

Patterns to watch for in time series plots
when QCing sensor data

February 23

Ice cover

Can negatively impact sensors (e.g., may cause some diaphragms to break, especially if the stream freezes completely for a prolonged period).

During periods of ice cover, some of your hydrologic data may be unusable.



March 2



March 3



Photos provided by Jeremy White, USGS

Ice cover ‘signals’ in the time series plot



Beaver activity

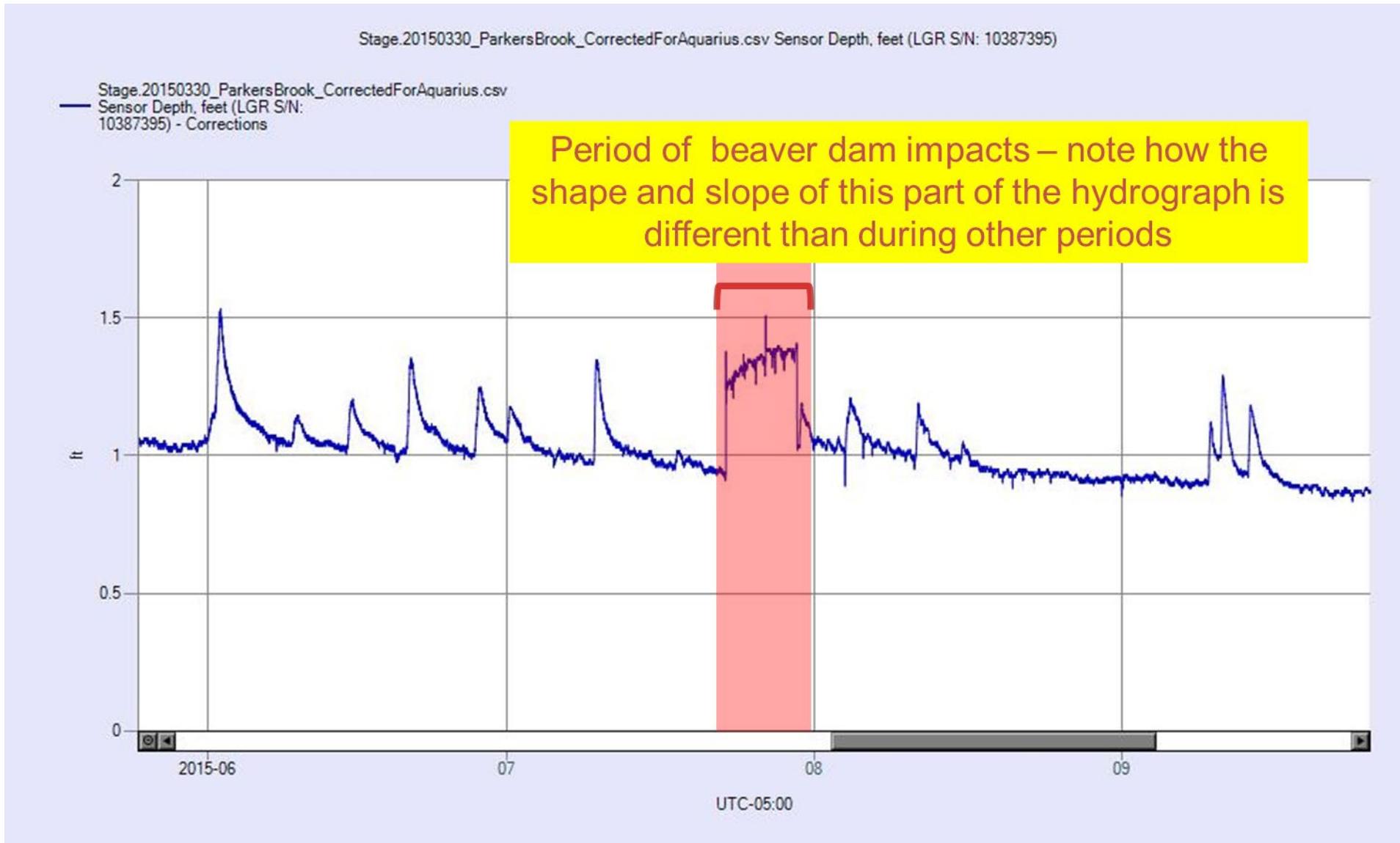


7/30/15 - Arrived at site and observed that upstream beaver dam had washed out and was stuck in riffle/hydrologic control just downstream of gage

