Δ bSi Production Protocol - HOT Cruises

At Sea:

1. Rinse a jerrican three times with sample water then fill almost full to have enough water for rinses.
2. Split sample between 2 2.8L PC bottles, **initial** and **final**, rinsing each of the bottles three times prior to filling. Put bottles in bottle carriers to take back out on deck.
3. Take the **final** bottle from each depth out to deck to be hung on mooring line. For deep bottles, place in dive bag with rad samples and tie bag to mooring line.
4. Incubate for 24hours (gas array).
5. Filter the **initial** bottles on 47mm 0.6µm PCTE filters on the filtration rack, roll/fold filter into thirds lengthwise, place in a pre-labeled purple capped 15ml PP centrifuge tube and dry at 65ºC (any hotter will melt the tube). Once dry (in 1-2 days), cap tightly and package for shipping back to UCSB. Record volumes etc. on data sheet.
6. Collect **final** bottles from mooring and bring in to filtration rack. Filter water on 47mm 0.6µm PCTE filters, roll/fold filter into thirds lengthwise, place in a pre-labeled purple capped 15ml PP centrifuge tube and dry at 65ºC (any hotter will melt the tube). Once dry (in 1-2 days), cap tightly and package for shipping back to UCSB. Record volumes etc. on data sheet

In the Lab:

7. Follow standard bSi protocol for determination of biogenic particulate silica in samples.