

PD Tracking Number 0000025

Incumbent of this position serves as a student trainee under the Student Career Experience Program. This program is designed to provide the student with work experience directly related to their academic field of study and to orient and expose the student to the mission and work of the U.S. Geological Survey and the benefits and conditions of Federal employment. It provides formal periods of work and study while the student is enrolled in school, the conditions of which are outlined in the Working Agreement which must be signed by the student, the school, and the employing Office.

-

Major Duties

This advanced trainee position performs duties directed toward the acquisition and analysis of basic data and the development of professional competence in the area of civil engineering and hydrology. Duties may include, but are not limited to the following:

FIELD WORK

Conducts field surveys involving measurement of surface-water flow, water levels, sediment characteristics, and flood profiles.

Collects samples and performs analyses of surface water, ground water, and chemical data.

Selects field coefficients and assists in the design and installation of structures for measuring surface-water flow and water levels.

Conducts or assists with test drilling, aquifer tests, and geophysical logging.

Operates surveying instruments during normal leveling and direct-measurement work.

OFFICE WORK

Applies and modifies established digital modeling and numerical analysis methods to answer specific hydraulic and hydrologic questions.

Utilizes and modifies established computer programs to solve specific hydraulic and hydrologic problems.

Prepares illustrations or brief sections of reports.

Inspects, maintains, and repairs data recorders of various types.

Operates a government motor vehicle.

Factor Statements

FACTOR 1 - KNOWLEDGE REQUIRED BY THE POSITION (Level 1-6, 950 Points)

- A professional knowledge of the theories, principles, practices, and techniques of civil engineering to be used in obtaining hydrologic and hydraulic data.
- Skill in using hydrologic data collection and analysis equipment in the field and office.
- Knowledge of computer hardware and general application software.
- Skill in written and oral communication.

FACTOR 2 - SUPERVISORY CONTROLS (Level 2-2, 125 Points)

The supervisor assigns work in general terms of scope, objectives, time limitations, and basic priorities. The incumbent independently plans and performs duties without specific instructions except where new or unusual problems are encountered. The supervisor monitors progress through spot checks. Completed work is reviewed for accuracy, timeliness, and compliance with instructions.

FACTOR 3 - GUIDELINES (Level 3-2, 125 Points)

Guidelines consist of user guides, technical manuals, published standard procedures, precedents and detailed instructions. The incumbent utilizes judgment in selecting the most appropriate guidelines and techniques. Situations in which existing guidelines are not applicable are referred to the supervisor.

FACTOR 4 - COMPLEXITY (Level 4-3, 150 Points)

Assignments may require the use of a variety of unrelated processes and methods to accomplish tasks without compromising engineering principles and design. The incumbent must select the most appropriate course of action from a variety of alternatives.

FACTOR 5 - SCOPE AND EFFECT (Level 5-2, 75 Points)

Operations at this level provide specific engineering and hydrologic information that comprises an integral component of an assignment or project. Work assignments have an impact on project results and facilitate the work of others in the immediate organization.

FACTOR 6 - PERSONAL CONTACTS (Level 6-1, 10 Points)

Personal contacts are typically limited to within the immediate organization.

FACTOR 7 - PURPOSE OF CONTACTS (Level 7-1, 20 Points)

Contacts external to the organization are limited to obtaining and exchanging information of a factual nature.

FACTOR 8 - PHYSICAL DEMANDS (Level 8-2, 20 Points)

Field work is physically demanding and includes walking, bending, climbing and lifting of equipment up to 100 lbs., and is often performed during adverse weather conditions. Office work is sedentary.

FACTOR 9 - WORK ENVIRONMENT (Level 9-2, 20 Points)

Office conditions are normal; field conditions may include extreme heat cold, rain, or snow, and hazardous conditions such as ice and flooding.

TOTAL POINTS - 1495

GRADE CONVERSION - GS-07

GS-810, Civil Engineering Series, 06/66
General Grade Evaluation Guide for Nonsupervisory Professional Engineering
Positions, 06/71
(Source Document Std PD S0238)