

DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc.**

88 Inverness Cir.E Unit F104
Englewood CO. 80112

ATTN: Aaron Young

The Sisters #1-15

15-19s-27w Lane,KS

Start Date: 2017.09.12 @ 14:26:15

End Date: 2017.09.12 @ 20:34:30

Job Ticket #: 63847 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.09.18 @ 11:43:11



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Norstar Petroleum Inc.
88 Inverness Cir.E Unit F104
Englewood CO. 80112
ATTN: Aaron Young

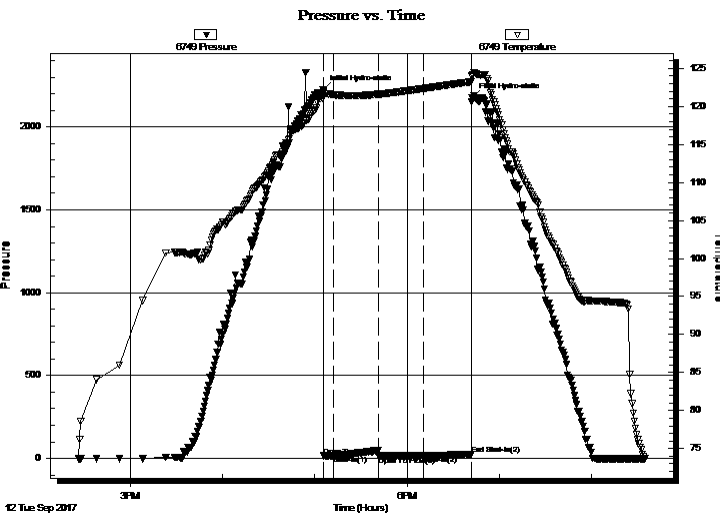
15-19s-27w Lane,KS
The Sisters #1-15
Job Ticket: 63847 **DST#: 1**
Test Start: 2017.09.12 @ 14:26:15

GENERAL INFORMATION:

Formation: **Ft. Scott**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:05:45
Time Test Ended: 20:34:30
Interval: **4480.00 ft (KB) To 4510.00 ft (KB) (TVD)**
Total Depth: 4510.00 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: 2659.00 ft (KB)
2654.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6749 Outside
Press@RunDepth: 15.84 psig @ 4481.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.09.12 End Date: 2017.09.12 Last Calib.: 2017.09.12
Start Time: 14:26:15 End Time: 20:34:30 Time On Btm: 2017.09.12 @ 17:05:30
Time Off Btm: 2017.09.12 @ 18:42:15

TEST COMMENT: IF: Built to weak surface blow and died in 3 min.
IS: No return blow
FF: No blow
FS: No return blow



PRESSURE SUMMARY

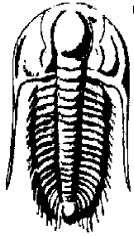
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2226.35	121.95	Initial Hydro-static
1	15.16	121.28	Open To Flow (1)
7	15.96	121.54	Shut-In(1)
36	49.53	121.60	End Shut-In(1)
36	15.71	121.59	Open To Flow (2)
66	15.84	122.35	Shut-In(2)
97	25.01	123.25	End Shut-In(2)
97	2175.49	123.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100% m	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc.

15-19s-27w Lane, KS

88 Inverness Cir. E Unit F104
Englewood CO. 80112

The Sisters #1-15

Job Ticket: 63847

DST#: 1

ATTN: Aaron Young

Test Start: 2017.09.12 @ 14:26:15

Tool Information

Drill Pipe:	Length: 4343.00 ft	Diameter: 3.80 inches	Volume: 60.92 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: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 61.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4480.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 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			4453.00	
Shut In Tool	5.00			4458.00	
Hydraulic tool	5.00			4463.00	
Jars	5.00			4468.00	
Safety Joint	3.00			4471.00	
Packer	5.00			4476.00	28.00 Bottom Of Top Packer
Packer	4.00			4480.00	
Stubb	1.00			4481.00	
Recorder	0.00	8672	Inside	4481.00	
Recorder	0.00	6749	Outside	4481.00	
Perforations	24.00			4505.00	
Bullnose	5.00			4510.00	30.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Inc.

15-19s-27w Lane, KS

88 Inverness Cir. E Unit F104
Englewood CO. 80112

The Sisters #1-15

Job Ticket: 63847

DST#: 1

ATTN: Aaron Young

Test Start: 2017.09.12 @ 14:26:15

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.74 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud 100% m	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

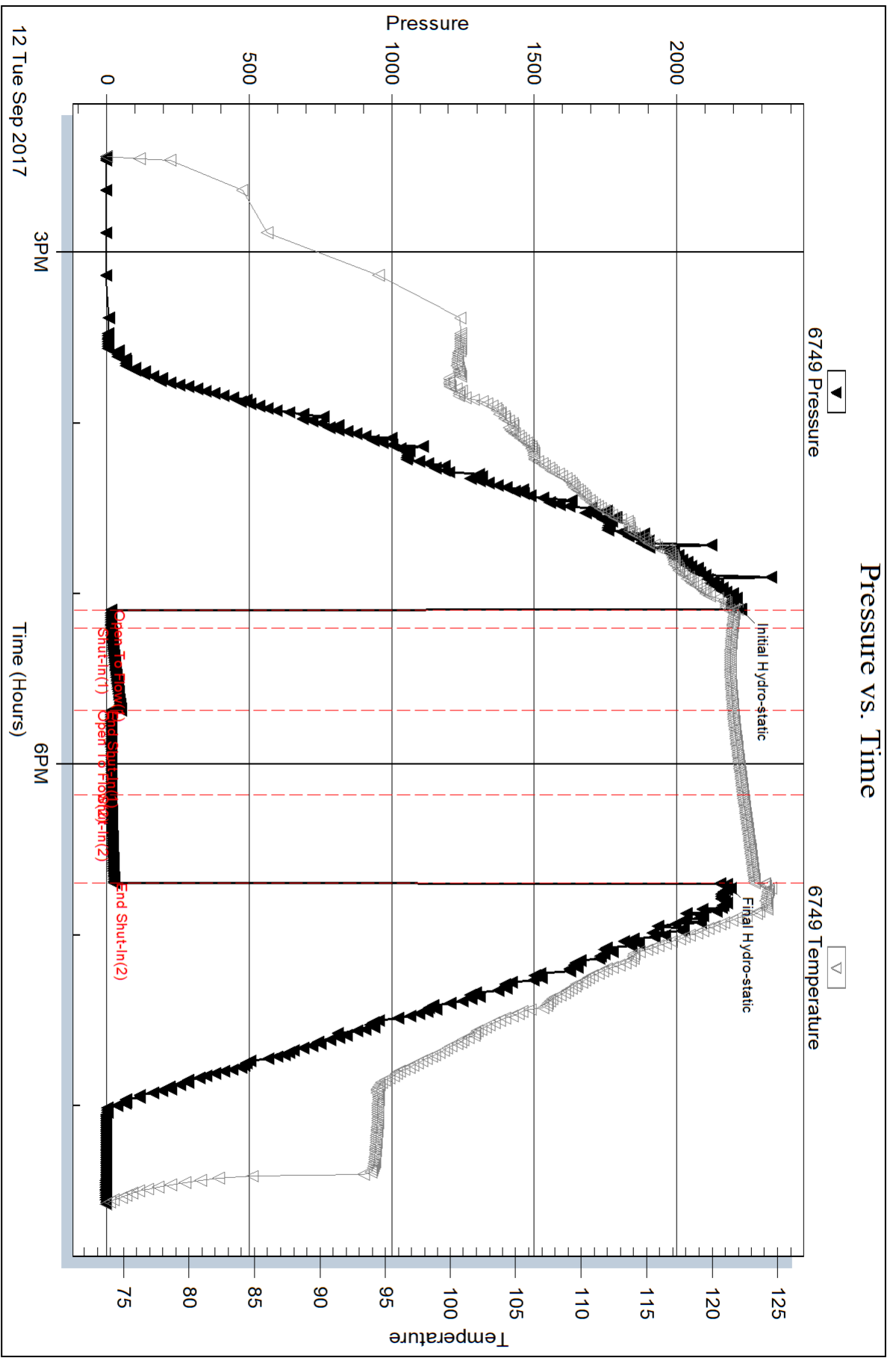
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



