

DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co Inc**

PO Box 1019
Hays KS 67601

ATTN: Al Downing ,Marc Dow

Schmidt Family #1-6

6-15s-18w Ellis,KS

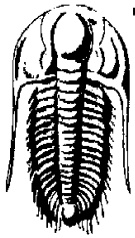
Start Date: 2018.06.18 @ 23:35:34

End Date: 2018.06.19 @ 04:56:13

Job Ticket #: 64227 DST #: 1

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

Printed: 2018.06.19 @ 10:01:52



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co Inc

6-15s-18w Ellis,KS

PO Box 1019
Hays KS 67601

Schmidt Family #1-6

Job Ticket: 64227

DST#: 1

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.06.18 @ 23:35:34

GENERAL INFORMATION:

Formation: **LKC D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:07:44

Time Test Ended: 04:56:13

Test Type: Conventional Straddle (Initial)

Tester: Ray Schw ager

Unit No: 77

Interval: 3366.00 ft (KB) To 3390.00 ft (KB) (TVD)

Total Depth: 3728.00 ft (KB) (TVD)

Hole Diameter: 7.88 inchesHole Condition: Poor

Reference Elevations: 2036.00 ft (KB)

2029.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8360 Inside

Press@RunDepth: 22.61 psig @ 3367.00 ft (KB)

Start Date: 2018.06.18

End Date:

2018.06.19

Start Time: 23:35:34

End Time:

04:56:13

Capacity: 8000.00 psig

Last Calib.: 2018.06.19

Time On Btm: 2018.06.19 @ 01:06:59

Time Off Btm: 2018.06.19 @ 03:13:44

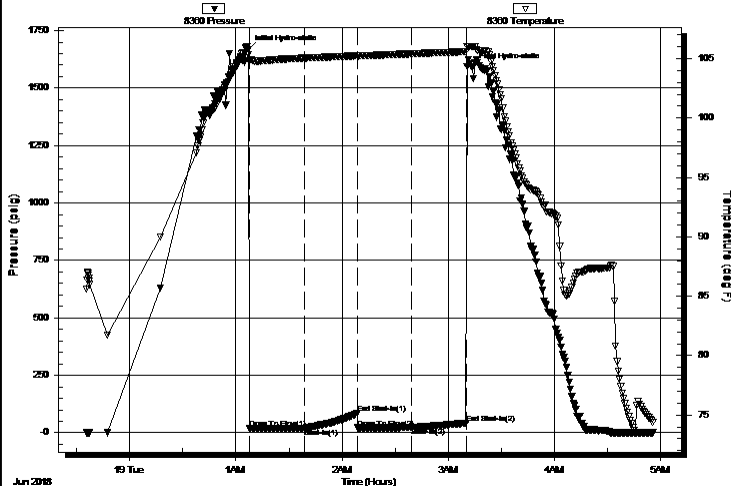
TEST COMMENT: 30-IFP-surface blow died in 15 min

30-ISIP-no blow

30-FFP-no blow

30-FSIP-no blow

Pressure vs. Time



PRESSURE SUMMARY

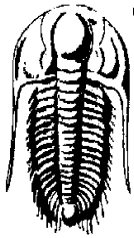
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1666.29	105.33	Initial Hydro-static
1	19.31	104.74	Open To Flow (1)
32	20.52	105.04	Shut-In(1)
62	83.98	105.23	End Shut-In(1)
62	21.57	105.20	Open To Flow (2)
93	22.61	105.40	Shut-In(2)
124	42.21	105.58	End Shut-In(2)
127	1588.67	106.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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Hole Diameter: 7.88 inchesHole Condition: Poor

Reference Elevations: 2036.00 ft (KB)

2029.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8373 Below (Straddle)

Press@RunDepth: psig @ 3411.00 ft (KB)

Start Date: 2018.06.18

End Date:

2018.06.19

Start Time: 23:35:06

End Time:

04:53:15

Capacity: 8000.00 psig

Last Calib.: 2018.06.19

Time On Btm:

Time Off Btm:

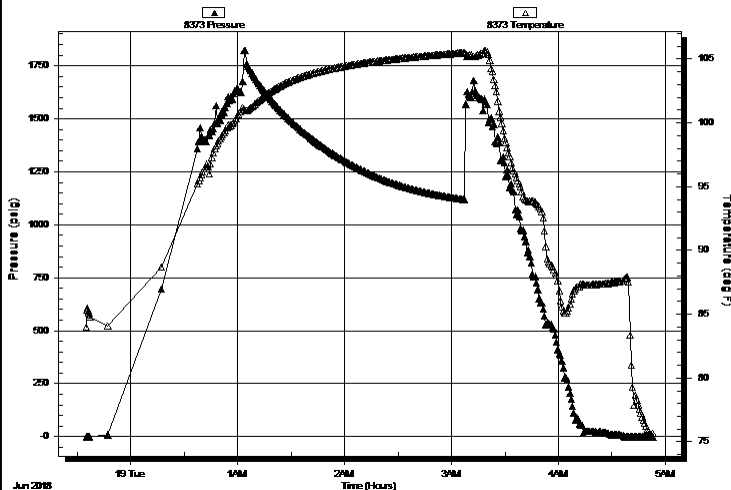
TEST COMMENT: 30-IFP-surface blow died in 15 min

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Pressure vs. Time



PRESSURE SUMMARY

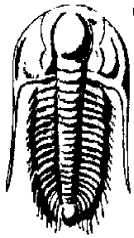
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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6-15s-18w Ellis,KS

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Hays KS 67601

Schmidt Family #1-6

Job Ticket: 64227

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Hole Diameter: 7.88 inchesHole Condition: Poor

Reference Elevations: 2036.00 ft (KB)

2029.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8673 Outside

Press@RunDepth: psig @ 3367.00 ft (KB)

Start Date: 2018.06.18

End Date:

2018.06.19

Start Time: 23:35:35

End Time:

04:56:14

Capacity: 8000.00 psig

Last Calib.:

2018.06.19

Time On Btm:

Time Off Btm:

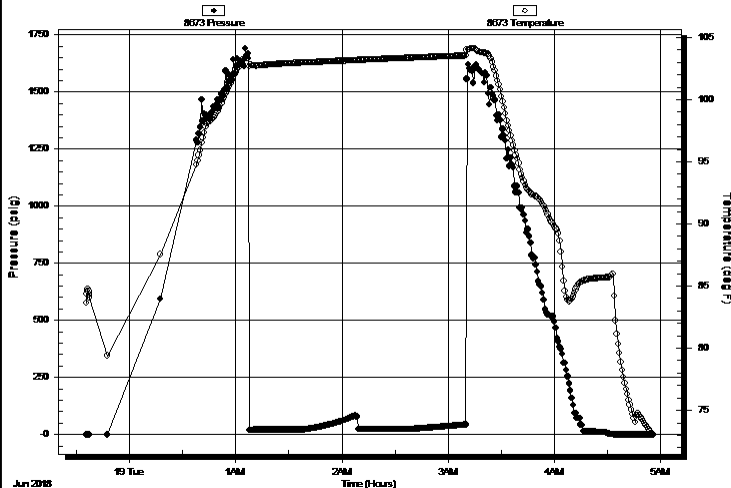
TEST COMMENT: 30-IFP-surface blow died in 15 min

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30-FSIP-no blow

Pressure vs. Time



PRESSURE SUMMARY

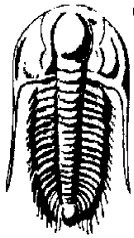
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning Nelson Oil Co Inc

