Cannabis Control Commission
COMMONWEALTH OF MASSACHUSETTS

# Protocol for Sampling and Analysis of Environmental Media for Massachusetts Registered Medical Marijuana Dispensaries

## Exhibit 5.
## Analysis Details – Water

May 7, 2015

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This document was issued originally by the Department of Public Health (DPH). As part of the transfer of the medical-use of marijuana program on or before December 31, 2018, the Commission adopted this document. We suggest that before you rely on the contents of this document, you check the applicable medical-use marijuana laws, which include M.G.L. c. 94I and 935 CMR 501.000, as they may provide or clarify the legal requirements related to this document. We also suggest that you periodically check for revisions to this document. Questions with regards to this document may be directed to CannabisCommission@Mass.gov.

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| Method | Analytical Method | Analyte | CAS | Reporting Limit (mg/L) | Acceptable Limits (mg/L) |
|---|---|---|---|---|---|
| Metals | Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES) Comparable to SW-846 6010C or other suitable validated method or ICP-Mass Spectrometry (ICP-MS) comparable to SW-846 6020B or other suitable validated method and Cold Vapor Atomic Absorption (CVAA) for Mercury comparable to SW-846 7470A or other suitable validated method | Antimony | 7440-36-0 | 0.060 | 6 |
| | | Arsenic | 7440-38-2 | 0.010 | 10 |
| | | Cadmium | 7440-43-9 | 0.005 | 5 |
| | | Chromium (Hexavalent) | 7440-47-3 | 0.010 | 100 |
| | | Copper | 7440-50-8 | 0.025 | 1,300 |
| | | Lead | 7439-92-1 | 0.010 | 15 |
| | | Nickel | 7440-02-0 | 0.040 | 100* |
| | | Mercury (CVAA) | 7439-97-6 | 0.0002 | 2 |
| | | gamma-BHC | 58-89-9 | 0.00005 | 0.2 |
| | | Heptachlor | 76-44-8 | 0.00005 | 0.4 |
| | | Heptachlor epoxide | 1024-57-3 | 0.00005 | 0.2 |
| | | Endrin | 72-20-8 | 0.0001 | 2 |
| | | Methoxychlor | 72-43-5 | 0.0005 | 40 |
| | | Endrin ketone | 53494-70-5 | 0.0001 | 2 |
| | | Endrin aldehyde | 7421-93-4 | 0.0001 | 2 |
| | | alpha-Chlordane | 5103-71-9 | 0.00005 | 2 |
| | | gamma-Chlordane | 5103-74-2 | 0.00005 | 2 |

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|---|---|---|---|---|---|
| Microbiological | Pour Plate Method comparable to SM 9215B or other suitable validated method | Heterotrophic Plate Count | NA | 1.0 | MMCL |
| | Membrane Filter comparable to SM 9222D or other suitable validated method | Fecal Coliform | NA | 1.0 | MMCL |
| | Multi-tube comparable to SM 9221F or other suitable validated method | e. Coli | NA | 1.0 | MMCL |

*****For contaminant limits in water requiring testing, as described earlier in this protocol, DPH used Massachusetts Maximum Contaminant Levels (MMCLs) as acceptable limits. For one metal (nickel) no MMCL exists, thus the MassDEP Office of Research and Standards Goal (ORSG) for nickel in drinking water of 100 mg/L was used as an acceptable limit.

*Please note that these Protocols are continually evaluated and revised based upon new scientific and industry information.*