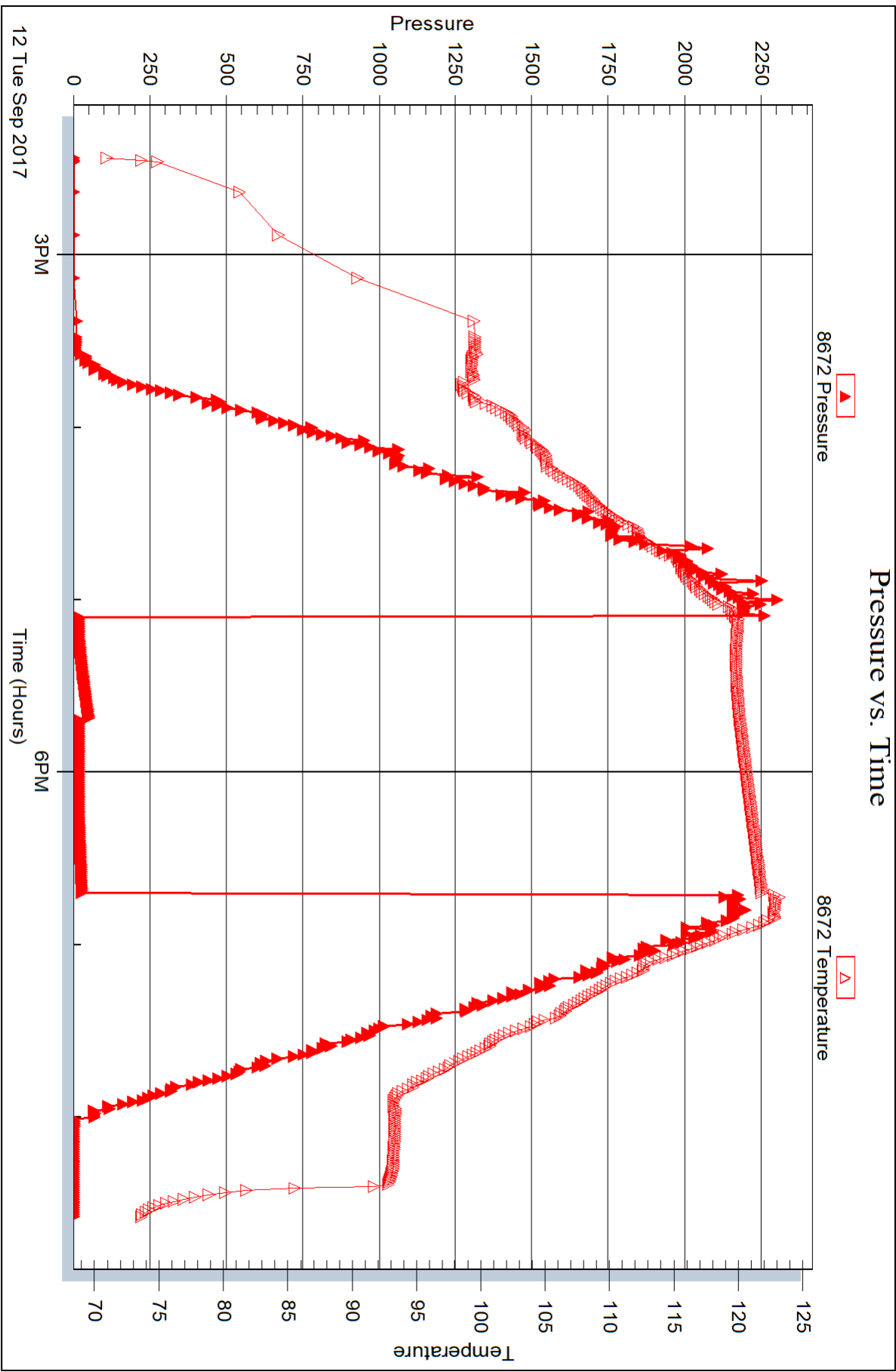
Serial #: 8672

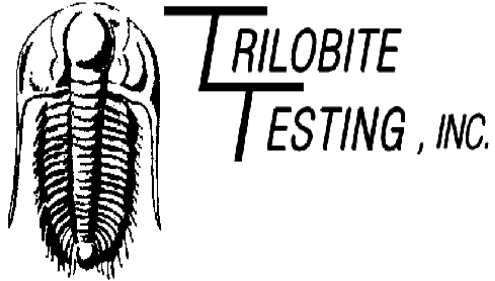
Inside

Norstar Petroleum Inc.

The Sisters #1-15

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc.**

88 Inverness Cir.E Unit F104
Englewood CO. 80112

ATTN: Aaron Young

The Sisters #1-15

15-19s-27w Lane,KS

Start Date: 2017.09.13 @ 20:23:15

End Date: 2017.09.14 @ 02:23:15

Job Ticket #: 63848 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.09.18 @ 11:41:13



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum Inc.
 88 Inverness Cir.E Unit F104
 Englewood CO. 80112
 ATTN: Aaron Young

15-19s-27w Lane,KS
The Sisters #1-15
 Job Ticket: 63848 **DST#: 2**
 Test Start: 2017.09.13 @ 20:23:15

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:33:30
 Time Test Ended: 02:23:15
 Interval: **4534.00 ft (KB) To 4584.00 ft (KB) (TVD)**
 Total Depth: 4584.00 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: 2659.00 ft (KB)
 2654.00 ft (CF)
 KB to GR/CF: 5.00 ft

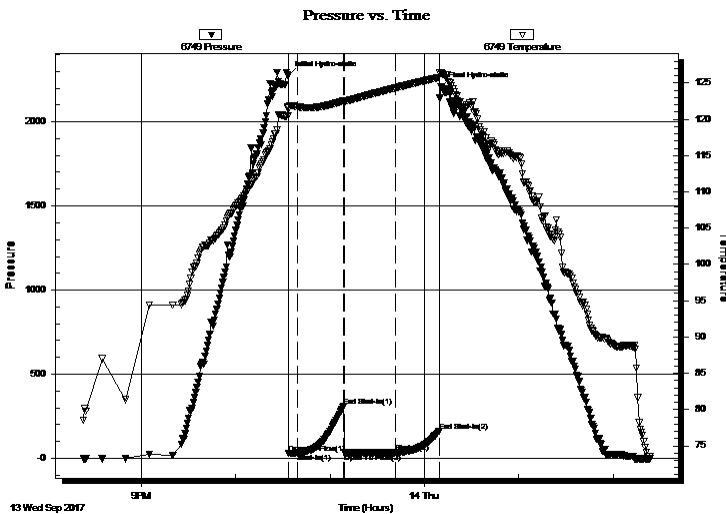
Serial #: 6749

Outside

Press@RunDepth: 33.35 psig @ 4579.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.09.13 End Date: 2017.09.14 Last Calib.: 2017.09.14
 Start Time: 20:23:15 End Time: 02:23:15 Time On Btm: 2017.09.13 @ 22:33:15
 Time Off Btm: 2017.09.14 @ 00:10:30

TEST COMMENT: IF:Weak surface blow
 IS:No return blow
 FF:No blow
 FS:No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2273.73	121.77	Initial Hydro-static
1	31.17	120.52	Open To Flow (1)
6	32.09	121.75	Shut-In(1)
36	307.83	122.51	End Shut-In(1)
36	32.08	122.45	Open To Flow (2)
69	33.35	124.33	Shut-In(2)
96	162.34	125.78	End Shut-In(2)
98	2205.56	126.38	Final Hydro-static

Recovery

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

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc.

15-19s-27w Lane, KS

88 Inverness Cir. E Unit F104
Englewood CO. 80112

The Sisters #1-15

Job Ticket: 63848

DST#: 2

ATTN: Aaron Young

Test Start: 2017.09.13 @ 20:23:15

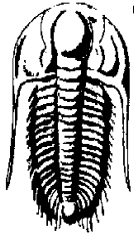
Tool Information

Drill Pipe:	Length: 4407.00 ft	Diameter: 3.80 inches	Volume: 61.82 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: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 62.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4534.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 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			4507.00	
Shut In Tool	5.00			4512.00	
Hydraulic tool	5.00			4517.00	
Jars	5.00			4522.00	
Safety Joint	3.00			4525.00	
Packer	5.00			4530.00	28.00 Bottom Of Top Packer
Packer	4.00			4534.00	
Stubb	1.00			4535.00	
Perforations	1.00			4536.00	
Change Over Sub	1.00			4537.00	
Drill Pipe	31.00			4568.00	
Change Over Sub	1.00			4569.00	
Perforations	10.00			4579.00	
Recorder	0.00	8672	Inside	4579.00	
Recorder	0.00	6749	Outside	4579.00	
Bullnose	5.00			4584.00	50.00 Bottom Packers & Anchor
Total Tool Length:	78.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Inc.

