



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Voshell #3

13-19s-29w Lane,KS

Start Date: 2017.03.27 @ 02:26:15

End Date: 2017.03.27 @ 07:04:15

Job Ticket #: 63705 DST #: 1

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

Printed: 2017.03.31 @ 10:01:45



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc.
 562 West State Rd 4
 Olmitz KS 67564
 ATTN: Vern Schrag

13-19s-29w Lane, KS
Voshell #3
 Job Ticket: 63705 **DST#: 1**
 Test Start: 2017.03.27 @ 02:26:15

GENERAL INFORMATION:

Formation: **LKC H**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:18:45
 Time Test Ended: 07:04:15
Interval: 4178.00 ft (KB) To 4199.00 ft (KB) (TVD)
 Total Depth: 4199.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2822.00 ft (KB)
 2812.00 ft (CF)
 KB to GR/CF: 10.00 ft

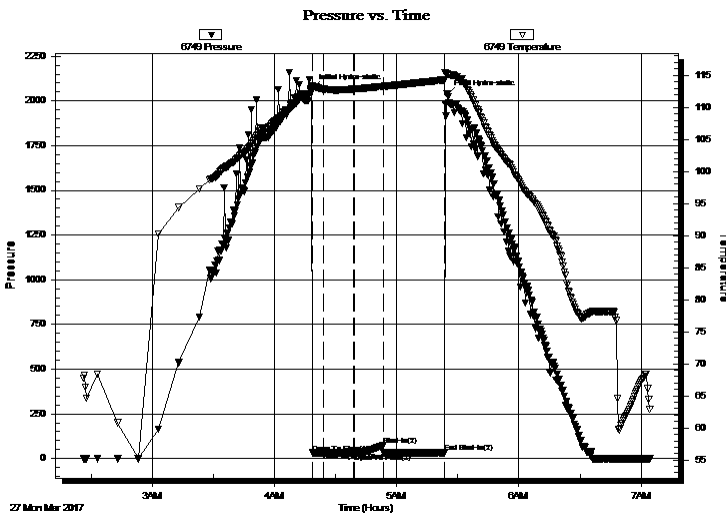
Serial #: 6749

Outside

Press@RunDepth: 73.14 psig @ 4179.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.03.27 End Date: 2017.03.27 Last Calib.: 2017.03.27
 Start Time: 02:26:15 End Time: 07:04:15 Time On Btm: 2017.03.27 @ 04:18:30
 Time Off Btm: 2017.03.27 @ 05:24:45

TEST COMMENT: IF: Built to 1/8" blow
 IS: No return blow
 FF: No blow
 FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2068.96	113.40	Initial Hydro-static
1	31.72	112.73	Open To Flow (1)
6	32.34	112.83	Shut-In(1)
21	32.36	112.85	End Shut-In(1)
21	28.00	112.86	Open To Flow (2)
35	73.14	113.28	Shut-In(2)
65	32.79	114.29	End Shut-In(2)
67	2037.41	115.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
55.00	mud 100% m	0.77

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering Inc.

13-19s-29w Lane,KS

562 West State Rd 4
Olmitz KS 67564

Voshell #3

Job Ticket: 63705

DST#: 1

ATTN: Vern Schrag

Test Start: 2017.03.27 @ 02:26:15

Tool Information

Drill Pipe:	Length: 4162.00 ft	Diameter: 3.80 inches	Volume: 58.38 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.38 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4178.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	44.00 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			4156.00	
Shut In Tool	5.00			4161.00	
Hydraulic tool	5.00			4166.00	
Safety Joint	3.00			4169.00	
Packer	5.00			4174.00	23.00 Bottom Of Top Packer
Packer	4.00			4178.00	
Stubb	1.00			4179.00	
Recorder	0.00	8672	Inside	4179.00	
Recorder	0.00	6749	Outside	4179.00	
Perforations	15.00			4194.00	
Bullnose	5.00			4199.00	21.00 Bottom Packers & Anchor

Total Tool Length: 44.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

13-19s-29w Lane, KS

562 West State Rd 4
Olmitz KS 67564

Voshell #3

Job Ticket: 63705

DST#: 1

ATTN: Vern Schrag

Test Start: 2017.03.27 @ 02:26:15

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.54 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
55.00	mud 100%m	0.772

