Dissolved oxygen measurement methods aboard the RV Brooks McCall May 23, 2010

The RV Brooks McCall occupied 3 stations today. Dissolved oxygen (DO) measurements were made using three separate methods:

1. SBE DO profiles collected during CTD deployment
2. Extech DO700 hand held probe
3. LaMotte 5860 Dissolved Oxygen Field Test Kit

SBE profiles were collected at each of the stations. Extech probe measurements were made on all 11 discrete samples collected during each of the three CTD casts. LaMotte kit measurements were made on 7 of the 11 water samples for each cast. A comparison of the DO results from analyses on May 23, 2010 is presented in Figure 1 through Figure 3. Figure 1 is a comparison of the two discrete measurement methods. Figure 2 is a comparison of the discrete colorimetric measurements and corresponding SBE profile data. Figure 3 is a comparison of the Extech hand-held probe data with the corresponding SBE profile data. A 1:1 trendline is plotted across the diagonal for comparison purposes.

Figure 1.

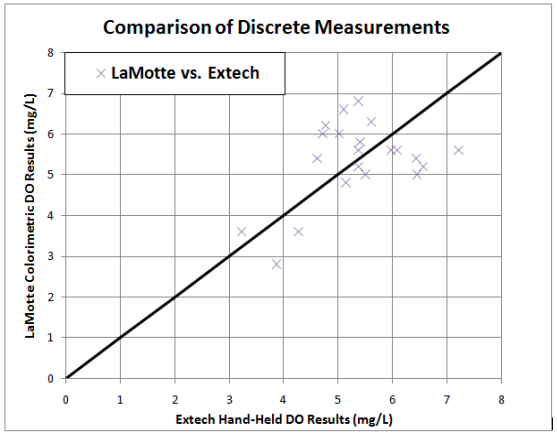


Figure 2.

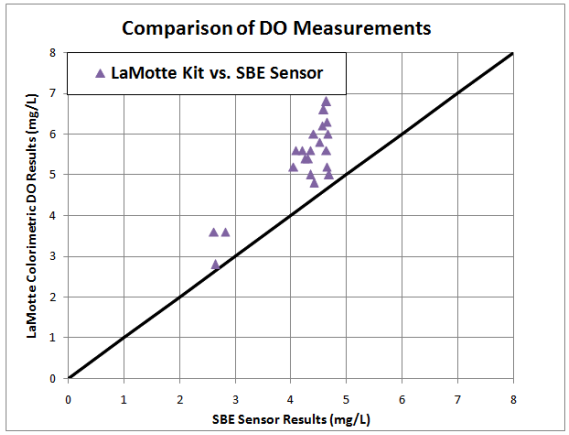
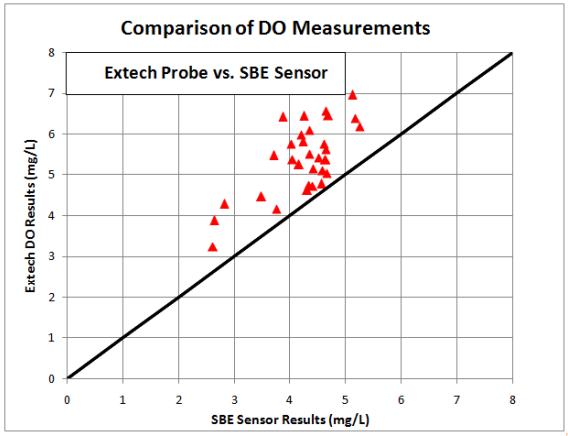


Figure 3.



The results indicate that the colorimetric measurements were generally in agreement with the Extech hand=held probe for the same water sample than, It also indicates that both the LaMotte measurements (Figure 2) and the Extech measurements (Figure 3) were slightly higher than the profile results.

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