15-19s-27w Lane, KS

88 Inverness Cir. E Unit F104
Englewood CO. 80112

The Sisters #1-15

Job Ticket: 63848

DST#: 2

ATTN: Aaron Young

Test Start: 2017.09.13 @ 20:23:15

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.55 in³

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
5.00	mud 100% m	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:

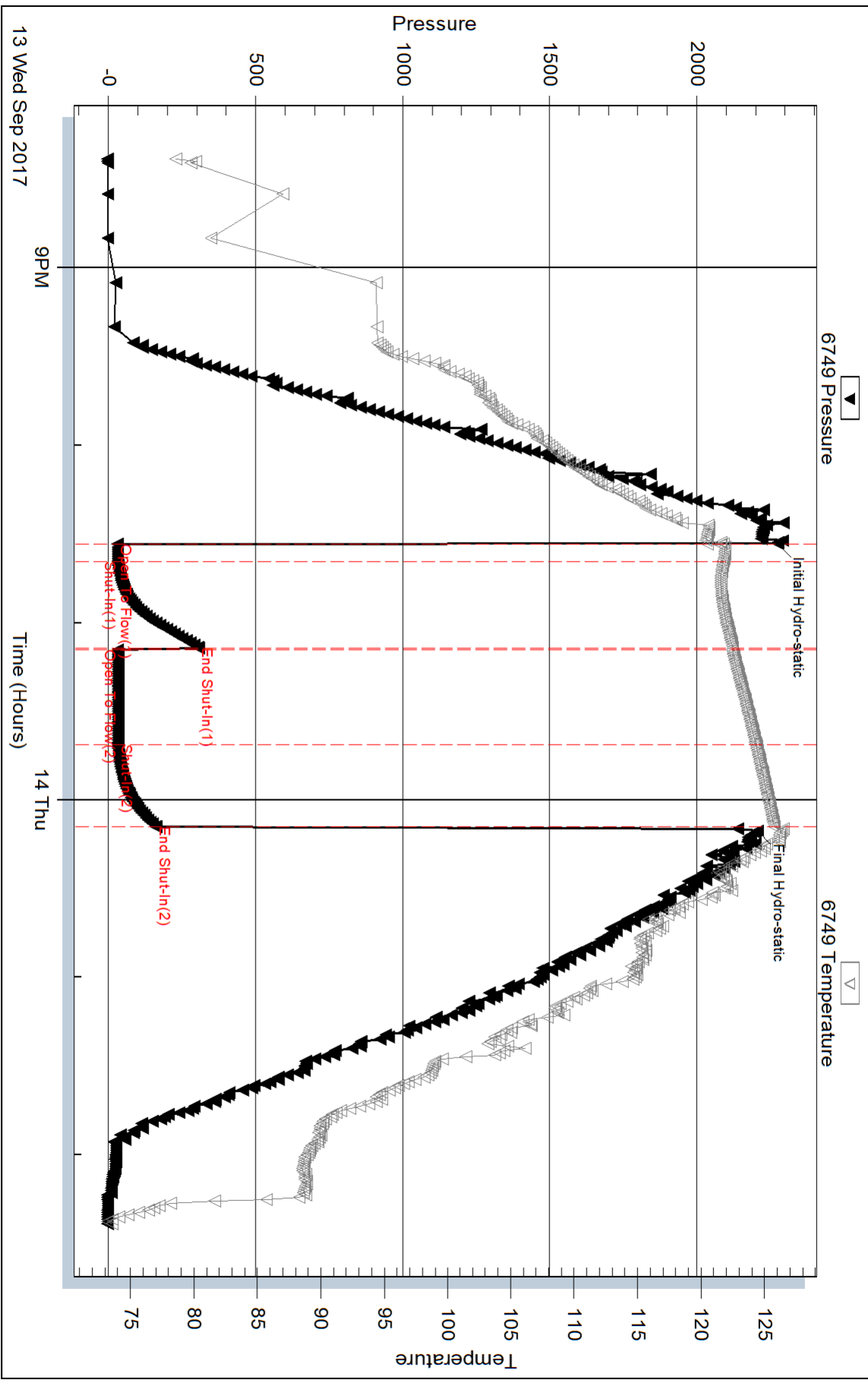
Serial #: 6749

Outside Norstar Petroleum Inc.

The Sisters #1-15

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 63848

Printed: 2017.09.18 @ 11:41:14

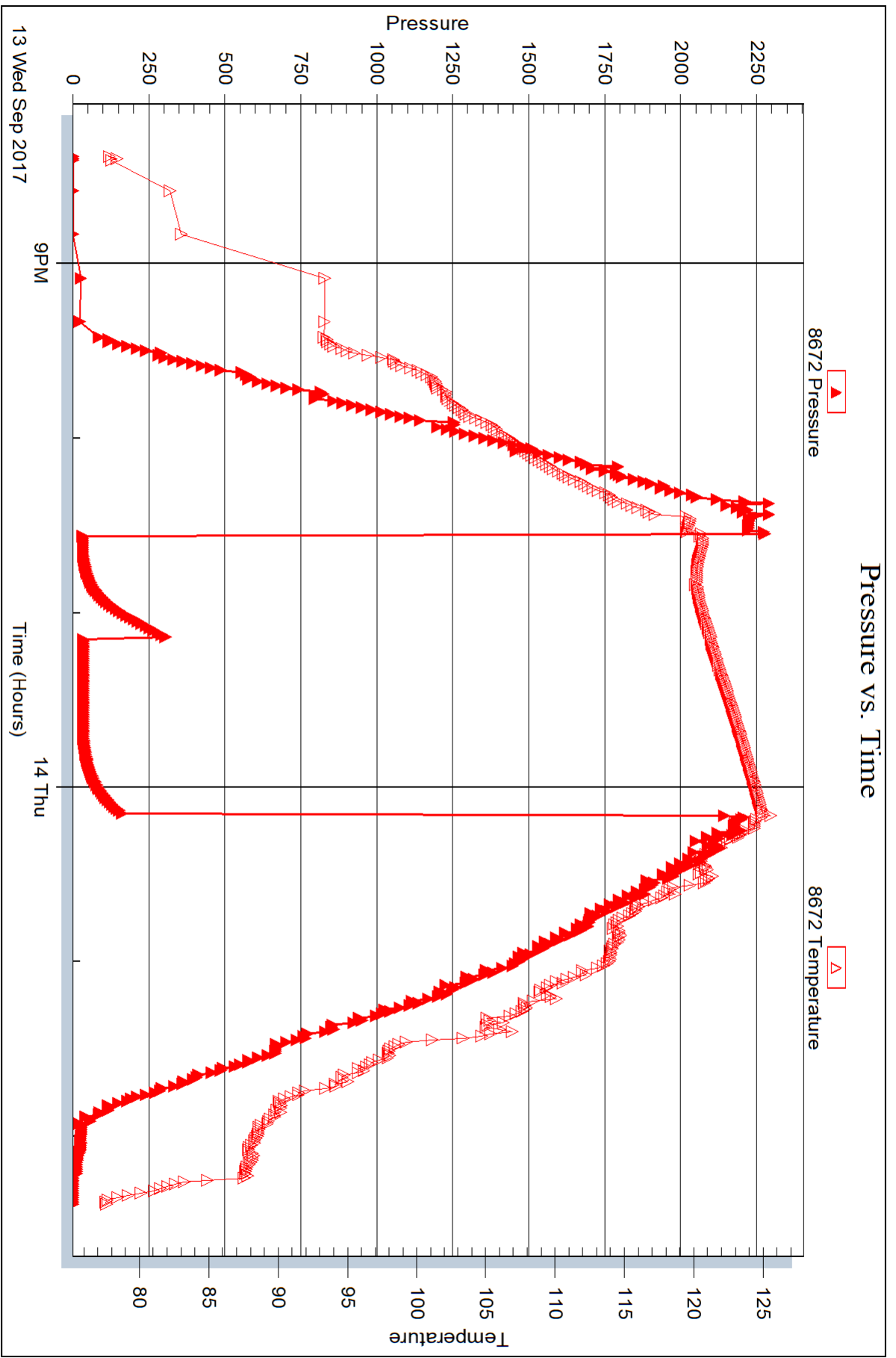
Serial #: 8672

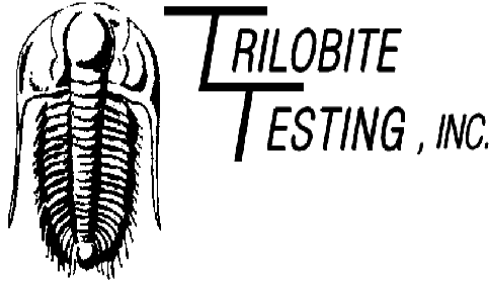
Inside

Norstar Petroleum Inc.

