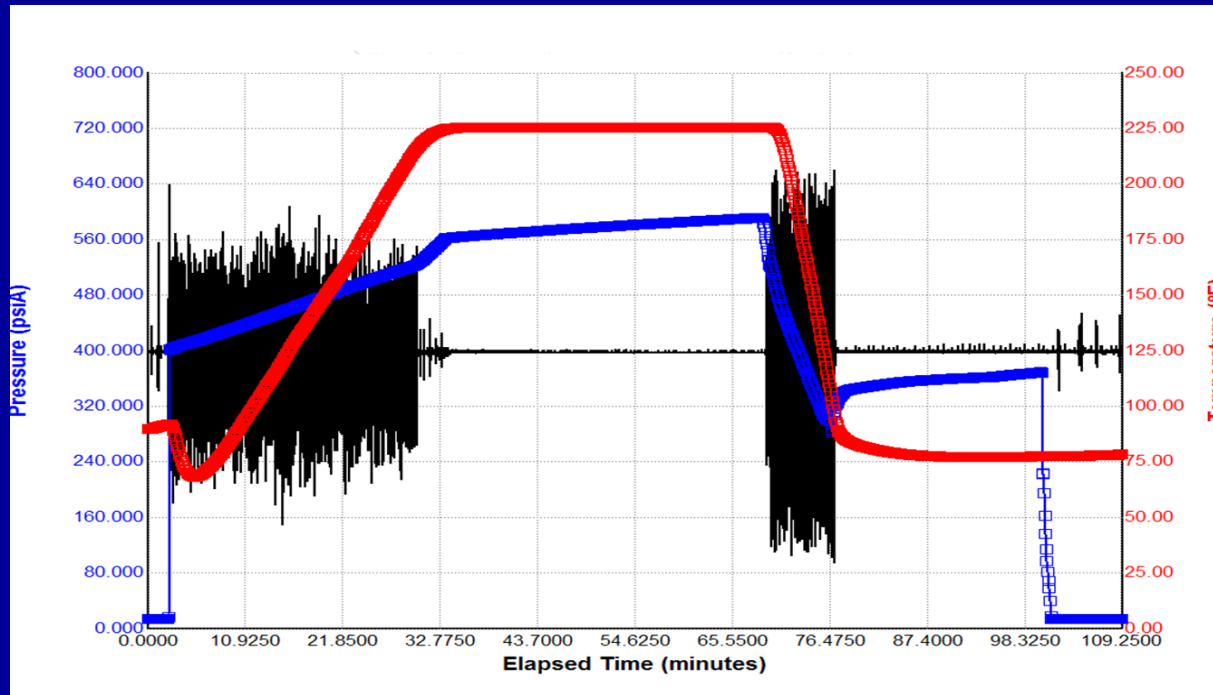


Chris Chisholm Bio, Gas and Oil Technology and Services, LLC (GOTEK)

Chris Chisholm is currently the Managing Partner for GOTEK, an Instrumentation Company, whose primary focus is in the area of Instrumented Plunger Technology. Chris has over 30 years in the Oil and Gas Industry as an Engineering Manager and Operations Engineer. He has worked for several companies in the Oil and Gas Industry that includes Noble Drilling, Husky Oil Company, Natomas North America, Marathon Oil Company, BJ Services, Snyder Oil and Gas and Southwestern Production Company. He is also a Partner and Manager for CADE Drilling operating drilling rigs in Colorado and Wyoming. Chris has a degree in Mechanical Engineering from the University of Colorado.

INSTRUMENTED PLUNGER

PRESENTED BY CHRIS CHISHOLM

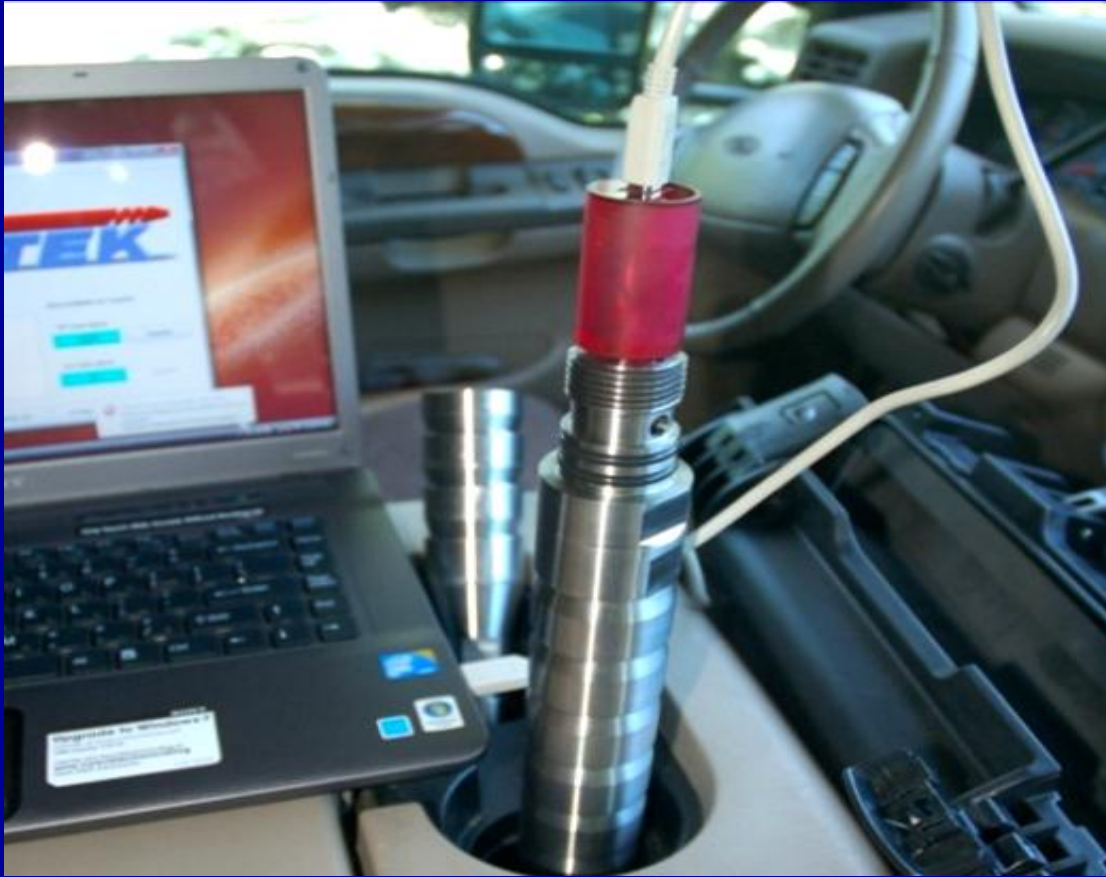


GAS AND OIL TECHNOLOGY AND SERVICES, LLC

An Instrumented Plunger with “Position” & Pressure/Temperature

- **Improve Well Operation**
- **Increase Production**
- **Reduce Operating Costs**