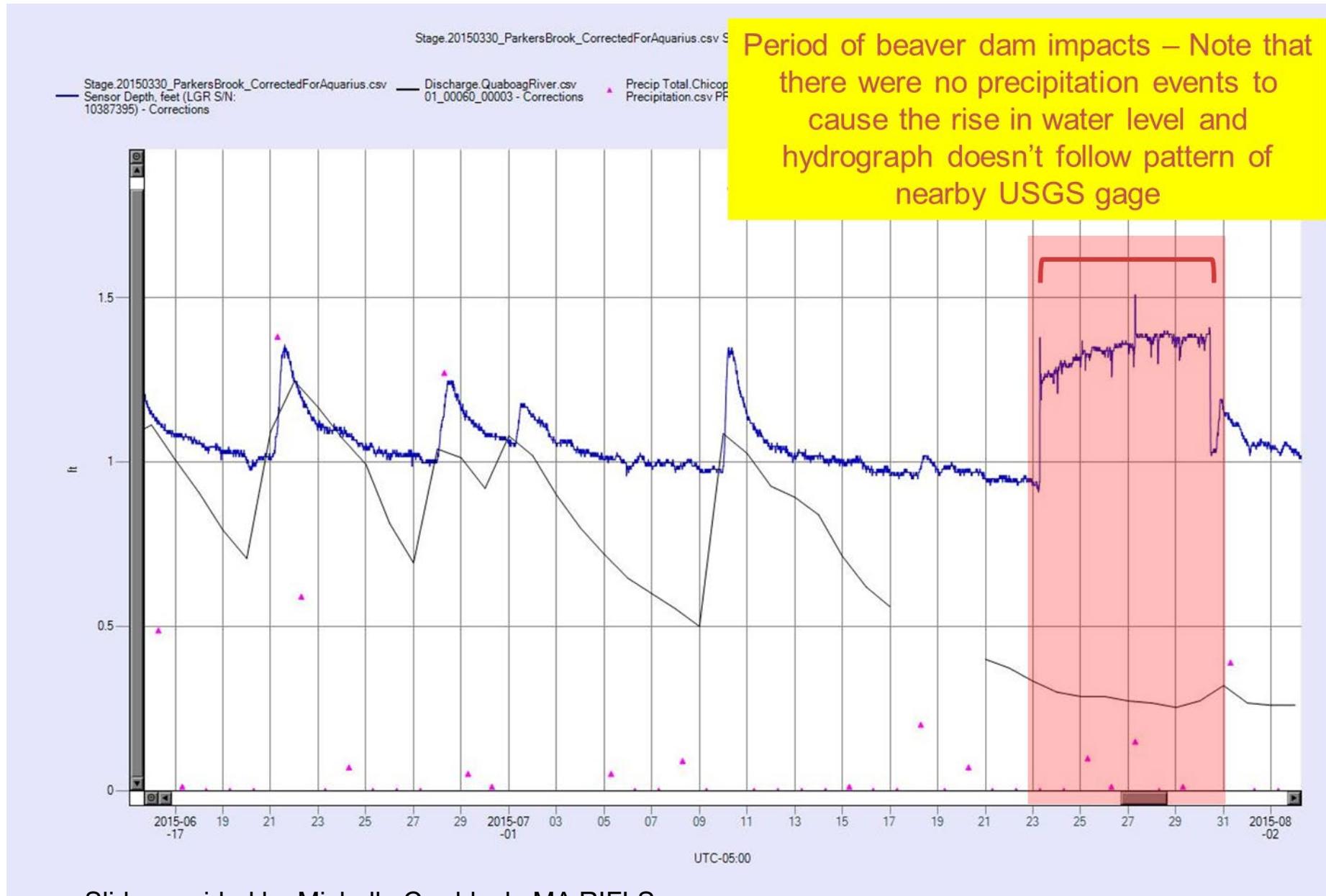


7/30/15 – After moving most of debris downstream (and out of hydrologic control), water level dropped 0.40 ft.

