticket #: 039276          DST #: 4

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.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

ATTN: Larry Nicholson

Job Ticket: 039276

DST#: 4

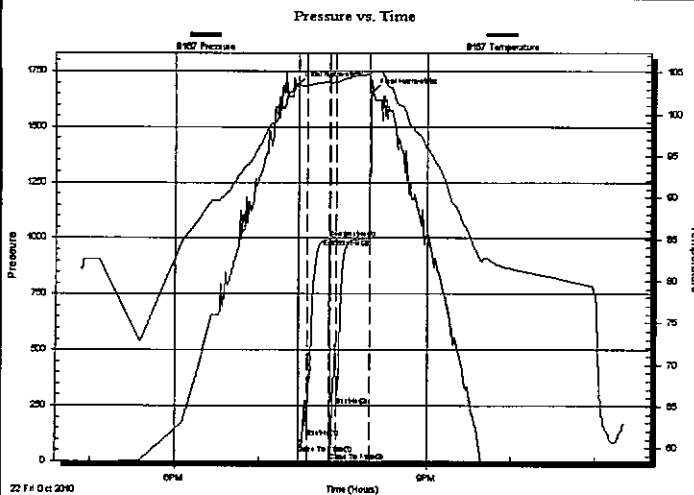
Test Start: 2010.10.22 @ 16:53:51

## GENERAL INFORMATION:

Formation: **Simpson**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:28:36  
 Time Test Ended: 23:20:51  
 Interval: **3364.00 ft (KB) To 3380.00 ft (KB) (TVD)**  
 Total Depth: **3380.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: Conventional Bottom Hole  
 Tester: Gary Pevoteaux  
 Unit No: 39  
 Reference Elevations: 1510.00 ft (KB)  
 1500.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8167** Inside  
 Press@RunDepth: 250.65 psig @ 3365.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2010.10.22 End Date: 2010.10.22 Last Calib.: 2010.10.22  
 Start Time: 16:53:56 End Time: 23:20:50 Time On Btm: 2010.10.22 @ 19:26:51  
 Time Off Btm: 2010.10.22 @ 20:20:51

**TEST COMMENT:** IF: Weak blow . 1/4" or less.  
 IS: No blow .  
 FF: Very weak blow . (surface)  
 FSI: No blow .



## PRESSURE SUMMARY

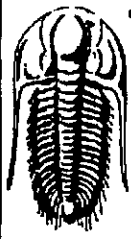
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1684.63	103.72	Initial Hydro-static
2	32.02	103.55	Open To Flow (1)
8	108.99	103.41	Shut-In(1)
24	997.76	103.94	End Shut-In(1)
24	35.96	103.76	Open To Flow (2)
29	250.65	103.75	Shut-In(2)
52	997.41	104.85	End Shut-In(2)
54	1656.84	105.07	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Drig. mud	0.00
0.00	Charts show plugging on opens	0.00
0.00	not plugged solid	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Larson Engineering Inc.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

Job Ticket: 039276

**DST#: 4**

ATTN: Larry Nicholson

Test Start: 2010.10.22 @ 16:53:51

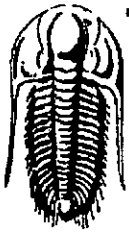
**Tool Information**

Drill Pipe:	Length: 2970.00 ft	Diameter: 2.76 inches	Volume: 21.98 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 372.00 ft	Diameter: 2.25 inches	Volume: 1.83 bbl	Weight to Pull Loose: 52000.00 lb
		Total Volume: 23.81 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3364.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3337.00	
Shut in tool	5.00			3342.00	
HMV	5.00			3347.00	
Jars	5.00			3352.00	
Safety Joint	3.00			3355.00	
Packer	4.00			3359.00	28.00 Bottom Of Top Packer
Packer	5.00			3364.00	
Stubb	1.00			3365.00	
Recorder	0.00	8167	Inside	3365.00	
Recorder	0.00	8370	Outside	3365.00	
Perforations	10.00			3375.00	
Bullnose	5.00			3380.00	16.00 Bottom Packers & Anchor

**Total Tool Length: 44.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

Eldridge #4-32

562 W.State Rd.4  
Olmitz KS 67564

32-14-10Wabaunsee,KS

Job Ticket: 039276

DST#: 4

ATTN: Larry Nicholson

Test Start: 2010.10.22 @ 16:53:51

### 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:

600 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Drig.mud	0.005
0.00	Charts show plugging on opens	0.000
0.00	not plugged solid	0.000