6-15s-18w Ellis,KS

PO Box 1019
Hays KS 67601

Schmidt Family #1-6

Job Ticket: 64227

DST#: 1

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.06.18 @ 23:35:34

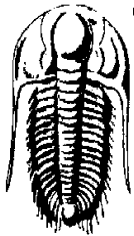
Tool Information

Drill Pipe:	Length:	3330.00 ft	Diameter:	3.80 inches	Volume:	46.71 bbl	Tool Weight:	2200.00 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:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	65000.00 lb
					Total Volume:	46.86 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight: Initial	56000.00 lb
Depth to Top Packer:		3366.00 ft					Final	57000.00 lb
Depth to Bottom Packer:		3390.00 ft						
Interval betw een Packers:		24.00 ft						
Tool Length:		387.00 ft						
Number of Packers:		3	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

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

Change Over Sub	1.00			3346.00		
Shut In Tool	5.00			3351.00		
Hydraulic tool	5.00			3356.00		
Packer	5.00			3361.00	21.00	Bottom Of Top Packer
Packer	5.00			3366.00		
Stubb	1.00			3367.00		
Recorder	0.00	8360	Inside	3367.00		
Recorder	0.00	8673	Outside	3367.00		
Perforations	19.00			3386.00		
Blank Off Sub	1.00			3387.00		
Blank Spacing	3.00			3390.00	24.00	Tool Interval
Packer	5.00			3395.00		
Stubb	1.00			3396.00		
Perforations	15.00			3411.00		
Recorder	0.00	8373	Below	3411.00		
Blank Spacing	318.00			3729.00		
Bullnose	3.00			3732.00	342.00	Bottom Packers & Anchor
Total Tool Length:	387.00					



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FLUID SUMMARY

Dow ning Nelson Oil Co Inc

6-15s-18w Ellis,KS

PO Box 1019
Hays KS 67601

Schmidt Family #1-6

Job Ticket: 64227

DST#: 1

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.06.18 @ 23:35:34

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 7.96 in³

Resistivity: ohm.m

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud	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:

