



DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Marc Downing/Ron Nel

S35-13S-22W Trego,KS

Fabrizious-Younger 'B' #1-35

Start Date: 2017.01.29 @ 13:39:00

End Date: 2017.01.29 @ 21:11:45

Job Ticket #: 64672 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.01.30 @ 08:38:42



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

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ATTN: Marc Dow ning/Ron Nel

Job Ticket: 64672

DST#: 1

Test Start: 2017.01.29 @ 13:39:00

GENERAL INFORMATION:

Formation: **Conglomerate Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:26:15

Time Test Ended: 21:11:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J. Staab

Unit No: 84

Interval: 4107.00 ft (KB) To 4177.00 ft (KB) (TVD)

Reference Elevations: 2341.00 ft (KB)

Total Depth: 4177.00 ft (KB) (TVD)

2333.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8934 Outside

Press@RunDepth: 706.30 psig @ 4108.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.01.29

End Date:

2017.01.29

Last Calib.:

2017.01.29

Start Time: 13:39:05

End Time:

21:11:44

Time On Btm:

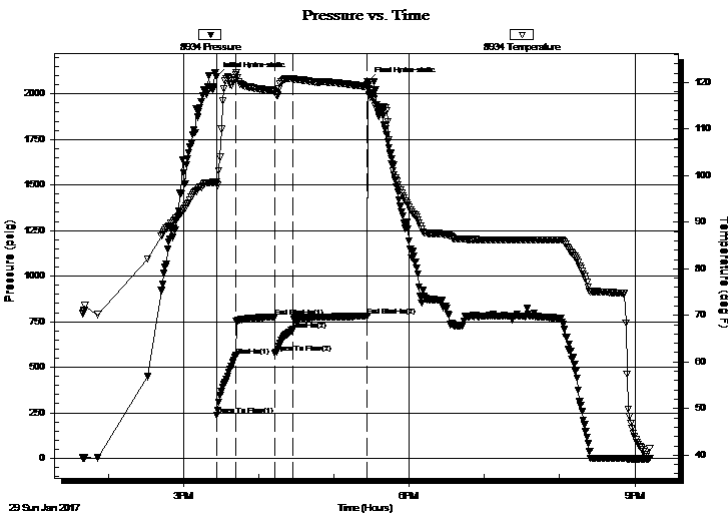
2017.01.29 @ 15:26:00

Time Off Btm:

2017.01.29 @ 17:26:30

TEST COMMENT: 15-IF-BOB in 1 minute
30-ISI-Weak Blow Back; Built to 3/4"
15-FF-BOB in 1 minute
60-FSI-Fair Blow Back; Built to 1 1/2"

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2095.13 | 98.73 | Initial Hydro-static |
| 1 | 236.85 | 98.18 | Open To Flow (1) |
| 16 | 562.93 | 121.61 | Shut-In(1) |
| 47 | 775.51 | 118.11 | End Shut-In(1) |
| 47 | 577.14 | 117.99 | Open To Flow (2) |
| 61 | 706.30 | 120.71 | Shut-In(2) |
| 121 | 779.36 | 119.09 | End Shut-In(2) |
| 121 | 2066.14 | 119.54 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------------|--------------|
| 1760.00 | Gassy Clean Oil 10% G 90% O | 22.83 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



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Total Depth: 4177.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2341.00 ft (KB)

2333.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 9120 Inside

Press@RunDepth: psig @ 4108.00 ft (KB)

Start Date: 2017.01.29

End Date:

2017.01.29

Capacity: 8000.00 psig

Last Calib.:

2017.01.29

Start Time: 13:39:15

End Time:

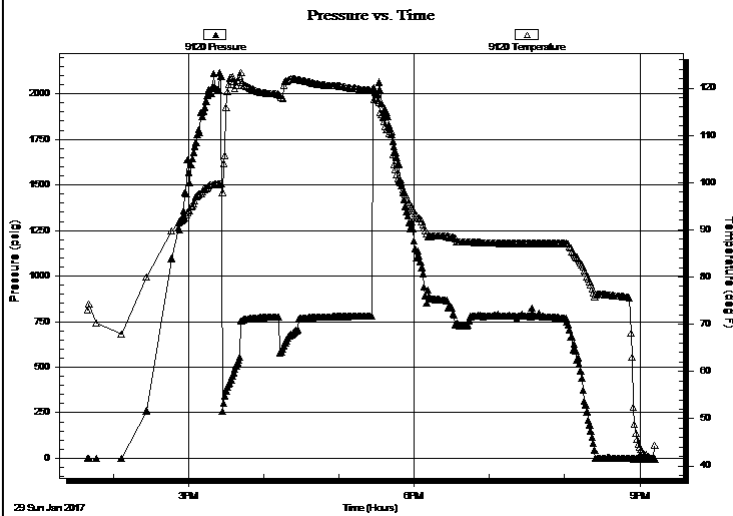
21:11:45

Time On Btm:

Time Off Btm:

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PRESSURE SUMMARY



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

Recovery

Gas Rates

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------------|--------------|
| 1760.00 | Gassy Clean Oil 10% G 90% O | 22.83 |
| | | |
| | | |
| | | |
| | | |

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co

Fabrizious-Younger 'B' #1-35

PO Box 1019
Hays KS 67601

S35-13S-22W Trego,KS

Job Ticket: 64672

DST#: 1

ATTN: Marc Dow ning/Ron Nel

Test Start: 2017.01.29 @ 13:39:00

Tool Information

| | | | | |
|----------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3809.00 ft | Diameter: 3.80 inches | Volume: 53.43 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 278.00 ft | Diameter: 2.75 inches | Volume: 2.04 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 2.25 inches | Volume: 0.00 bbl | Weight to Pull Loose: 61000.00 lb |
| | | | <u>Total Volume: 55.47 bbl</u> | Tool Chased ft |
| Drill Pipe Above KB: | 8.00 ft | | | String Weight: Initial 57000.00 lb |
| Depth to Top Packer: | 4107.00 ft | | | Final 60000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval betw een Packers: | 70.00 ft | | | |
| Tool Length: | 98.00 ft | | | |
| Number of Packers: | 1 | Diameter: 6.75 inches | | |
| Tool Comments: | | | | |

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|--------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4080.00 | |
| Shut In Tool | 5.00 | | | 4085.00 | |
| Hydraulic tool | 5.00 | | | 4090.00 | |
| Jars | 5.00 | | | 4095.00 | |
| Safety Joint | 3.00 | | | 4098.00 | |
| Packer | 5.00 | | | 4103.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4107.00 | |
| Stubb | 1.00 | | | 4108.00 | |
| Recorder | 0.00 | 9120 | Inside | 4108.00 | |
| Recorder | 0.00 | 8934 | Outside | 4108.00 | |
| Perforations | 26.00 | | | 4134.00 | |
| Change Over Sub | 1.00 | | | 4135.00 | |
| Drill Pipe | 32.00 | | | 4167.00 | |
| Change Over Sub | 1.00 | | | 4168.00 | |
| Perforations | 5.00 | | | 4173.00 | |
| Bullnose | 4.00 | | | 4177.00 | 70.00 Bottom Packers & Anchor |
| Total Tool Length: | 98.00 | | | | |



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FLUID SUMMARY

Dow ning-Nelson Oil Co

Fabrizious-Younger 'B' #1-35

PO Box 1019
Hays KS 67601

S35-13S-22W Trego,KS

Job Ticket: 64672

DST#: 1

ATTN: Marc Dow ning/Ron Nel

Test Start: 2017.01.29 @ 13:39:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-----------------------------|---------------|
| 1760.00 | Gassy Clean Oil 10% G 90% O | 22.831 |

Total Length: 1760.00 ft Total Volume: 22.831 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