THE TOOLS: I-PLUNGER



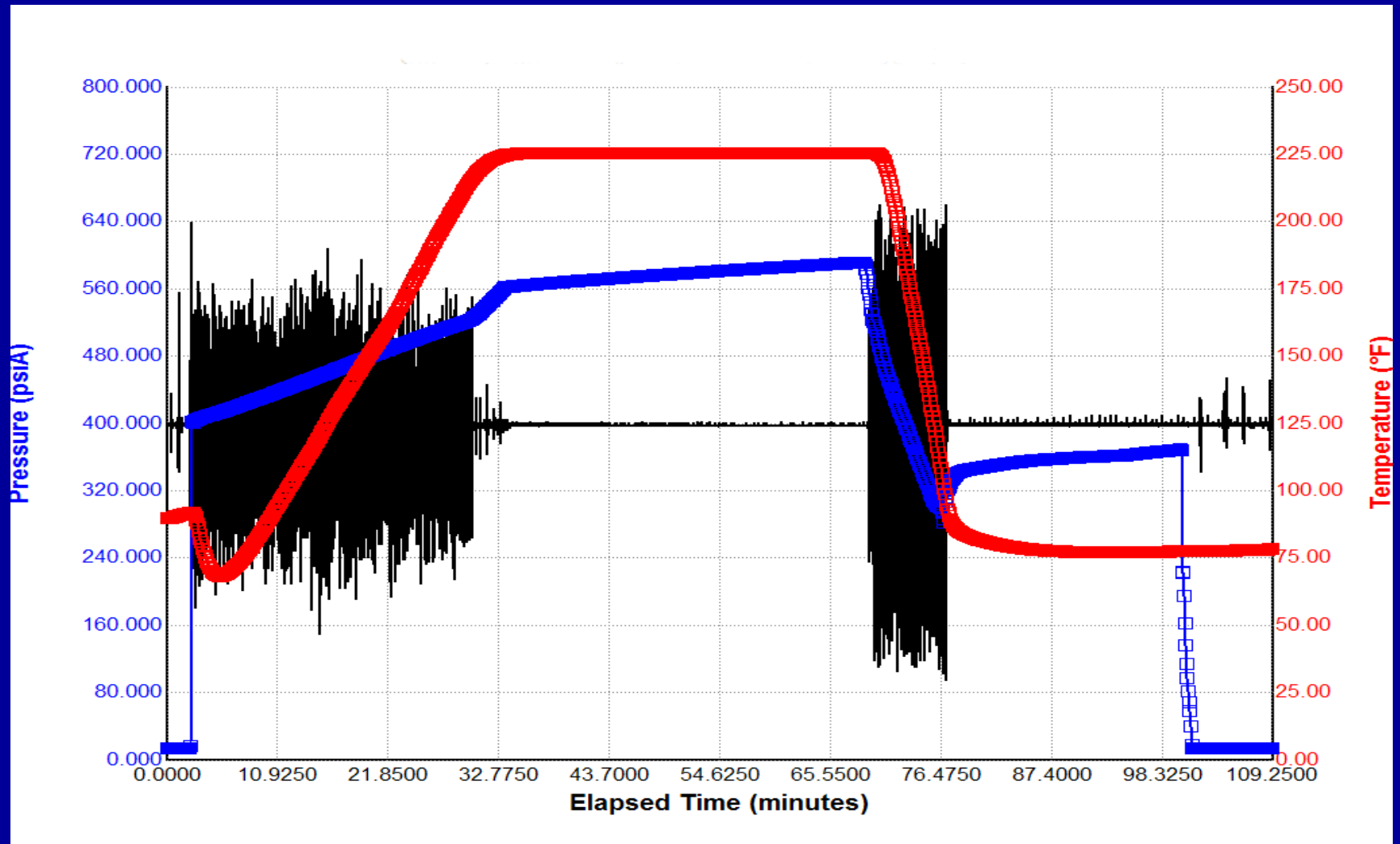
THE TOOLS: I-PLUNGER



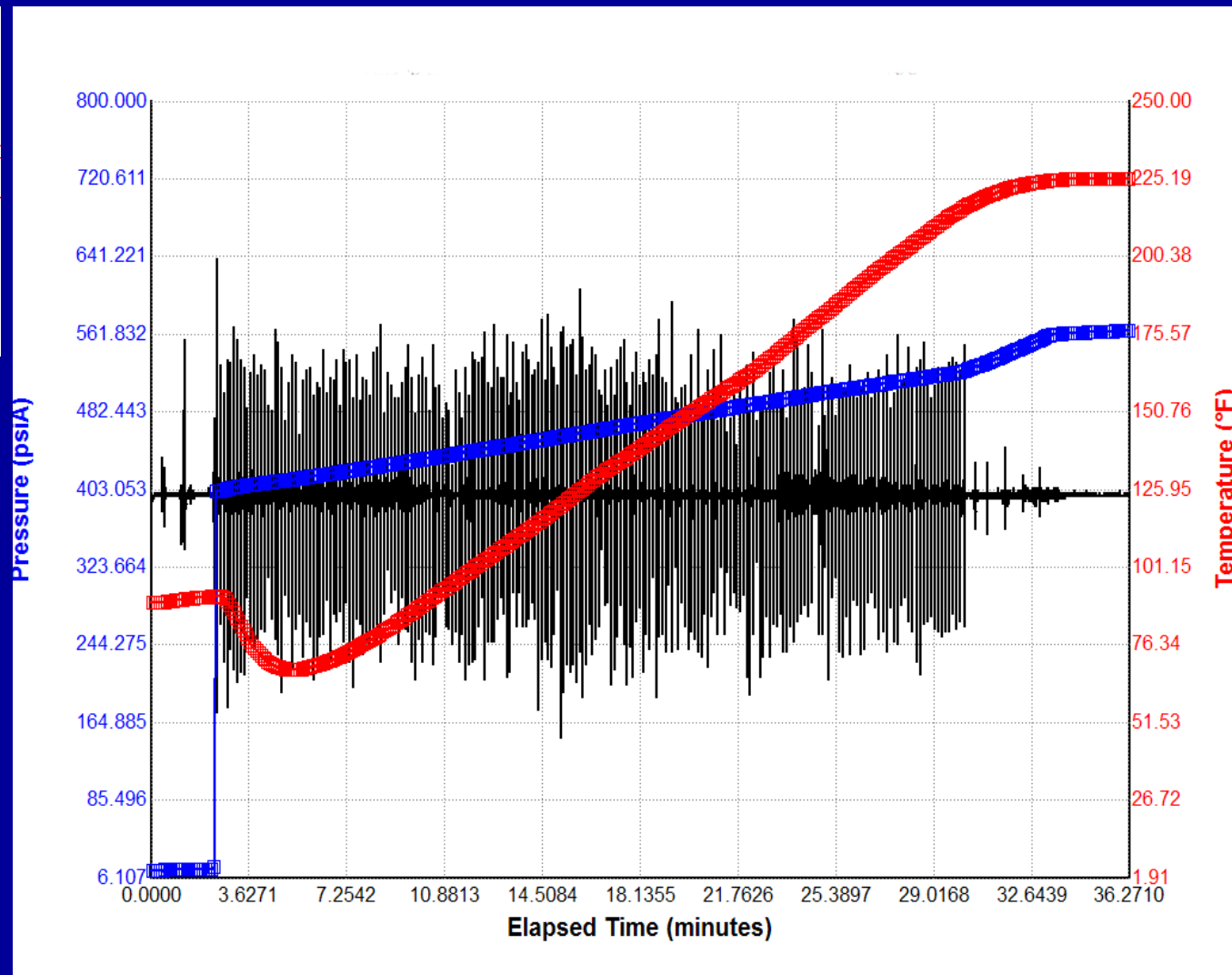
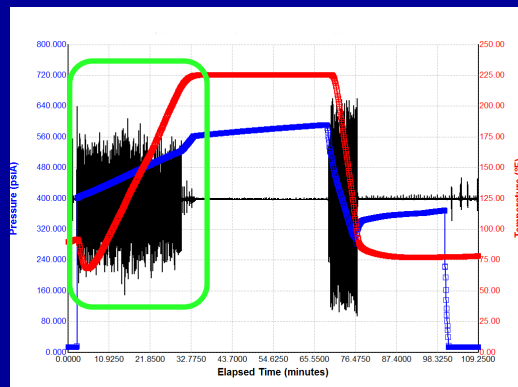
I-Plunger Position

- **Using recorded Collars as Position along with Pressure/Temperature data a “Picture” is created for quick-scan visualization.**
- **The “Picture” allows Optimization with Minimal Interpretation because Position is known.**
- **Plunger Position Matters and anything that affects Position or Position related to Velocity is directly related to well operation, surface facilities, offset well interference or the reservoir.**