Total Length: 55.00 ft Total Volume: 0.772 bbl

Num Fluid Samples: 0

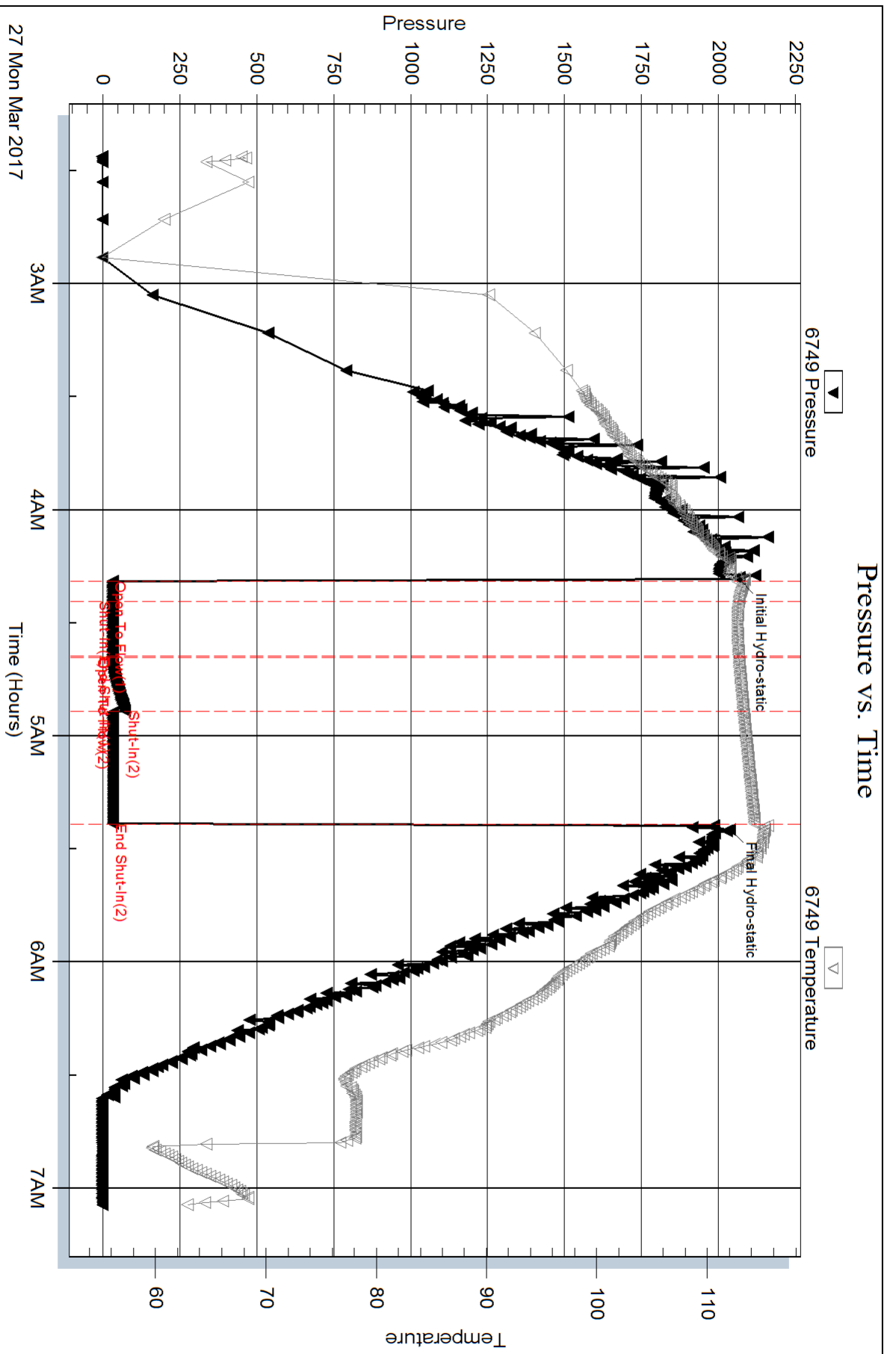
Num Gas Bombs: 0

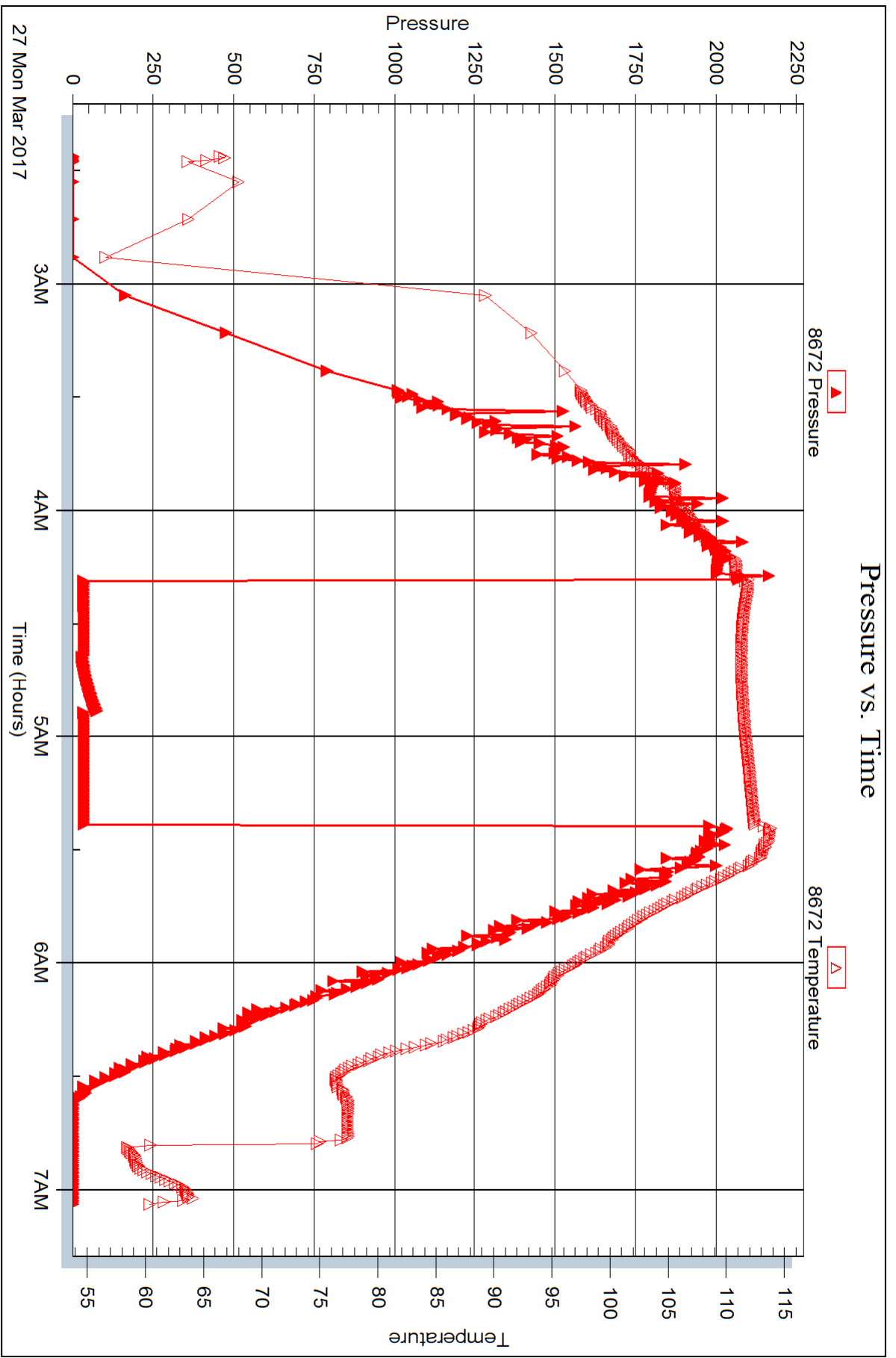
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Voshell #3

13-19s-29w Lane,KS

Start Date: 2017.03.27 @ 17:42:15

End Date: 2017.03.28 @ 11:24:30

Job Ticket #: 63706 DST #: 2

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

Printed: 2017.03.31 @ 10:00:37



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc.
 562 West State Rd 4
 Olmitz KS 67564
 ATTN: Vern Schrag

13-19s-29w Lane, KS
Voshell #3
 Job Ticket: 63706 **DST#: 2**
 Test Start: 2017.03.27 @ 17:42:15

GENERAL INFORMATION:

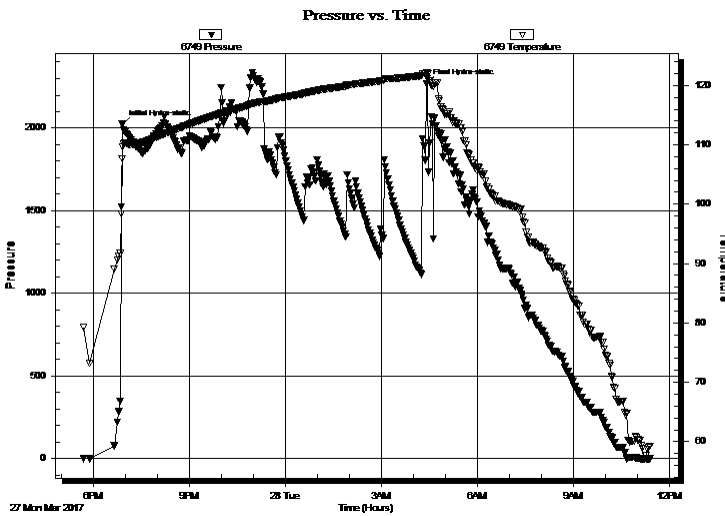
Formation: **LKC I**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended: 11:24:30
 Interval: **4217.00 ft (KB) To 4238.00 ft (KB) (TVD)**
 Total Depth: 4238.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2822.00 ft (KB)
 2812.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 6749 Outside

Press@RunDepth: psig @ 4218.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.03.27 End Date: 2017.03.28 Last Calib.: 2017.03.28
 Start Time: 17:42:15 End Time: 11:24:30 Time On Btm: 2017.03.27 @ 18:54:15
 Time Off Btm: 2017.03.28 @ 04:24:30

TEST COMMENT: IF:Dropped tool down the hole.
 IS:FISHING FOR TOOL
 FF:
 FS:

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2023.51	107.68	Initial Hydro-static
571	2270.10	122.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering Inc.

13-19s-29w Lane,KS

562 West State Rd 4
Olmitz KS 67564

Voshell #3

Job Ticket: 63706

DST#: 2

ATTN: Vern Schrag

Test Start: 2017.03.27 @ 17:42:15

Tool Information

Drill Pipe:	Length: 4227.00 ft	Diameter: 3.80 inches	Volume: 59.29 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 59.29 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4217.00 ft			Final 77000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: FISHING FOR TOOL

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4195.00	
Shut In Tool	5.00			4200.00	
Hydraulic tool	5.00			4205.00	
Safety Joint	3.00			4208.00	
Packer	5.00			4213.00	23.00 Bottom Of Top Packer
Packer	4.00			4217.00	
Stubb	1.00			4218.00	
Recorder	0.00	8672	Inside	4218.00	
Recorder	0.00	6749	Outside	4218.00	
Perforations	15.00			4233.00	
Bullnose	5.00			4238.00	21.00 Bottom Packers & Anchor

Total Tool Length: 44.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

13-19s-29w Lane, KS

562 West State Rd 4
Olmitz KS 67564

Voshell #3

Job Ticket: 63706

DST#: 2

ATTN: Vern Schrag

Test Start: 2017.03.27 @ 17:42:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 83.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.56 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl

Total Length: ft

Total Volume: bbl

Num Fluid Samples: 0

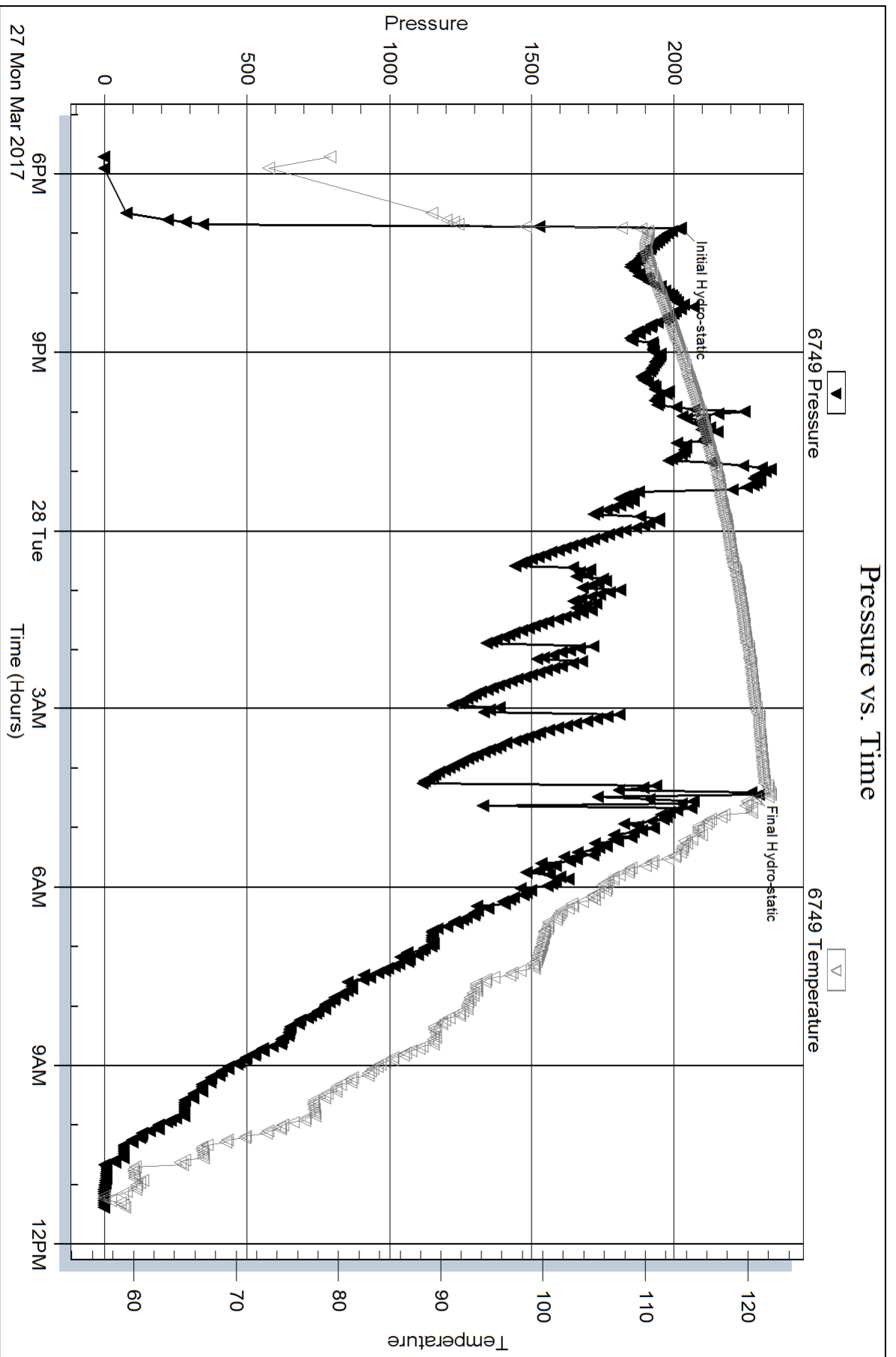
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