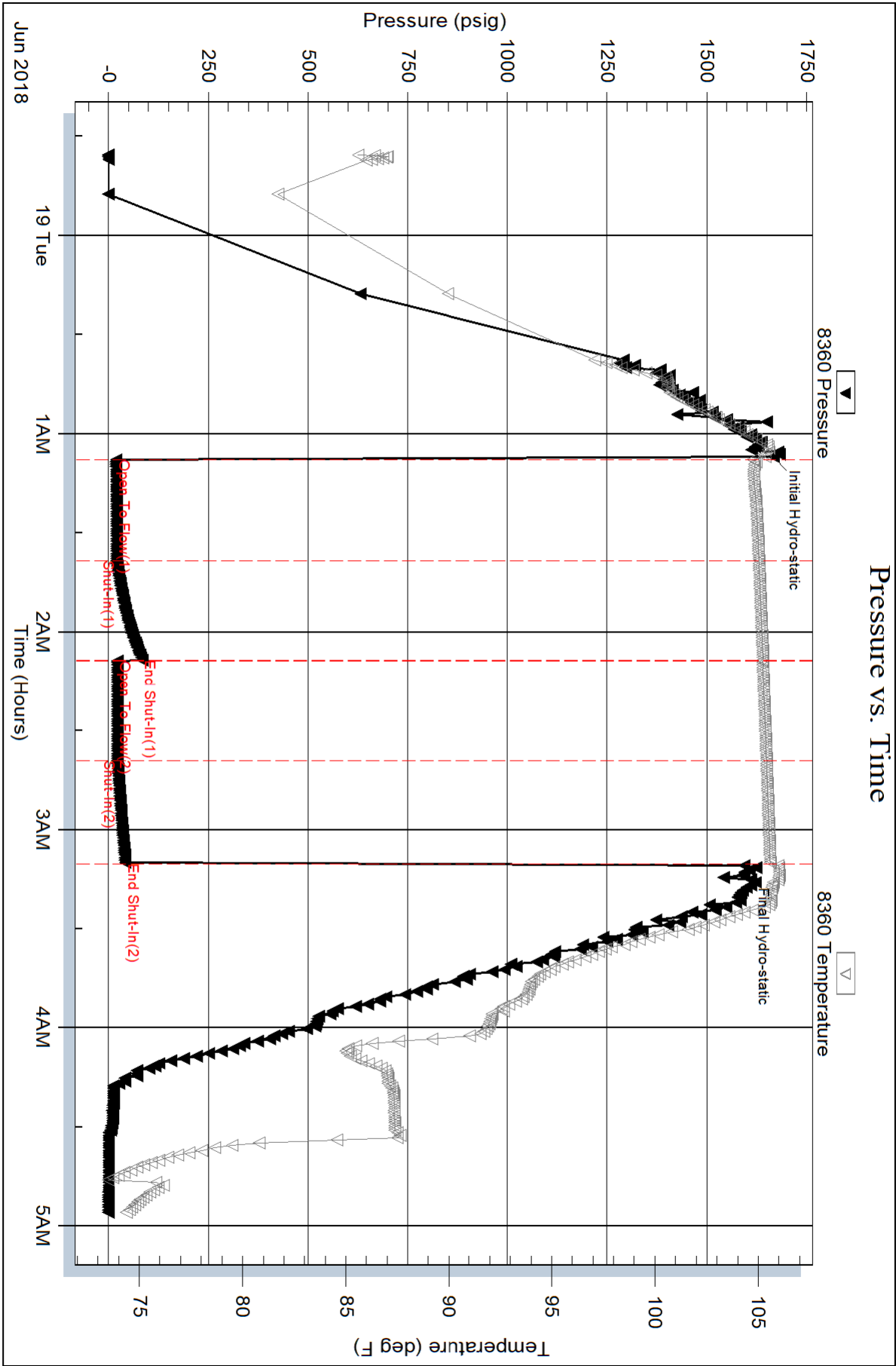
Serial #: 8360

Inside

Dow n ing Nelson Oil Co Inc

Schmidt Family #1-6

DST Test Number: 1

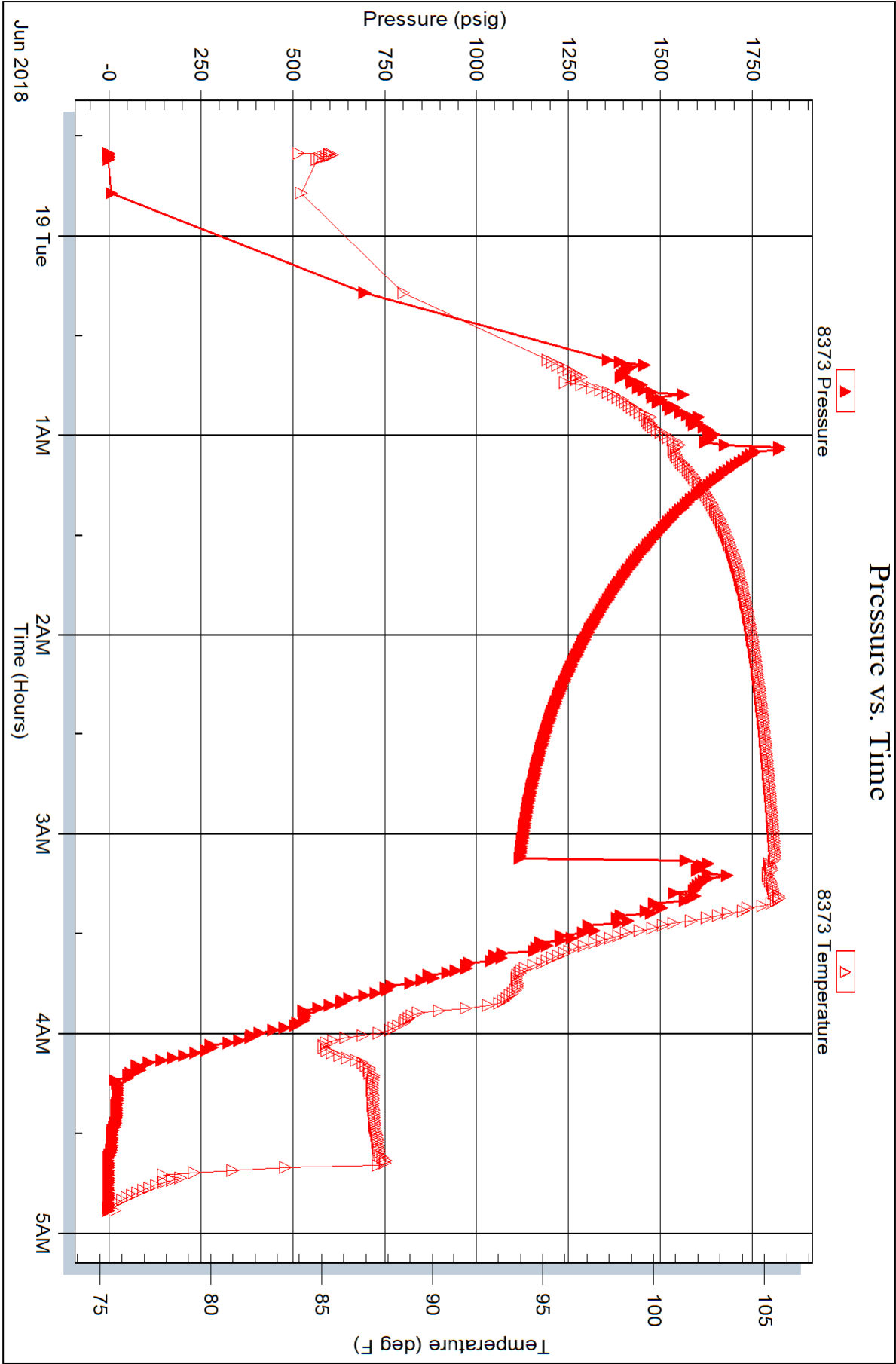


Serial #: 8373

Below (Stratton)ng Nelson Oil Co Inc

Schmidt Family #1-6

DST Test Number: 1



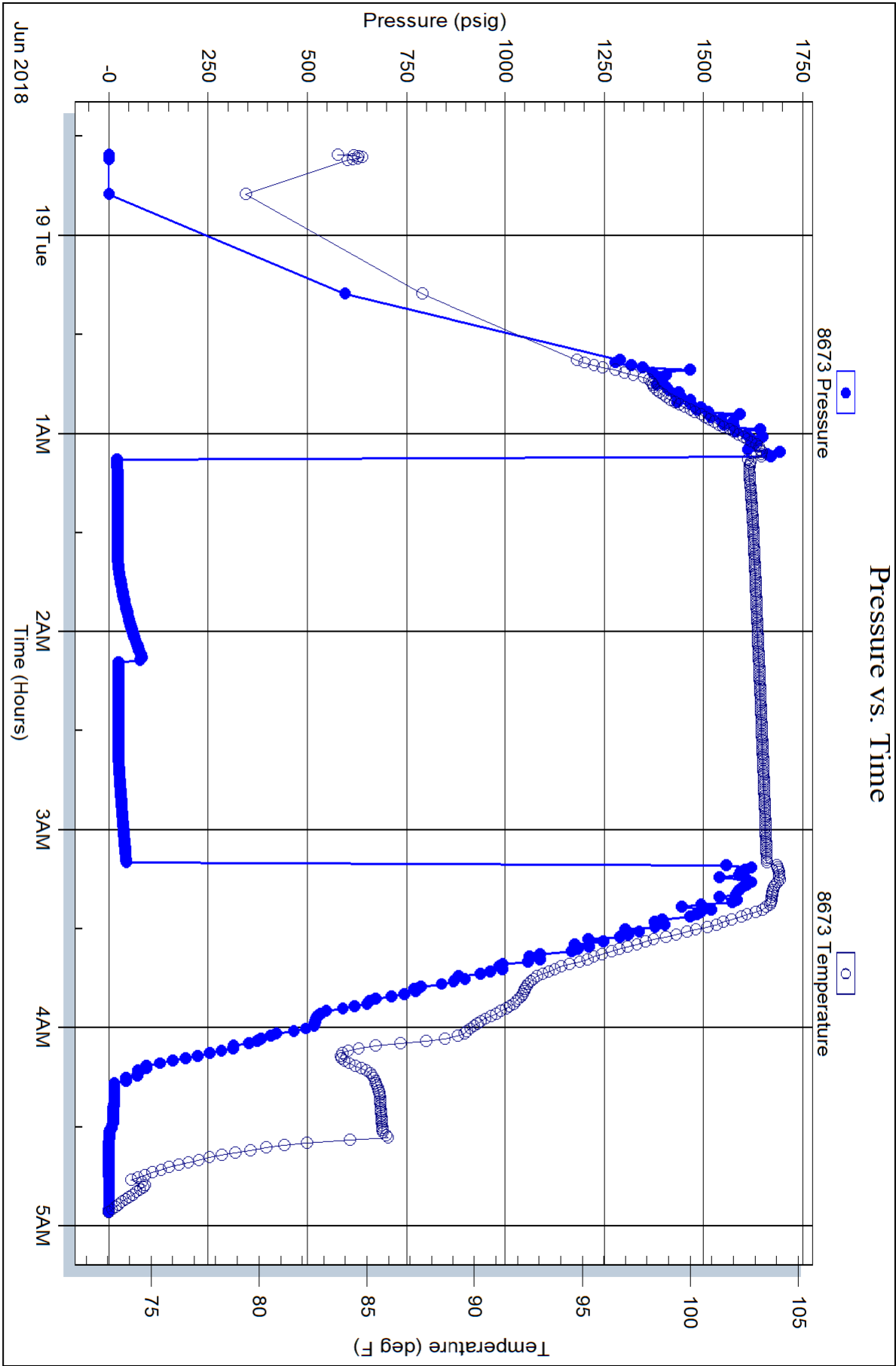
Serial #: 8673

Outside

Dow n ing Nelson Oil Co Inc

Schmidt Family #1-6

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64227

Well Name & No. Schmidt Family #1-6 Test No. 1 Date 6-18-18
 Company Downing-Nelson Oil Co. Inc. Elevation 2036 KB 2029 GL
 Address PO Box 1019 Hays, KS 67601
 Co. Rep / Geo. MARC Downing Rig Discovery rig 4