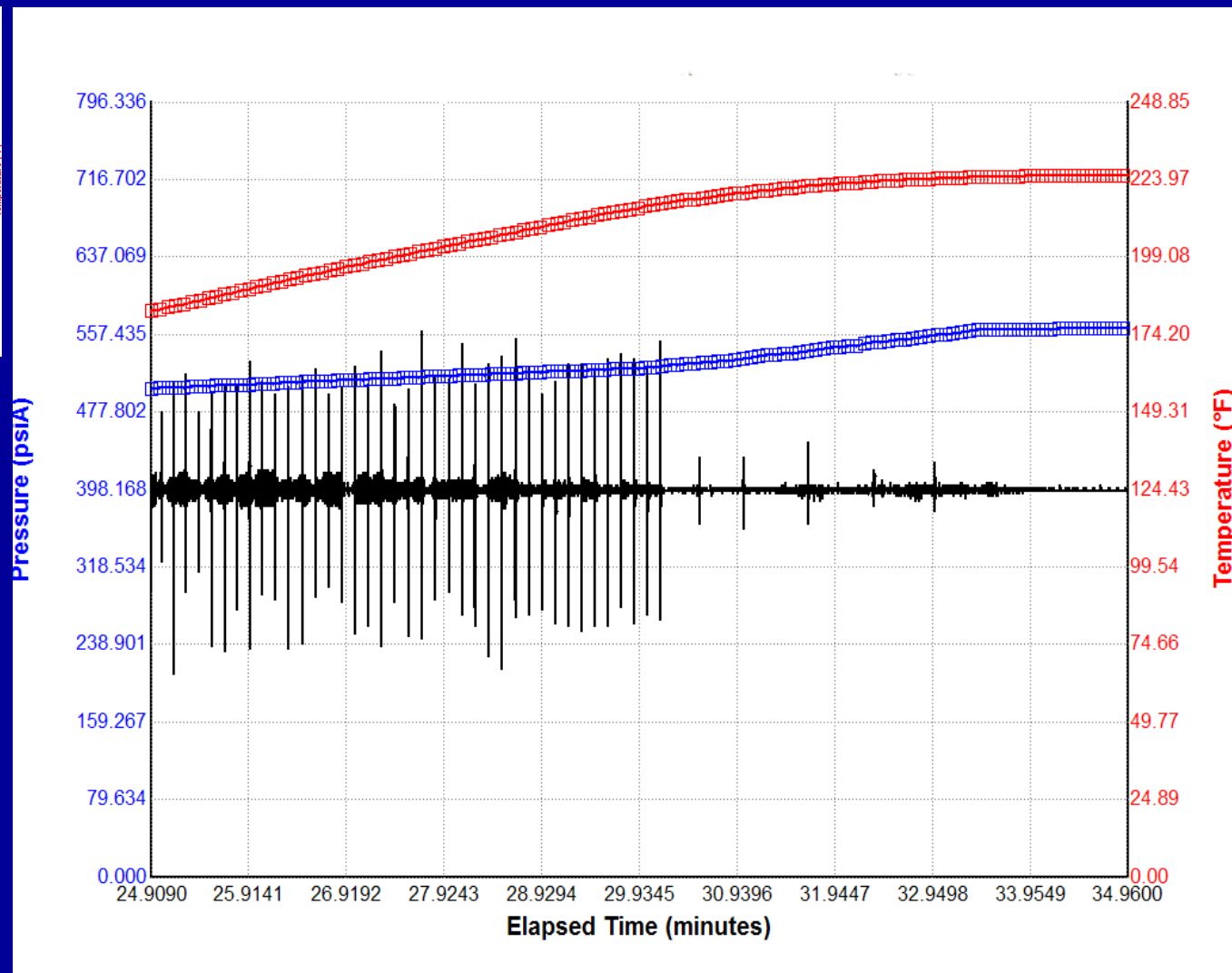
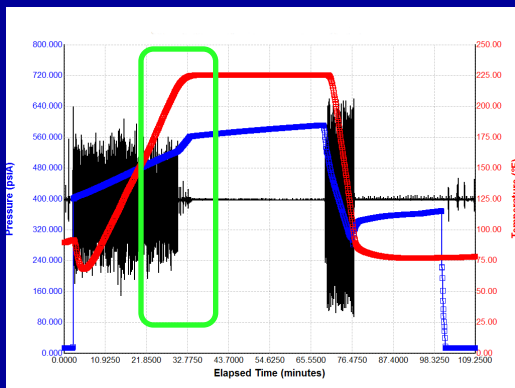
Normal Plunger Cycle with Position



