DISTINGUISHING FEATURES OF THE CLASS: This is professional work of a moderately complex nature involving the preparation of chemical solutions and performance of a variety of physical, chemical and bacteriological tests on sanitary sewage. The work is performed under the general supervision of a Pollution Control Supervisor, but there is some latitude for independent performance. Does related work as required.

TYPICAL WORK ACTIVITIES:
Performs physical, chemical and bacteriological analysis of wastewater samples collected at different stages of treatment at the Rockland County Sewage treatment testing plant including but not limited to bio-chemical oxygen demand (total, soluble and carbonaceous), chemical oxygen demand, suspended solids, total solids, volatile solids, total alkalinity, volatile acids, hydrogen ion concentration, temperature, settleable solids, conductivity, coliform count, standard plate count, sulfides, nutrients toxicity by manometer and toxicity meter, metal analysis, chlorine (total, residual and free);
Performs daily calibration of laboratory instruments;
Prepares computerized monthly reports of operations performance and SPDES reports for state agencies;
Computes data of industrial samples and prepares reports for Engineering staff and other personnel;
Performs tests to maintain laboratory certification from the New York State Department of Health and EPA under the Environmental Laboratory Approval Program, including satisfactory completion of semi-annual testing of samples from the agencies as well as the maintenance of a quality assurance and quality control program;
Performs analytical procedures and maintains records in accordance with the standards set by the state;
Maintains laboratory equipment and instruments and maintains inventory for laboratory supplies;
Provides assistance to the Pollution Control Supervisor in complex tests and special laboratory projects;
 Prepares laboratory reagents for variety of tests for chemical and bacteriological analysis of samples from the plant facility as well as from other industries and state agencies;
Collects sewage samples from various plant and field locations for routine laboratory testing;
Cleans laboratory equipment and instruments and sterilizes laboratory glassware and reagents;
May perform supervisory duties in the absence or unavailability of the Pollution Control Supervisor.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:
Good knowledge of analytic chemistry; good knowledge of analytic laboratory equipment, procedures and techniques; working knowledge of microbiology; working knowledge of the Standard Methods of the New York State Department of Health; ability to perform a variety of physical, chemical and bacteriological tests in the area of sanitary sewage and provide accurate results; ability to follow oral and written instructions; manual dexterity.

MINIMUM QUALIFICATIONS: A Bachelor’s degree or higher in Biology, Chemistry, or a related laboratory science with a minimum of sixteen (16) credit hours in Chemistry, and one (1) year of work experience in a laboratory which involved analytical experience on a regular, on-going basis.

NOTE: Two (2) additional years of the above-mentioned experience and an Associate’s degree in Biology, Chemistry, or related laboratory science may be substituted for the Bachelor’s degree.