DEFINITION
Under general supervision, performs advanced geology research work or performs advanced level professional consultative geology work in one or more of the following areas: stratigraphy, economic geology, hydrogeology, quaternary geology, remote sensing, geographic information systems, soils geology, and/or highway construction; performs related work as required.

The Work Examples and Competencies listed are for illustrative purposes only and not intended to be the primary basis for position classification decisions.

WORK EXAMPLES
Directs and conducts a variety of research projects to gather geological information to be used for reports, maps, charts, recommendations, etc.

Prepares technical reports to document findings from research or projects and/or to recommend changes or new methods; presents recommendations, conclusions, or desired results in a clear and concise way.

Uses/maintains a variety of laboratory and field equipment to study the natural features of Iowa, research the geological history of Iowa, and determine potential water and/or mineral resources.

Conducts or directs a variety of field and laboratory tests and surveys on a specific aspect of geology or a geological problem.

Provides agency staff and other public and private organizations and groups with information to acquainted them with the terms and techniques used in geological research and exploration and to instruct them in the use of a wide variety of geological tools and equipment; conducts seminars and workshops; provides individual instruction either in the agency or in the field.

Proofreads geologic manuscripts prepared by staff geologists to assure completeness, accuracy, and clarity.

Serves on one or more of a variety of geological boards, task forces, or committees to make recommendations on desirable or necessary action in regard to the natural resources of Iowa.

Assists a supervisor by performing, in accordance with set procedures, policies, and standards, such duties as instructing employees about tasks, answering questions about procedures and policies, distributing and balancing the workload and checking work; may make occasional suggestions on appointments, promotions, and reassignments.

COMPETENCIES REQUIRED
Knowledge of the current principles, practices, literature, and trends in professional and technical field and laboratory geology, and/or other related sciences.

Knowledge of the operation, maintenance, and safe use of specialized geological equipment.

Knowledge of computer software for analyzing research data and writing reports.

Knowledge of statistical and numerical methods used to analyze and determine the accuracy and appropriateness of data.

Ability to apply personal ethical standards such as honesty, responsibility, and trustworthiness, required to be a productive employee.

Ability to form logical, reasonable conclusions and make recommendations or judgments based on available data.
Ability to utilize scientific research methods, techniques, and procedures, both in the field and in the laboratory.

Ability to express ideas effectively, both orally and in writing.

Ability to obtain necessary data from scientific and technical documents, reports, and other reference materials to document proposals or theories, seek out alternate procedures, etc.

Ability to establish program objectives and performance goals and assess progress toward their achievement.

Displays high standards of ethical conduct. Exhibits honesty and integrity. Refrains from theft-related, dishonest or unethical behavior.

Works and communicates with internal and external clients and customers to meet their needs in a polite, courteous, and cooperative manner. Committed to quality service.

Displays a high level of initiative, effort and commitment towards completing assignments efficiently. Works with minimal supervision. Demonstrates responsible behavior and attention to detail.

Responds appropriately to supervision. Makes an effort to follow policy and cooperate with supervisors.

Aligns behavior with the needs, priorities and goals of the organization.

Encourages and facilitates cooperation, pride, trust, and group identity. Fosters commitment and team spirit.

Expresses information to individuals or groups effectively, taking into account the audience and nature of the information. Listens to others and responds appropriately.

**EDUCATION, EXPERIENCE, AND SPECIAL REQUIREMENTS**

Graduation from an accredited college or university with major course work in geology, physical geography, or a closely related geological science and the equivalent of three years of full-time professional geology experience;

OR

graduation from an accredited college or university with major course work in a natural science, computer science, math or engineering field and four years of full-time professional experience in an earth science related position including ground water, soils, environmental geology, geographic information systems or other related earth science specialty;

OR

an equivalent combination of education and experience substituting the equivalent of eighteen semester hours of graduate level course work with major emphasis in geology, physical geography, or a closely related geological science for each year of the required experience;

OR

employees with current continuous experience in the state executive branch that includes the equivalent of 12 months of full-time experience as a Geologist 2.

Effective Date: 10/97  CSH