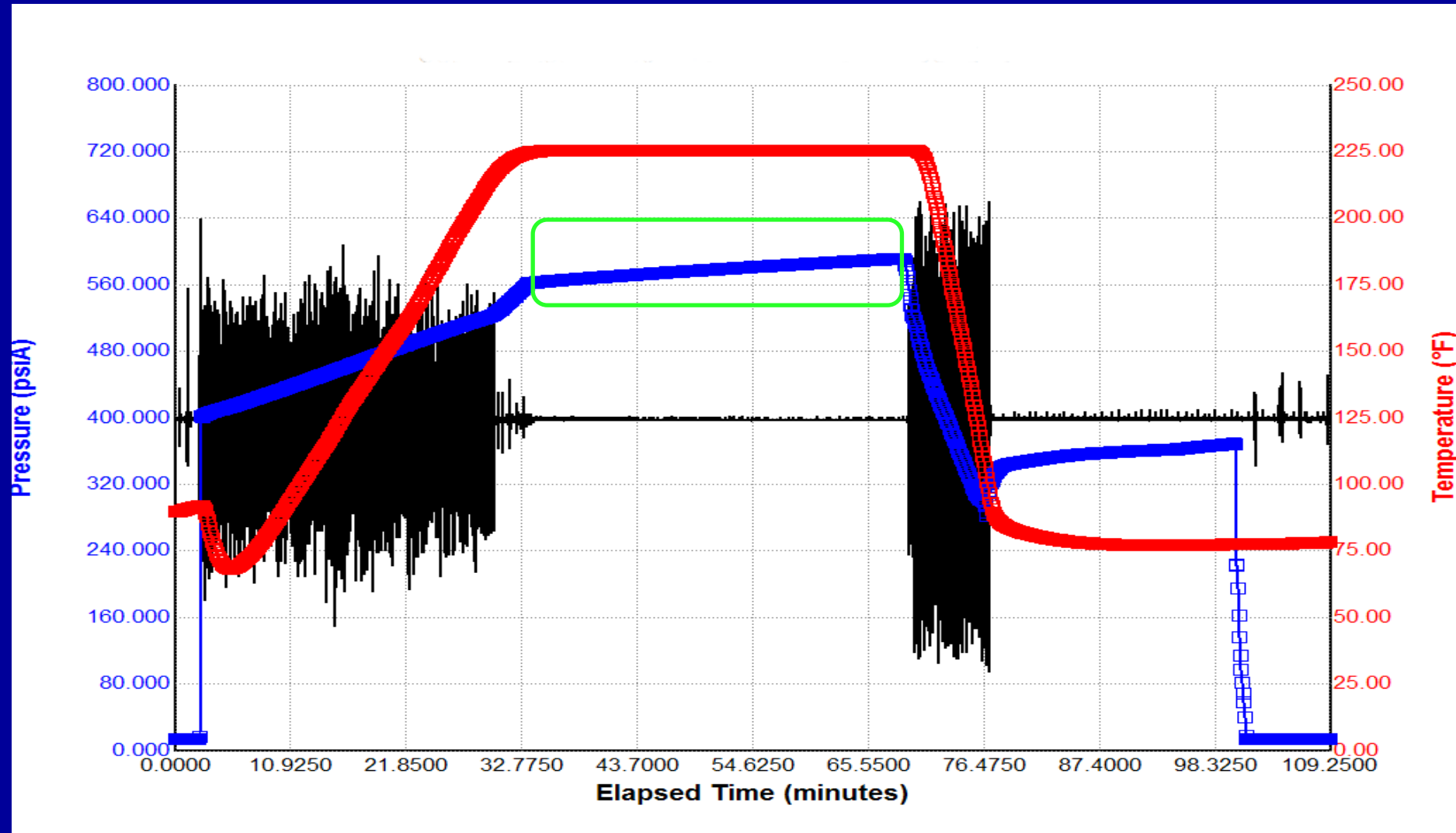
I-Plunger Falling Downhole



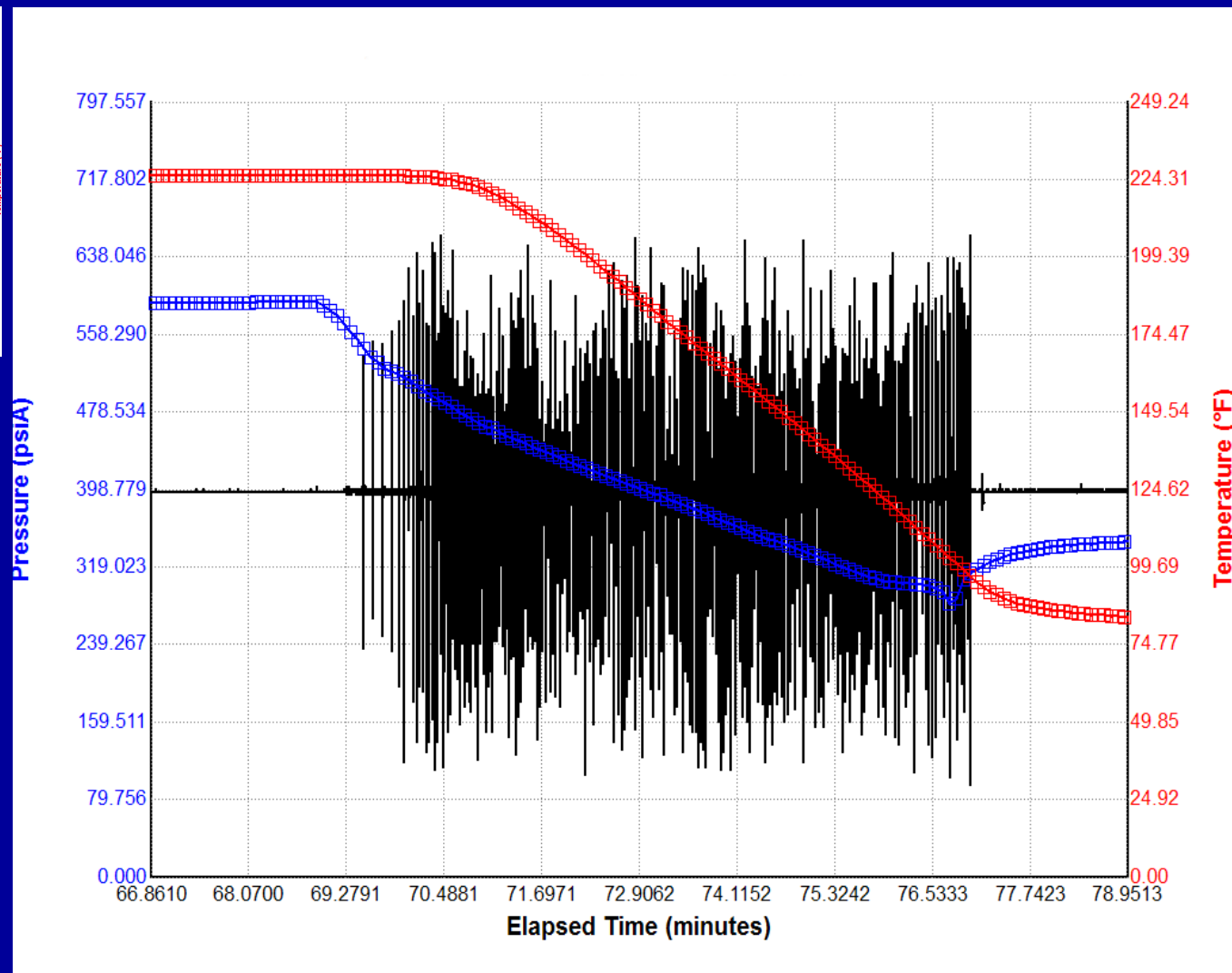
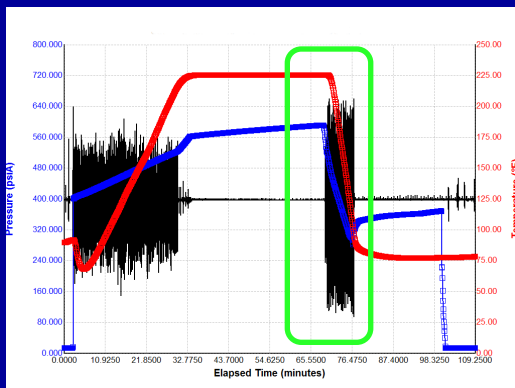
Plunger Hitting Fluid



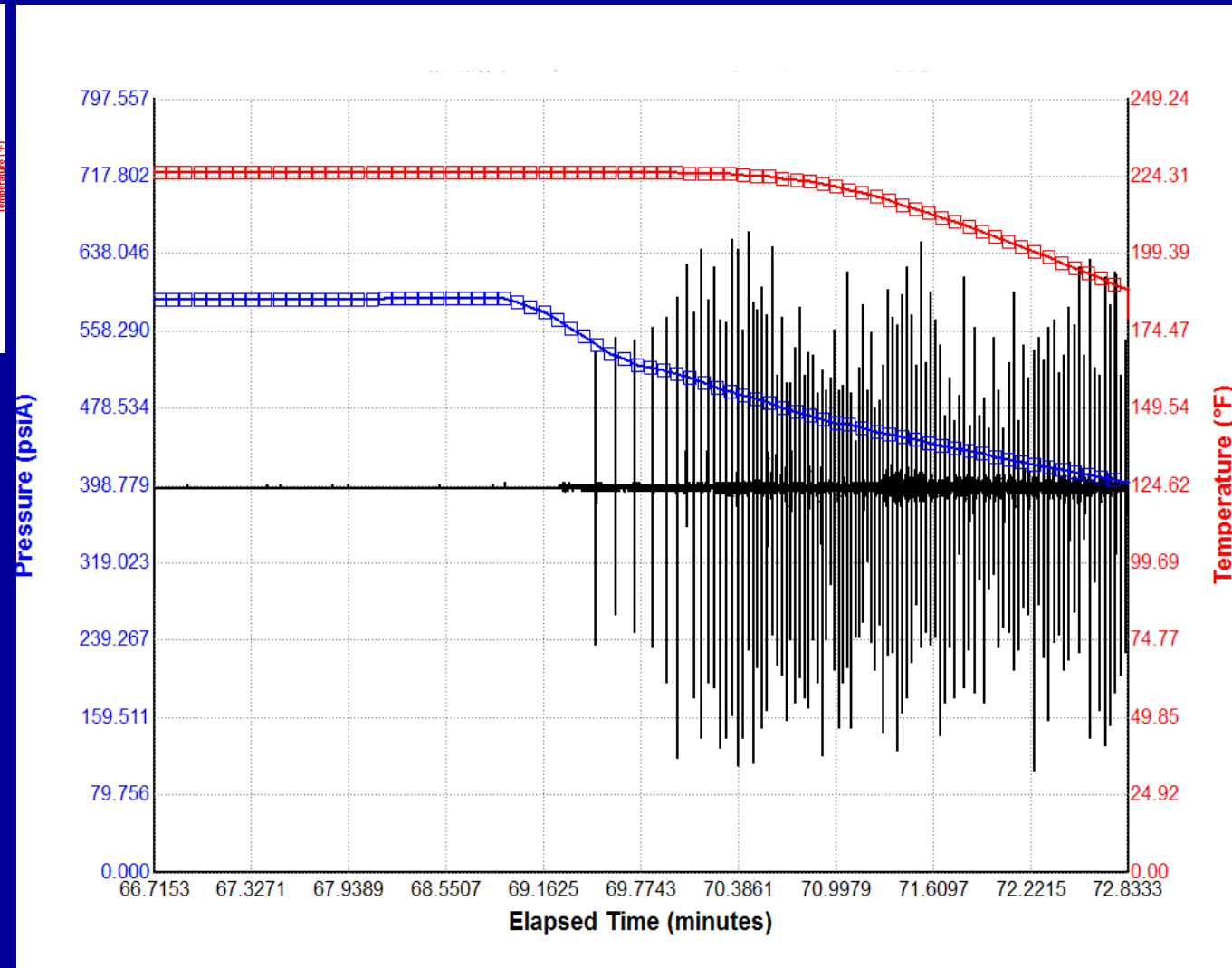
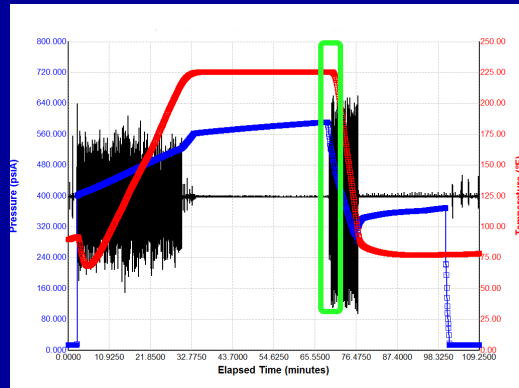
Plunger on Bottom, Start Pressure Build Up