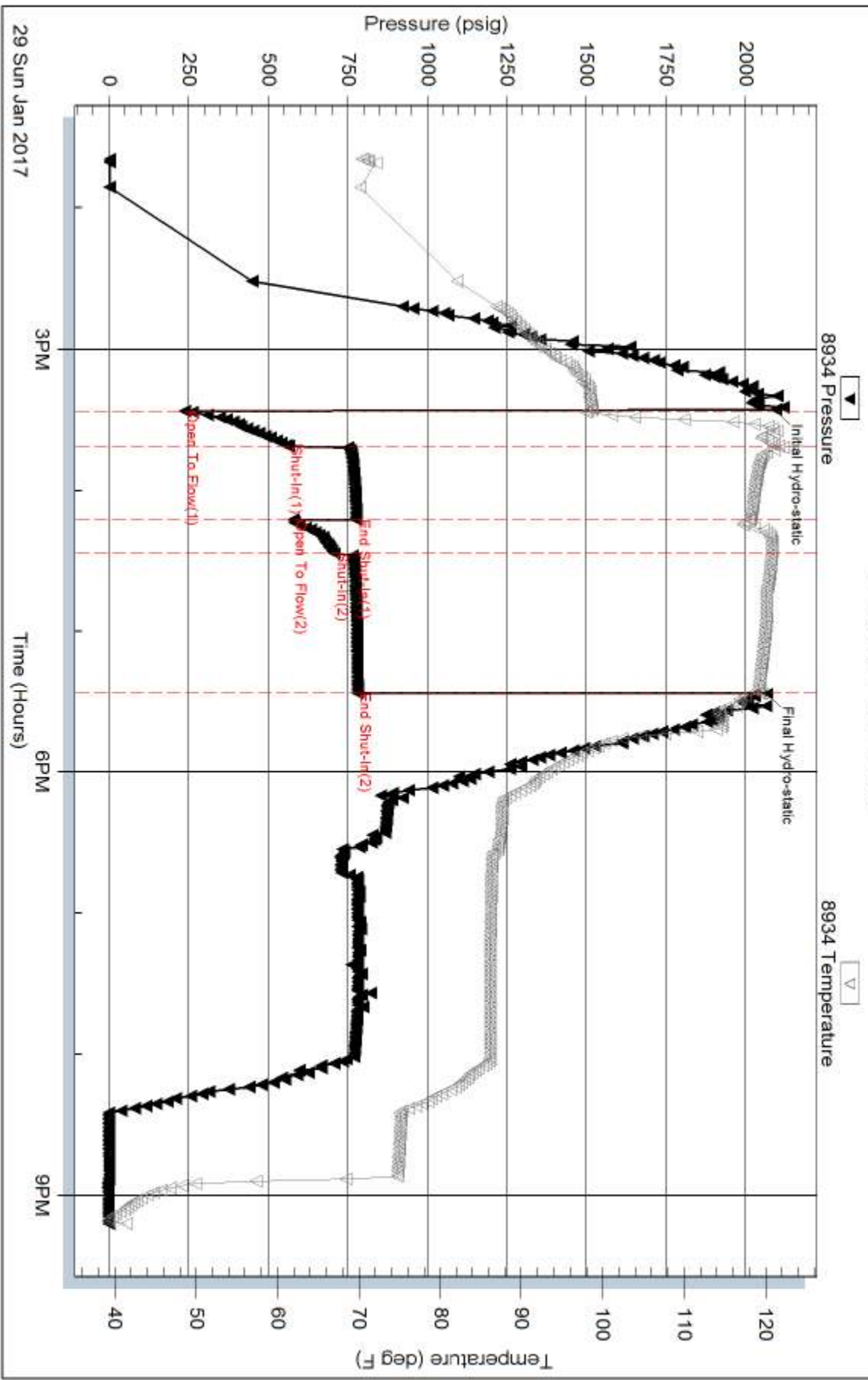
Serial #: 8934

Outside Dow nging-Nelson Oil Co

S35-13S-22W Trego, KS

DST Test Number: 1

Pressure vs. Time



Tribble Testing, Inc

Ref. No: 64672

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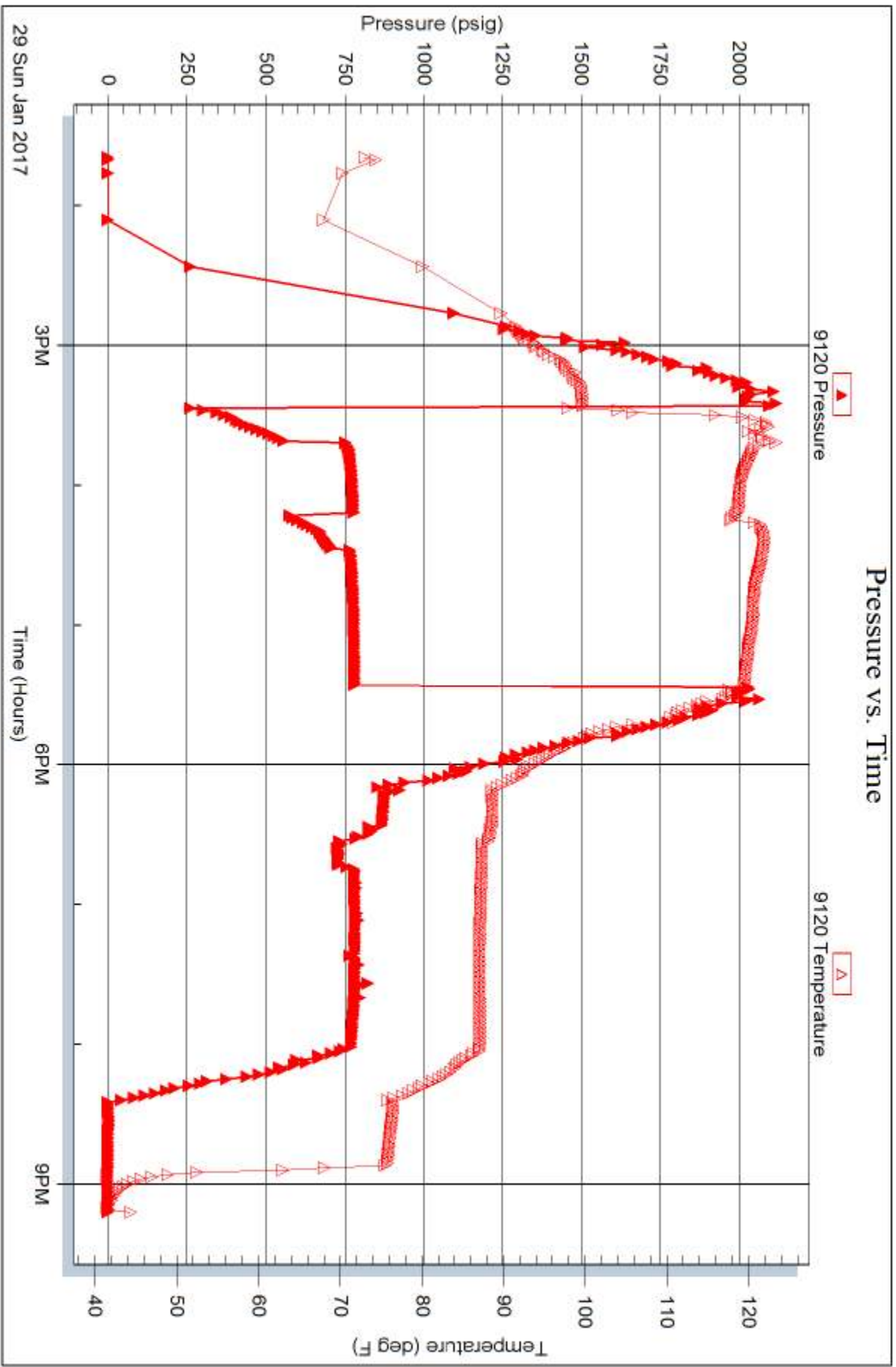
Serial #: 9120

Inside

Dow nng-Nelson Oil Co

S35-13S-22W Trego, KS

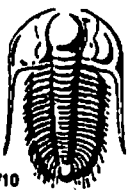
DST Test Number: 1



Tribble Testing, Inc

Ref. No: 64672

Printed: 2017.01.30 @ 08:38:42



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64672

Well Name & No. Fabrizius - Younger "B" #1-35 Test No. 1 Date 1/29/2017
 Company DNOC Elevation 2341 KB 2333 GL
 Address PO BOX 1019 Hays Ks 67601
 Co. Rep / Geo. Marc Downing Rig Discovery Rig #2
 Location: Sec. 35 Twp. 13S Rge. 22W Co. Trego State Ks

Interval Tested 4107' - 4177' Zone Tested Conglomerate Sand
 Anchor Length 70' Drill Pipe Run 3809' Mud Wt. 9.6
 Top Packer Depth 4102' Drill Collars Run — Vis 50
 Bottom Packer Depth 4107' Wt. Pipe Run ~~3809~~ 278 WL ~~9.6~~ 9.4
 Total Depth 4177' Chlorides 5,500 ppm System LCM Trace

Blow Description 17 - BOB in 1 minute
150 - Weak Blow Back; built to 3/4 in
