



APPENDIX A

SPT Calibration Certificates



JAMES FISHER TESTING SERVICES
RUBY HOUSE
40a HARDWICK GRANGE
WOOLSTON
WARRINGTON
WA4 1RF

SPT Hammer Ref: WS01
Test Date: 14/01/2020
Report Date: 14/01/2020
File Name: WS011.spt
Test Operator: WS

Instrumented Rod Data

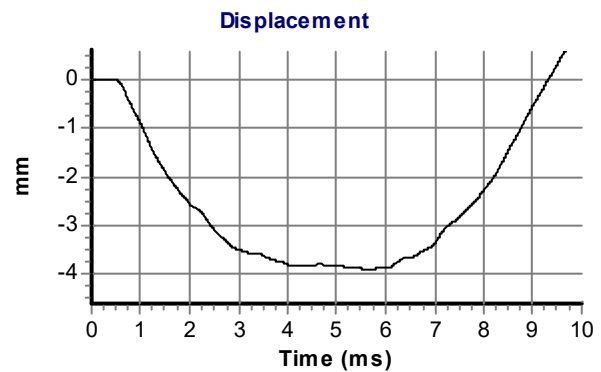
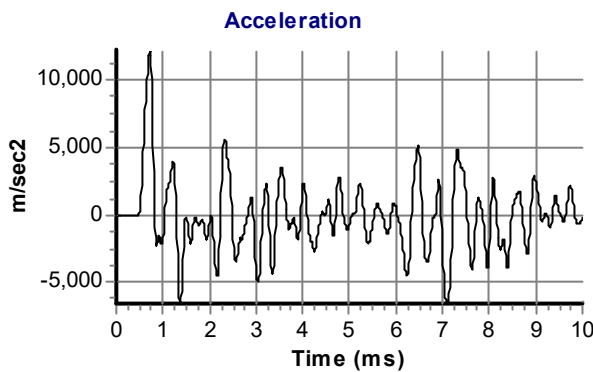
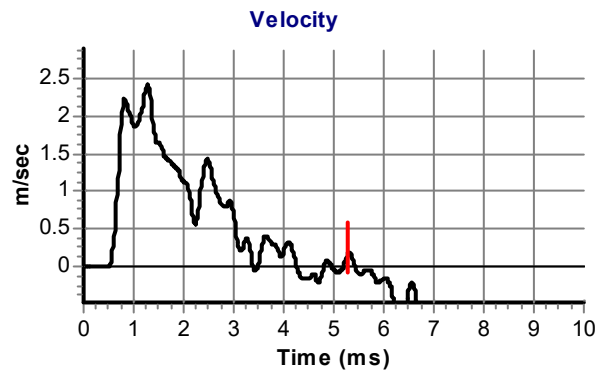
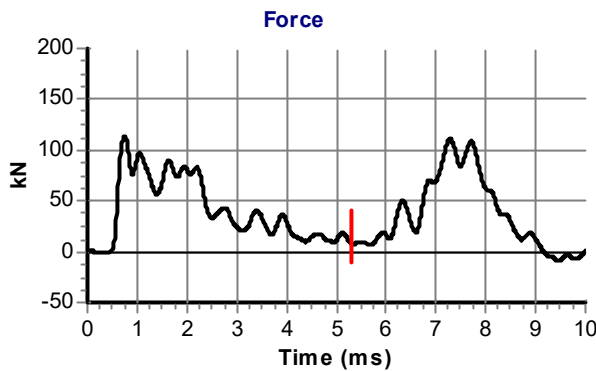
Diameter d_r (mm): 54
Wall Thickness t_r (mm): 6.4
Assumed Modulus E_a (GPa): 208
Accelerometer No.1: 8965
Accelerometer No.2: 11952

SPT Hammer Information

Hammer Mass m (kg): 63.5
Falling Height h (mm): 760
SPT String Length L (m): 14.5

Comments / Location

Client: VC Drilling Ltd
Location: JFTS Laboratory Hammer
Type: Window Sampler



Calculations

Area of Rod A (mm²): 957
Theoretical Energy E_{theor} (J): 473
Measured Energy E_{meas} (J): 287