Total Length: 1.00 ft

Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

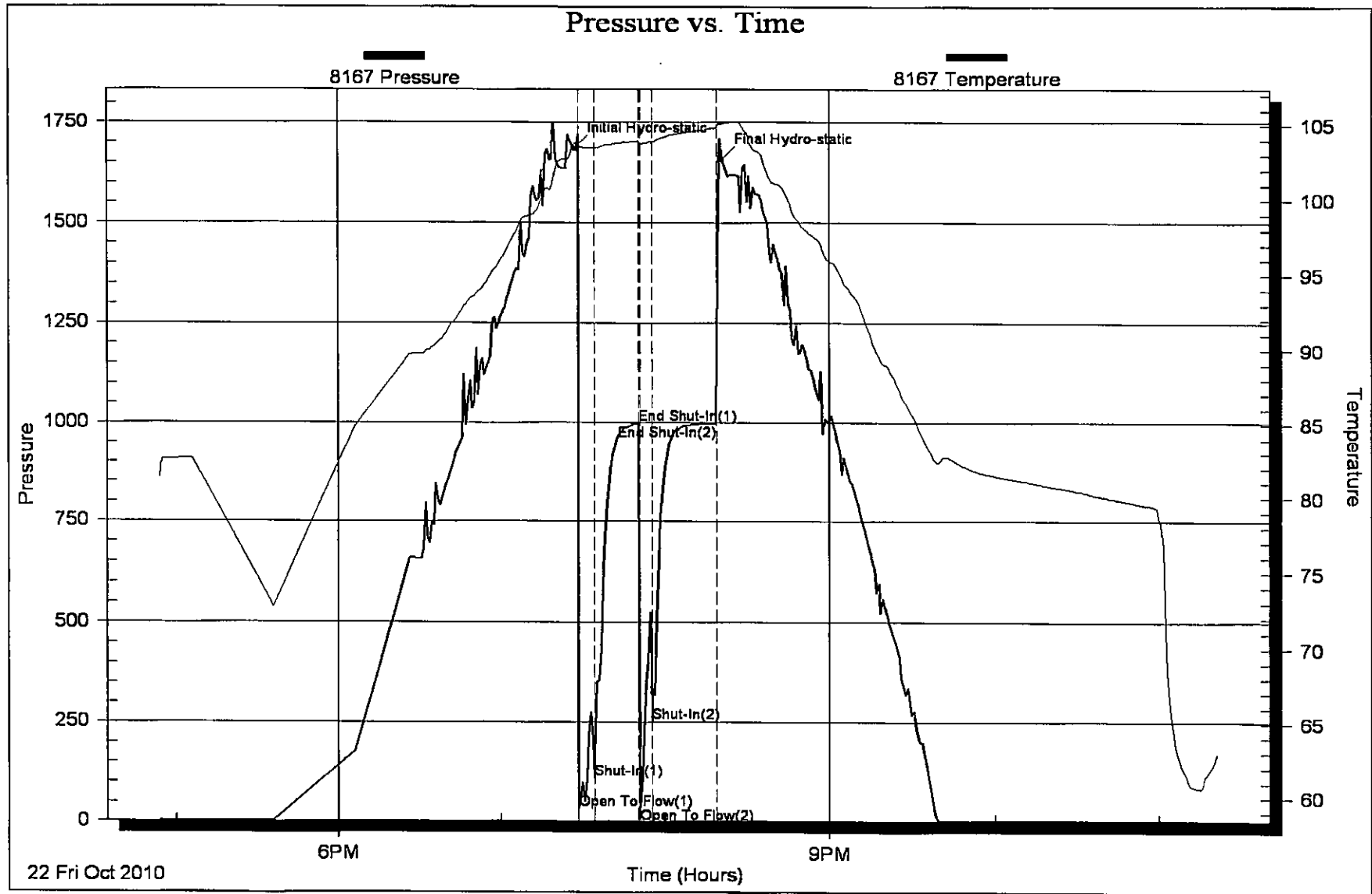
Serial #: none

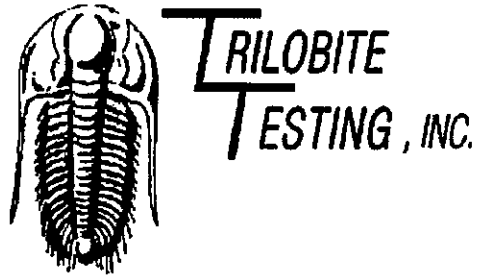
Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 W.State Rd.4  
Olmitz KS 67564

ATTN: Larry Nicholson

**32-14-10Wabaunsee,KS**

**Eldridge #4-32**

Start Date: 2010.10.23 @ 08:40:26

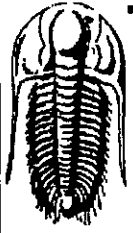
End Date: 2010.10.23 @ 16:49:41

Job Ticket #: 039277                      DST #: 5

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.

