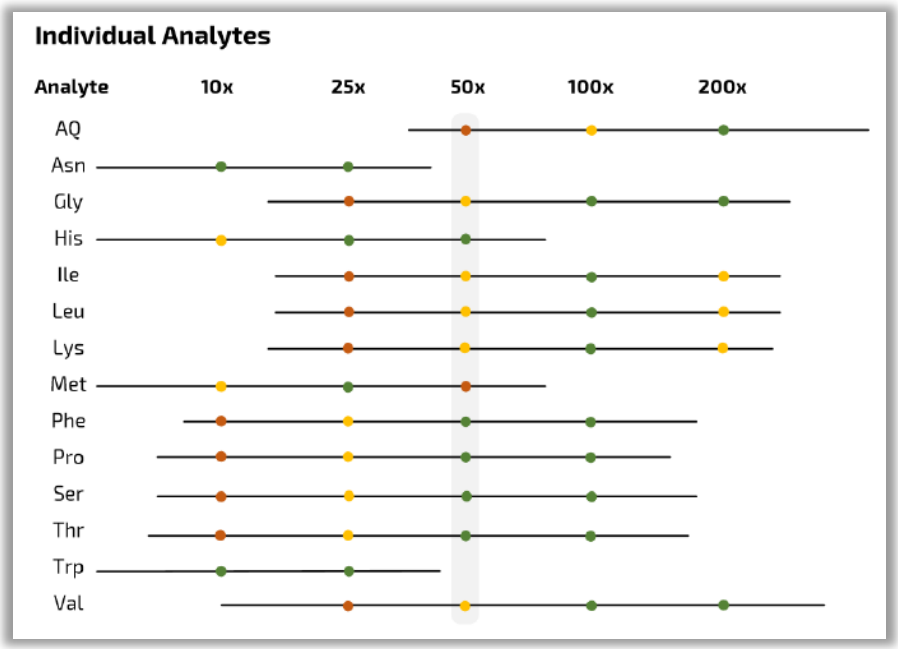
Rangefinding—Finding the Best Sample Dilution

PATsmart™ REBEL® System

Support Document

- Typically, the goal for range finding is to identify a dilution factor where the greatest number of analytes are detected within the PATsmart™ REBEL® System's calibrated range
- It is possible for some analytes to be within the calibrated range at multiple dilution factors
- Occasionally, it may be necessary to analyze the sample at multiple dilution factors in order to cover the full dynamic range



Visualization of media components that were detected within the REBEL System's calibrated range at varying dilution factors.

Methods for Determining the Correct Dilution Factor - Quantitative Methods:

- Determine if the results displayed are within the calibrated range. (Reference Calibrated Range article) If several results are beyond the calibrated range, the dilution factor should be adjusted.
- Calculate the %RSE for each analyte. The most common cause of large RSE is extrapolation outside of the calibrated range. An acceptable RSE value will typically be determined by the user/group, but generally an RSE below 15% is considered good.

REPLIGEN