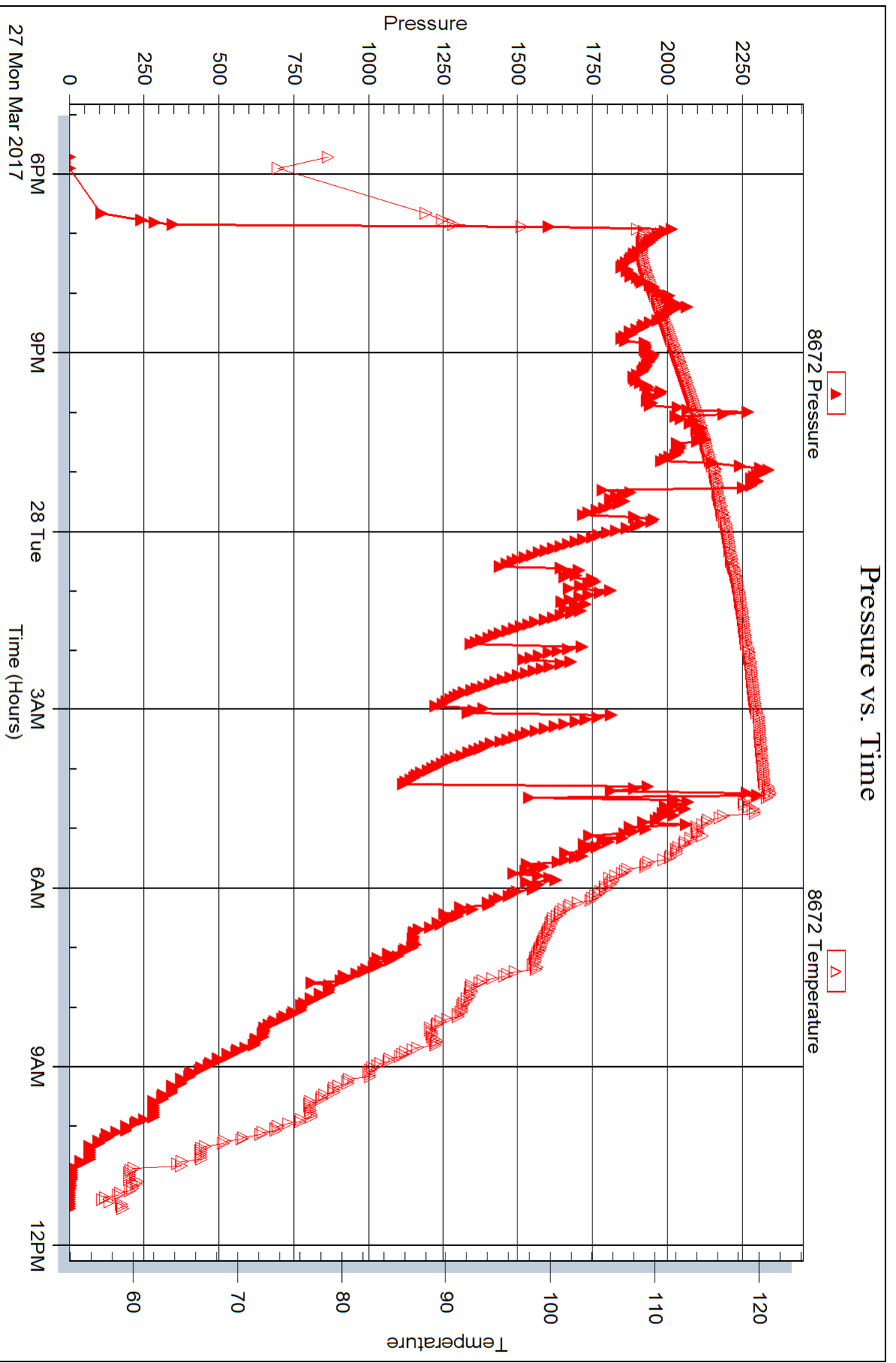
Serial #: 8672

Inside

Larson Engineering Inc.

Voshell#3

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Voshell #3

13-19s-29w Lane,KS

Start Date: 2017.03.29 @ 08:39:15

End Date: 2017.03.29 @ 14:49:00

Job Ticket #: 63707 DST #: 3

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

Printed: 2017.03.31 @ 10:00:15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering Inc.

13-19s-29w Lane,KS

562 West State Rd 4
Olmitz KS 67564

Voshell #3

Job Ticket: 63707

DST#: 3

ATTN: Vern Schrag

Test Start: 2017.03.29 @ 08:39:15

Tool Information

Drill Pipe:	Length: 4321.00 ft	Diameter: 3.80 inches	Volume: 60.61 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 60.61 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4327.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	9.00 ft			
Tool Length:	32.00 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			4305.00	
Shut In Tool	5.00			4310.00	
Hydraulic tool	5.00			4315.00	
Safety Joint	3.00			4318.00	
Packer	5.00			4323.00	23.00 Bottom Of Top Packer
Packer	4.00			4327.00	
Stubb	1.00			4328.00	
Recorder	0.00	8672	Inside	4328.00	
Recorder	0.00	6749	Outside	4328.00	
Perforations	3.00			4331.00	
Bullnose	5.00			4336.00	9.00 Bottom Packers & Anchor

Total Tool Length: 32.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

13-19s-29w Lane, KS

562 West State Rd 4
Olmitz KS 67564

Voshell #3

Job Ticket: 63707

DST#: 3

ATTN: Vern Schrag

Test Start: 2017.03.29 @ 08:39:15

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: 40.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud 100%m	0.028