The Sisters #1-15

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc.**

88 Inverness Cir.E Unit F104
Englewood CO. 80112

ATTN: Aaron Young

The Sisters #1-15

15-19s-27w Lane,KS

Start Date: 2017.09.15 @ 11:05:15

End Date: 2017.09.15 @ 16:56:30

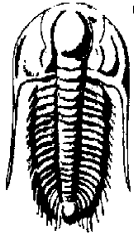
Job Ticket #: 63849 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.09.18 @ 11:40:07



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum Inc.
 88 Inverness Cir.E Unit F104
 Englewood CO. 80112
 ATTN: Aaron Young

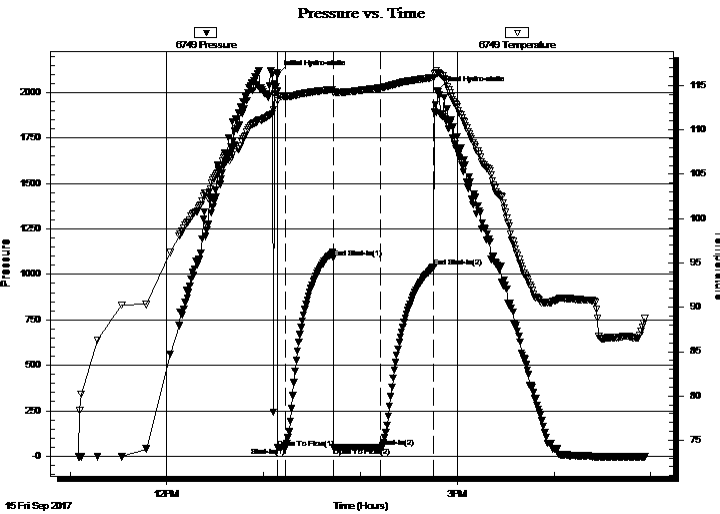
15-19s-27w Lane,KS
The Sisters #1-15
 Job Ticket: 63849 **DST#: 3**
 Test Start: 2017.09.15 @ 11:05:15

GENERAL INFORMATION:

Formation: **LKC J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:08:45
 Time Test Ended: 16:56:30
 Interval: **4147.00 ft (KB) To 4169.00 ft (KB) (TVD)**
 Total Depth: 4630.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2659.00 ft (KB)
 2654.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6749 Outside
 Press@RunDepth: 48.52 psig @ 4150.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.09.15 End Date: 2017.09.15 Last Calib.: 2017.09.15
 Start Time: 11:05:15 End Time: 16:56:30 Time On Btm: 2017.09.15 @ 13:08:30
 Time Off Btm: 2017.09.15 @ 14:47:45

TEST COMMENT: IF: Built to weak surface blow
 IS: No return blow
 FF: No blow
 FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2095.92	114.38	Initial Hydro-static
1	47.05	113.34	Open To Flow (1)
5	46.65	113.72	Shut-In(1)
35	1089.68	114.54	End Shut-In(1)
35	48.32	114.22	Open To Flow (2)
64	48.52	114.74	Shut-In(2)
97	1042.12	115.91	End Shut-In(2)
100	2011.20	116.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	mud 100% m	0.34

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc.

15-19s-27w Lane, KS

88 Inverness Cir. E Unit F104
Englewood CO. 80112

The Sisters #1-15

Job Ticket: 63849

DST#: 3

ATTN: Aaron Young

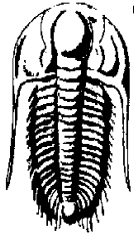
Test Start: 2017.09.15 @ 11:05:15

Tool Information

Drill Pipe:	Length: 4081.00 ft	Diameter: 3.80 inches	Volume: 57.25 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: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 57.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	83.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4147.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	4166.00 ft			
Interval between Packers:	19.00 ft			
Tool Length:	513.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Rig ran 7 stands of pipe in tailpipe instead of 6 Tested the incorrect interval.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4120.00	
Shut In Tool	5.00			4125.00	
Hydraulic tool	5.00			4130.00	
Jars	5.00			4135.00	
Safety Joint	3.00			4138.00	
Packer	5.00			4143.00	28.00 Bottom Of Top Packer
Packer	4.00			4147.00	
Stubb	1.00			4148.00	
Perforations	2.00			4150.00	
Recorder	0.00	8672	Inside	4150.00	
Recorder	0.00	6749	Outside	4150.00	
Perforations	10.00			4160.00	
Blank Off Sub	1.00			4161.00	
Packer - Shale	5.00			4166.00	19.00 Tool Interval
Packer	5.00			4171.00	
Stubb	1.00			4172.00	
Perforations	15.00			4187.00	
Change Over Sub	1.00			4188.00	
Drill Pipe	438.00			4626.00	
Recorder	0.00	8647	Below	4626.00	
Change Over Sub	1.00			4627.00	
Bullnose	5.00			4632.00	466.00 Bottom Packers & Anchor
Total Tool Length:	513.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Inc.

15-19s-27w Lane, KS

88 Inverness Cir. E Unit F104
Englewood CO. 80112

The Sisters #1-15

Job Ticket: 63849

DST#: 3

ATTN: Aaron Young

Test Start: 2017.09.15 @ 11:05:15

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
70.00	mud 100% m	0.344

Total Length: 70.00 ft Total Volume: 0.344 bbl

Num Fluid Samples: 0

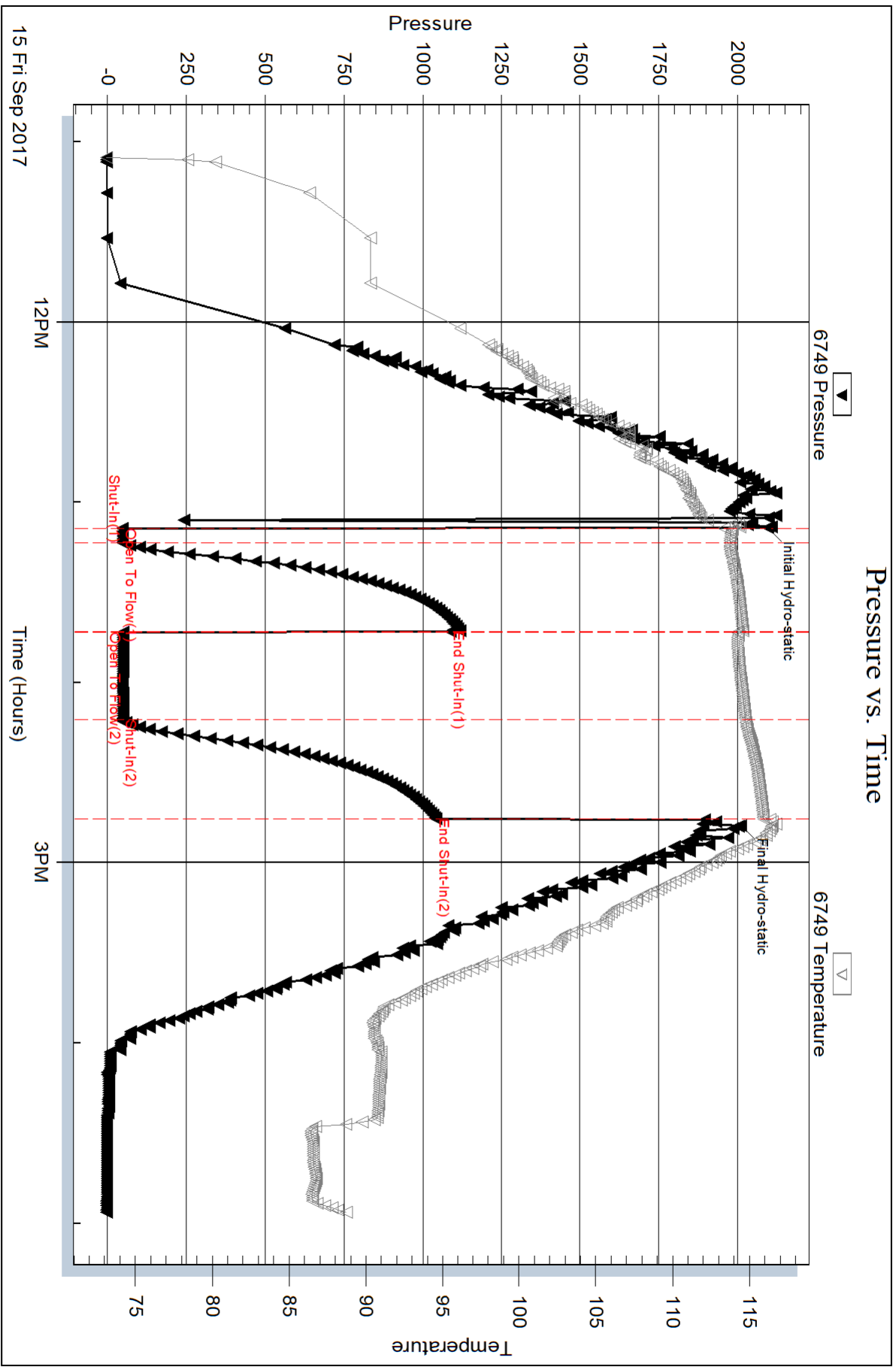
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