Beaver activity ‘signals’ in the time series plot



Beaver activity ‘signals’ in the time series plot



Leaf packs



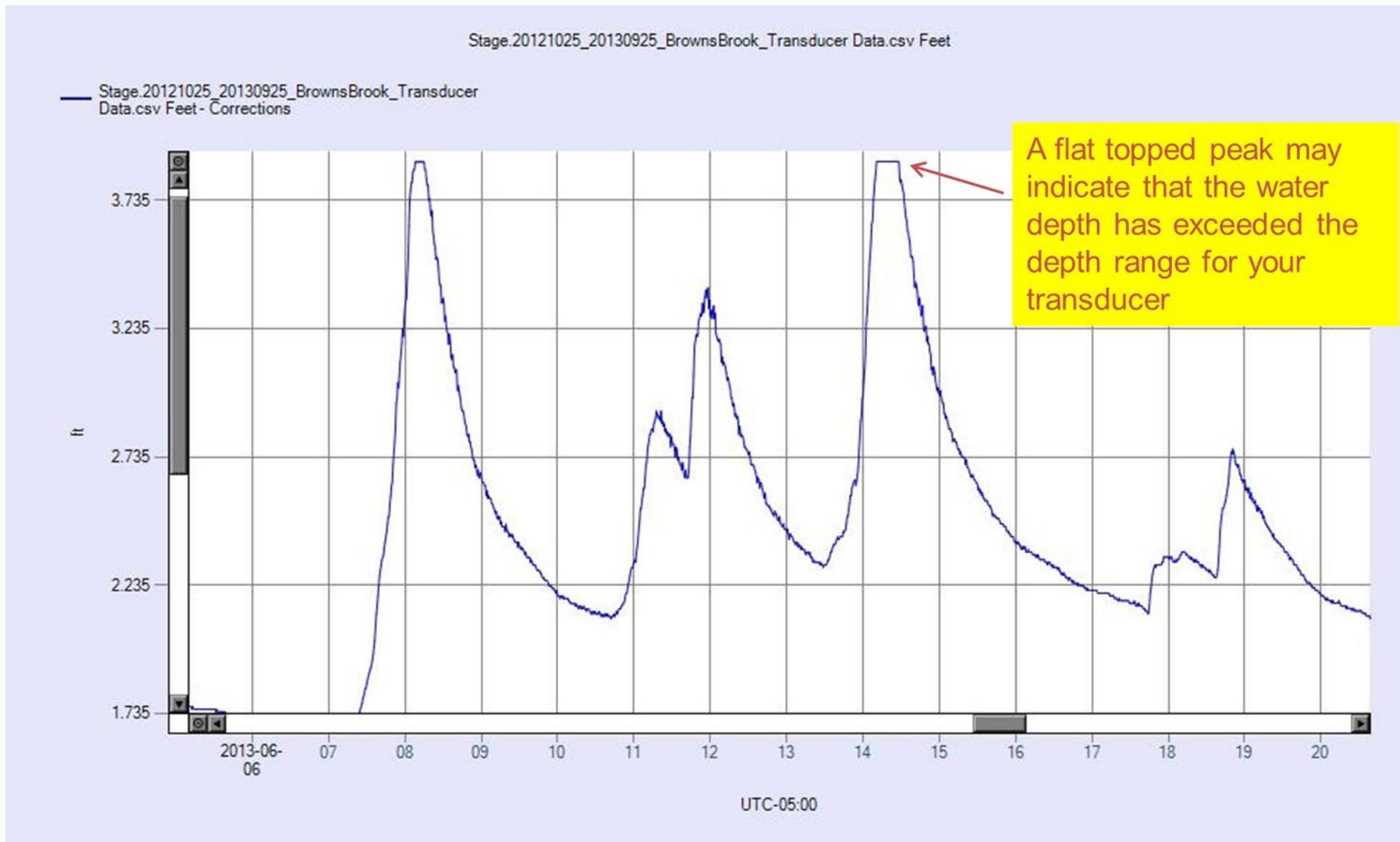
Leaf packs ‘signals’ in the time series plot

Blue line = site with leaf impacts

Black line = nearby site, no leaf impacts



Equipment limitation?