Total Length: 2.00 ft Total Volume: 0.028 bbl

Num Fluid Samples: 0

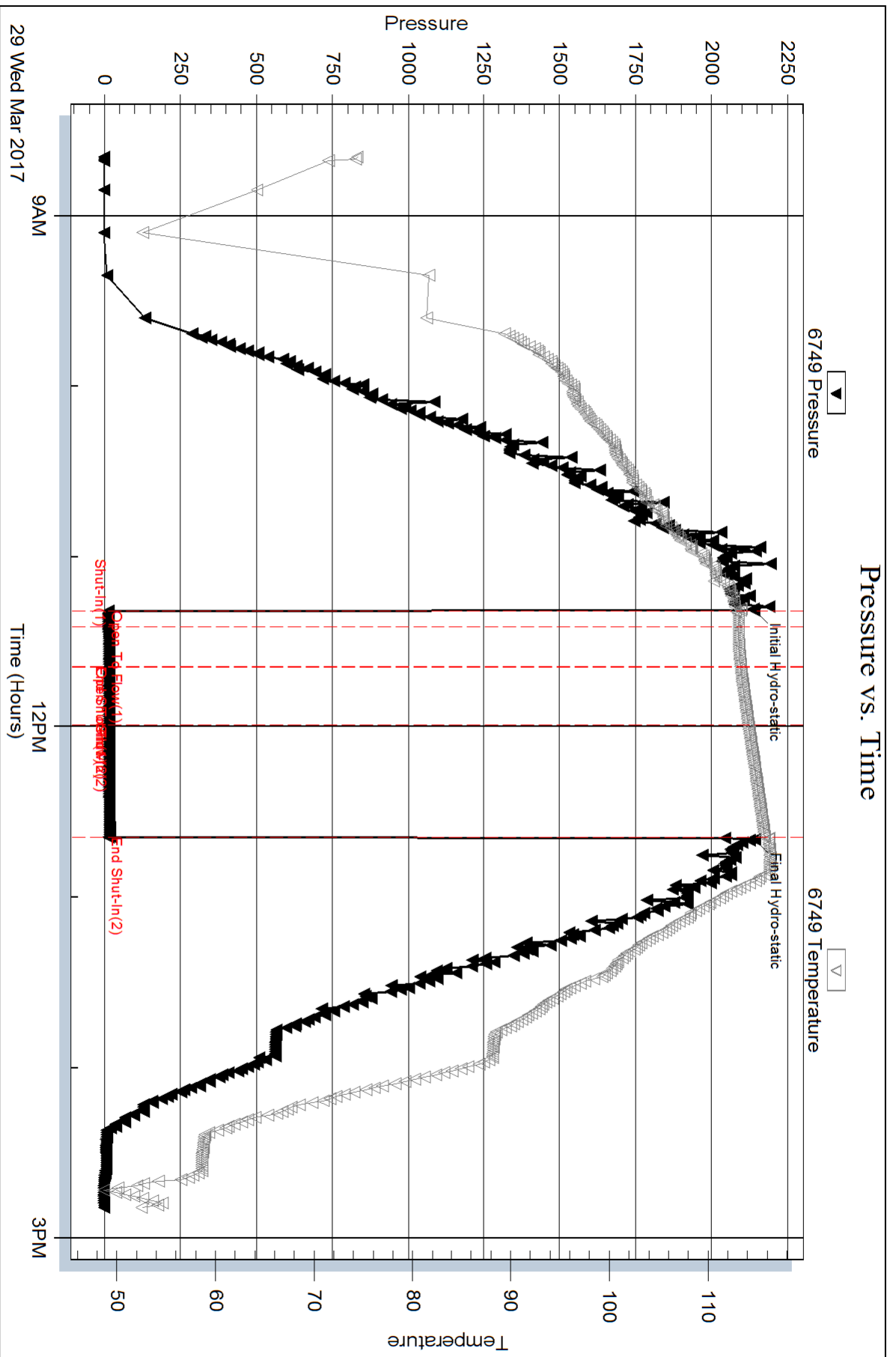
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



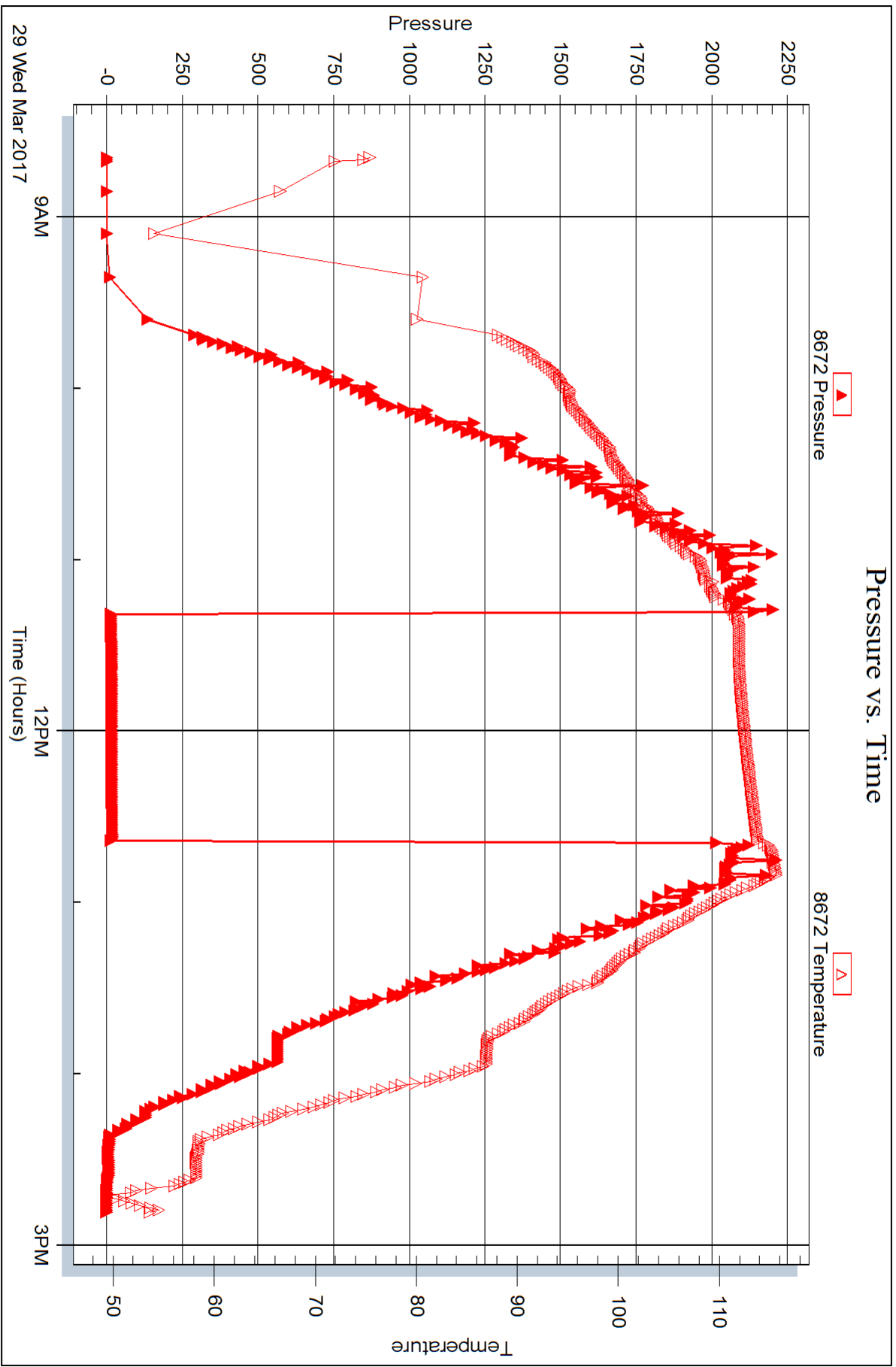
Serial #: 8672

Inside

Larson Engineering Inc.

