

CHEMIST 1**Nature of Work**

Under general supervision, performs professional work at the basic full-performance level testing and analyzing raw, natural and processed substances using prescribed chemical and physical laboratory procedures in order to determine chemical composition or deviation from standards. Changes in procedures or standards are usually accompanied by specific instructions. Work is reviewed by a higher level chemist or supervisor through observation of skill and technique and evaluation of analyses and findings. May be exposed to hazardous or unknown substances. Assignments may include air and/or water pollution analysis, construction materials or environmental health. Performs related work as required.

Distinguishing Characteristics

May be distinguished by bench testing predominantly non-organic substances. Procedures are typically standardized and routine. Work is characterized by the routine nature of the testing.

Examples of Work

Performs standardized laboratory and field sampling and test procedures on substances requiring wet chemical and instrumental analysis.

Analyzes water samples of PH and various natural and pollutant components.

Collects and analyzes air samples for volatile organic pollutants; analyzes samples qualitatively and quantitatively by gas chromatography, mass spectrometry and associated techniques.

Sets-up, maintains and operates air and water quality monitoring instruments.

Calibrates analysis equipment by following standard laboratory procedures.

Analyzes cement samples of compliance with construction standards.

Operates a variety of standard chemical laboratory equipment, such as spectrophotometer, atomic absorption photometer, pH meter, gas chromatograph and extractors.

Records and reports the results of analyses.

Knowledge, Skills and Abilities

Knowledge of the basic theories, principles and practices in chemistry.

Knowledge of laboratory techniques, equipment and terminology.

Knowledge of laboratory measurement procedures and units of measure; knowledge of the mathematics used in chemical measurement.

9920

CHEMIST 1 (CONT'D)

Knowledge, Skills and Abilities (cont'd)

Knowledge of the laws, regulations and standards pertinent to analytical work.

Ability to learn and apply general chemical principles to specific assigned procedures.

Ability to use standard laboratory techniques, instruments and test equipment.

Ability to follow detailed procedures in performing tests and to detect deviation from standards.

Minimum Qualifications

TRAINING: Graduation from an accredited four-year college or university with a major in the basic or natural sciences and eighteen (18) semester hours (27 quarter hours) in chemistry.

TRAINING FOR THE DEPARTMENT OF HEALTH AND HUMAN RESOURCES, OFFICE OF LABORATORY SERVICES ONLY: Bachelor's degree from an accredited four-year college or university plus eighteen (18) semester hours (27 quarter hours) in chemistry.

Established: 8/20/1992
Revised: 12/12/2007
Effective: 12/12/2007