



# SLOW SPEED CATCHES

Predictive Wins from Food & Beverage Facilities

# Cam Shaft Drive Gearbox



## Asset Type:

Cam Shaft Gearbox

## Asset Info:

Speed: 30 rpm

Part Lead Time: 4 weeks

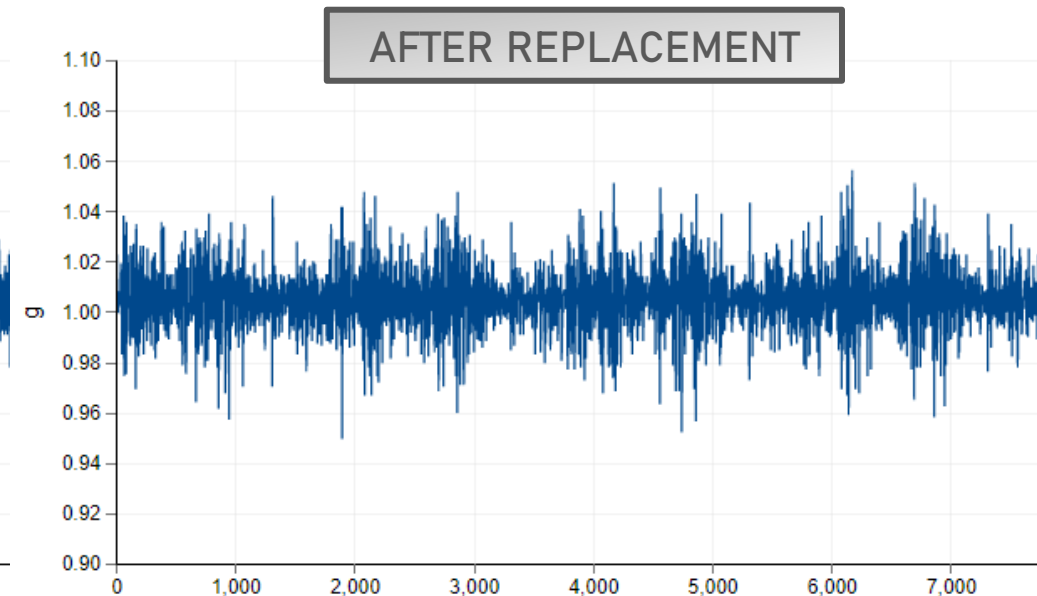
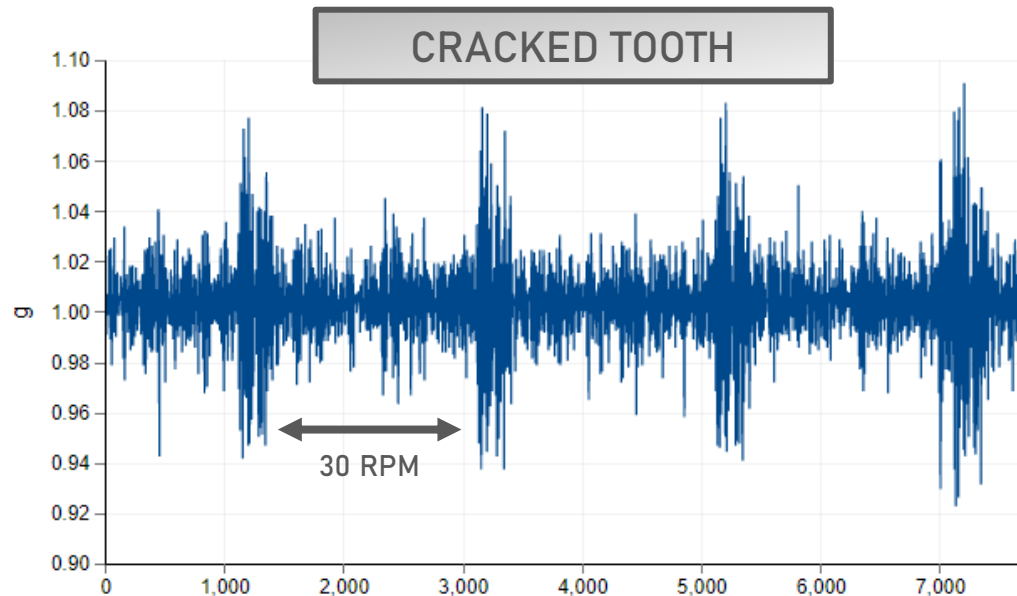
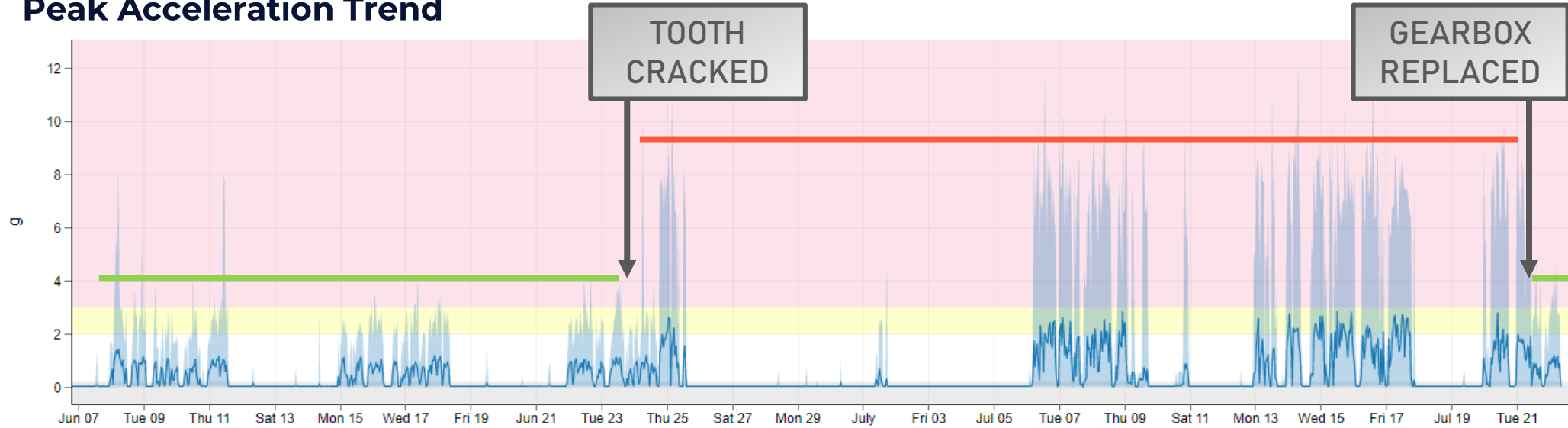
## Event Info:

Specialty gearboxes are often custom designed, with long lead times. A worn gerset can interrupt operations for weeks at a time, with major financial implications.

## Sample Frequency:

KCF wireless vibration sensors can be switched between multiple sampling frequency options at any time, ranging from 64 Hz to 8192 Hz, allowing for analysis on high & low speed equipment.

## Peak Acceleration Trend



# Dryer Trunnion Bearing

## Asset Type:

Dryer Drum  
Trunnion Bearing

## Asset Info:

Speed: 5 rpm

## Event Info:

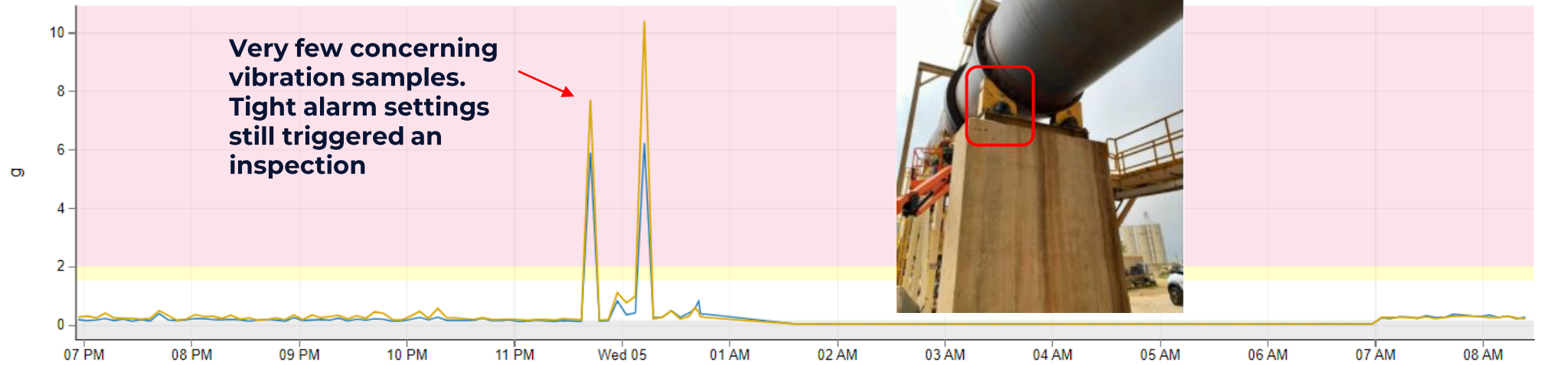
Bearings are known to fail very quickly once damage occurs – matter of hours

Because this was known, very tight alarm settings were used. An inspection was recommended off only 2 high vibration samples

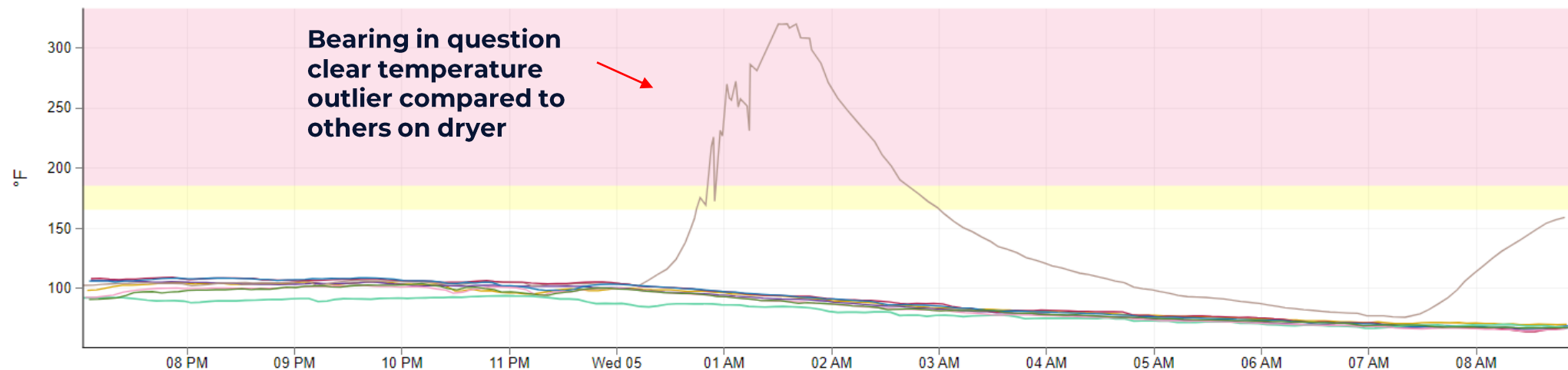
## Power of Comparison

Comparing temperature to other bearings on the same dryer, bearing in question showed clear evidence that it was failing

