

Particulate Organic Matter (POM)

Filtering the samples

- 1. Load two 25 mm filter funnels with pre-combusted filters.
- 2. Invert sample bottle to mix water and rinse measuring jugs with sample water prior to filtering.
- 3. YSI Each POM sample prior to filtering, YSI shortly after collection to get accurate reading do not let sample sit in cooler before recording measurements.
- 4. Filter 2 liters of water through each filter, or enough water for the filter to have significant colour. (add water for 20 minutes, then allow another 10 for water to finish draining)
- 5. Do not let the pressure exceed -0.4 bar (-12 inHg).
- 6. <u>Take care not to let the filter run dry</u>. This will cause phytoplankton cells to rupture.
- 7. Once all water has been filtered close the filter funnel stopper and turn off the pump.
- 8. Make sure that the volume of water filtered to the point of termination is recorded.
- 9. Lift the rubber stopper to release the pressure then Add 2.5 of 1 M HCl (made with filtered seawater) to one of the 25 mm filter funnels using a pipette (use 5 mL 1M HCl (made with filtered seawater) if using 47 mm GF/F filters).
- 10. Let the HCl bath the filter for 30 second.
- 11. Open the funnel stopper and drain the HCl, rinsing briefly with filtered seawater sprayed around the funnel, never directly on the filter.
- 12. Carefully remove the filter using flat filter forceps. Fold filter in half (inwards) using two pairs of forceps and place into numbered squares of aluminum foil.
- 13. Fold the foil square along the edges to seal the package.
- 14. Label the filter that was acid treated with an "A". record the exact volume filtered with sharpie on the tinfoil packet. Record that the Sample Type is "POM".
- 15. For each filter record the filter number, the station depth and date, and the volume filtered on the station sheet.

Filter Storage

- 1. Place filters in a labelled ziplock bag (POM) and store in a -20 freezer until drying.
- 2. or put them in the cooler if you are in the field