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AIR, Test Code 2098, Bacillus anthracis Culture

Bacillus anthracis is the spore forming bacterium that causes the acute infectious disease Anthrax. Though it usually affects wild and domestic sheep, cattle, horses and other herbivores it can be contracted to humans thru infected animals or tissue.

A B. anthracis air culture is a two-plate protocol Blood agar and PLET agar that can be obtained thru Aerobiology.

- 1. Use a culturable impactor sampler. Calibrate it according to the manufacturer's specifications.
- 2. Collect the samples using aseptic techniques (e.g. sanitize working surfaces; wipe the sampler collection surfaces with alcohol between samples; and invert the sample plates before and after each sampling).
- 3. Place the plate into the sampler face up.
- 4. Place the sampler cover over the top of the agar plate and secure.
- 5. Turn on the sampler and run it for up to 5 minutes.
- 6. Remove the plate and cover with lid.
- 7. Label the sample, and place in a clean self-sealing bag
- 8. Clean the outside of the sealed bag with 10% bleach solution just prior to leaving the contaminated area. Clean the surface of sampling equipment with an appropriate decontamination solution before moving to the next location.
- 9. Place the cleaned, sealed bag in another unused self-sealing bag. (Double-bag each sample.)
- 10. Wipe the outside of the second bag with 10% bleach solution.
- 11. Place the double-bagged samples in a plastic container.
- 12. Ship samples overnight to the laboratory in a cooler with an ice pack.

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References:

Dillon, H. Kenneth, L. Hung, J. Miller, Field Guide for the Determination of Biological Contaminants in Environmental Samples., 6.2.4.1, 134-135 (2005).

Macher, Janet, Sc.D., M.P.H., Bioaerosols, 8.2.3.1, 18.2.1, (1999).

NIOSH Manual of Analytical Methods (NMAM), Fourth Edition Method 0800 January 15, 1998

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