



## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W St Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

### **Livingston KSU #1-26**

### **26-16s-25w Ness,KS**

Start Date: 2015.05.24 @ 17:45:00

End Date: 2015.05.25 @ 00:18:53

Job Ticket #: 57414                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.05.27 @ 10:08:46



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Larson Engineering, Inc  
562 W St Rd 4  
Olmitz, KS 67564  
ATTN: Vern Schrag

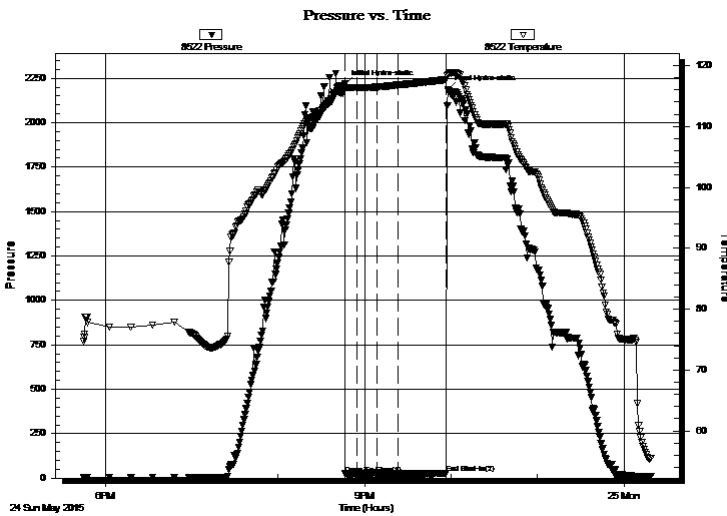
**26-16s-25w Ness, KS**  
**Livingston KSU #1-26**  
Job Ticket: 57414 **DST#: 1**  
Test Start: 2015.05.24 @ 17:45:00

## GENERAL INFORMATION:

Formation: **Ft Scott**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 20:46:38  
Time Test Ended: 00:18:53  
Interval: **4400.00 ft (KB) To 4430.00 ft (KB) (TVD)**  
Total Depth: 4430.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Bradley Walter  
Unit No: 69  
Reference Elevations: 2575.00 ft (KB)  
2567.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8522 Outside**  
Press@RunDepth: 24.88 psig @ 4401.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.05.24 End Date: 2015.05.25 Last Calib.: 2015.05.25  
Start Time: 17:45:05 End Time: 00:18:52 Time On Btm: 2015.05.24 @ 20:46:23  
Time Off Btm: 2015.05.24 @ 21:57:53

TEST COMMENT: IF: Weak Surface blow  
IS: No return.  
FF: No blow.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2216.32	116.90	Initial Hydro-static
1	23.22	116.19	Open To Flow (1)
8	24.49	116.36	Shut-In(1)
22	31.42	116.47	End Shut-In(1)
23	25.55	116.47	Open To Flow (2)
37	24.88	116.79	Shut-In(2)
70	28.30	117.68	End Shut-In(2)
72	2185.04	118.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100m	0.00

## Gas Rates

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



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**DRILL STEM TEST REPORT**

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Olmitz, KS 67564  
ATTN: Vern Schrag

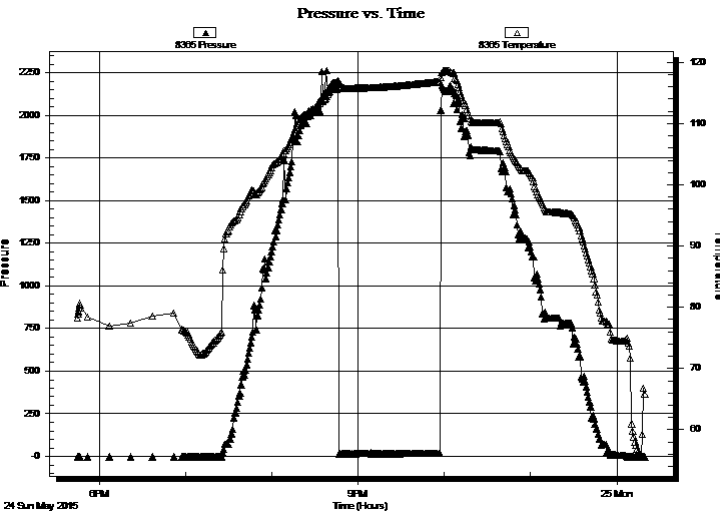
**26-16s-25w Ness, KS**  
**Livingston KSU #1-26**  
Job Ticket: 57414 **DST#: 1**  
Test Start: 2015.05.24 @ 17:45:00

**GENERAL INFORMATION:**

Formation: **Ft Scott**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 20:46:38  
Time Test Ended: 00:18:53  
Interval: **4400.00 ft (KB) To 4430.00 ft (KB) (TVD)**  
Total Depth: 4430.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches  
Hole Condition: Good  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Bradley Walter  
Unit No: 69  
Reference Elevations: 2575.00 ft (KB)  
2567.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8365 Inside**  
Press@RunDepth: psig @ 4401.00 ft (KB)  
Start Date: 2015.05.24 End Date: 2015.05.25  
Start Time: 17:45:05 End Time: 00:19:29  
Capacity: 8000.00 psig  
Last Calib.: 2015.05.25  
Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF: Weak Surface blow  
IS: No return.  
FF: No blow.  
FS: No return.