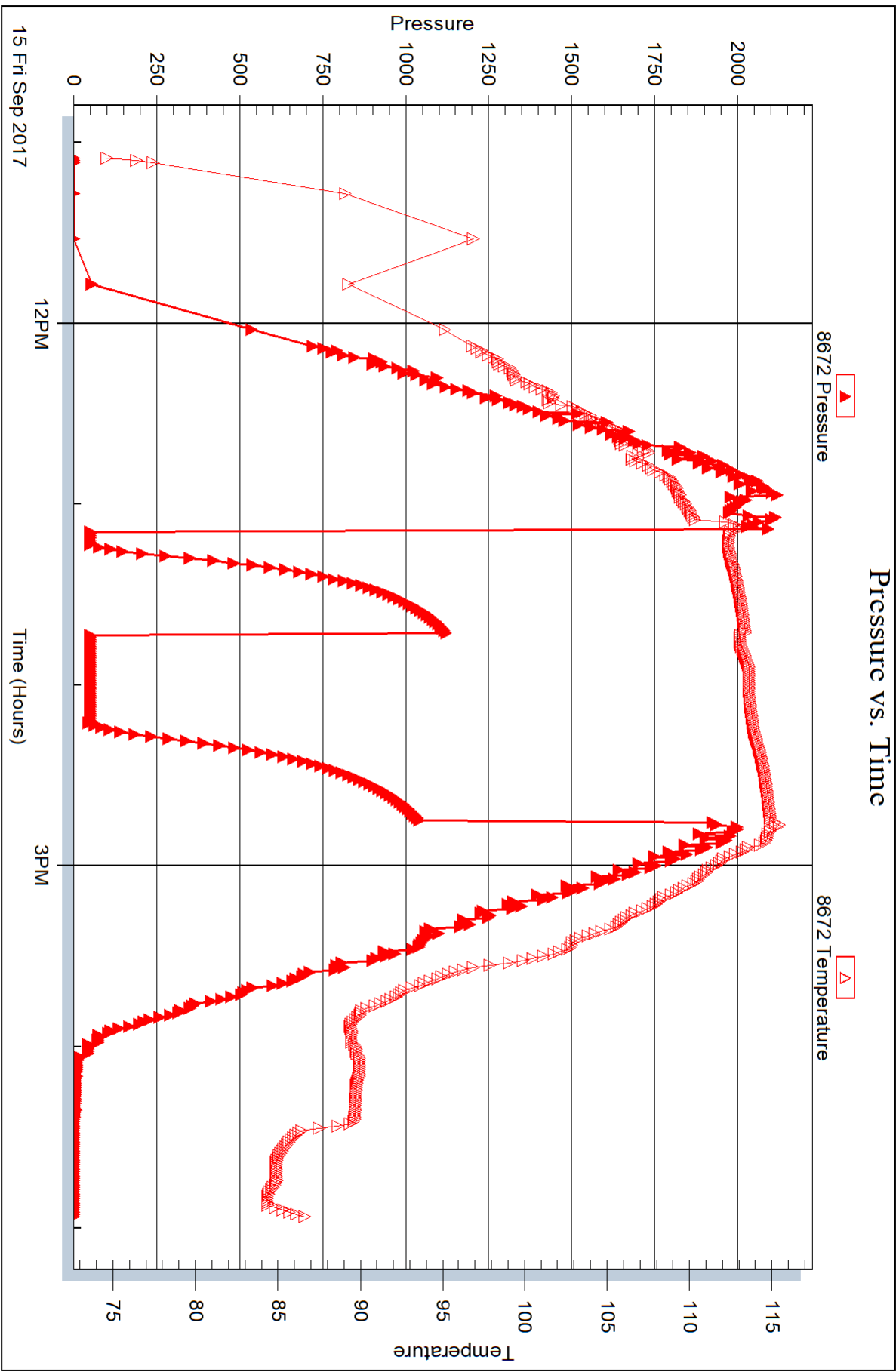
Serial #: 8672

Inside

Norstar Petroleum Inc.

The Sisters #1-15

DST Test Number: 3

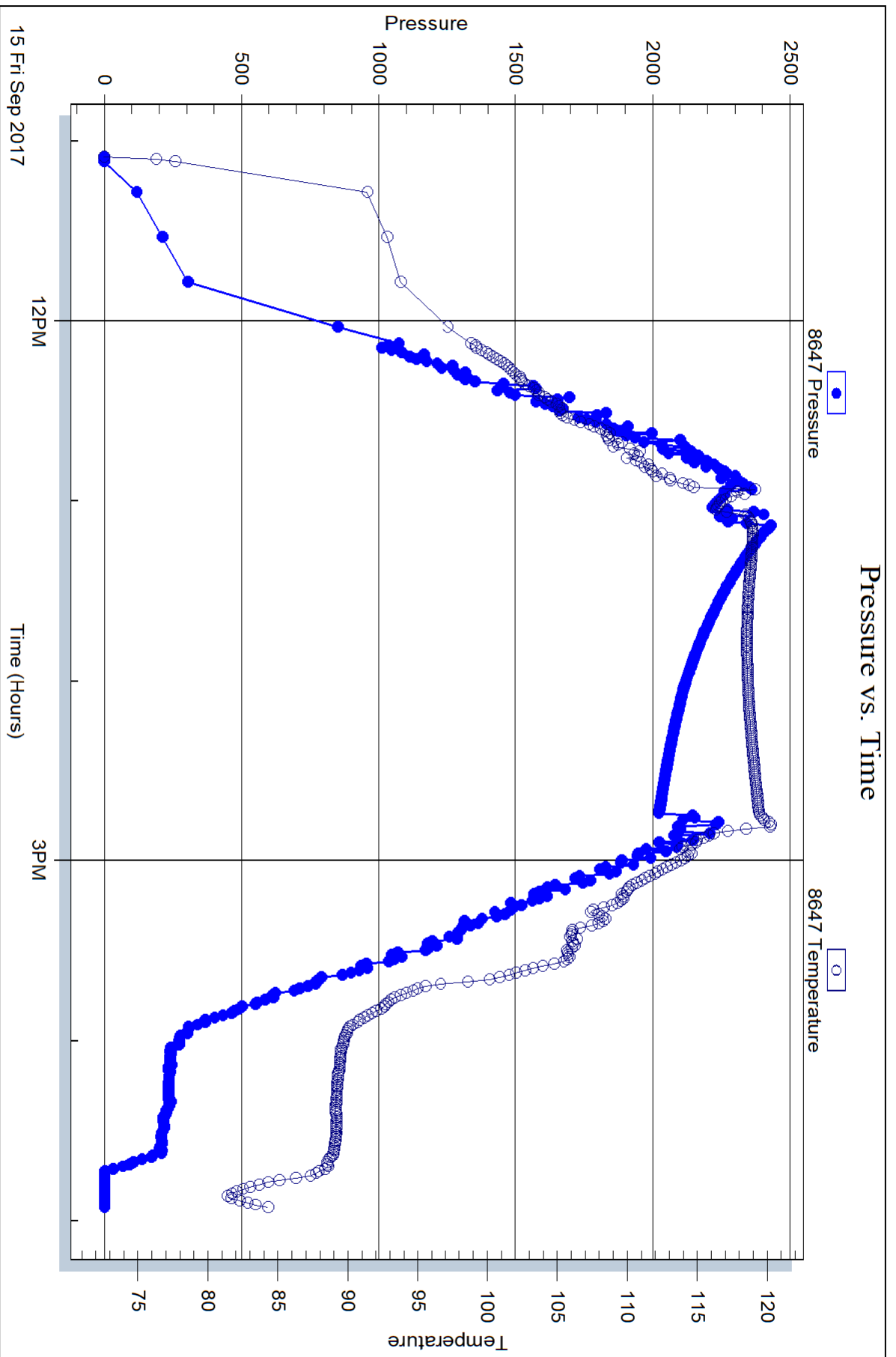


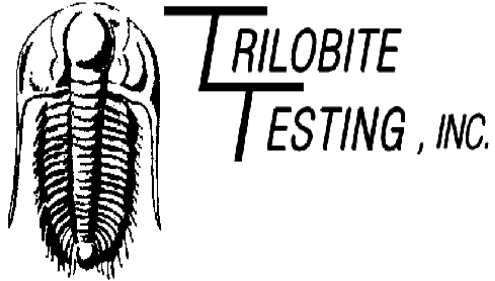
Serial #: 8647

Below (Strat) Petroluem Inc.

