2013-01 Salinity duplicates

Precision statement for replicate samples drawn from a single Niskin bottle:
The mean difference for Salinity:Bottle for the range 34.3744 to 34.6573 was 0.0004,
        k = 26 (0 outlier removed) where k is the number of duplicates.

Precision analysis and the determination of outliers
Precision was determined by analyzing replicate samples drawn from one Niskin.
Outliers are discarded on the basis of Chauvenet's criteria. The statistic is calculated using the following formula:

$$\sigma = \left[\frac{1}{n-1} \sum_{1}^{n} (x_i - x_m)^2 \right]^{\frac{1}{2}}$$

The maximum deviation, dmax, is compared with the individual residuals from the original concentrations.
If a replicate's residual is greater than dmax, this reading can be rejected based upon Chauvenet's criterion.

Duplicate samples from a single Niskin bottle

Event Number	Sample Number	Station	Pressure dbar	Salinity 1	Salinity 2	Rejected yes / no
13	41	P8	2003.5	34.5921	34.5919	
13	44	P8	1001.7	34.3752	34.3752	
22	96	P12	3002.5	34.6493	34.6487	
22	101	P12	1000.9	34.3880	34.3881	
30	164	P16	3003.2	34.6537	34.6534	
30	166	P16	2001.8	34.5961	34.5953	
30	169	P16	1000.5	34.3746	34.3744	
42	247	P26	2999.2	34.6573	34.6568	
42	252	P26	999.4	34.3832	34.3828	
62	341	P20	3001.0	34.6557	34.6557	
62	346	P20	999.7	34.3772	34.3775	
74	389	P4	1251.8	34.4683	34.4687	
74	390	P4	1000.5	34.4014	34.4004	