Voshell#3

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63707

Printed: 2017.03.31 @ 10:00:16



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Voshell #3

13-19s-29w Lane,KS

Start Date: 2017.03.30 @ 10:58:15

End Date: 2017.03.30 @ 16:40:45

Job Ticket #: 63708 DST #: 4

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

Printed: 2017.03.31 @ 09:56:48



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc.
 562 West State Rd 4
 Olmitz KS 67564
 ATTN: Vern Schrag

13-19s-29w Lane, KS
Voshell #3
 Job Ticket: 63708 **DST#: 4**
 Test Start: 2017.03.30 @ 10:58:15

GENERAL INFORMATION:

Formation: **Altamont**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:20:30
 Time Test Ended: 16:40:45
Interval: 4368.00 ft (KB) To 4460.00 ft (KB) (TVD)
 Total Depth: 4460.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2822.00 ft (KB)
 2812.00 ft (CF)
 KB to GR/CF: 10.00 ft

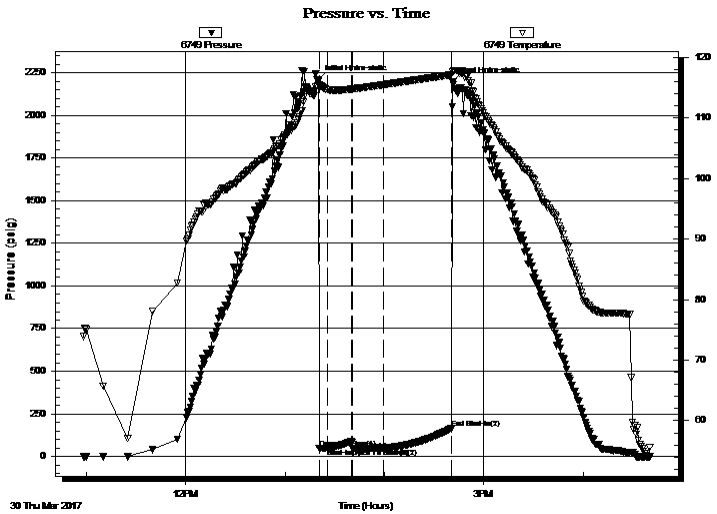
Serial #: 6749

Outside

Press@RunDepth: 50.37 psig @ 4455.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.03.30 End Date: 2017.03.30 Last Calib.: 2017.03.30
 Start Time: 10:58:15 End Time: 16:40:45 Time On Btm: 2017.03.30 @ 13:20:15
 Time Off Btm: 2017.03.30 @ 14:41:15

TEST COMMENT: IF: Built to 1/8" blow
 IS: No return blow
 FF: No blow
 FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2208.35	116.06	Initial Hydro-static
1	48.68	115.35	Open To Flow (1)
6	49.45	114.68	Shut-In(1)
20	90.98	114.77	End Shut-In(1)
21	49.57	114.77	Open To Flow (2)
39	50.37	115.48	Shut-In(2)
81	163.94	117.13	End Shut-In(2)
81	2198.89	117.66	Final Hydro-static

Recovery

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

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering Inc.

13-19s-29w Lane,KS

562 West State Rd 4
Olmitz KS 67564

Voshell #3

Job Ticket: 63708

DST#: 4

ATTN: Vern Schrag

Test Start: 2017.03.30 @ 10:58:15

Tool Information

Drill Pipe:	Length: 4347.00 ft	Diameter: 3.80 inches	Volume: 60.98 bbl	Tool Weight: 1500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 60.98 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	4368.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	92.00 ft			
Tool Length:	120.00 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			4341.00	
Shut In Tool	5.00			4346.00	
Hydraulic tool	5.00			4351.00	
Jars	5.00			4356.00	
Safety Joint	3.00			4359.00	
Packer	5.00			4364.00	28.00 Bottom Of Top Packer
Packer	4.00			4368.00	
Stubb	1.00			4369.00	
Perforations	5.00			4374.00	
Change Over Sub	1.00			4375.00	
Drill Pipe	64.00			4439.00	
Change Over Sub	1.00			4440.00	
Perforations	15.00			4455.00	
Recorder	0.00	8672	Inside	4455.00	
Recorder	0.00	6749	Outside	4455.00	
Bullnose	5.00			4460.00	92.00 Bottom Packers & Anchor
Total Tool Length:	120.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