DEWATERING

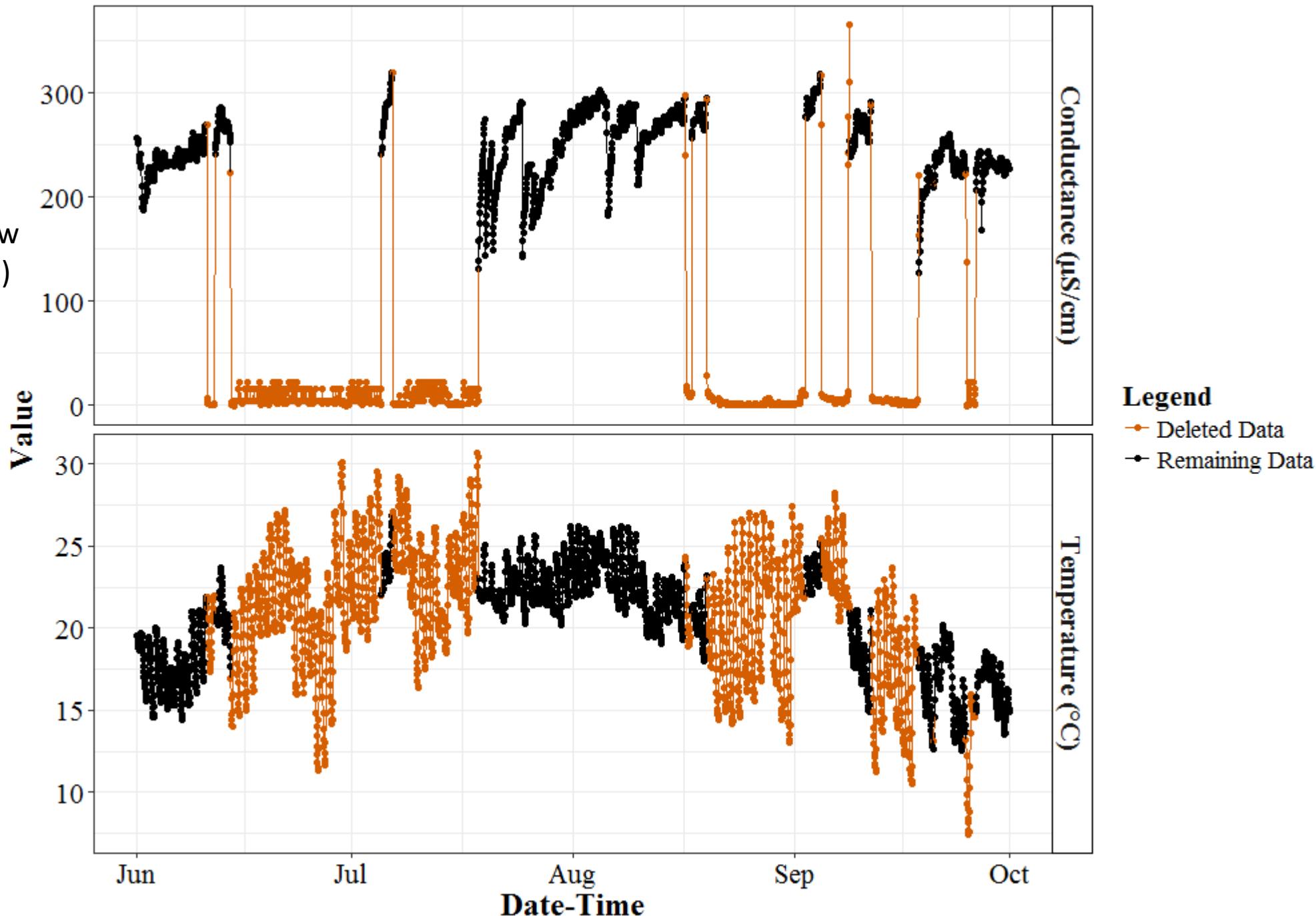


Slide provided by Leah Ettema, EPA R3

DEWATERING

Correction Examples:

Logger is not submerged (low flows or logger transplanted)

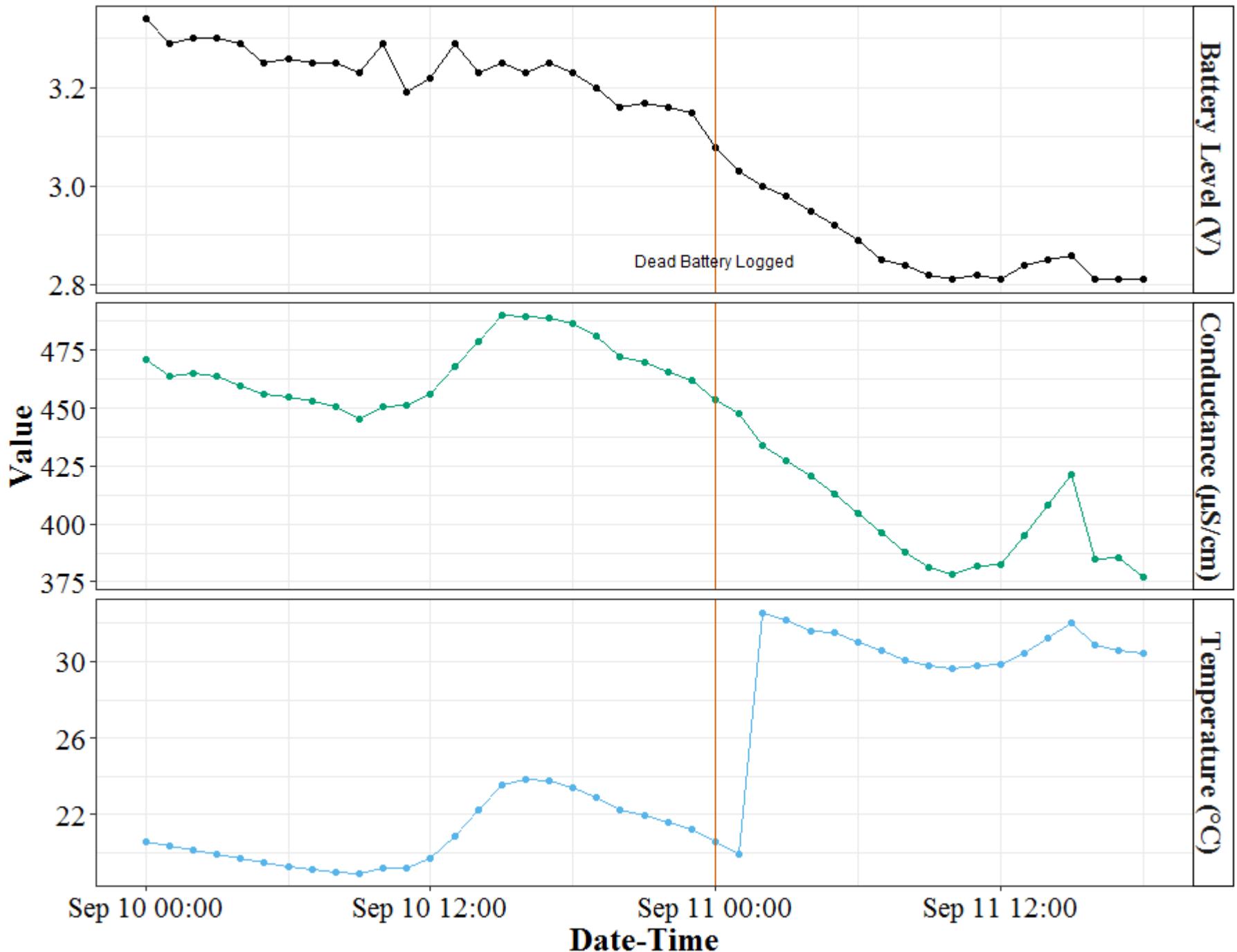


Slide provided by
Leah Ettema, EPA R3

DEAD BATTERY

Correction Examples:

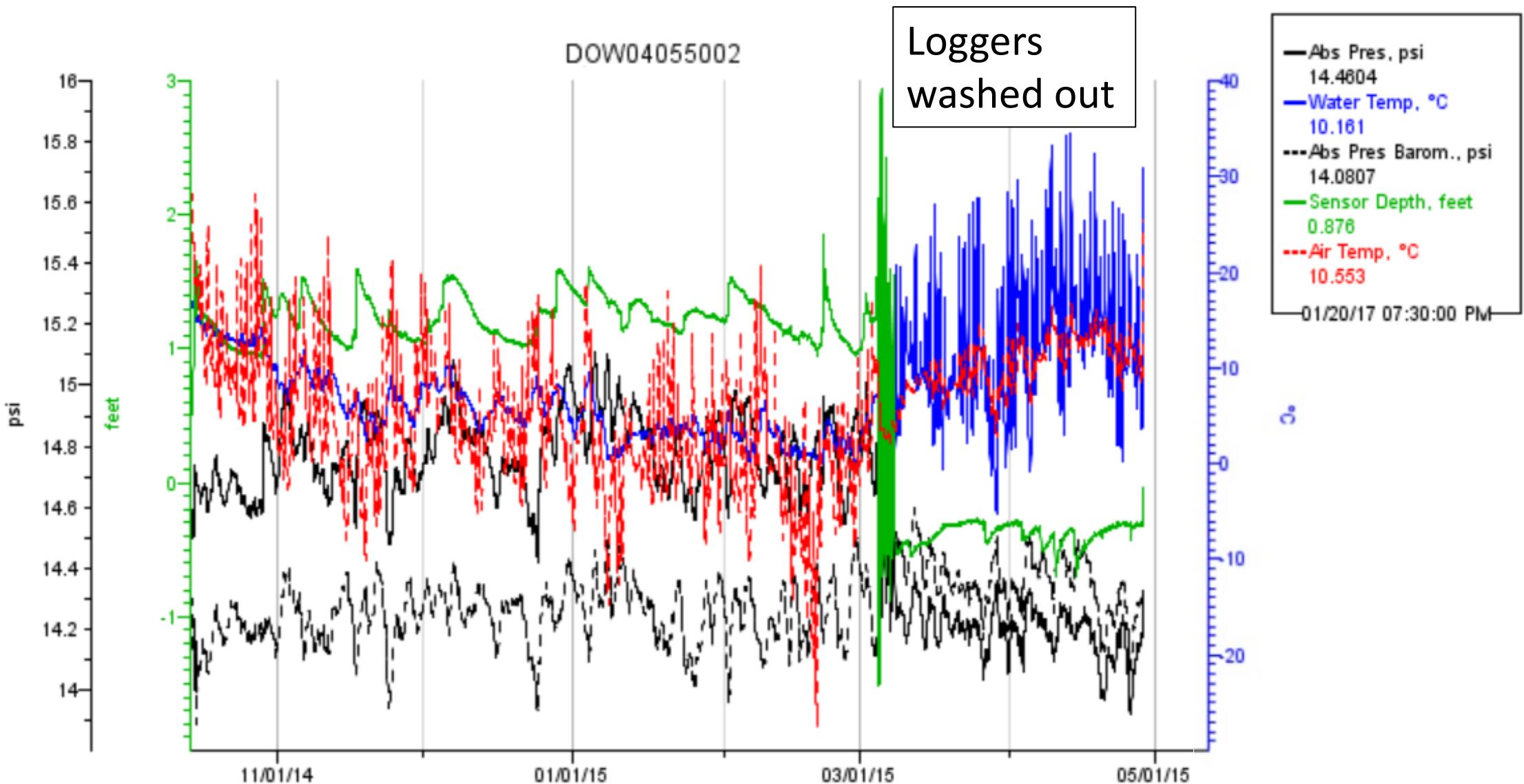
Temperature spikes with dead battery – delete data after the dead battery is logger