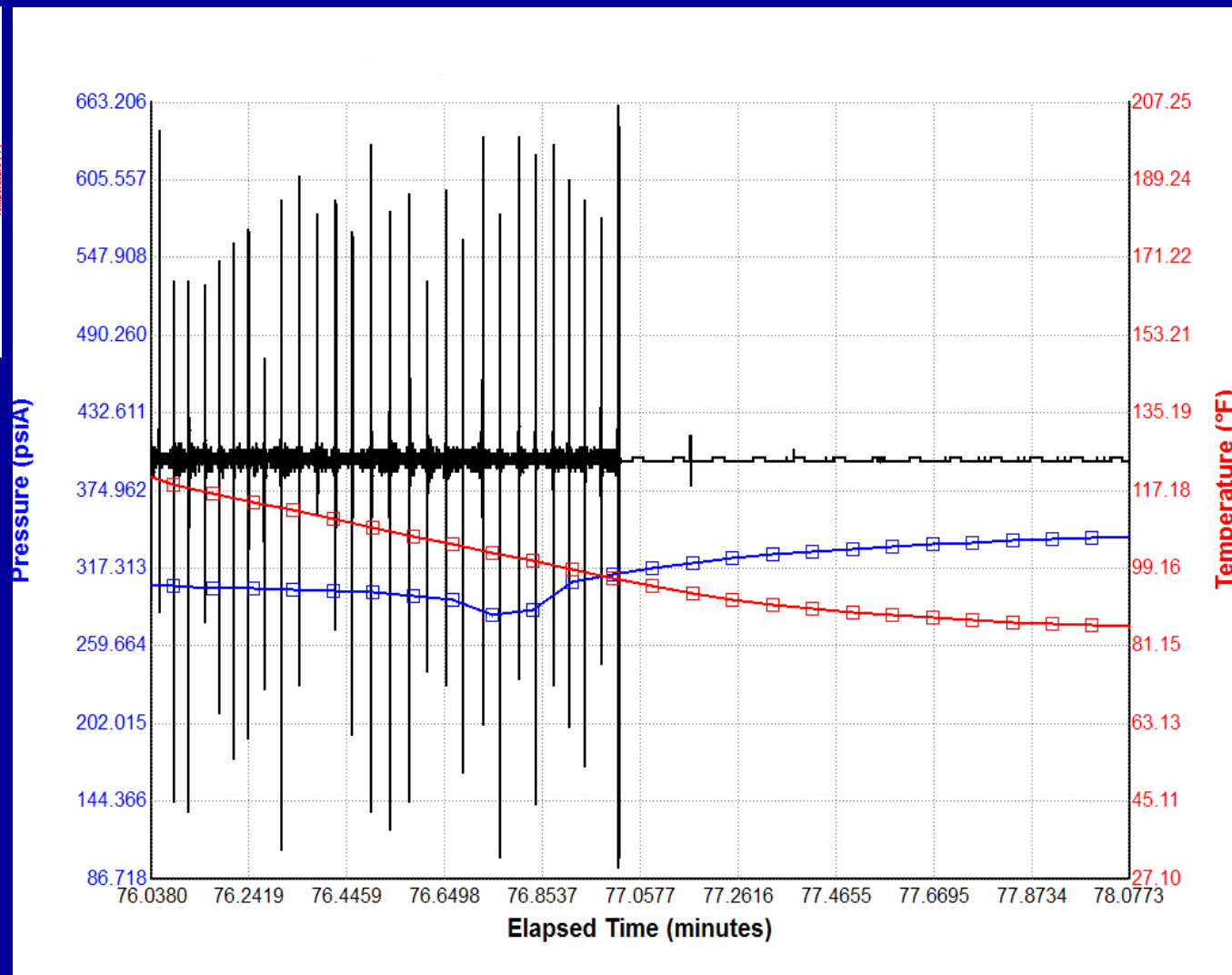
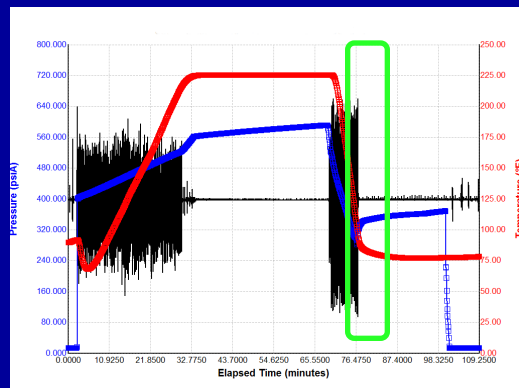
Plunger Coming Up



Plunger Coming off Bottom



Plunger At Surface



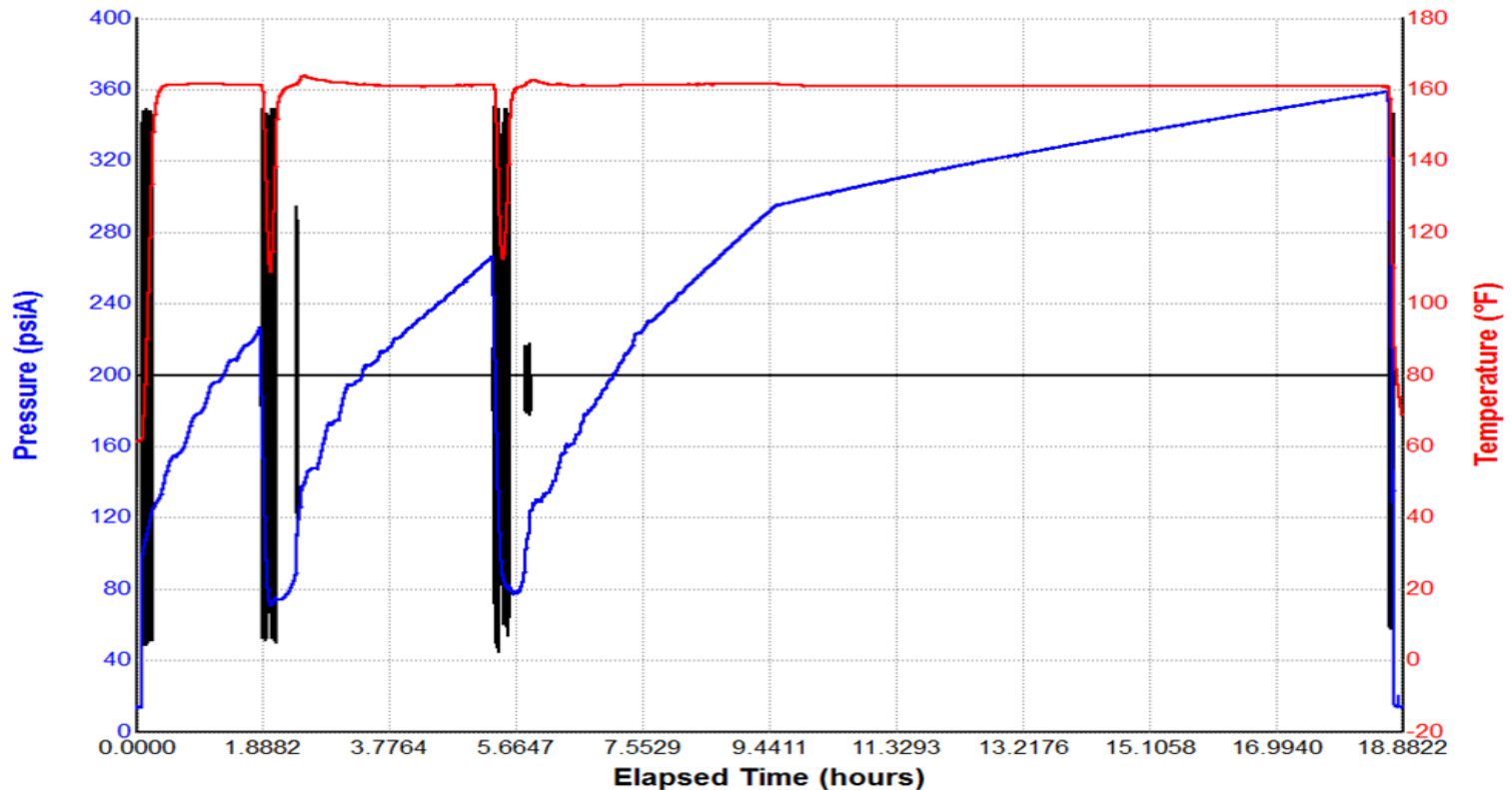
SOLVE THE PROBLEMS

A “PICTURE” THAT SOLVES WELL PROBLEMS

- PLUNGER VELOCITY
- FLUID LEVEL
- TRAVEL TIME SURFACE TO BOTTOMHOLE
- DEVIATED WELL PROBLEMS
- GAS LIFT VALVE PLACEMENT
- HOLES IN TUBING
- FLUID LOADING
- DETECT FIELD EFFECTS
- AND MORE