Energy Ratio E_r (%): 61

Signed: MOZEFER HUSSEIN
Title: STRCUTURAL TECHNICIAN



James Fisher Testing Services
Ruby House
40a Hardwick Grange
Woolton
Warrington
WA1 4RF

SPT Hammer Ref: R02
 Test Date: 10/12/2019
 Report Date: 14/12/2019
 File Name: R02.spt
 Test Operator: OT

Instrumented Rod Data

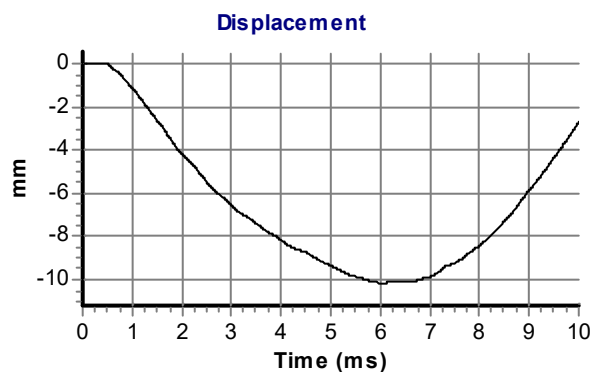
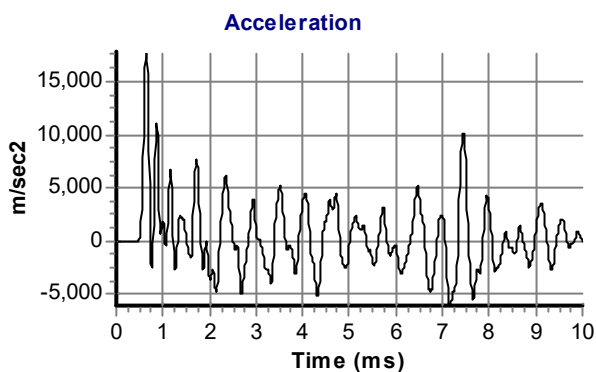
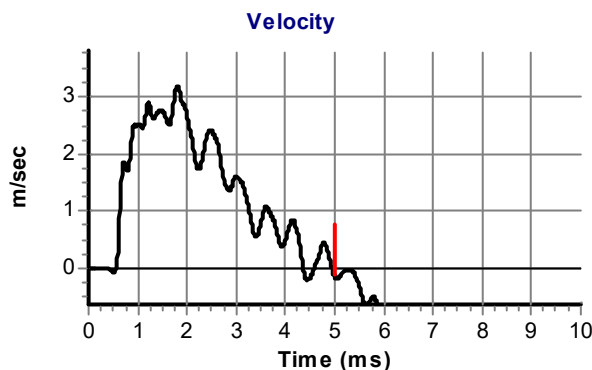
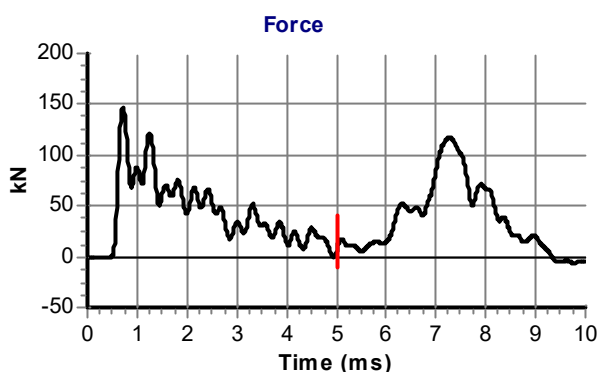
Diameter d_r (mm): 54
 Wall Thickness t_r (mm): 6.5
 Assumed Modulus E_a (GPa): 208
 Accelerometer No.1: 8965
 Accelerometer No.2: 11949

SPT Hammer Information

Hammer Mass m (kg): 63.5
 Falling Height h (mm): 760
 SPT String Length L (m): 14.5

Comments / Location

Client: Vincent Camron Drilling
 Location: JFTS Laboratory
 Hammer Type: Trip Hammer



Calculations

Area of Rod A (mm²): 970
 Theoretical Energy E_{theor} (J): 473
 Measured Energy E_{meas} (J): 391

Energy Ratio E_r (%): 83

Signed: Oliver Turpin
 Title: Team Leader