The Sisters #1-15

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Norstar Petroleum Inc.**

88 Inverness Cir.E Unit F104
Englewood CO. 80112

ATTN: Aaron Young

The Sisters #1-15

15-19s-27w Lane,KS

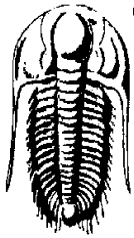
Start Date: 2017.09.15 @ 17:20:15

End Date: 2017.09.16 @ 00:27:45

Job Ticket #: 63850 DST #: 4

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

Printed: 2017.09.18 @ 11:40:39



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Norstar Petroleum Inc.
 88 Inverness Cir.E Unit F104
 Englewood CO. 80112
 ATTN: Aaron Young

15-19s-27w Lane, KS
The Sisters #1-15
 Job Ticket: 63850 **DST#: 4**
 Test Start: 2017.09.15 @ 17:20:15

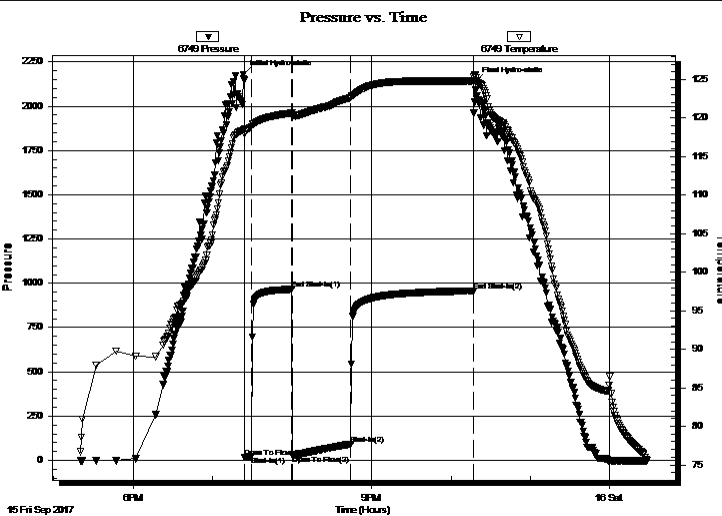
GENERAL INFORMATION:

Formation: **LKC J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:24:15
 Time Test Ended: 00:27:45
 Interval: **4210.00 ft (KB) To 4232.00 ft (KB) (TVD)**
 Total Depth: 4630.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2659.00 ft (KB)
 2654.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6749 Outside

Press@RunDepth: 91.76 psig @ 4213.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.09.15 End Date: 2017.09.16 Last Calib.: 2017.09.16
 Start Time: 17:20:15 End Time: 00:27:45 Time On Btm: 2017.09.15 @ 19:23:00
 Time Off Btm: 2017.09.15 @ 22:18:15

TEST COMMENT: IF: Built to 2" blow
 IS: No return blow
 FF: Built to 4" blow
 FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2179.84	118.50	Initial Hydro-static
2	18.32	118.00	Open To Flow (1)
7	24.37	118.87	Shut-In(1)
37	966.14	120.66	End Shut-In(1)
37	27.75	120.28	Open To Flow (2)
82	91.76	122.65	Shut-In(2)
174	957.26	124.79	End Shut-In(2)
176	2140.89	125.51	Final Hydro-static

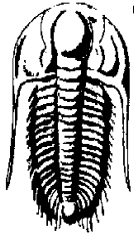
Recovery

Length (ft)	Description	Volume (bbl)
124.00	mcw 10% m 90% w	0.64
62.00	w cm 30% w 70% m	0.87

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Norstar Petroleum Inc.

15-19s-27w Lane, KS

88 Inverness Cir. E Unit F104
Englewood CO. 80112

The Sisters #1-15

Job Ticket: 63850

DST#: 4

ATTN: Aaron Young

Test Start: 2017.09.15 @ 17:20:15

Tool Information

Drill Pipe:	Length: 4090.00 ft	Diameter: 3.80 inches	Volume: 57.37 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: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 57.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4210.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	4229.00 ft			
Interval between Packers:	19.00 ft			
Tool Length:	450.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Change Over Sub	1.00			4183.00	
Shut In Tool	5.00			4188.00	
Hydraulic tool	5.00			4193.00	
Jars	5.00			4198.00	
Safety Joint	3.00			4201.00	
Packer	5.00			4206.00	28.00 Bottom Of Top Packer
Packer	4.00			4210.00	
Stubb	1.00			4211.00	
Perforations	2.00			4213.00	
Recorder	0.00	8672	Inside	4213.00	
Recorder	0.00	6749	Outside	4213.00	
Perforations	10.00			4223.00	
Blank Off Sub	1.00			4224.00	
Packer - Shale	5.00			4229.00	19.00 Tool Interval
Packer	5.00			4234.00	
Stubb	1.00			4235.00	
Perforations	15.00			4250.00	
Change Over Sub	1.00			4251.00	
Drill Pipe	375.00			4626.00	
Recorder	0.00	8647	Below	4626.00	
Change Over Sub	1.00			4627.00	
Bullnose	5.00			4632.00	403.00 Bottom Packers & Anchor

Total Tool Length: 450.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Norstar Petroleum Inc.

15-19s-27w Lane, KS

88 Inverness Cir. E Unit F104
Englewood CO. 80112

The Sisters #1-15

Job Ticket: 63850

DST#: 4

ATTN: Aaron Young

Test Start: 2017.09.15 @ 17:20:15

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:

17000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	mcw 10%m 90%w	0.637
62.00	wcm 30%w 70%m	0.870

Total Length: 186.00 ft Total Volume: 1.507 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

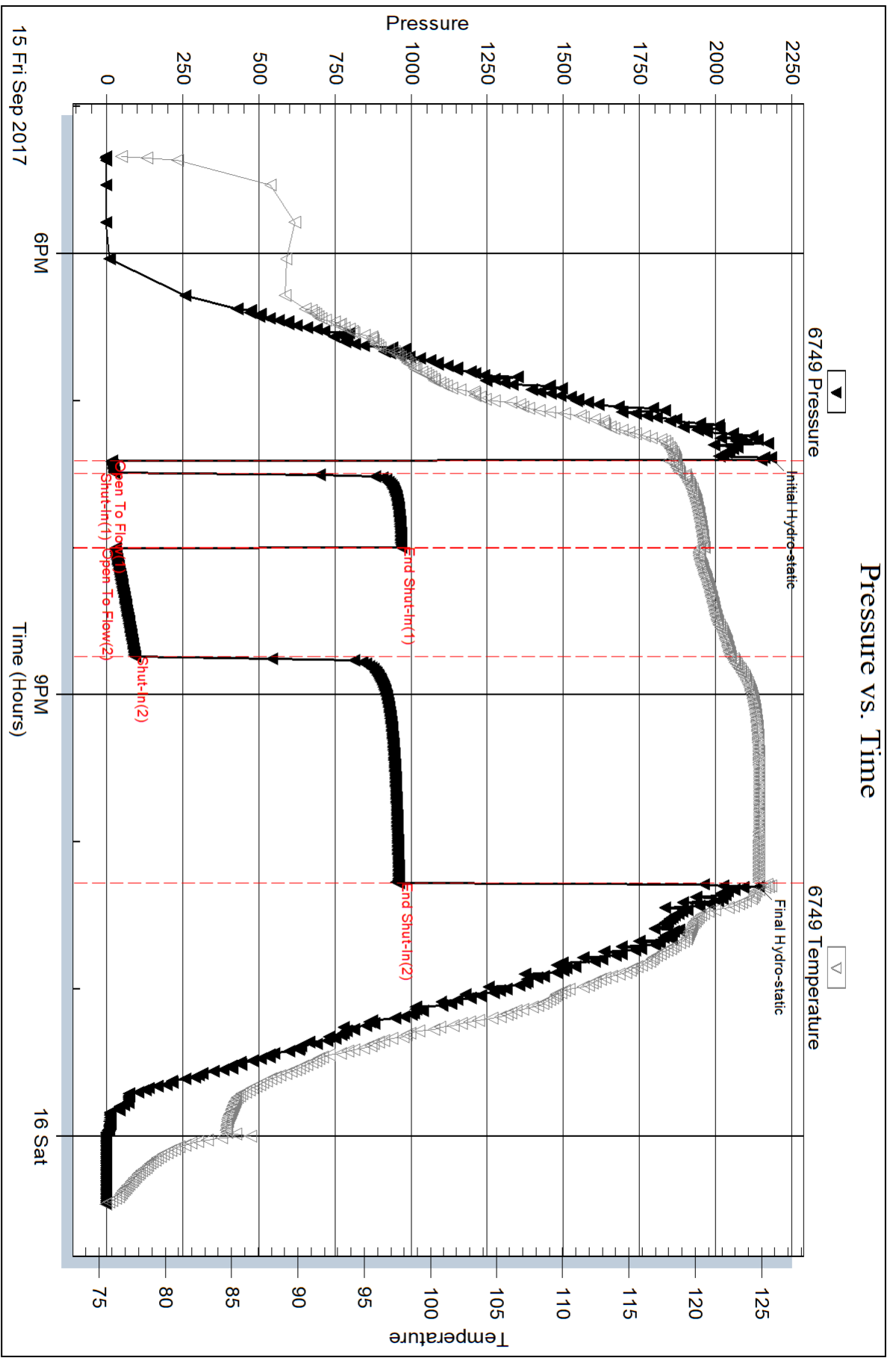
Recovery Comments: RW= .445@72.5= 17,000 ppm