13-19s-29w Lane, KS

562 West State Rd 4
Olmitz KS 67564

Voshell #3

Job Ticket: 63708

DST#: 4

ATTN: Vern Schrag

Test Start: 2017.03.30 @ 10:58:15

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

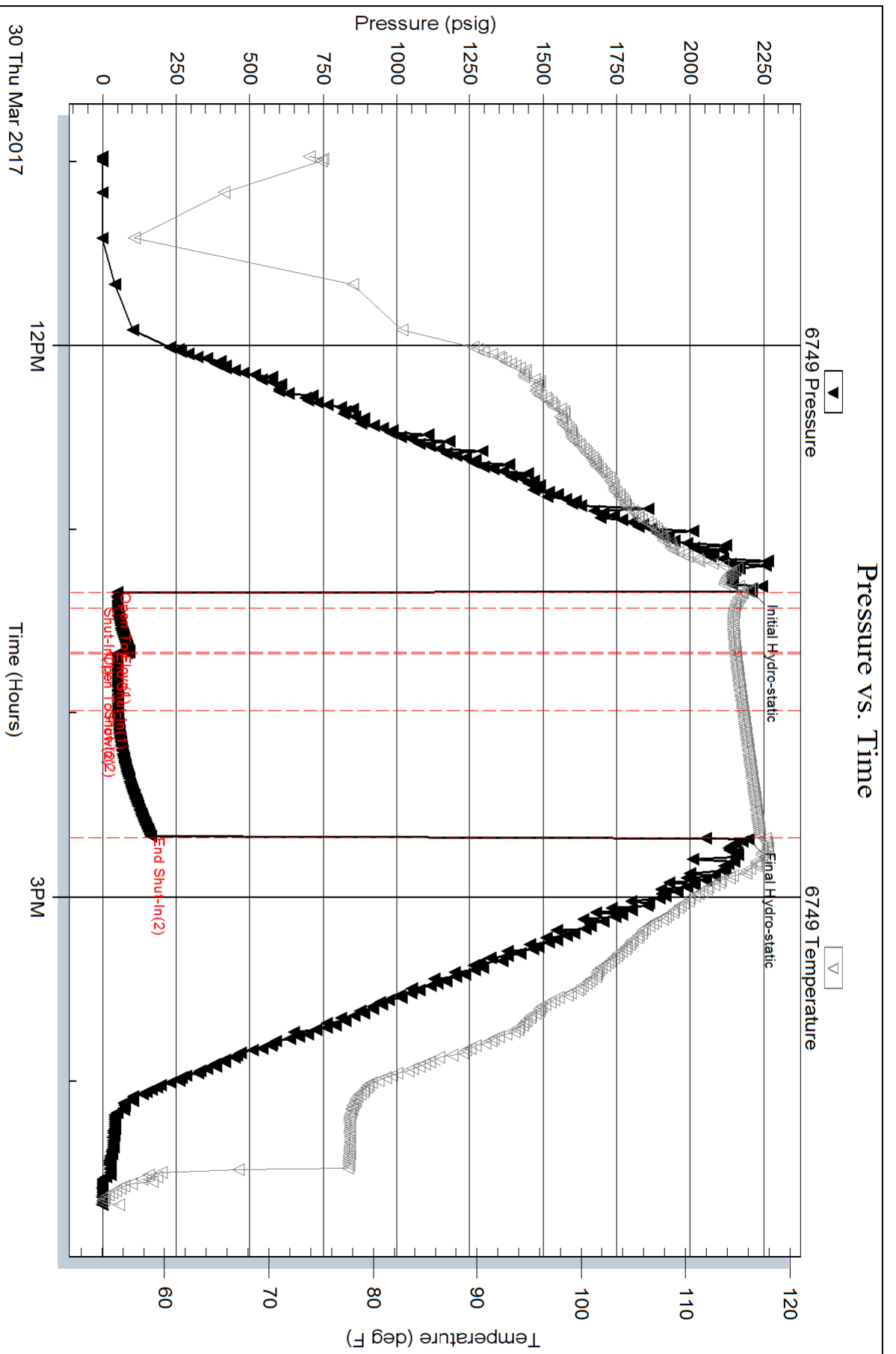
Num Gas Bombs: 0

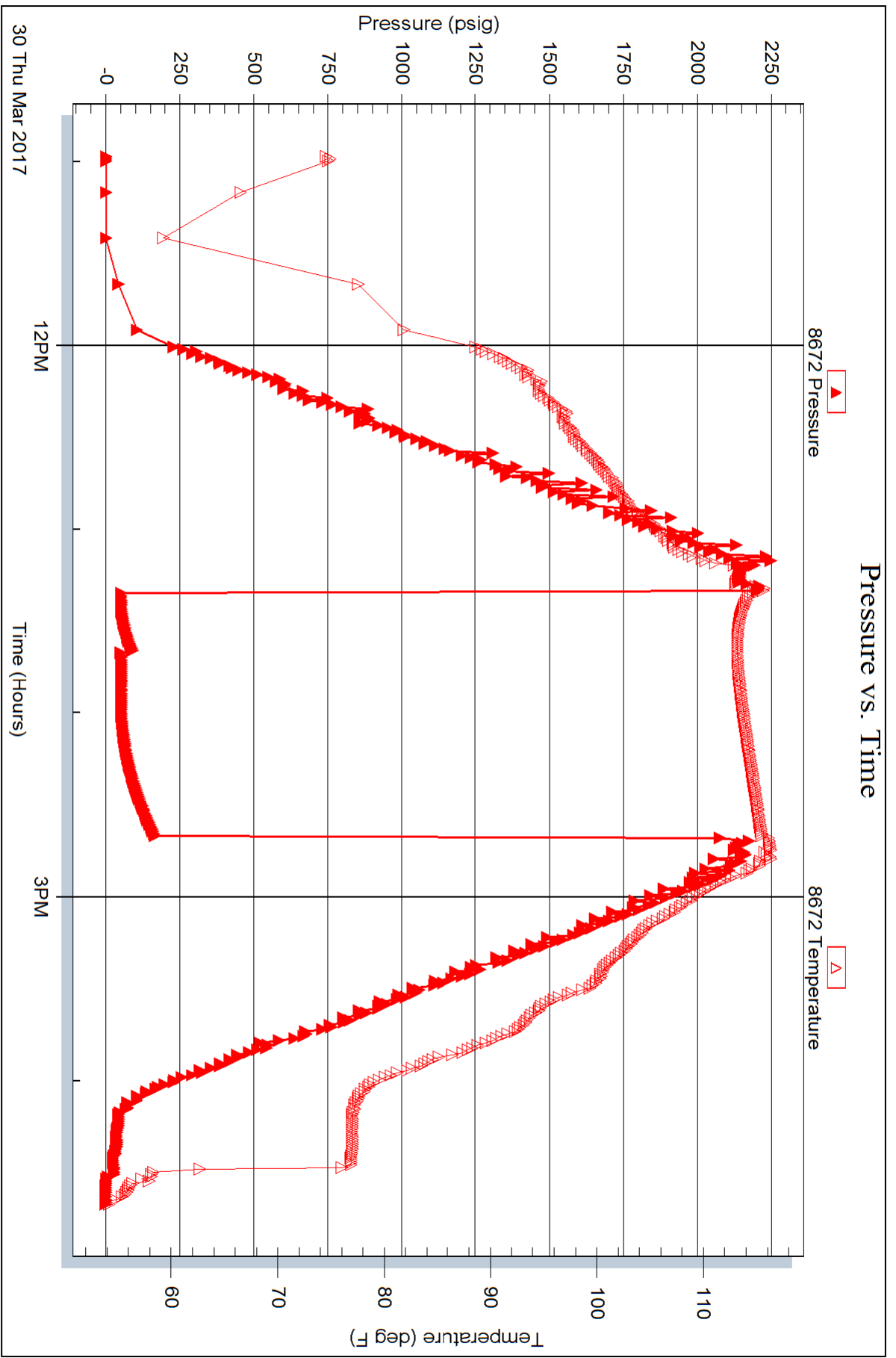
Serial #:

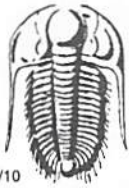
Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63705**