77 - BOB in 1 minute
750 - Fair Blow Back; built to 1 1/2 in

| Rec | Feet of | %gas | %oil | %water | %mud |
|--------------|------------------------|-----------|-----------|--------|------|
| <u>1760'</u> | <u>Heavy Clean Oil</u> | <u>10</u> | <u>90</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 1760' BHT 119° Gravity 38° API RW — @ — °F Chlorides — ppm

- (A) Initial Hydrostatic 2095
- (B) First Initial Flow 236
- (C) First Final Flow 562
- (D) Initial Shut-In 775
- (E) Second Initial Flow 577
- (F) Second Final Flow 706
- (G) Final Shut-In 779
- (H) Final Hydrostatic 2066

- Test
- Jars
- Safety Joint
- Circ Sub
- Hourly Standby
- Mileage 72 R 7 x 2 (144)
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total

- T-On Location 00:15
- T-Started 13:39
- T-Open 15:26
- T-Pulled 17:26
- T-Out 21:10

Comments Dropped bar to reverse fluid

Ruined Shale Packer

Ruined Packer

Extra Copies

Sub Total

Total

MP/DST Disc't

Initial Open 15

Initial Shut-In 30

Final Flow 15

Final Shut-In 60

Approved By _____

Our Representative Spencer J. Stahl

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.

Thank-you!!