Serial #: 6749

Outside Norstar Petroleum Inc.

The Sisters #1-15

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 63850

Printed: 2017.09.18 @ 11:40:40

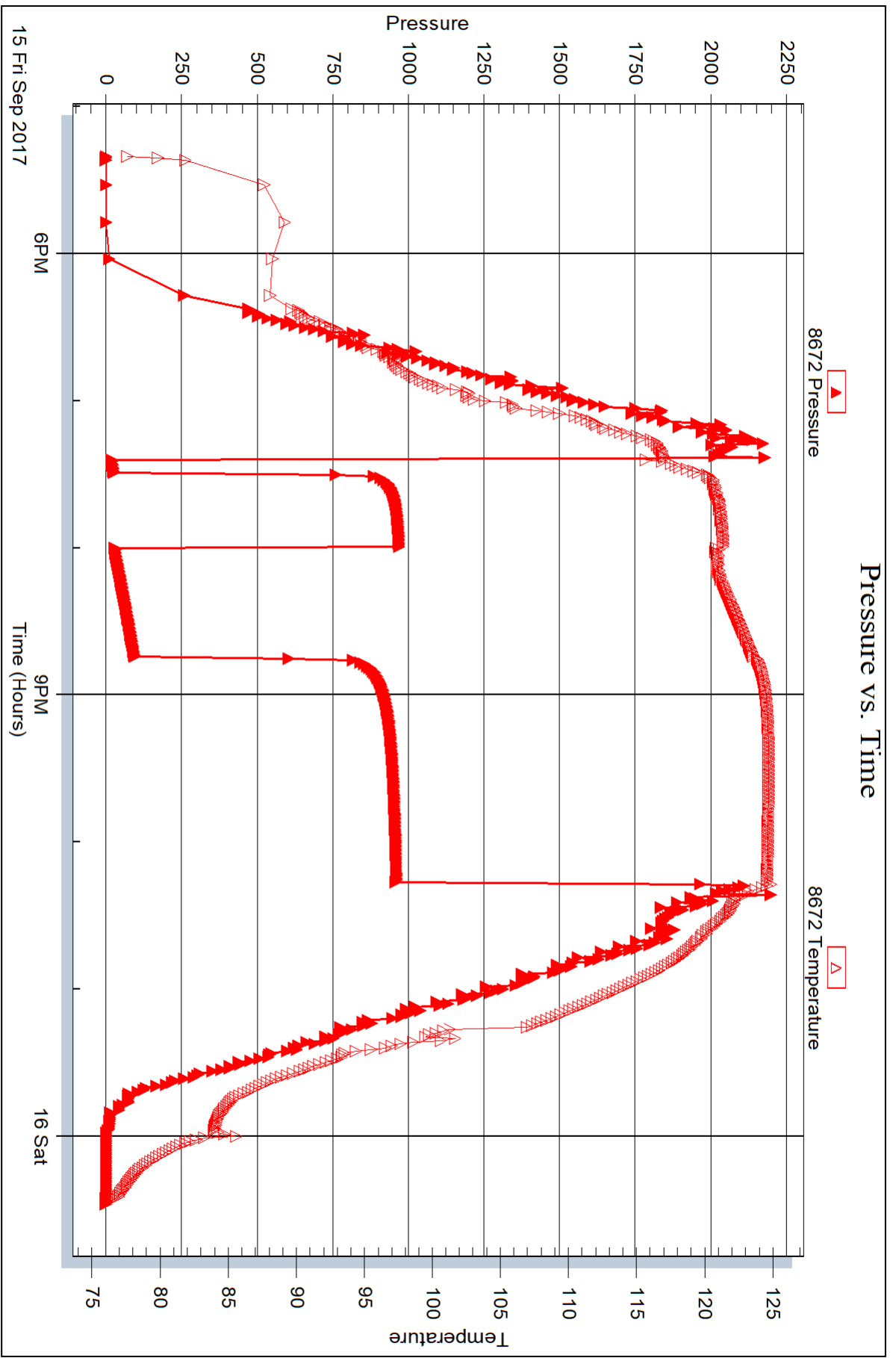
Serial #: 8672

Inside

Norstar Petroleum Inc.

The Sisters #1-15

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 63850

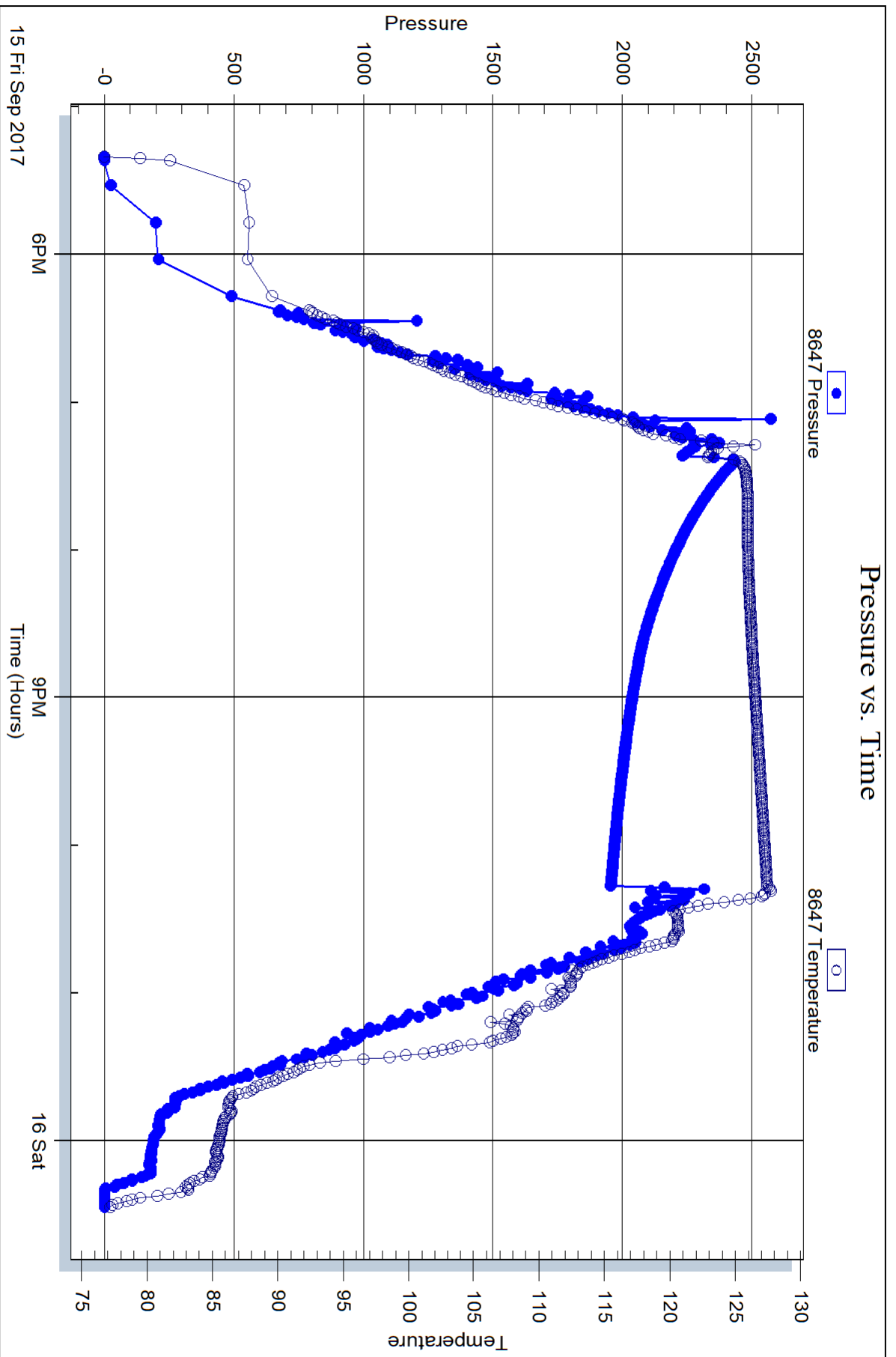
Printed: 2017.09.18 @ 11:40:40

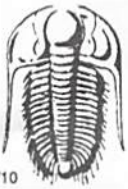
Serial #: 8647

Below (Strat) Petrfluem Inc.