Well Name & No. Noshell #3 Test No. 1 Date 3-27-17
 Company Larson Engineering Inc Elevation 2822 KB 2812 GL
 Address 562 W State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 13 Twp. 19S Rge. 29W Co. Lane State KS

Interval Tested 4178-4199 Zone Tested H
 Anchor Length 21 Drill Pipe Run 4162 Mud Wt. 9.1
 Top Packer Depth 4173 Drill Collars Run 0 Vis 57
 Bottom Packer Depth 4178 Wt. Pipe Run 0 WL 6.6
 Total Depth 4199 Chlorides 3200 ppm System LCM 3
 Blow Description IF: Built to 1/8" Blow
IS: No Return Blow
FF: No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>55</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	Feet of	%gas	%oil	%water	%mud

Rec Total 55 BHT 115 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 2068 Test \$1150.00/- T-On Location 01:15
 (B) First Initial Flow 31 Jars T-Started 02:26
 (C) First Final Flow 32 Safety Joint \$75.00/- T-Open 04:19
 (D) Initial Shut-In 32 Circ Sub NC T-Pulled 05:24
 (E) Second Initial Flow 28 Hourly Standby T-Out 07:04
 (F) Second Final Flow 73 Mileage 70RT = \$52.50/- Comments _____
 (G) Final Shut-In 32 Sampler _____
 (H) Final Hydrostatic 2037 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total \$1277.50/-

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1277.50
 MP/DST Disc't _____

Approved By Vern Schrag Our Representative Mike Roberts

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. **63706**

Well Name & No. Voshell #3 Test No. 2 Date 3-28-17
 Company Larson Engineering Inc. Elevation 2822 KB 2812 GL
 Address 562 W. State Rd 04 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 13 Twp. 19s Rge. 29W Co. LANE State KS

Interval Tested 4217-4238 Zone Tested I
 Anchor Length 21 Drill Pipe Run 4227 Mud Wt. 9.3
 Top Packer Depth 4212 Drill Collars Run Ø Vis 83
 Bottom Packer Depth 4217 Wt. Pipe Run Ø WL 2.6
 Total Depth 4238 Chlorides 3400 ppm System LCM 2

Blow Description IF: Fishing
IS: Fishing
FF: Fishing
FS: Fishing

Rec	Feet of	%gas	%oil	%water	%mud

Rec Total _____ BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2023 Test \$ 1150.00/- T-On Location 16:30
 (B) First Initial Flow _____ Jars _____ T-Started 17:42
 (C) First Final Flow _____ Safety Joint \$ 250.00/- T-Open _____
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled Fishing for
 (E) Second Initial Flow _____ Hourly Standby 11:24 T-Out Tool 18:30
 (F) Second Final Flow _____ Mileage 70 RT = \$52.50/- Comments Wait on Packer
 (G) Final Shut-In _____ Sampler _____ from - 18:30 - 21:30
 (H) Final Hydrostatic 2270 Straddle _____ Stayed on location
 Shale Packer _____ Ruined Shale Packer whole
 Extra Packer _____ Ruined Packer 320 TIME
 Extra Recorder _____ Extra Copies _____
 Sub Total _____ Total _____
 Day Standby _____ MP/DST Disc't _____
 Accessibility _____
 Sub Total \$127.50/-

Approved By _____ Our Representative Mike Roberts

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63707**

Well Name & No. Voshell #3 Test No. 3 Date 3-29-17
 Company Larson Engineering Inc Elevation 2822 KB 2812 GL
 Address 562 W. State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 13 Twp. 19S Rge. 29W Co. Lane State KS

Interval Tested 4327-4336 Zone Tested Middle Creek
 Anchor Length 9 Drill Pipe Run 4321 Mud Wt. 9.1
 Top Packer Depth 4322 Drill Collars Run 0 Vis 40
 Bottom Packer Depth 4327 Wt. Pipe Run 0 WL 8.0
 Total Depth 4336 Chlorides 3000 ppm System LCM 2

Blow Description IF: Weak Surface Blow
IS: ~~Weak Surface Blow~~ NO Return Blow
FF: ~~Weak Surface Blow~~ died in 15 Min.
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>MUD</u>			<u>100</u>	

Rec Total 2 BHT 116 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2139</u>	<input checked="" type="checkbox"/> Test <u>\$1150.00/-</u>	T-On Location <u>07:30</u>
(B) First Initial Flow <u>13</u>	<input type="checkbox"/> Jars	T-Started <u>08:39</u>
(C) First Final Flow <u>13</u>	<input checked="" type="checkbox"/> Safety Joint <u>751.00/-</u>	T-Open <u>11:18</u>
(D) Initial Shut-In <u>16</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>12:38</u>
(E) Second Initial Flow <u>13</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>14:49</u>
(F) Second Final Flow <u>14</u>	<input checked="" type="checkbox"/> Mileage <u>70 RT = \$52.31/-</u>	Comments
(G) Final Shut-In <u>12</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2142</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 5
 Initial Shut-In 15
 Final Flow 20
 Final Shut-In 40

Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 0
 Total 1277.50
 MP/DST Disc't

Approved By Vern Schrag Our Representative Mike Roberts

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63708**

Well Name & No. Voshell # 3 Test No. 4 Date 3-30-17
 Company Larson Engineering Inc. Elevation 2822 KB 2812 GL
 Address 562 W. State Rd #4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 13 Twp. 1908 Rge. 29W Co. Lane State KS

Interval Tested 4368-4460 Zone Tested Altamont
 Anchor Length 92 Drill Pipe Run 4347 Mud Wt. 9.3
 Top Packer Depth 4363 Drill Collars Run 0 Vis 49
 Bottom Packer Depth 4368 Wt. Pipe Run 0 WL 8.0
 Total Depth 4460 Chlorides 2800 ppm System LCM 2

Blow Description IF: Built to 1/8" Blow
IS: No Return Blow
FF: No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</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	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 117 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic <u>2208</u>	<input checked="" type="checkbox"/> Test <u>\$1150.00/-</u>	T-On Location <u>09:45</u>
(B) First Initial Flow <u>48</u>	<input type="checkbox"/> Jars	T-Started <u>10:58</u>
(C) First Final Flow <u>49</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$75.00/-</u>	T-Open <u>13:20</u>
(D) Initial Shut-In <u>90</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>14:20</u>
(E) Second Initial Flow <u>49</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:40</u>
(F) Second Final Flow <u>50</u>	<input checked="" type="checkbox"/> Mileage <u>20RT = \$52.50/-</u>	Comments
(G) Final Shut-In <u>163</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2198</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1277.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>\$1277.50/-</u>	

Approved By Jessie Achey Our Representative Mike Roberts

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