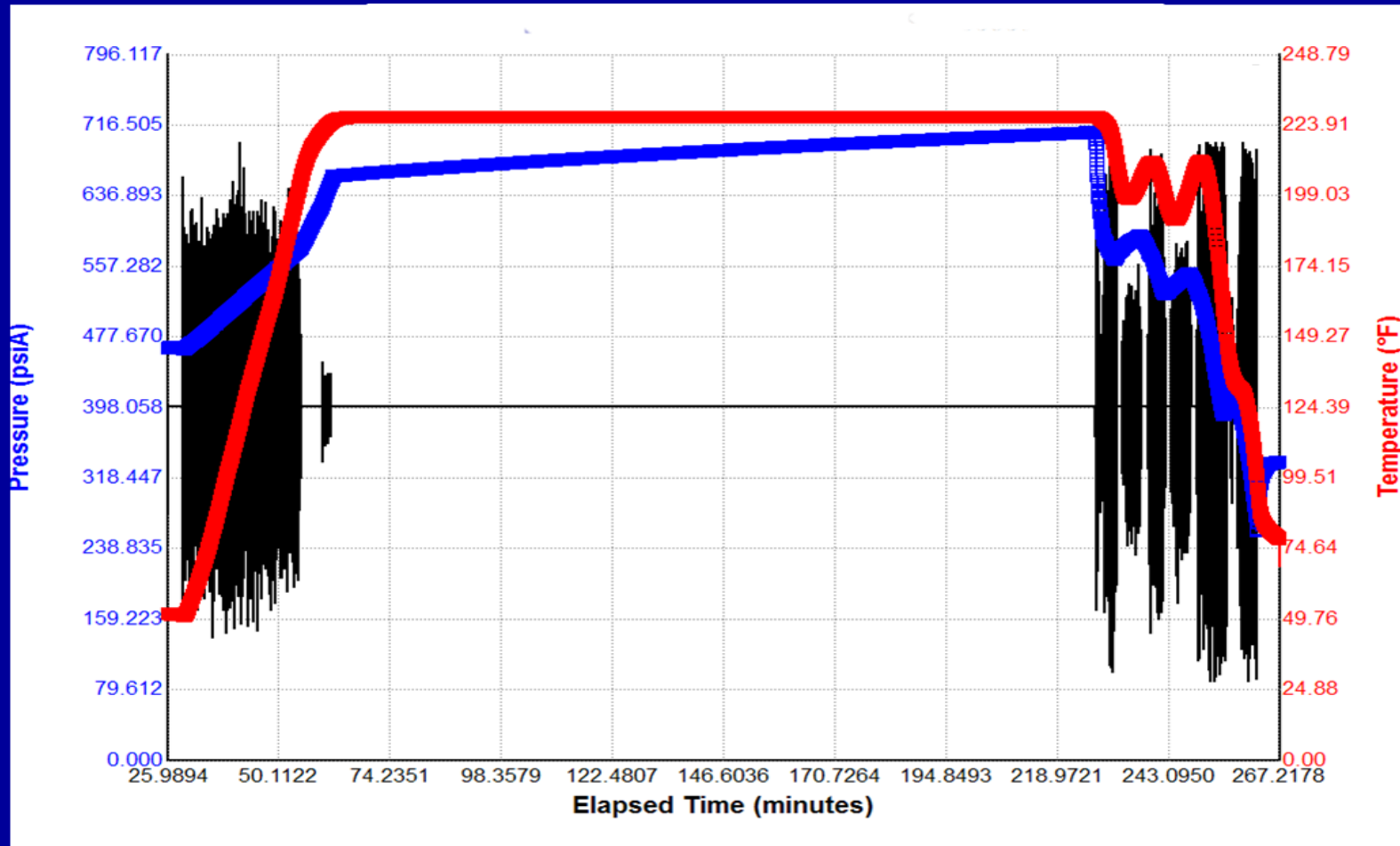
A PICTURE IS WORTH 1,000 WORDS

Not traveling Surface to Bottom



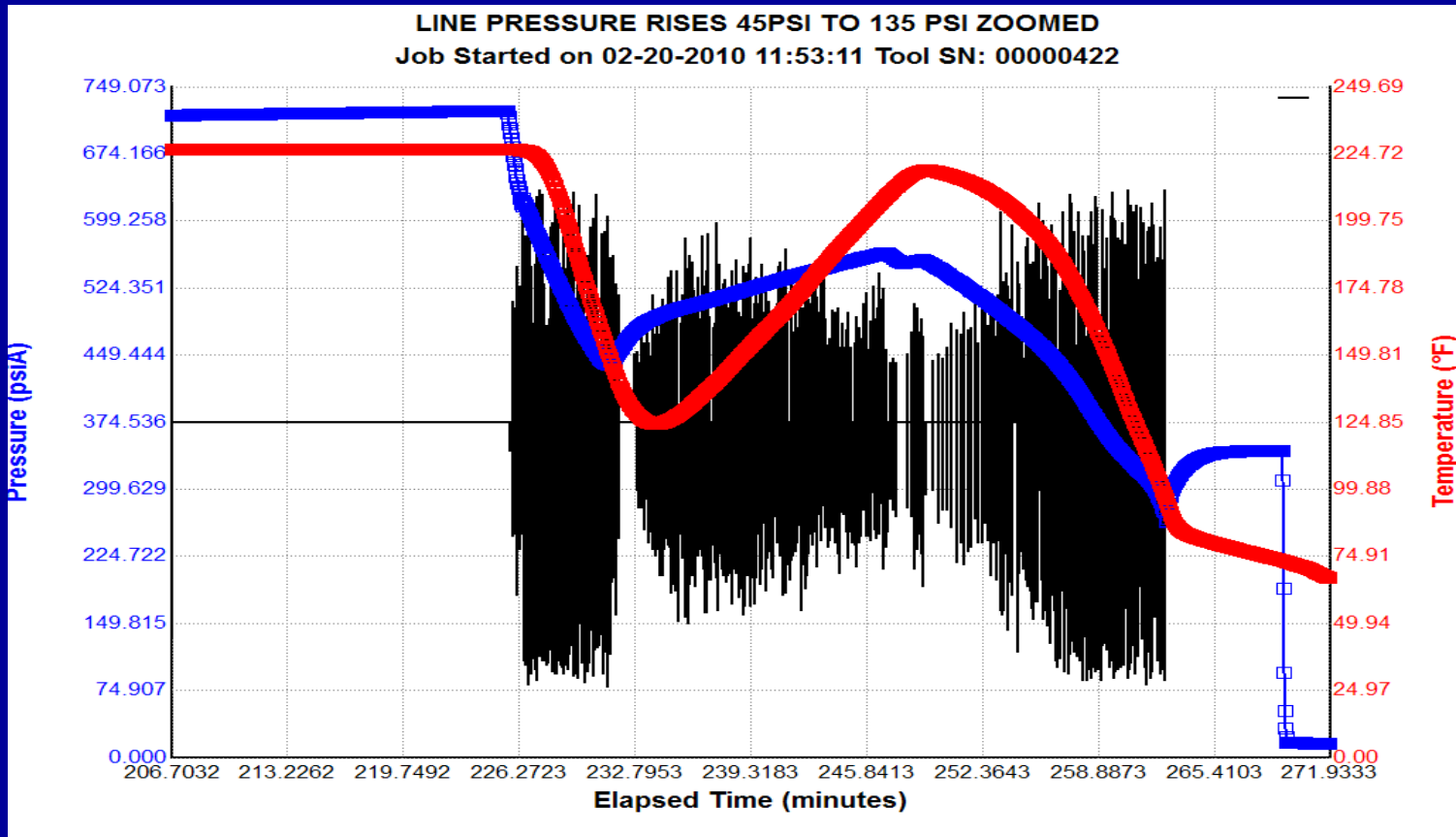
A PICTURE IS WORTH 1,000 WORDS

Well Interference within a 4 Well Pad



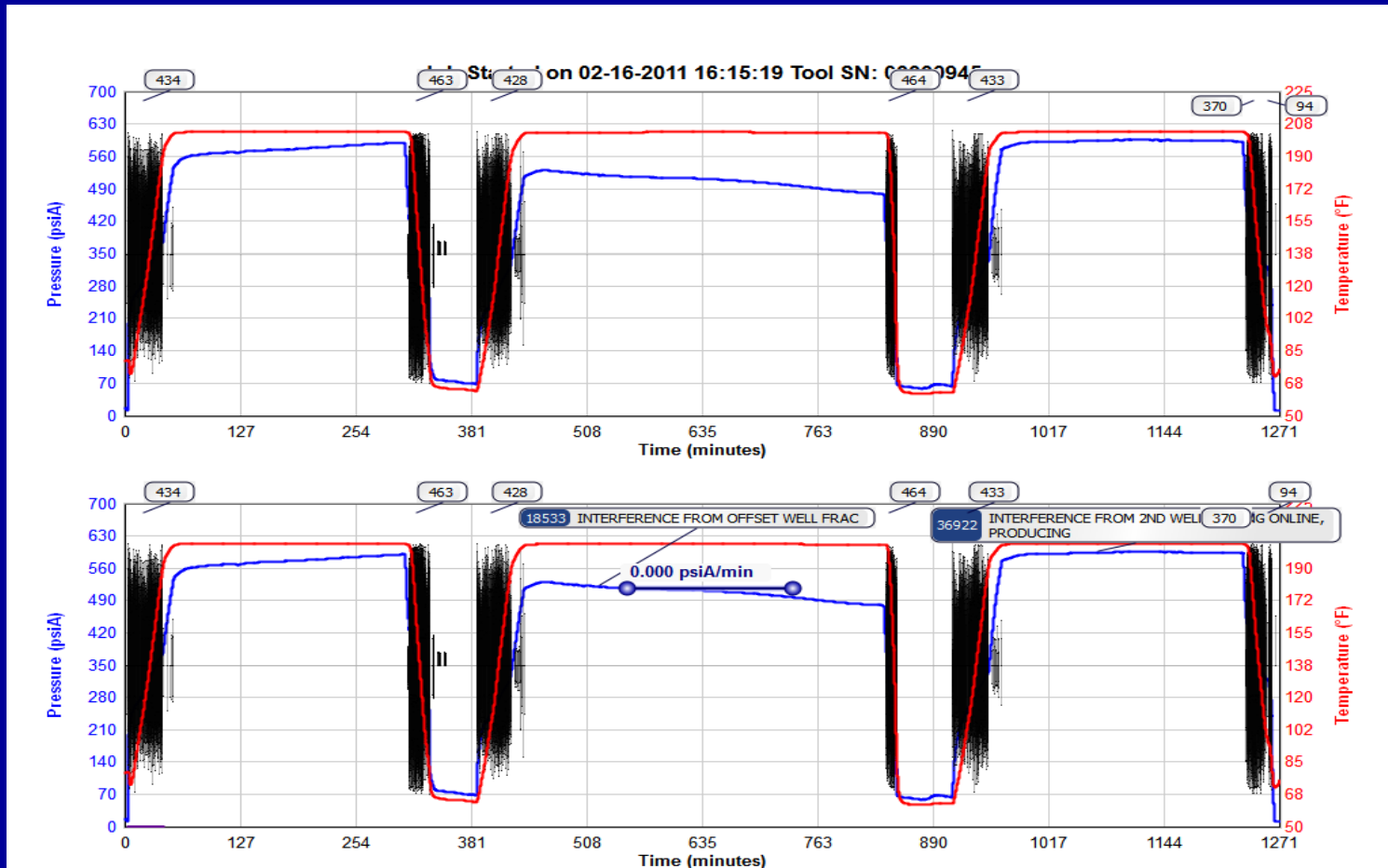
A PICTURE IS WORTH 1,000 WORDS

Compressor Loaded



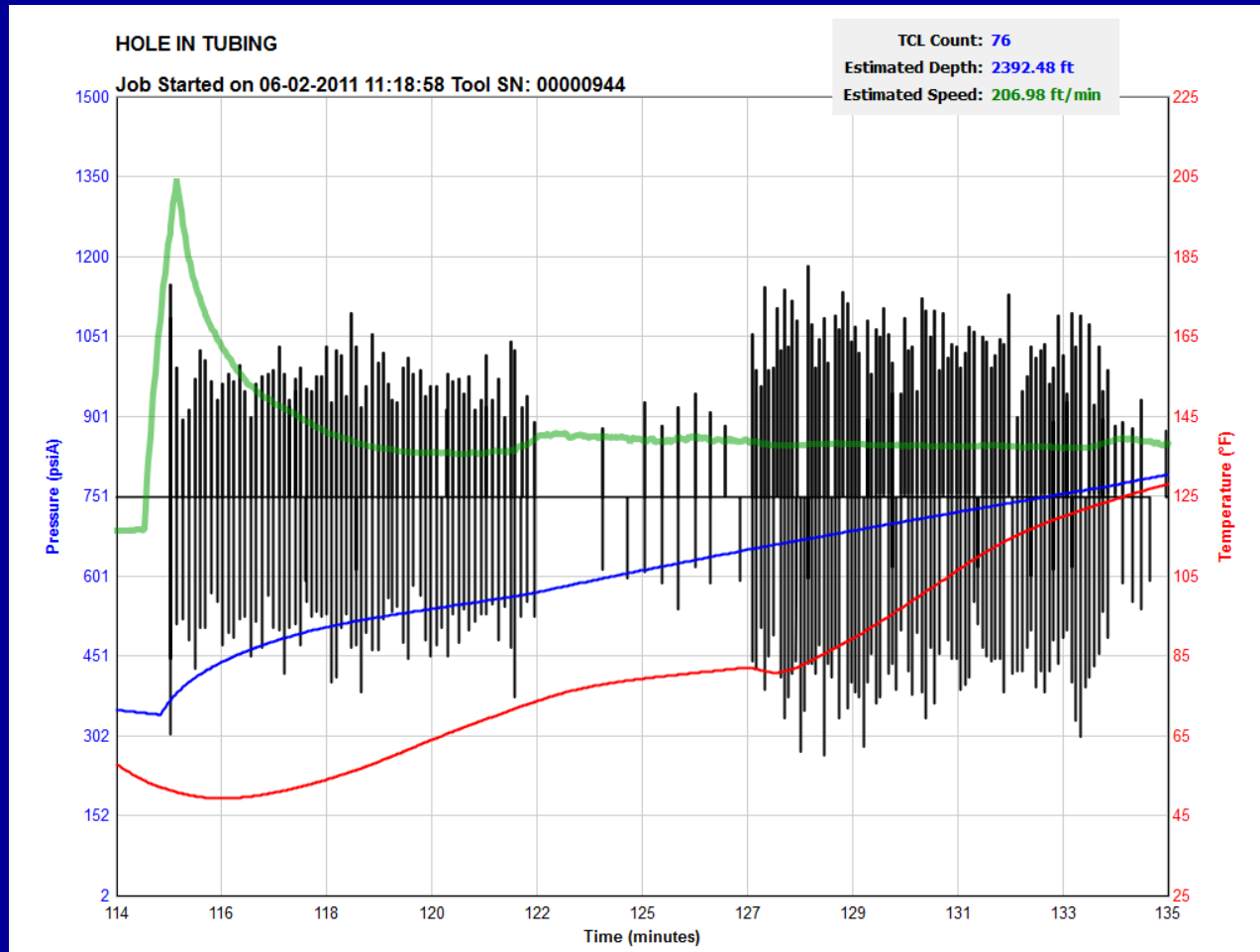
A PICTURE IS WORTH 1,000 WORDS

FRAC INTERFERENCE



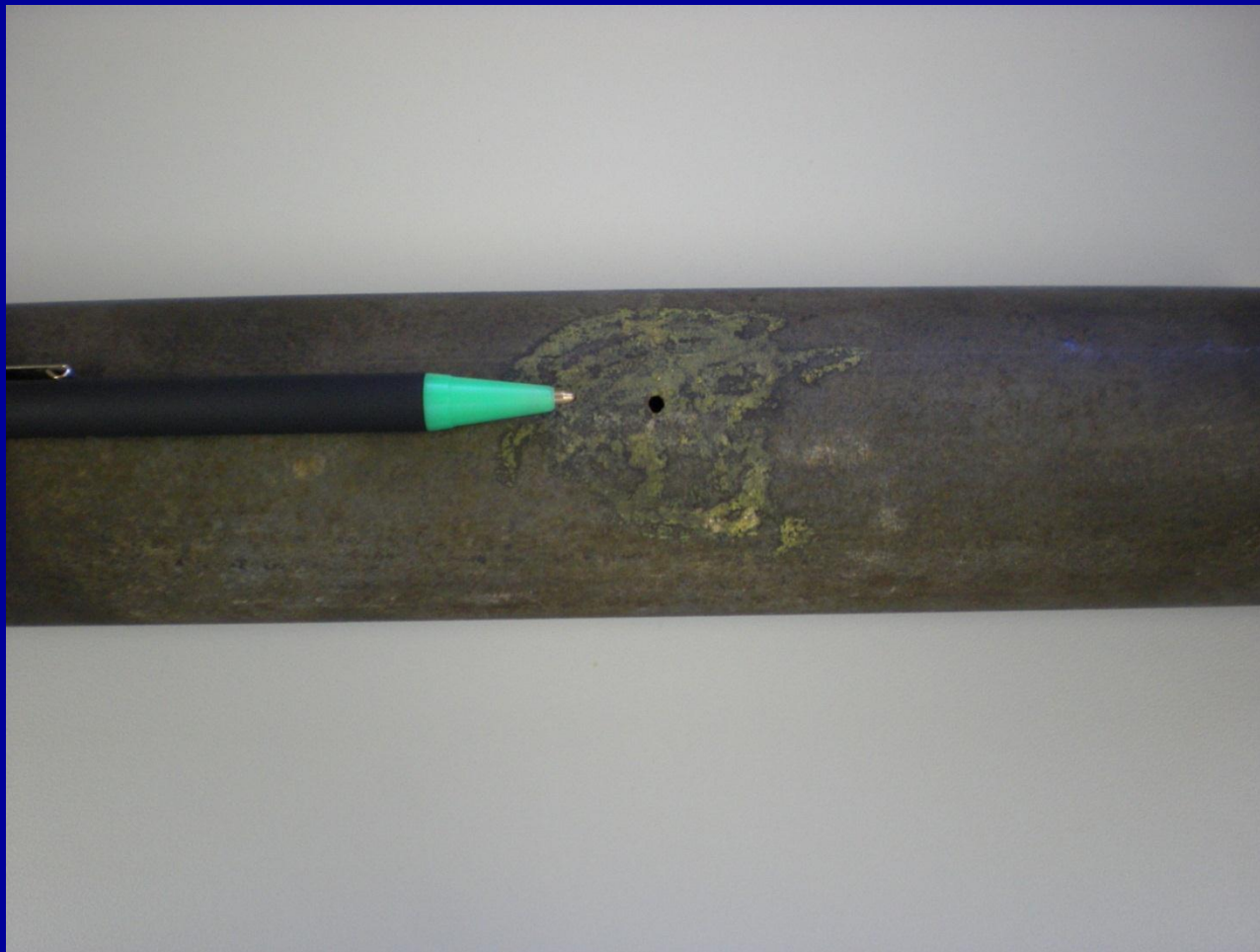