The Sisters #1-15

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63847** 23953

Well Name & No. Sisters 1-15 Test No. 1 Date 9-12-17
 Company Norstar Petroleum Inc Elevation 2659 KB 2654 GL
 Address 88 Taverness Circ. E Unit K104 Englewood Co 80112
 Co. Rep / Geo. Aaron Young Rig Pickrell 10
 Location: Sec. 15 Twp. 19 Rge. 27 Co. Lane State KS

Interval Tested 4480-4510 Zone Tested FT. SCOTT
 Anchor Length 30 Drill Pipe Run 4343 Mud Wt. 9.3
 Top Packer Depth 4475 Drill Collars Run 121 Vis 0.55
 Bottom Packer Depth 4480 Wt. Pipe Run 6 WL 8.8
 Total Depth 4510 Chlorides 3800 ppm System LCM 2
 Blow Description IF: Built to weak surface + Died in 3 Min.
IS: No Return Blow
FF: No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</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 2 BHT 124 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2226</u>	<input checked="" type="checkbox"/> Test <u>\$1150.00/-</u>	T-On Location <u>12:40</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars <u>\$250.00/-</u>	T-Started <u>14:26</u>
(C) First Final Flow <u>15</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$75.00/-</u>	T-Open <u>17:07</u>
(D) Initial Shut-In <u>49</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>18:42</u>
(E) Second Initial Flow <u>15</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>20:39</u>
(F) Second Final Flow <u>15</u>	<input checked="" type="checkbox"/> Mileage <u>90RT \$67.50/-</u>	Comments _____
(G) Final Shut-In <u>25</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>2175</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>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1542.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>\$1542.50/-</u>	

Approved By [Signature] 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. **63848**

Well Name & No. Sisters 1-15 Test No. 2 Date 9-13-17
 Company Norstar Petroleum Inc Elevation 2659 KB 2654 GL
 Address 88 Inverness Cir. E Unit FLOY Englewood Co 80112
 Co. Rep / Geo. Aaron Young Rig Pickrell
 Location: Sec. 15 Twp. 19 Rge. 27 Co. Lane State KS

Interval Tested 4534-4584 Zone Tested Cherokee
 Anchor Length 50 Drill Pipe Run 4407 Mud Wt. 9.2
 Top Packer Depth 4529 Drill Collars Run 121 Vis 55
 Bottom Packer Depth 4534 Wt. Pipe Run Ø WL 9.6
 Total Depth 4584 Chlorides 4000 ppm System LCM 2
 Blow Description IF: Weak Surface Blow
IS: No Return Blow
FF: No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
5	MUD			100	

Rec Total 5 BHT 126
 (A) Initial Hydrostatic 2273
 (B) First Initial Flow 31
 (C) First Final Flow 32
 (D) Initial Shut-In 307
 (E) Second Initial Flow 32
 (F) Second Final Flow 33
 (G) Final Shut-In 162
 (H) Final Hydrostatic 2205
 Initial Open 5
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Gravity — API RW — @ — ° F Chlorides — ppm
 Test \$1150.00/- T-On Location 19:00
 Jars \$250.00/- T-Started 20:23
 Safety Joint \$75.00/- T-Open 22:35
 Circ Sub NC T-Pulled 00:10
 Hourly Standby — T-Out 02:23
 Mileage 90RT = \$67.50/- Comments loaded tools after test
 Sampler —
 Straddle —
 Shale Packer —
 Extra Packer —
 Extra Recorder —
 Day Standby —
 Accessibility —
 Sub Total \$1542.50/-

Approved By Aaron Young Our Representative Mike Polak

Trilobite Testing Inc. shall not be liable for damaged or 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. **63849**

Well Name & No. Sisters 1-15 Test No. 3 Date 9-15-17
 Company Norstar Petroleum Inc. Elevation 2659 KB 2654 GL
 Address 88 Inverness Cir E Unit F104 Englewood Co 80112
 Co. Rep / Geo. Aaron Young Rig Pickrell 10
 Location: Sec. 15 Twp. 19 Rge. 27 Co. Lane State KS

Interval Tested 4210-4232 4630 Zone Tested Lansing J
 Anchor Length 22 Drill Pipe Run ~~28~~ 4081 Mud Wt. 9.2
 Top Packer Depth 4205 Drill Collars Run 0 Vis 58
 Bottom Packer Depth 4210 Wt. Pipe Run 0 WL ~~7.8~~ 8.8
 Total Depth 4630 Chlorides 4200 ppm System LCM 2

Blow Description TF: Weak Surface Blow
IS: NO Return Blow
FF: NO Blow
FS: NO Return Blow

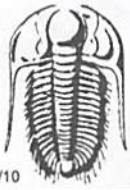
Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>MUD</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 70 BHT 116 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2095</u>	<input checked="" type="checkbox"/> Test <u>\$1150.00/-</u>	T-On Location <u>08:20</u>
(B) First Initial Flow <u>47</u>	<input checked="" type="checkbox"/> Jars <u>\$250.00/-</u>	T-Started <u>11:05</u>
(C) First Final Flow <u>46</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$75.00/-</u>	T-Open <u>13:08</u>
(D) Initial Shut-In <u>1089</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>14:43</u>
(E) Second Initial Flow <u>48</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>16:56</u>
(F) Second Final Flow <u>48</u>	<input checked="" type="checkbox"/> Mileage <u>90RT = \$67.50/-</u>	Comments <u>wrong Tail pipe</u>
(G) Final Shut-In <u>1042</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2011</u>	<input checked="" type="checkbox"/> Straddle <u>\$600.00/-</u>	<input type="checkbox"/> Ruined Shale Packer _____
	<input checked="" type="checkbox"/> Shale Packer <u>\$250.00/-</u>	<input type="checkbox"/> Ruined Packer _____
	<input checked="" type="checkbox"/> Extra Packer <u>\$200.00/-</u>	<input type="checkbox"/> Extra Copies _____
Initial Open <u>5</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
Final Shut-In <u>30</u>	Sub Total <u>\$2592.50/-</u>	

Approved By _____ 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. **63850**

Well Name & No. Sisters 1-15 Test No. 4 Date 9-15-17
 Company Norstar Petroleum Inc Elevation 2659 KB 2654 GL
 Address 88 Inverness Cir E Unit F104 Englewood Co 80112
 Co. Rep / Geo. Aaron Young Rig Pickrell 10
 Location: Sec. 15 Twp. 19 Rge. 27 Co. Lane State KS

Interval Tested ~~4210-4232~~ 4210-4232 ⁴⁶³⁰ Zone Tested Lansing J
 Anchor Length 22 Drill Pipe Run ~~4091~~ 4091 Mud Wt. 9.2
 Top Packer Depth 4205 Drill Collars Run 0 Vis 58
 Bottom Packer Depth 4210 Wt. Pipe Run 0 WL 8.8
 Total Depth 4630 Chlorides 4200 ppm System LCM 2
 Blow Description IF: Built to 2" Blow
IS: No Return Blow
FF: Built to 4" Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
<u>102</u>	<u>WCM</u>		<u>30</u>	<u>70</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 186 BHT 125 Gravity — API RW .445 @ 72.5° F Chlorides 17,000 ppm
 (A) Initial Hydrostatic 2179 Test 1150 T-On Location Stayed
 (B) First Initial Flow 18 Jars 250 T-Started ~~19:15~~ 17:20
 (C) First Final Flow 24 Safety Joint 75 T-Open 19:25
 (D) Initial Shut-In 966 Circ Sub NC T-Pulled 20:15
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 00:27
 (F) Second Final Flow 91 Mileage _____ 67.50 Comments _____
 (G) Final Shut-In 957 Sampler _____
 (H) Final Hydrostatic 2140 Straddle 600 Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer 200 Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 2592.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 2592.50

Approved By [Signature] 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.