620 Applegate St. PO Box 518 • Philomath, OR 97370 • 541-929-5650 • fax 541-929-5277

July 2011 Customer Alert:

Chlorophyll-a Scale Factors Shift

Affected instruments:

- ✓ All *ECO* chl-a fluorometers built or characterized before January 2011.
- ✓ All WETStar chl-a fluorometers built or characterized before July 2011.

WET Labs characterization testing has revealed that the chlorophyll-*a* (chl-a) solid proxy used to characterize our *ECO* and WETStar fluorometers allows a large amount of instrument-to-instrument variability. There are also differences in scaling between WETStar chl-a fluorometers and *ECO* chl-a fluorometers because of differences in the solid proxy used to characterize these instruments. A new methodology using a liquid proxy has been implemented to assure stable characterizations between instruments and to match up the *ECO* and WETStar fluorometers' corrected data outputs.

WET Labs' Actions

New Instruments:

WET Labs has instituted a new characterization standard solution preparation methodology. All new *ECO* and WETStar chl-a fluorometers delivered from this date forward will have range characteristics as per current specifications and scale factors**.**

Instruments returned for service and characterization:

Instruments returned for service and characterization will be characterized using the new methodology. All instruments returned for servicing will be tuned to the new liquid proxy to decrease instrument-to-instrument variability.

In some cases, we will not be able to achieve the previously stated range of an instrument. In these cases, we will strive for the highest resolution with the highest signal-to-noise ratio possible.

WET Labs service technicians will incorporate these improvements during service when practical. WET Labs' term for this service is "retuning." Accordingly, a serviced instrument may well perform better after retuning than when it was first built. For instruments that are retuned and benefit from either improved resolution or signal-to-noise ratio, WET Labs can provide pre-characterization data to allow you to link your data sets prior to service with your data sets after the instrument is returned to you.

Recommended Customer Actions:

- If you characterize your instruments, you do not need to take any action. Continue to use your characterization.
- If you report scaled or raw data, you should adjust your reported values.
- For instruments returned for service, you will use the ratio between the previous scale factor and pre-service scale factor. This ratio will cover both the change in the methodology and any change in your instrument between the previous characterization and current service.
- Use the post-service scale factor going forward.