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

**Recovery**

Length (ft)	Description	Volume (bbl)
1.00	Mud 100m	0.00

**Gas Rates**

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Larson Engineering, Inc

**26-16s-25w Ness,KS**

562 W St Rd 4  
Olmitz, KS 67564

**Livingston KSU #1-26**

Job Ticket: 57414

**DST#: 1**

ATTN: Vern Schrag

Test Start: 2015.05.24 @ 17:45:00

## Tool Information

Drill Pipe:	Length: 4269.00 ft	Diameter: 3.80 inches	Volume: 59.88 bbl	Tool Weight: 2500.00 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 60.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4400.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4374.00	
Shut In Tool	5.00			4379.00	
Hydraulic tool	5.00			4384.00	
Jars	5.00			4389.00	
Safety Joint	2.00			4391.00	
Packer	5.00			4396.00	27.00 Bottom Of Top Packer
Packer	4.00			4400.00	
Stubb	1.00			4401.00	
Recorder	0.00	8365	Inside	4401.00	
Recorder	0.00	8522	Outside	4401.00	
Perforations	26.00			4427.00	
Bullnose	3.00			4430.00	30.00 Bottom Packers & Anchor

**Total Tool Length: 57.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**26-16s-25w Ness,KS**

562 W St Rd 4  
Olmitz, KS 67564

**Livingston KSU #1-26**

Job Ticket: 57414

**DST#: 1**

ATTN: Vern Schrag

Test Start: 2015.05.24 @ 17:45:00

## 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: 7.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud 100m	0.005