## Peak Acceleration Trend



## Temperature Comparison



# Bucket Elevator Bearing

## Asset Type:

Bucket Elevator Bearing

## Asset Info:

Speed: 40 rpm

Part Lead Time: 4 weeks

Elevator Height: 300ft

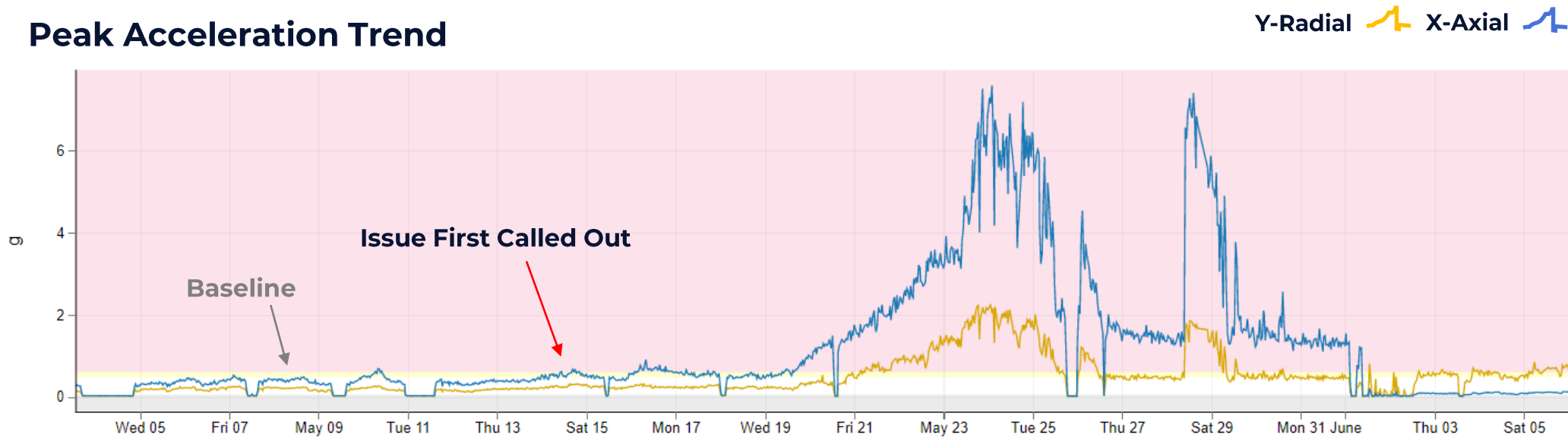
## Collateral Damage if left unchecked:

Bearing fire

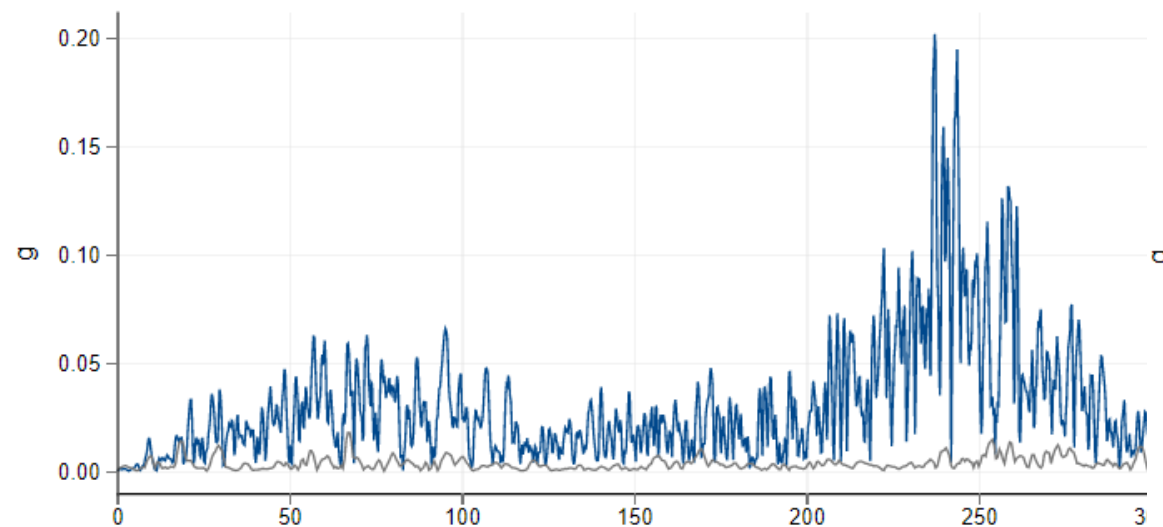
Complete belt failure

Structural damage

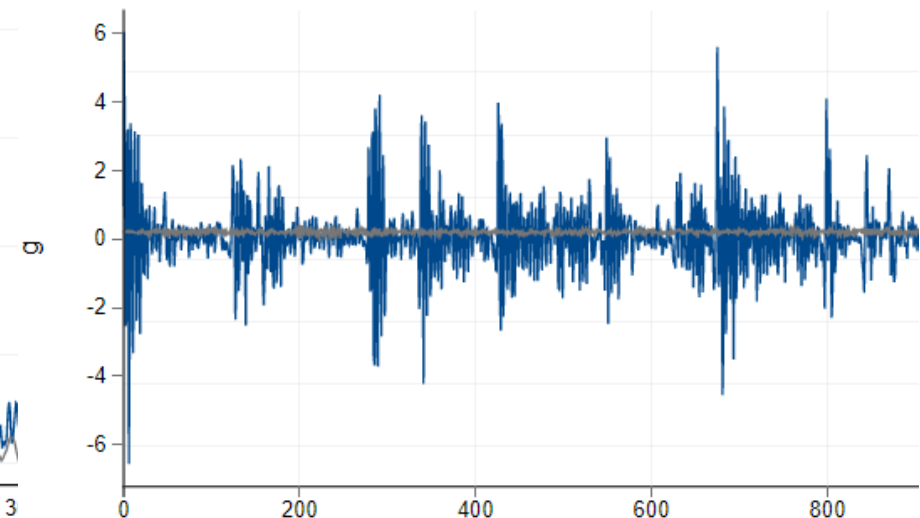
## Peak Acceleration Trend



## Frequency Spectrum



## Time Waveform



# Belt Conveyor Bearing

## Asset Type:

Belt Elevator Bearing

## Asset Info:

Speed: 400 rpm

## Event Info:

Bearing first called out for vibration increase

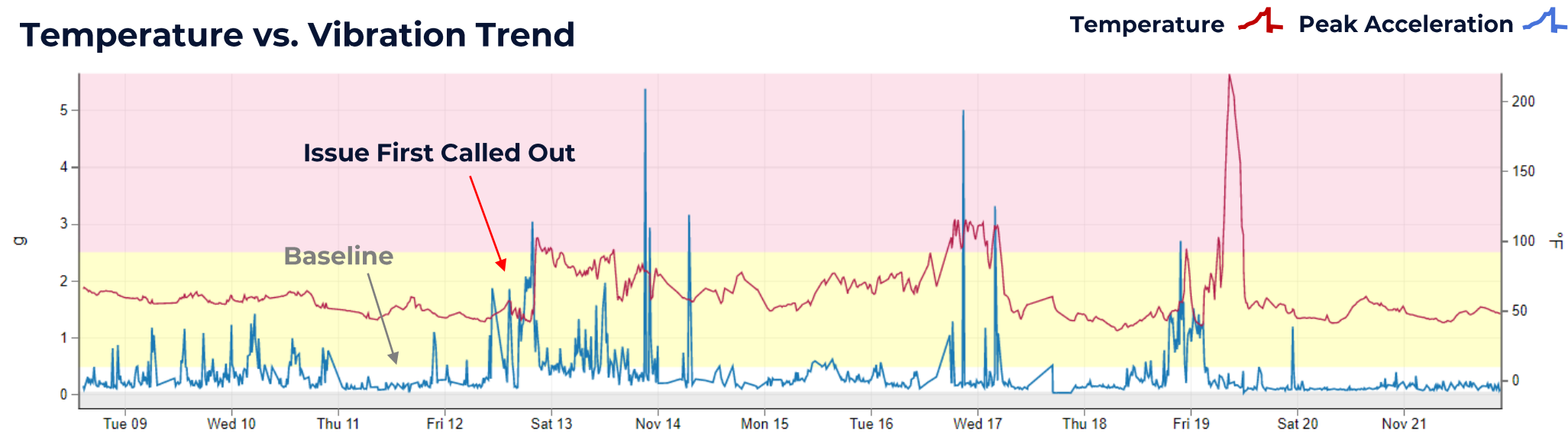
Field inspection found no issues, continued to operate as normal

Two weeks later, temperature spiked to over 225 F without much change in vibration

## Root Cause:

Bearing had run out of grease. Bearing replaced

## Temperature vs. Vibration Trend



## Time Waveform

