

## CITY OF HAMILTON

**PUBLIC WORKS DEPARTMENT**  
**(ENVIRONMENT AND SUSTAINABLE INFRASTRUCTURE DIVISION – COMPLIANCE & REGULATIONS -**  
**LOCATION - 700 WOODWARD AVE.)**

**LABORATORY TECHNICIAN I - CUPE 5167**

**SUMMARY OF DUTIES**

Reporting to the Supervisor, Inorganic Chemistry/Organic Chemistry /Microbiology/Trace Metals. The Laboratory Technician I (LT1) perform routine and non-routine analysis on environmental samples, including water, wastewater, sludges, and biosolids samples using the appropriate technical equipment and instruments. The LTI performs QA/QC duties associated with an ISO17025 accredited MOE licensed environmental laboratory and contributes to troubleshooting/recording of trends, nonconformances, corrective actions and opportunities for improvement.

**GENERAL DUTIES**

Performs chemical (inorganic, organic, metals) and bacteriological analysis on water, wastewater, industrial waste, landfill ponds, leachates, sludge, and biosolids as per standard operating procedures.

Performs chemical (inorganic, organic, metals) and bacteriological analysis regulatory and process control at the Hamilton and Dundas Wastewater Treatment Plants and the Hamilton Water Treatment Plant

Co-ordinate work with other technical staff.

Updates or sets up and validates new analytical methods under the direction of the Supervisors.

Prepares reagents and standards for the purpose of testing.

Operates, calibrates and maintains laboratory equipment such as balances, pH/ISE meters, automated titrator, sample digesters, spectrophotometers, ICP, automated colorimetric analyser, mercury analyser, gas chromatograph, rotary evaporators, ion chromatograph.

Maintains updated records of instrument performance.

Enters laboratory results in the computerized Laboratory Information Management System database (LIMS).

Evaluates quality control data for analyses performed.

Performs quality control activities for analytical testing such as method validation and verification, accuracy, precision, detection limits, control charts. Applies standard laboratory statistical concepts and performs trend analysis.

Evaluates data against regulatory guidelines and requirements and process control objectives. Advises supervisor of abnormal situations.

Provide notification of exceedances as required by the Ontario Safe Drinking Water Act.

Takes part in internal and external audits and inspections to maintain lab licensing and accreditation.

Perform all necessary tasks to maintain a tidy, safe work environment.

Trains new staff and students on methods and procedures.

Performs analysis on evidentiary samples.

Maintains updated documentation and follows all technical, administrative and operational protocols to comply with requirements of accredited and MOE licensed laboratories.

Back-up for supplies reception and storage.

Reviews inventory of chemical and laboratory supplies identifies needs and request purchase of the items.

Reports pre-authorized results to clients who request immediate information.

Performs other duties as assigned which are directly related to the major responsibilities of the job.

Works in accordance with the provisions of applicable Health and Safety legislation and all city of Hamilton corporate and departmental policies and procedures related to Occupational Health and Safety.

### **QUALIFICATIONS**

1. Demonstrated proven knowledge of the theories and principles of laboratory analysis normally acquired through the completion of a College Diploma or University Degree in chemistry, biology or related science or an equivalent combination of education and work-related experience in an ISO17025 accredited and MOE licensed laboratory. Having taken courses in both chemistry and microbiology is an asset.
2. Previous demonstrated experience and proficiency in performing laboratory analysis i.e., Biochemical Oxygen Demand, Total Suspended Solids, automated chemistries, gas chromatographs, ion chromatographs, spectrophotometers, ICP, microbiology.
1. Previous demonstrated experience in analyzing and evaluating test results, operating laboratory equipment and following quality control and documentation protocols as required by an ISO17025 accredited and MOE licensed laboratory.4. Must have proven demonstrated knowledge of Word, excellent knowledge of Excel spreadsheets. Ability to work with other laboratory instrumental software an asset. Experience with LIMS is preferred.
5. Must have good verbal and written communication skills, initiative, organization and ability to work in a team environment.
6. Demonstrated ability to manage a high volume of tasks and duties in an efficient manner in a deadline-oriented environment. Personal self-management skills to maintain professionalism, take initiative, and set priorities in a fast-paced environment.
7. Must have excellent attention to detail with an aptitude for figures. Possess the ability to receive and interpret information where accuracy and understanding is important. Good judgement and confidentiality are required.

### **NOTE:**

As a condition of employment, the successful applicant(s) will be required to obtain a satisfactory Criminal Record & Judicial Matters police check, at their own expense, prior to beginning work in this position.

**THE INCUMBENT SHALL COMPLY WITH ALL HEALTH AND SAFETY POLICIES AND PRACTICES FOR THIS POSITION AND THE WORKPLACE.**