Slide provided by
Leah Ettema, EPA R3

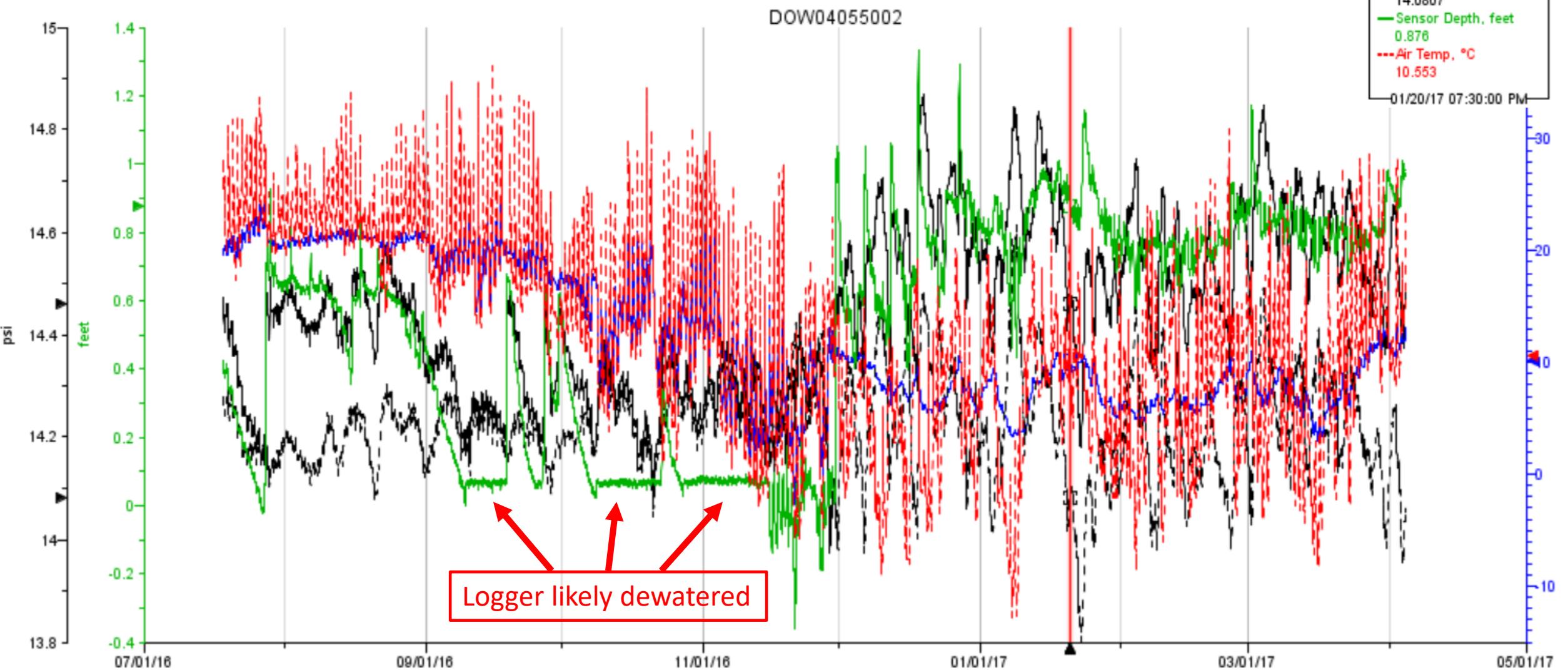
LOGGER WASH OUT

Slide provided by David Smith, KY Division of Water



LOGGER DEWATERED

Slide provided by David Smith, KY Division of Water



LOGGER FROZEN

Slide provided by David Smith, KY Division of Water