Total Length: 1.00 ft      Total Volume: 0.005 bbl

Num Fluid Samples: 0

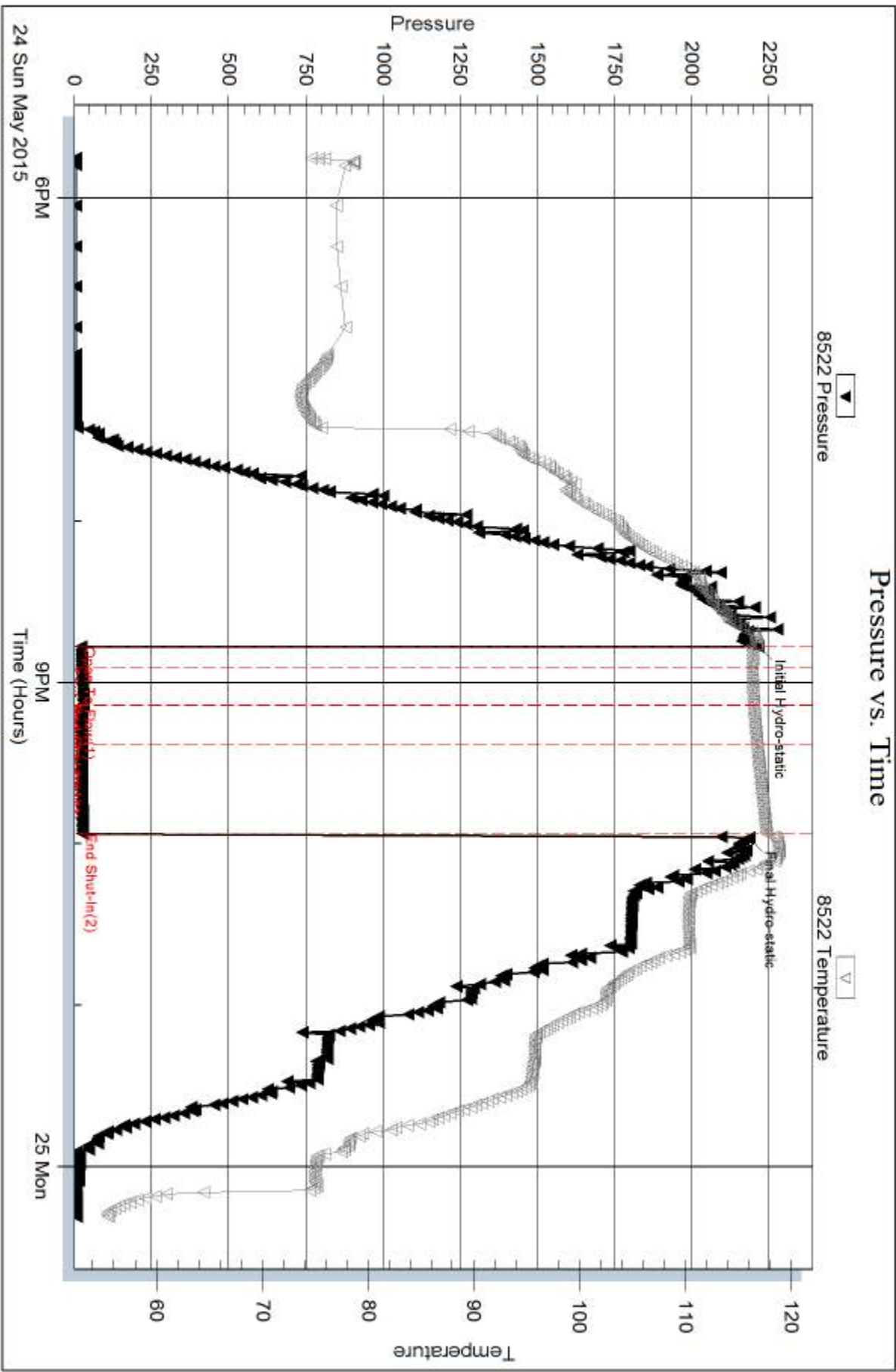
Num Gas Bombs: 0

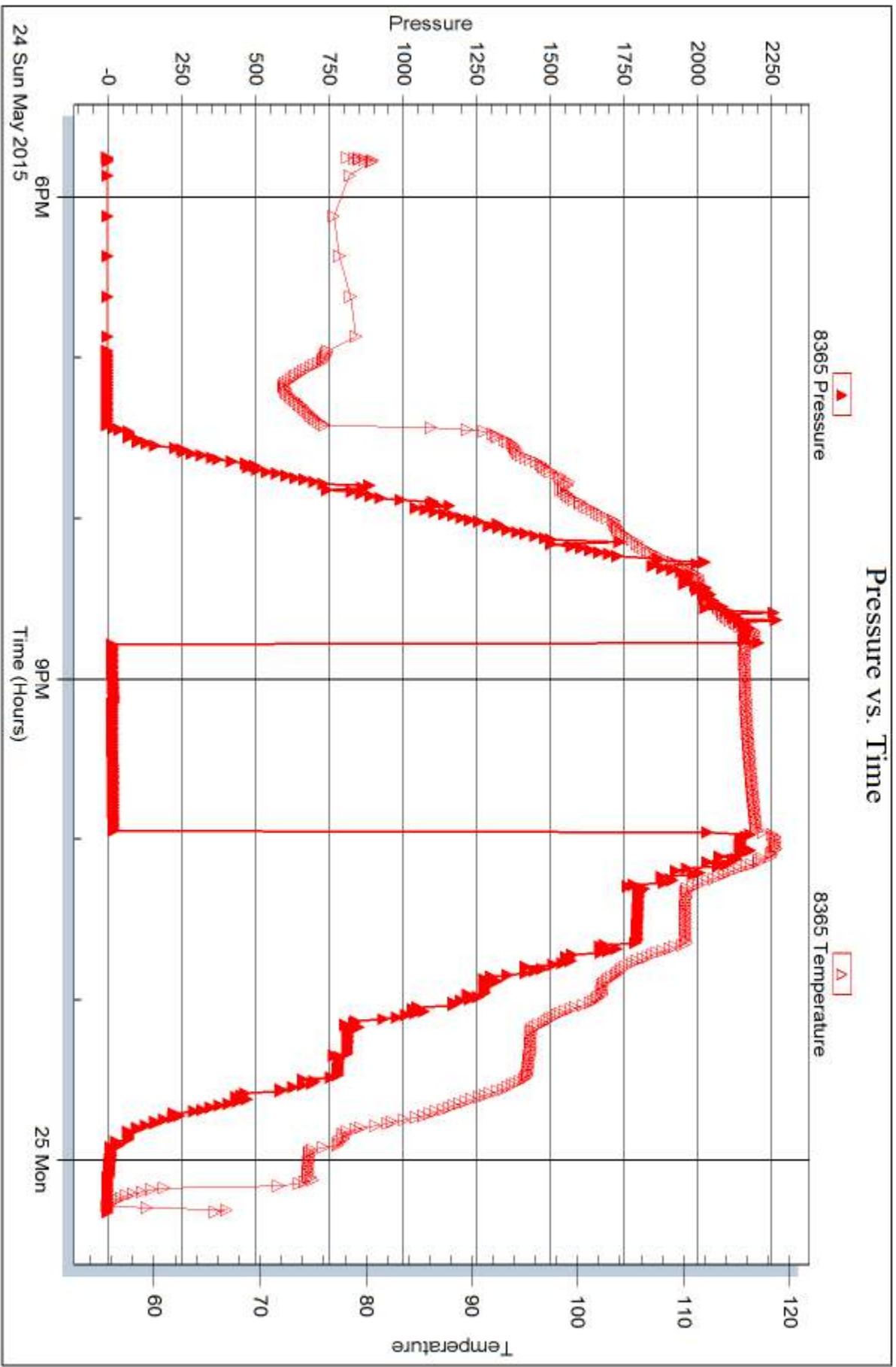
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W St Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

### **Livingston KSU #1-26**

### **26-16s-25w Ness,KS**

Start Date: 2015.05.25 @ 07:28:00

End Date: 2015.05.25 @ 13:49:30

Job Ticket #: 57415                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.05.27 @ 10:08:20





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Larson Engineering, Inc

**26-16s-25w Ness, KS**

562 W St Rd 4  
Olmitz, KS 67564

**Livingston KSU #1-26**

ATTN: Vern Schrag

Job Ticket: 57415

**DST#: 2**

Test Start: 2015.05.25 @ 07:28:00

## GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:04:00

Time Test Ended: 13:49:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4432.00 ft (KB) To 4437.00 ft (KB) (TVD)**

Total Depth: 4447.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2575.00 ft (KB)

2567.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 21.83 psig @ 4433.00 ft (KB)

Start Date: 2015.05.25

End Date:

2015.05.25

Start Time: 07:28:05

End Time:

13:49:29

Capacity: 8000.00 psig

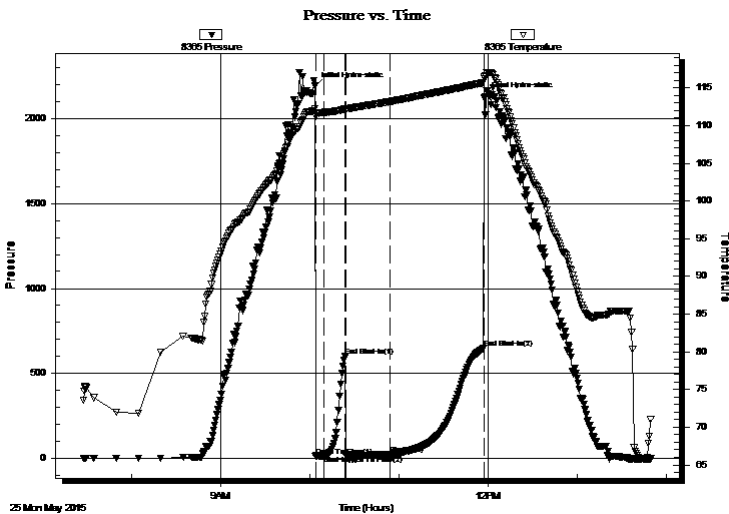
Last Calib.: 2015.05.25

Time On Btm: 2015.05.25 @ 10:03:45

Time Off Btm: 2015.05.25 @ 11:58:00

TEST COMMENT: IF: Built to 1/2" blow.  
IS: No return.  
FF: Surface blow.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2191.25	112.28	Initial Hydro-static
1	12.41	111.26	Open To Flow (1)
6	15.52	111.75	Shut-In(1)
21	603.48	112.20	End Shut-In(1)
21	17.27	111.96	Open To Flow (2)
51	21.83	113.19	Shut-In(2)
114	647.89	115.69	End Shut-In(2)
115	2131.54	116.27	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100m (oil spots)	0.10

## Gas Rates

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

\* Recovery from multiple tests



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Larson Engineering, Inc

**26-16s-25w Ness,KS**

562 W St Rd 4  
Olmitz, KS 67564

**Livingston KSU #1-26**

ATTN: Vern Schrag

Job Ticket: 57415

**DST#: 2**

Test Start: 2015.05.25 @ 07:28:00

### GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:04:00

Time Test Ended: 13:49:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4432.00 ft (KB) To 4437.00 ft (KB) (TVD)**

Reference Elevations: 2575.00 ft (KB)

Total Depth: 4447.00 ft (KB) (TVD)

2567.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8522** Outside

Press@RunDepth: psig @ 4433.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.25

End Date:

2015.05.25

Last Calib.:

2015.05.25

Start Time: 07:28:05

End Time:

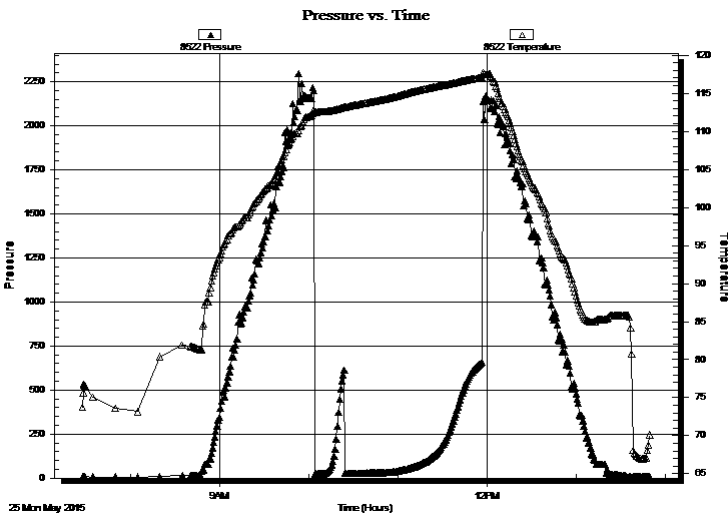
13:49:29

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF: Built to 1/2" blow.  
IS: No return.  
FF: Surface blow.  
FS: No return.

### PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

### Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100m (oil spots)	0.10

\* Recovery from multiple tests

### Gas Rates

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



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TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Larson Engineering, Inc

**26-16s-25w Ness,KS**

562 W St Rd 4  
Olmitz, KS 67564

**Livingston KSU #1-26**

Job Ticket: 57415

**DST#: 2**

ATTN: Vern Schrag

Test Start: 2015.05.25 @ 07:28:00

## Tool Information

Drill Pipe:	Length: 4301.00 ft	Diameter: 3.80 inches	Volume: 60.33 bbl	Tool Weight: 2500.00 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4432.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4406.00	
Shut In Tool	5.00			4411.00	
Hydraulic tool	5.00			4416.00	
Jars	5.00			4421.00	
Safety Joint	2.00			4423.00	
Packer	5.00			4428.00	27.00 Bottom Of Top Packer
Packer	4.00			4432.00	
Stubb	1.00			4433.00	
Recorder	0.00	8365	Inside	4433.00	
Recorder	0.00	8522	Outside	4433.00	
Perforations	11.00			4444.00	
Bullnose	3.00			4447.00	15.00 Bottom Packers & Anchor

**Total Tool Length: 42.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**26-16s-25w Ness,KS**

562 W St Rd 4  
Olmitz, KS 67564

**Livingston KSU #1-26**

Job Ticket: 57415

**DST#: 2**

ATTN: Vern Schrag

Test Start: 2015.05.25 @ 07:28:00

## 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3100.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud 100m (oil spots)	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