A PICTURE IS WORTH 1,000 WORDS

HOLE IN TUBING



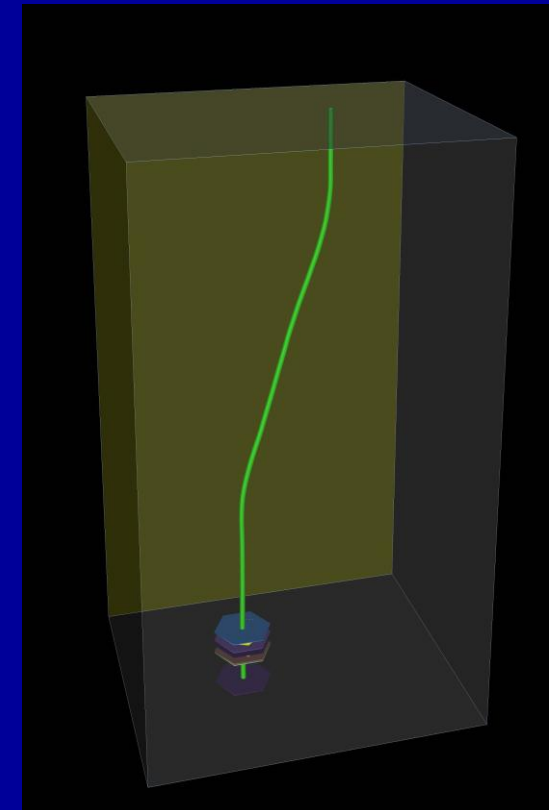
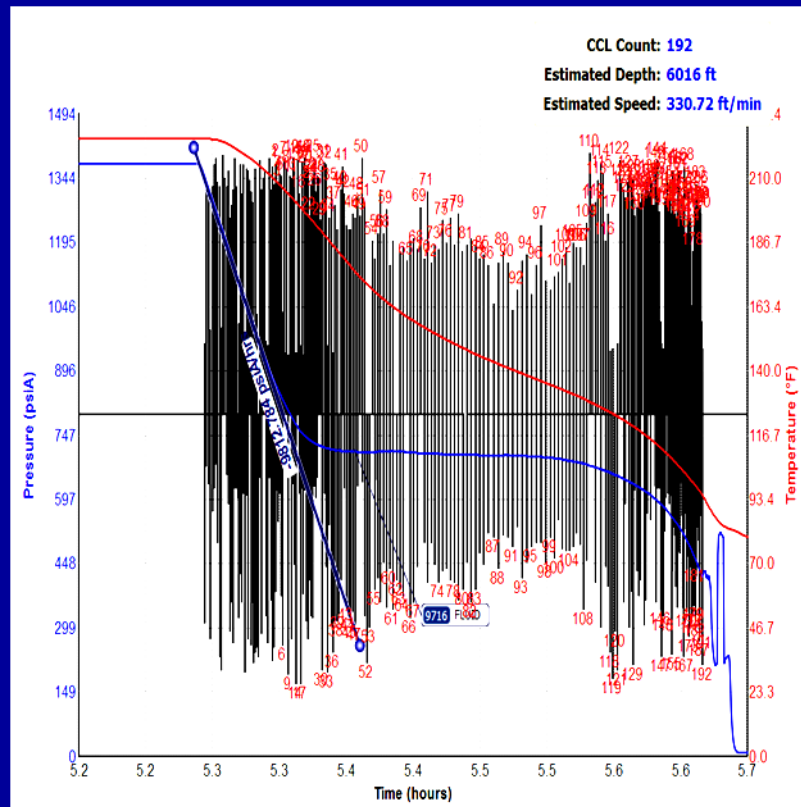
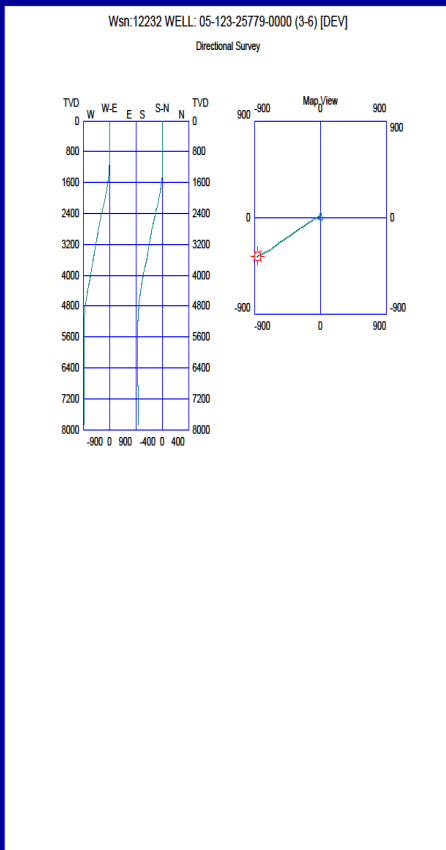
A PICTURE IS WORTH 1,000 WORDS

HOLE IN TUBING



A PICTURE IS WORTH 1,000 WORDS

A Directionally Drilled Well



SEEING IS UNDERSTANDING

THE POSSIBILITIES FOR FIELD and WELL ANALYSIS ABOUND

- This technology has been proven over many years and many of the major Oil and Gas Companies are currently using these diagnostic methods and tools.
- This innovative technology is unique and it stands alone in the Plunger Lift Industry because it uses measured plunger position and develops a “picture” that anyone familiar with the industry can easily understand and act real time to enhance well performance.
- The applications are many

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