**Eldridge #4-32**

562 W.State Rd.4  
Olmitz KS 67564

**32-14-10Wabaunsee,KS**

ATTN: Larry Nicholson

Job Ticket: 039277

DST#: 5

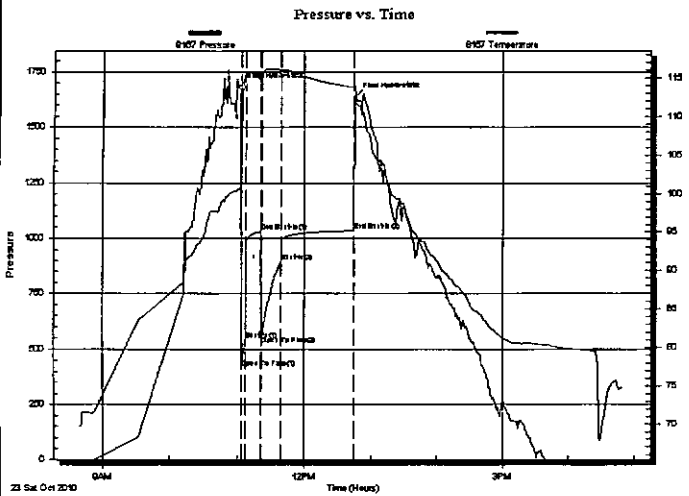
Test Start: 2010.10.23 @ 08:40:26

## GENERAL INFORMATION:

Formation: **Simpson**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:03:26  
 Time Test Ended: 16:49:41  
 Interval: **3375.00 ft (KB) To 3387.00 ft (KB) (TVD)**  
 Total Depth: **3387.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Poor**  
 Test Type: **Conventional Bottom Hole**  
 Tester: **Gary Pevoteaux**  
 Unit No: **39**  
 Reference Elevations: **1510.00 ft (KB)**  
**1500.00 ft (CF)**  
 KB to GR/CF: **10.00 ft**

**Serial #: 8167** Inside  
 Press@RunDepth: **897.31 psig @ 3376.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2010.10.23** End Date: **2010.10.23** Last Calib.: **2010.10.23**  
 Start Time: **08:40:31** End Time: **16:49:40** Time On Btm: **2010.10.23 @ 11:01:11**  
 Time Off Btm: **2010.10.23 @ 12:46:11**

**TEST COMMENT:** IIF:Strong blow . B.O.B. in 47 secs.  
 IS:No blow .  
 FF:Strong blow . B.O.B. in 35 secs.  
 FS:No blow .



## PRESSURE SUMMARY

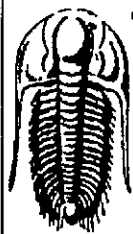
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1683.87	100.60	Initial Hydro-static
3	416.56	106.45	Open To Flow (1)
6	543.58	115.62	Shut-In (1)
20	1028.81	114.72	End Shut-In (1)
21	562.47	114.40	Open To Flow (2)
38	897.31	116.07	Shut-In (2)
104	1033.64	113.84	End Shut-In (2)
105	1637.95	112.66	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1850.00	SW /Rw .13ohms@62 deg	12.77
155.00	MW 18% m 82% w	1.15

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering Inc.

Eldridge #4-32

562 W.State Rd.4  
Olmits KS 67564

32-14-10Wabaunsee,KS

Job Ticket: 039277

DST#: 5

ATTN: Larry Nicholson

Test Start: 2010.10.23 @ 08:40:26

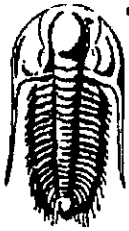
## Tool Information

Drill Pipe:	Length: 2999.00 ft	Diameter: 2.76 inches	Volume: 22.19 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 372.00 ft	Diameter: 2.25 inches	Volume: 1.83 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 24.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3375.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3348.00	
Shut in tool	5.00			3353.00	
HMV	5.00			3358.00	
Jars	5.00			3363.00	
Safety Joint	3.00			3366.00	
Packer	4.00			3370.00	28.00 Bottom Of Top Packer
Packer	5.00			3375.00	
Stubb	1.00			3376.00	
Recorder	0.00	8167	Inside	3376.00	
Recorder	0.00	8370	Outside	3376.00	
Perforations	6.00			3382.00	
Bullnose	5.00			3387.00	12.00 Bottom Packers & Anchor

**Total Tool Length: 40.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

Eldridge #4-32

562 W.State Rd.4  
Olmitz KS 67564

32-14-10Wabaunsee,KS

Job Ticket: 039277

DST#: 5

ATTN: Larry Nicholson

Test Start: 2010.10.23 @ 08:40:26

### 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:

69000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.22 in<sup>3</sup>

Gas Cushion Type:

Gas Cushion Pressure:

psig

Resistivity: 0.00 ohm.m

Salinity: 1800.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

#### Recovery Table

Length ft	Description	Volume bbbl
1850.00	SW /Rw .13ohms@62 deg	12.767
155.00	MW 18%r 82%w	1.147

