AEROBIOLOGY LABORATORY ASSOCIATES, INCORPORATED
CONSULTING LABORATORY

Website: www.aerobiology.net

AIR, Test Code 1074-Total Coliforms/E. Coli

Air cultures are taken with an impactor style sampler (Andersen or SAS) .This is a two plate protocol to select out gram-negative rods, such as *E. coli*, coliforms or non-fermenters (*Pseudomonas species*) in addition to a Total Bacterial Count with Identifications. This profile is particularly meaningful in assessing an indoor environment after a black water event in that it selects out for fecal gram-negative rods.

1. Calibrate each sampling pump or piece of equipment by following manufacturer's recommendations.

2. Before each run, thoroughly wipe each sampler stage with rubbing alcohol. Allow to dry. Make sure air passages are not blocked.

3. Load and immediately unload one set of sampling media in each sampler to serve as field blanks.

4. Label agar side of plate with identifier. Remove cover from media, load sampling media into sampler, and attach sampler to pump with flexible tubing or if using a SAS sampler screw the top back onto the sampler..NOTE: Take special care to prevent contamination of media during loading and unloading. Do not touch agar surface.

5. **Sample at known preset flow for an accurately known time, e.g., 5 min.** Rotary vane pump should run at 28. 3 lpm. (In heavily contaminated areas, sampling time may be adjusted) **Both plates should be sampled at same total air volume.**

6. Replace covers on sampling media. Tape plate or place each plate in separate bag, and pack securely for shipment (plates should be media side up).

7. If plates are going to be shipped back to the laboratory send them for overnight delivery in a cooler with an ice pack. If plates are not shipped that day keep the plates in the refrigerator until they are shipped the next day.

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REFERENCES:

Dillon, H. Kenneth, L. Hung, J. Miller, Field Guide for the Determination of Biological Contaminants in Environmental Samples.,

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