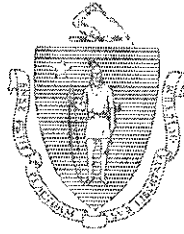


The Commonwealth of Massachusetts



Department of Environmental Protection

Division of Environmental Laboratory Sciences

Senator William X. Wall Experiment Station

certifies

M-RI002

ESS LABORATORY
DIV OF THIELSCH ENGINEERING
185 FRANCES AVE
CRANSTON, RI 02910-0000

Laboratory Director: LAUREL STODDARD

for the analysis of NON POTABLE WATER (CHEMISTRY)
POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Laboratory Sciences to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

A handwritten signature in cursive script, reading "Oscar C. Jacobs".

Director, Division of Environmental Laboratory Sciences

Issued: 01 JUL 2021

Expires: 30 JUN 2022

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Certified Parameter List as of: 01 JUL 2021

M-RI002

ESS LABORATORY
CRANSTON RI

NON POTABLE WATER (CHEMISTRY)

Effective Date 25 JAN 2020

Expiration Date 30 JUN 2022

Analytes

Methods

ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	SM 3113B
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	SM 3113B
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	SM 3113B
SELENIUM	EPA 200.8
SILVER	EPA 200.7
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
TITANIUM	EPA 200.7
VANADIUM	EPA 200.7
ZINC	EPA 200.7
PH	SM 4500-H-B
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CaCO3), TOTAL	SM 2340B
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7

**COMMONWEALTH OF MASSACHUSETTS
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M-RI002

**ESS LABORATORY
CRANSTON RI**

NON POTABLE WATER (CHEMISTRY)

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Analytes

Methods

ALKALINITY, TOTAL	SM 2320B
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	SM 4500-NH3-B, D
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 353.2
KJELDAHL-N	SM 4500-NH3-B,D
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
ORTHOPHOSPHATE	EPA 365.3
PHOSPHORUS, TOTAL	EPA 365.3
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310B
CYANIDE, TOTAL	SM 4500-CN-C,E
NON-FILTERABLE RESIDUE	SM 2540D
CHLORINE, TOTAL RESIDUAL	SM 4500-CL-D
CHLORINE, TOTAL RESIDUAL	SM 4500-CL-G
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.1
VOLATILE HALOCARBONS	EPA 624.1
VOLATILE AROMATICS	EPA 624.1
CHLORDANE	EPA 608.3
ALDRIN	EPA 608.3
ALPHA-BHC	EPA 608.3
BETA-BHC	EPA 608.3
GAMMA-BHC	EPA 608.3
DELTA-BHC	EPA 608.3
DIELDRIN	EPA 608.3
DDD	EPA 608.3
DDE	EPA 608.3
DDT	EPA 608.3
ENDOSULFAN I	EPA 608.3
ENDOSULFAN II	EPA 608.3
ENDOSULFAN SULFATE	EPA 608.3
ENDRIN	EPA 608.3
ENDRIN ALDEHYDE	EPA 608.3
HEPTACHLOR	EPA 608.3
HEPTACHLOR EPOXIDE	EPA 608.3
SVOC-ACID EXTRACTABLES	EPA 625.1

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Certified Parameter List as of: 01 JUL 2021

**M-RI002 ESS LABORATORY
 CRANSTON RI**

NON POTABLE WATER (CHEMISTRY) Effective Date 25 JAN 2020 Expiration Date 30 JUN 2022

Analytes

SVOC-BASE/NEUTRAL EXTRACTABLES
POLYCHLORINATED BIPHENYLS (WATER)
POLYCHLORINATED BIPHENYLS (OIL)

Methods

EPA 625.1
EPA 608.3
EPA 600/4-81-045

POTABLE WATER (CHEMISTRY) Effective Date 02 JUL 2019 Expiration Date 30 JUN 2022

Analytes

ANTIMONY
ANTIMONY
ARSENIC
ARSENIC
BARIUM
BARIUM
BERYLLIUM
BERYLLIUM
CADMIUM
CADMIUM
CHROMIUM
CHROMIUM
COPPER
COPPER
LEAD
LEAD
MERCURY
NICKEL
NICKEL
SELENIUM
SELENIUM
SILVER
THALLIUM
THALLIUM
NITRATE-N
NITRITE-N
FLUORIDE
SODIUM
SULFATE
CYANIDE, TOTAL
TURBIDITY
CALCIUM
ALKALINITY, TOTAL
TOTAL DISSOLVED SOLIDS
PH
PH

Methods

EPA 200.8
EPA 200.9
EPA 200.8
EPA 200.9
EPA 200.7
EPA 200.8
EPA 200.7
EPA 200.8
EPA 200.7
EPA 200.8
EPA 200.7
EPA 200.8
EPA 200.7
EPA 200.8
EPA 200.7
EPA 200.9
EPA 245.1
EPA 200.7
EPA 200.8
EPA 200.8
EPA 200.9
EPA 200.8
EPA 200.8
EPA 200.9
EPA 200.8
EPA 200.7
EPA 200.9
EPA 353.2
EPA 353.2
EPA 300.0
EPA 200.7
EPA 300.0
SM 4500-CN-C,E
EPA 180.1
EPA 200.7
SM 2320B
SM 2540C
EPA 150.1
SM 4500-H-B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2021

M-RI002

ESS LABORATORY
CRANSTON RI

POTABLE WATER (CHEMISTRY)

Effective Date 02 JUL 2019

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Analytes

TRIHALOMETHANES
VOLATILE ORGANIC COMPOUNDS
1,2-DIBROMOETHANE
1,2-DIBROMO-3-CHLOROPROPANE
HALOACETIC ACIDS

Methods

EPA 524.2
EPA 524.2
EPA 504.1
EPA 504.1
EPA 552.2