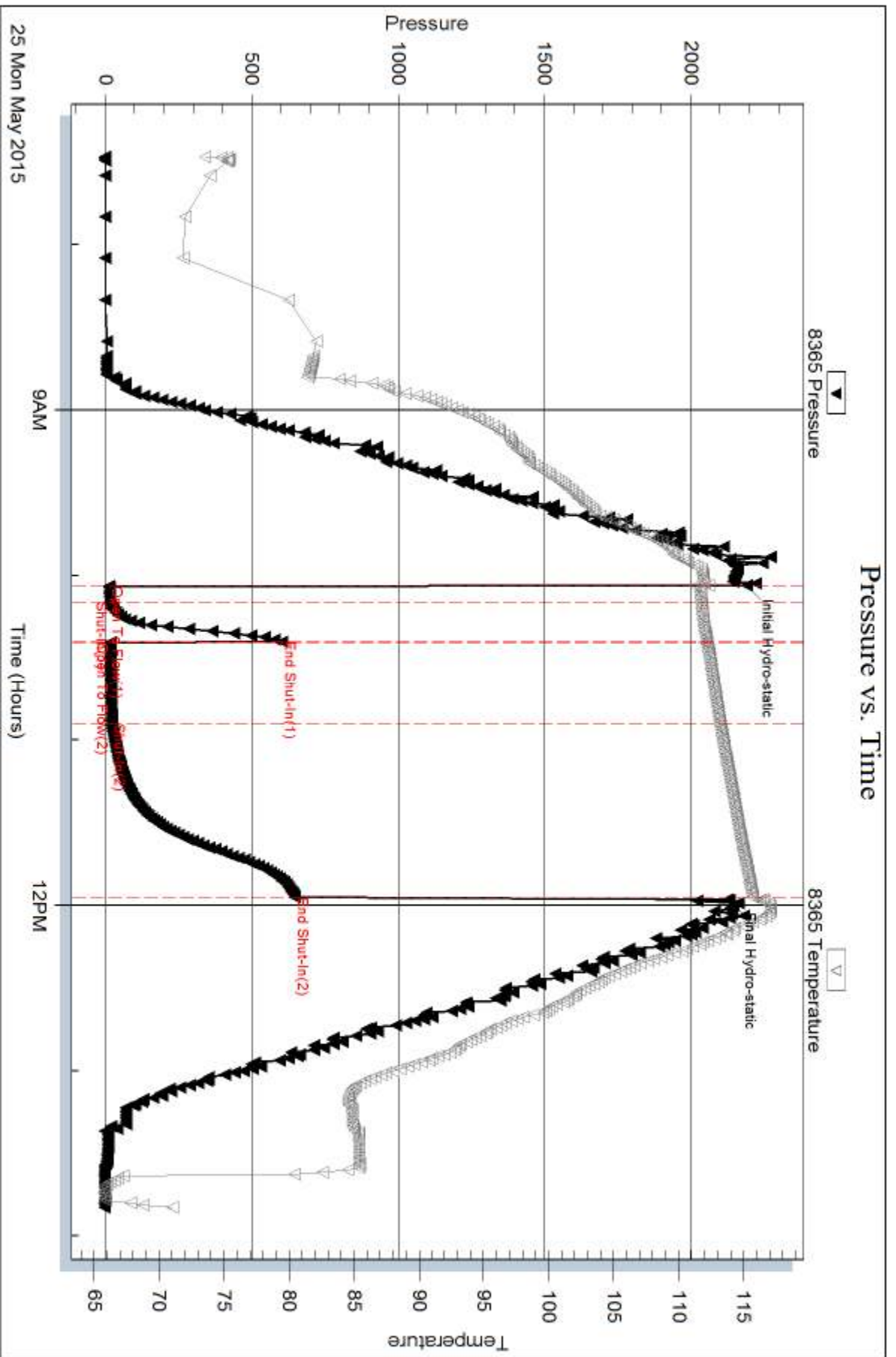
Num Gas Bombs: 0

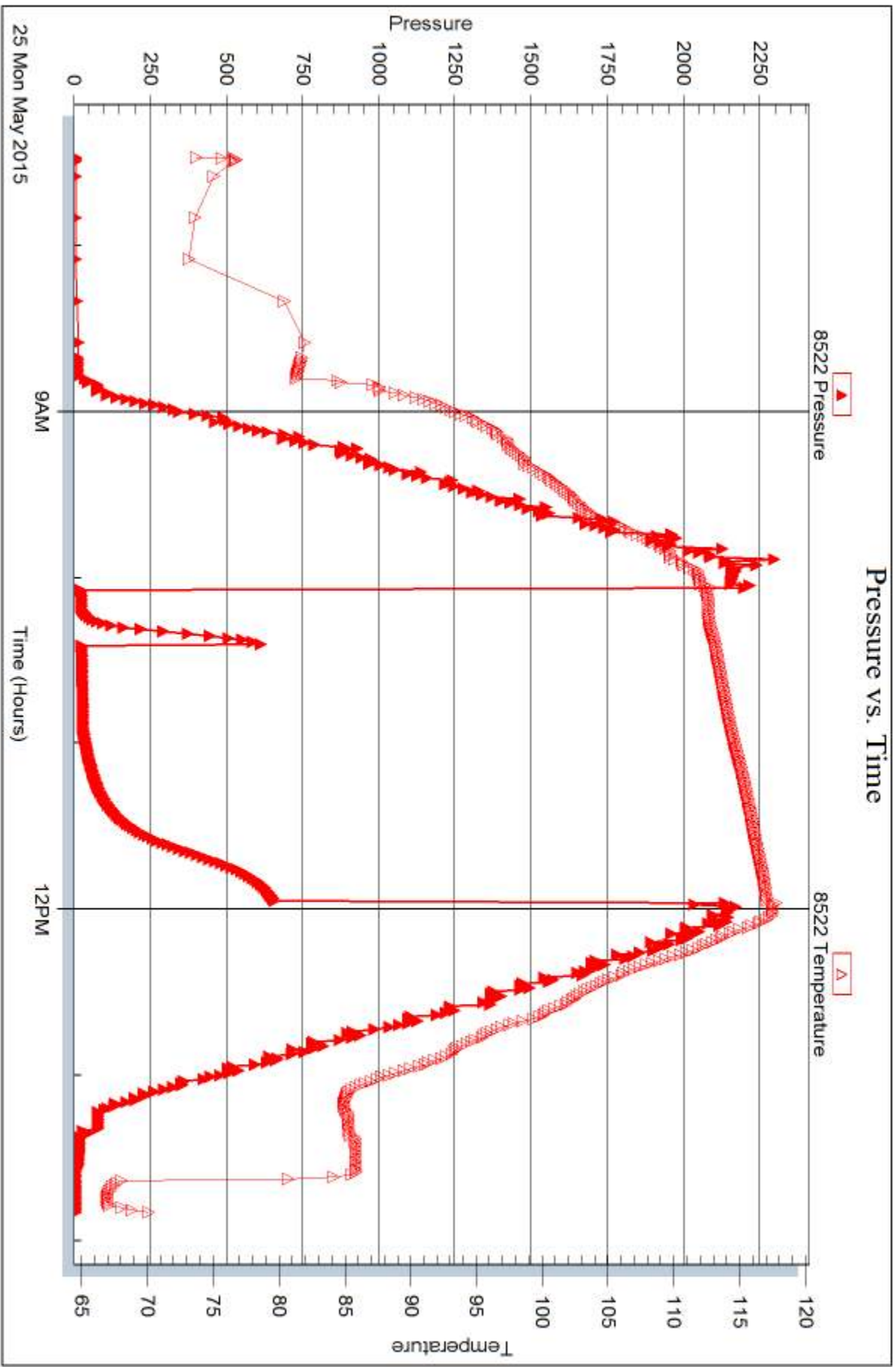
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W St Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

### **Livingston KSU #1-26**

### **26-16s-25w Ness,KS**

Start Date: 2015.05.26 @ 05:45:00

End Date: 2015.05.26 @ 12:01:15

Job Ticket #: 57416                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.05.27 @ 10:07:47



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Larson Engineering, Inc  
562 W St Rd 4  
Olmitz, KS 67564  
ATTN: Vern Schrag

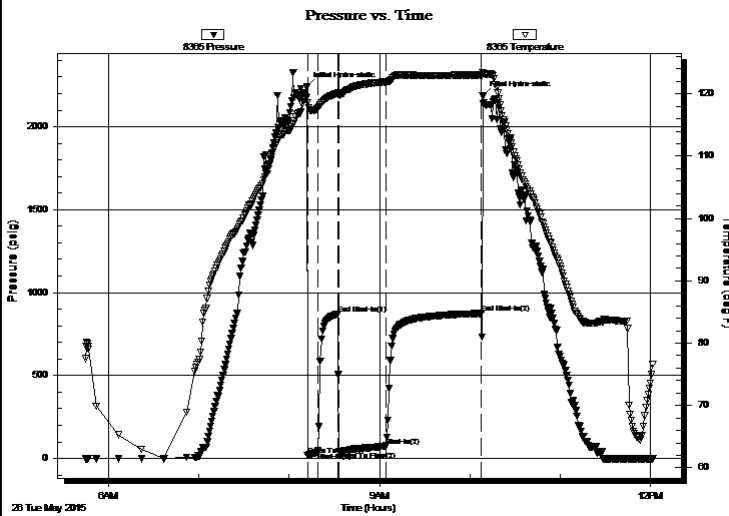
**26-16s-25w Ness, KS**  
**Livingston KSU #1-26**  
Job Ticket: 57416 **DST#: 3**  
Test Start: 2015.05.26 @ 05:45:00