Total Length: 2005.00 ft

Total Volume: 13.914 bbl

Num Fluid Samples: 0

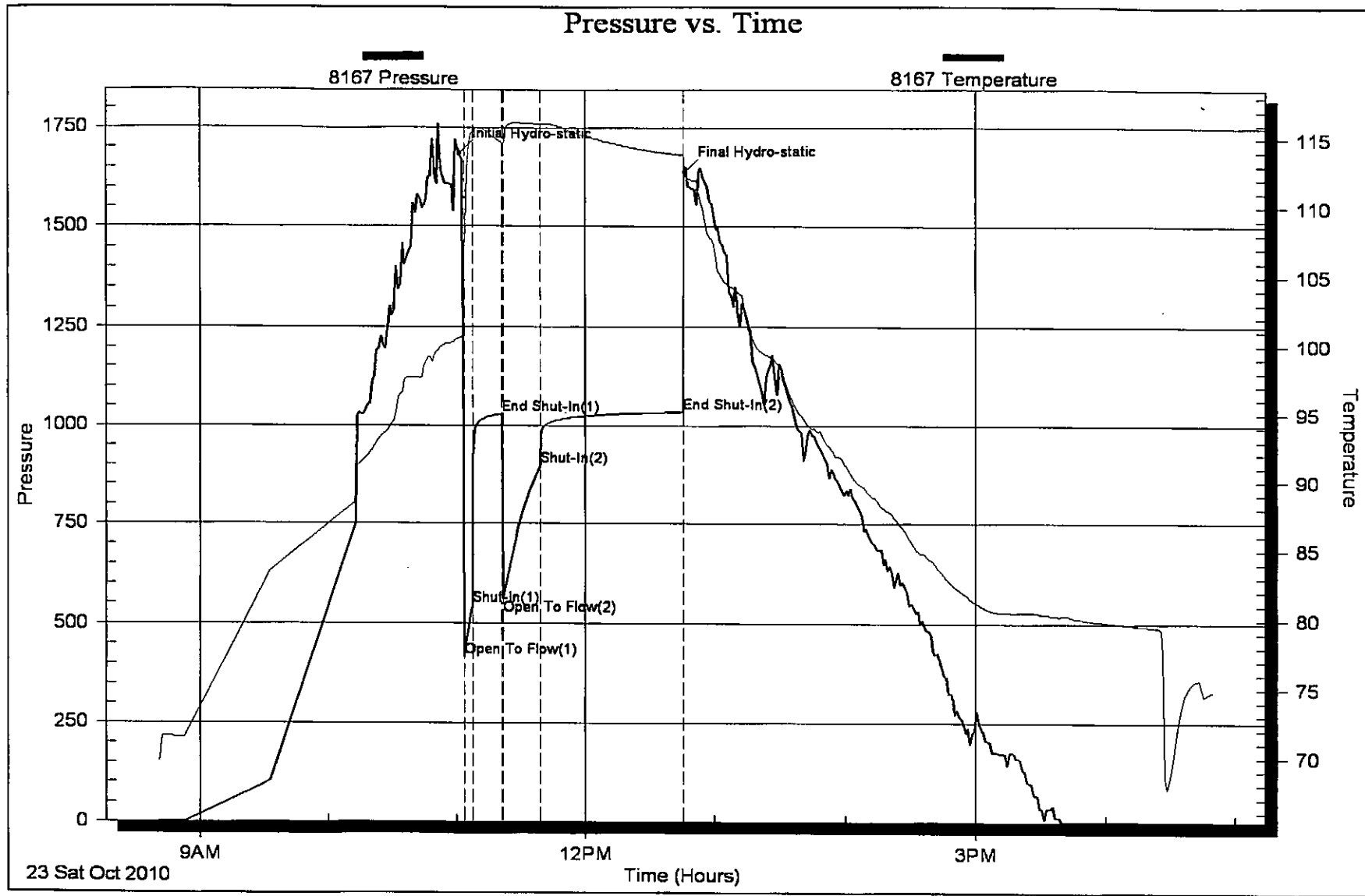
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:







Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



phone: 316-337-6200  
fax: 316-337-6211  
<http://kcc.ks.gov/>

Thomas E. Wright, Chairman  
Ward Loyd, Commissioner

Corporation Commission

Sam Brownback, Governor

February 10, 2011

Thomas Larson  
Larson Engineering, Inc. dba Larson Operating  
Company  
562 W STATE RD 4  
OLMITZ, KS 67564-8561

Re: ACO1  
API 15-197-20286-00-00  
Eldridge 4-32  
NW/4 Sec.32-14S-10E  
Wabaunsee County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Thomas Larson