***Reject flags (1st flag character)***

Automatic flags - applied daily during data reduction by a processing program

**A** problems in analysis or data reduction. Typically, the A is applied when the *working references* run at the beginning, middle, or end of the run have a standard deviation higher than 0.04 or 0.08 for d13C and d18O, respectively.

**H** The *trap tank* run on the same day has an average d13C or d18O value greater than 0.15 or 0.3 ‰ above its long term averages, respectively (since 2005.)

**L**  The trap tank run on the same day has an average d13C or d18O value less than 0.15 or 0.3 ‰ above its long term averages, respectively (since 2005.)

*Flags applied periodically by code*

**C** flagged for CO2 mole fraction (by NOAA CO2 measurement lab)

**W** flask sampled 'wet' (applied to 18O data only)

**N/n** problem due to sample collection (inherited from CO2 measurements)

Hand flags - applied by hand or in software (REFLAG) to selected flasks

***Non-background flags (2nd flag character)***

Ground flags - applied by outlier-identification software (CCG\_FILTER)

**X** Outlier by more than 3-sigma from a CCGVU curve

**x** Outlier by more than 3-sigma in CO2 concentration

***Retain flags (3rd flag character)***

Automatic flags - applied during data reduction (by the processing program)

**S** - single flask (flask without a pair mate)

**o** - no trap data available for comparisons

**H** The trap tank run on the same day has an average d13C or d18O value greater than 0.045 or 0.09 ‰ above its long term averages, respectively (since 2005.)

**L** The trap tank run on the same day has an average d13C or d18O value less than 0.045 or 0.09 ‰ above its long term averages, respectively (since 2005.)

**P** Data has poor precision in dual inlet analysis: greater than 0.02 ‰ for d13C and 0.03 ‰ for d18O (since 2005).

**T** The trap tank run on the same day has high standard deviation of its (typically) three measurements: above 0.08 ‰ and 0.16 ‰ for d13C and d18O respectively (since 2005).

***Additional flags***

**L** linked flask (0.5-liter flask analyzed together with its mate)

**I** flask also analyzed by another lab (aliquot taken)

**i** same as "I" above, but displaced a previous flag in this field