## GENERAL INFORMATION:

Formation: **Mississippian**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 08:12:15  
Time Test Ended: 12:01:15  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 69  
Interval: **4484.00 ft (KB) To 4535.00 ft (KB) (TVD)**  
Reference Elevations: 2575.00 ft (KB)  
Total Depth: 4535.00 ft (KB) (TVD) 2567.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 8.00 ft

**Serial #: 8365 Inside**  
Press@RunDepth: 72.88 psig @ 4485.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.05.26 End Date: 2015.05.26 Last Calib.: 2015.05.26  
Start Time: 05:45:05 End Time: 12:01:14 Time On Btm: 2015.05.26 @ 08:12:00  
Time Off Btm: 2015.05.26 @ 10:08:30

TEST COMMENT: IF: 1 1/2" blow .  
IS: No return.  
FF: 5" blow .  
FSI No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2241.81	119.41	Initial Hydro-static
1	18.21	118.56	Open To Flow (1)
7	35.73	117.65	Shut-In(1)
21	871.18	120.13	End Shut-In(1)
21	40.87	119.92	Open To Flow (2)
52	72.88	121.91	Shut-In(2)
116	874.34	123.04	End Shut-In(2)
117	2185.26	123.44	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	gocm 10g 40o 50m	0.34
70.00	go 15g 85o	0.49
0.00	100' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc

**26-16s-25w Ness,KS**

562 W St Rd 4  
Olmitz, KS 67564

**Livingston KSU #1-26**

ATTN: Vern Schrag

Job Ticket: 57416

**DST#: 3**

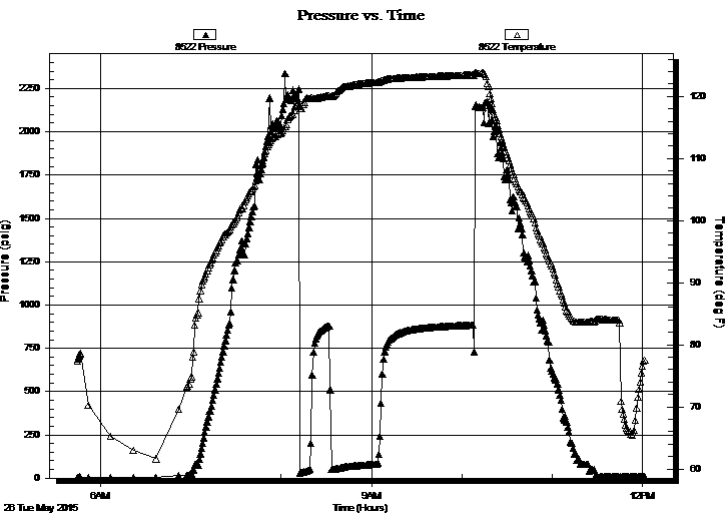
Test Start: 2015.05.26 @ 05:45:00

## GENERAL INFORMATION:

Formation: **Mississippian**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 08:12:15 Tester: Bradley Walter  
 Time Test Ended: 12:01:15 Unit No: 69  
 Interval: **4484.00 ft (KB) To 4535.00 ft (KB) (TVD)** Reference Elevations: 2575.00 ft (KB)  
 Total Depth: 4535.00 ft (KB) (TVD) 2567.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 8.00 ft

**Serial #: 8522 Outside**  
 Press@RunDepth: psig @ 4485.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.05.26 End Date: 2015.05.26 Last Calib.: 2015.05.26  
 Start Time: 05:45:05 End Time: 12:01:14 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: 1 1/2" blow .  
 IS: No return.  
 FF: 5" blow .  
 FSI No return.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)
70.00	gocm 10g 40o 50m	0.34
70.00	go 15g 85o	0.49
0.00	100' GIP	0.00

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Larson Engineering, Inc

**26-16s-25w Ness,KS**

562 W St Rd 4  
Olmitz, KS 67564

**Livingston KSU #1-26**

Job Ticket: 57416

**DST#: 3**

ATTN: Vern Schrag

Test Start: 2015.05.26 @ 05:45:00

## Tool Information

Drill Pipe:	Length: 4363.00 ft	Diameter: 3.80 inches	Volume: 61.20 bbl	Tool Weight: 2500.00 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 61.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4484.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	78.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4458.00	
Shut In Tool	5.00			4463.00	
Hydraulic tool	5.00			4468.00	
Jars	5.00			4473.00	
Safety Joint	2.00			4475.00	
Packer	5.00			4480.00	27.00 Bottom Of Top Packer
Packer	4.00			4484.00	
Stubb	1.00			4485.00	
Recorder	0.00	8365	Inside	4485.00	
Recorder	0.00	8522	Outside	4485.00	
Perforations	14.00			4499.00	
Change Over Sub	1.00			4500.00	
Drill Pipe	31.00			4531.00	
Change Over Sub	1.00			4532.00	
Bullnose	3.00			4535.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 78.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**26-16s-25w Ness,KS**

562 W St Rd 4  
Olmitz, KS 67564

**Livingston KSU #1-26**

Job Ticket: 57416

**DST#: 3**

ATTN: Vern Schrag

Test Start: 2015.05.26 @ 05:45:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3700.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	gocm 10g 40o 50m	0.344
70.00	go 15g 85o	0.490
0.00	100' GIP	0.000