 Location: Sec. 6 Twp 15 Rge. 18 Co. ELLIS State KS

Interval Tested 3366-3390 Zone Tested LKC D
 Anchor Length 24 Drill Pipe Run 3330 Mud Wt. 9
 Top Packer Depth 3366-3361 Drill Collars Run 30 Vis 54
 Bottom Packer Depth 3366-3390 Wt. Pipe Run — WL 8
 Total Depth 3728 Chlorides 2500 ppm System LCM 1 1/2 #
 Blow Description TFP-SURFACE Blow, died in 15 min
ISIP- NO Blow
FFP- NO Blow
FSIP- NO Blow

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

Rec Total 2 BHT _____ Gravity — API RW — @ — °F Chlorides — ppm
 (A) Initial Hydrostatic 1666 ☒ Test 1050 T-On Location 2300
 (B) First Initial Flow 19 ☐ Jars _____ T-Started 2335
 (C) First Final Flow 20 ☐ Safety Joint _____ T-Open 0110
 (D) Initial Shut-In 83 ☐ Circ Sub _____ T-Pulled 0310
 (E) Second Initial Flow 21 ☐ Hourly Standby _____ T-Out 0
 (F) Second Final Flow 22 ☒ Mileage 22 RT 22 Comments _____
 (G) Final Shut-In 42 ☐ Sampler _____
 (H) Final Hydrostatic 1588 ☒ Straddle 600

Initial Open _____ ☐ Ruined Shale Packer _____
 Initial Shut-In _____ ☐ Ruined Packer _____
 Final Flow _____ ☐ Extra Copies _____
 Final Shut-In _____ ☐ Extra Recorder _____
 Sub Total 1672 Total 1672 MP/DST Disc't _____
 Sub Total 1672

Approved By _____ Our Representative RAY SCHWAGER Thank you
 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.