

.....

Minimum Qualification Specifications  
for the Class:

GEOLOGIST I

**Basic Education Requirement**

Graduation from an accredited four (4) year college or university with a bachelor's degree and major in geology, hydrology or a related field of geoscience.

Excess work experience as described under Specialized Experience, below, or any other responsible administrative, professional or analytical work experience which provided knowledge, skills and abilities comparable to those acquired in four (4) years of successful study while completing a college or university curriculum leading to a baccalaureate degree in the majors indicated above may be substituted on a year-for-year basis. To be acceptable, the experience must have been of such scope, level and quality as to assure the possession of comparable knowledge, skills and abilities.

Examples of the type of experience which may be accepted in lieu of the required education are: 1) professional geological or hydrological experience as described in the Experience Requirement section; and 2) para-professional (technical) geological experience as described below:

Field or laboratory work of a technical geology nature, which has provided a means of obtaining a professional knowledge of the theory and application of the principles of geology and closely related sciences, e.g., geophysics, geochemistry and hydrology. Such work generally must have involved making close observations, taking samples, handling various types of instruments and equipment, assembling geologic data from source materials, and reporting findings orally and in writing.

The education or experience background must also demonstrate the ability to write clear and comprehensive reports and other documents; read and interpret complex written material; and solve complex problems logically and systematically.

Para-professional work which provided experience in only one phase of technical geological work, e.g., collecting samples, is unacceptable as a means of acquiring the required professional knowledge of theory and application of the principles of geology, and cannot be substituted for the required education.

### **Experience Requirements**

Except for the substitutions provided for in this specification, applicants must have had progressively responsible experience of the kind and quality described in the statements below and in the amount shown below, or any equivalent combination of training and experience.

**Specialized Experience:** Three (3) years of progressively responsible professional geological or hydrological work experience. Professional geological or hydrological experience includes geologic or hydrologic mapping; making and recording geological or hydrological field observations and collecting samples for laboratory analyses; devising field and laboratory techniques and methods, observational and experimental, for use in the study of geologic or hydrological phenomena; preparing, identifying and studying samples of minerals, rocks and water; compiling and interpreting field, laboratory and published data for use by others or for publication; investigating the influences and interrelationships of climate, topography and water bodies on specific geological or hydrological processes and environments; and preparing professional scientific and economic reports.

Such experience must have provided applicants with a thorough working knowledge of geological or hydrological principles and practices, including but not limited to such subjects as physical geology or geomorphology, structural geology, stratigraphy, petrography, mineralogy, geological and hydrological field methods, economic geology, geologic mapping and surveying, hydrologic cycle, ground water geology, well hydrology and service water hydrology. In addition, the experience must have demonstrated the ability to apply the principles and practices of physics, chemistry and mathematics to geological or hydrological studies and investigations. The experience must have also demonstrated ability to independently plan and organize difficult geological or hydrological and laboratory studies; conduct complex studies, including collecting, analyzing, evaluating, interpreting geologic or hydrologic data and preparing oral and written reports of findings and recommendations. The overall experience of the applicant must indicate ability to oversee the work of personnel who may be assigned to assist in the conduct of geologic or hydrologic study.

Teaching experience in geology or hydrology may be considered qualifying professional experience in geology or hydrology, if accompanied by a significant amount of research, direction of research, advising students at the graduate level, investigative and consultative services on geological-hydrological problems. This experience must have included the actual conduct of field and laboratory studies of geological or hydrological phenomena.

**Substitutions Allowed:** All education must have been completed at an accredited college or university.

1. Successful completion of fifteen (15) semester credit hours of graduate level coursework in hydrology, geology or a related field of geoscience may be substituted for six (6) months of Specialized Experience.
2. Successful completion of thirty (30) semester credit hours of graduate level coursework in hydrology, geology or a related field of geoscience may be substituted for one (1) year of Specialized Experience.
3. A master's degree and major in geology, hydrology or a related field of geoscience may be substituted for one (1) year of Specialized Experience.
4. Successful completion of all requirements for a Ph.D. degree and major in hydrology, geology or a related field of geoscience may be substituted for two (2) years of Specialized Experience.

### **Quality of Experience**

Possession of the required number of years of experience will not in itself be accepted as proof of qualification for a position. The applicant's overall experience must have been of such scope and level of responsibility as to conclusively demonstrate that he/she has the ability to perform the duties of the position for which he/she is being considered.

### **Selective Certification**

Specialized knowledge, skills and abilities may be required to perform the duties of some positions. For such positions, Selective Certification Requirements may be established and certification may be restricted to eligibles who possess the pertinent experience and/or training required to perform the duties of the position.

Agencies requesting selective certification must show the connection between the kind of training and/or experience on which they wish to base selective certification and the duties of the position to be filled.

### **Tests**

Applicants may be required to qualify on an appropriate examination.

**Physical and Medical Requirements**

Applicants must be able to perform the essential duties and responsibilities of the position effectively and safely, with or without reasonable accommodation.

-----

This is an amendment to the minimum qualification specifications for the class Geologist I, which were approved on December 5, 2005.

DATE APPROVED: 1/27/2012

  
\_\_\_\_\_  
BARBARA A. KRIEG, Interim Director  
Department of Human Resources Development