Total Length: 140.00 ft

Total Volume: 0.834 bbl

Num Fluid Samples: 0

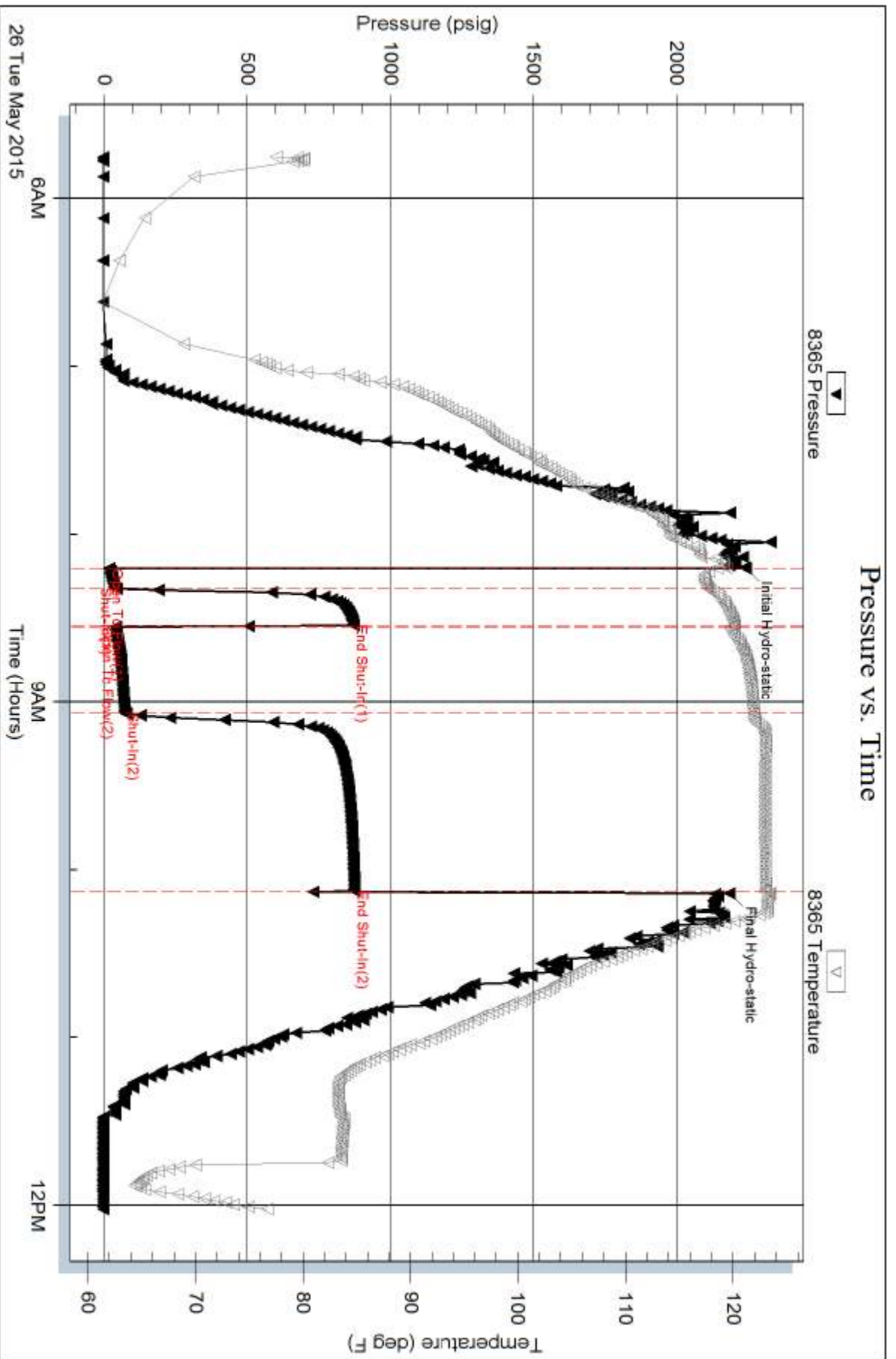
Num Gas Bombs: 0

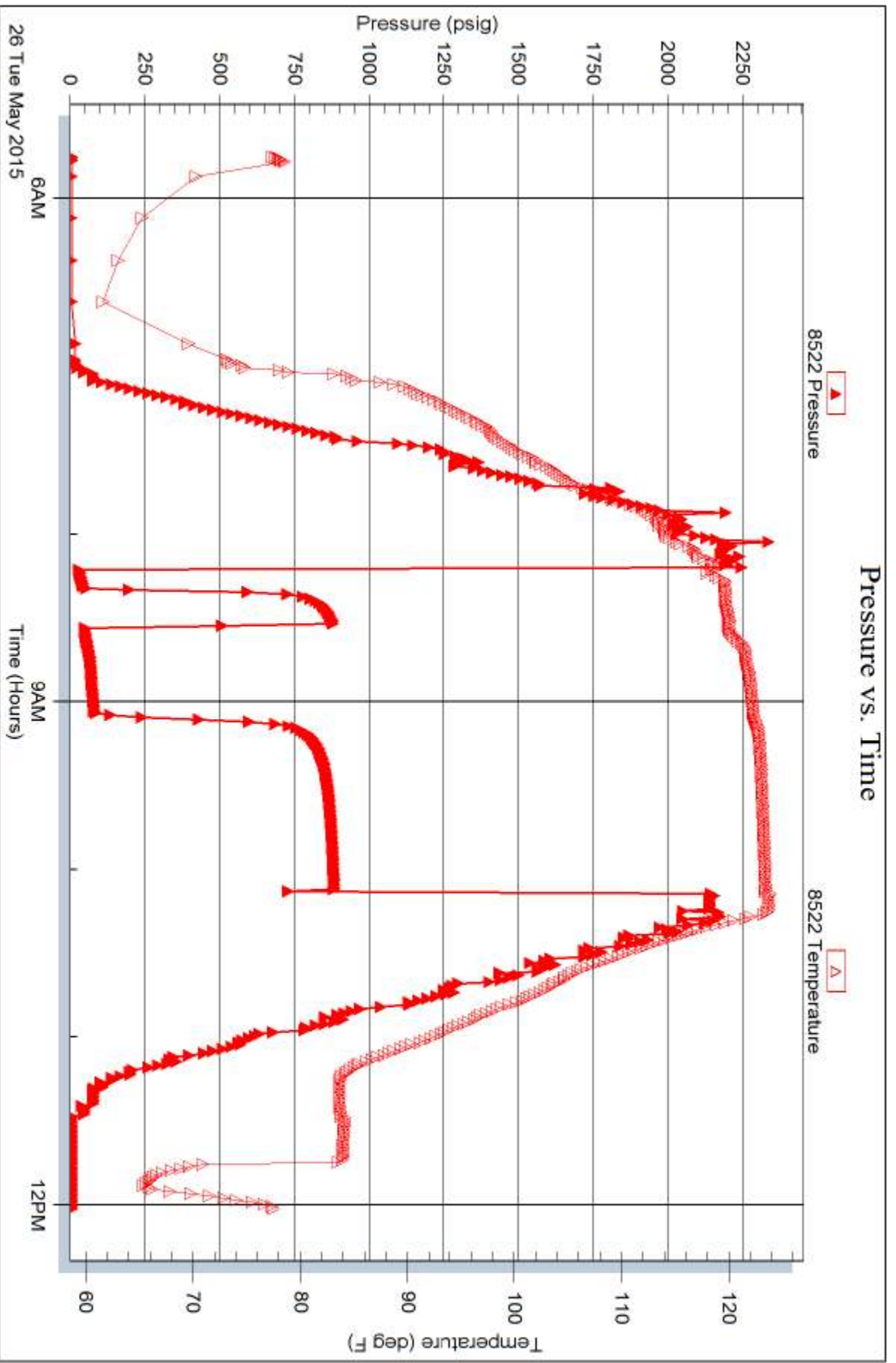
Serial #:

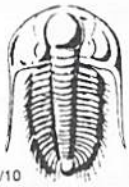
Laboratory Name:

Laboratory Location:

Recovery Comments:







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57414

Well Name & No. Livingston-KS U # 1-26 Test No. 1 Date 5/24/2015  
 Company Larson Engineering, Inc Elevation 2575 KB 2567 GL  
 Address 562 W State Rd 4 Olmitz, KS 67564  
 Co. Rep / Geo. Vern Schrag Rig HD 3  
 Location: Sec. 26 Twp. 16 Rge. 25 W Co. McGess State Ks

Interval Tested 4400 4430 Zone Tested FT. Scott  
 Anchor Length 30' Drill Pipe Run 4269 Mud Wt. 9.3  
 Top Packer Depth 4395 Drill Collars Run 124 Vis 48  
 Bottom Packer Depth 4400 Wt. Pipe Run Ø WL 5# 7.8  
 Total Depth 4430 Chlorides 4,000 ppm System LCM 3#

Blow Description IF: Break Surface blow.  
ISI: No return.  
FK: No blow.  
FBI: No return.

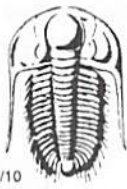
Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>MUD</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1 BHT 117 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2216</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1730</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1745</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2040</u>
(D) Initial Shut-In <u>31</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>2145</u>
(E) Second Initial Flow <u>26</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0119</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>108 RT</u> <u>108</u>	Comments
(G) Final Shut-In <u>28</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2185</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>5</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1583</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1583</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57415

Well Name & No. Livingston-KSU 1-26 Test No. 2 Date 5/25/2015  
 Company Larson Engineering, Inc Elevation 2575 KB 2567 GL  
 Address 562 W State Rd 4 Olmitz, KS 67564  
 Co. Rep / Geo. Vern Schrag Rig HD#3  
 Location: Sec. 26 Twp. 16 Rge. 25w Co. Nec State Ks

Interval Tested 4432 - 4447 Zone Tested Ft Scott  
 Anchor Length 15' Drill Pipe Run 4301 Mud Wt. 9.3  
 Top Packer Depth 4427 Drill Collars Run 124 Vis 52  
 Bottom Packer Depth 4432 Wt. Pipe Run 6 WL 7.6  
 Total Depth 4447 Chlorides 3100 ppm System LCM 2#

Blow Description IF: 1/2" blow  
IGI: No return.  
PF: Surface blow.  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>MUD (OIL SPOTS)</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 116 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2191</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0715</u>
(B) First Initial Flow <u>12</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0728</u>
(C) First Final Flow <u>16</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1004</u>
(D) Initial Shut-In <u>603</u>	<input checked="" type="checkbox"/> Circ Sub <u>—</u>	T-Pulled <u>1154</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>1350</u>
(F) Second Final Flow <u>22</u>	<input checked="" type="checkbox"/> Mileage <u>108 Rt</u> <u>108</u>	Comments <u>—</u>
(G) Final Shut-In <u>648</u>	<input type="checkbox"/> Sampler <u>—</u>	
(H) Final Hydrostatic <u>2132</u>	<input type="checkbox"/> Straddle <u>—</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
Initial Open <u>5</u>	<input type="checkbox"/> Shale Packer <u>—</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Packer <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby <u>—</u>	Total <u>1583</u>
	<input type="checkbox"/> Accessibility <u>—</u>	MP/DST Disc't <u>—</u>
	Sub Total <u>1583</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57416

4/10

Well Name & No. Livingston - KSO 1-28 Test No. 3 Date 5/26/2015  
 Company Larson Engineering, Inc Elevation 2575 KB 2566 GL  
 Address 567 W State Rd 4 Olmitz, KS 67564  
 Co. Rep / Geo. Vern Schrag Rig H0 #3  
 Location: Sec. 26 Twp. 16 Rge. 25w Co. Ness State Ks

Interval Tested 4484 4835 Zone Tested Mississippian  
 Anchor Length 51' Drill Pipe Run 4363 Mud Wt. 9.4  
 Top Packer Depth 4479 Drill Collars Run 124 Vis 57  
 Bottom Packer Depth 4484 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4535 Chlorides 3700 ppm System LCM 2#

Blow Description TF : 1 1/2" blow  
TSI : No return  
FF : 5" blow  
FSI : No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>60</u>	<u>15</u>	<u>85</u>		
<u>70</u>	<u>60 CM</u>	<u>10</u>	<u>40</u>		<u>50</u>
	<u>100' GIP</u>				

Rec Total 140 BHT 123 Gravity 39 API RW — @ — °F Chlorides — ppm  
 (A) Initial Hydrostatic 2242  Test 1150 T-On Location 0530  
 (B) First Initial Flow 18  Jars 250 T-Started 0545  
 (C) First Final Flow 36  Safety Joint 75 T-Open 0913  
 (D) Initial Shut-In 871  Circ Sub X/A T-Pulled 1003  
 (E) Second Initial Flow 41  Hourly Standby \_\_\_\_\_ T-Out 1201  
 (F) Second Final Flow 73  Mileage 108x2 108+108 Comments \_\_\_\_\_  
 (G) Final Shut-In 874  Sampler \_\_\_\_\_ Prove x2 due to  
 (H) Final Hydrostatic 2185  Straddle \_\_\_\_\_ Rig Maintenance  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_

Initial Open 5  
 Initial Shut-In 15  
 Final Flow 30  
 Final Shut-In 60  
 Sub Total 0  
 Total 1691  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1691

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