

PD Tracking Number 0000053

Major Duties

As an advanced level trainee Hydrologist, the incumbent is assigned duties and provided training that contribute to the continuing professional development in the area of Hydrology and other related sciences. Typical assignments may include:

- Assists higher level hydrologists in conducting hydrologic studies by collecting hydrologic data in the field, recording, analyzing, and interpreting hydrologic data, researching records, and compiling statistical data, and preparing and editing portions of the hydrologic report.
- Collects hydrologic data using a variety of methods and equipment, such as:
 1. Measures the discharge of streams having a variety of depth and flow conditions;
 2. Collects and analyzes geologic samples to delineate and correlate aquifer systems and describe water-bearing characteristics;
 3. Measures water levels in observation wells, collects pumpage records and other geohydrologic data; and,
 4. Collects water samples for the analysis of sediment concentration or chemical quality.
- Writes portions of interpretive reports of hydrologic studies and prepares hydrologic information in the form of maps, charts, or graphs for inclusion in reports.
- Computes, analyzes and interprets records of streamflow, water levels, pumpage, sediment quantities, or biological and chemical quality to assist in the scientific evaluation of hydrologic phenomena.
- Operates a government vehicle as an incidental driver.

Factor Statements

FACTORS 1 - KNOWLEDGE REQUIRED BY THE POSITION (Level 1-6, 950 points)

- Knowledge of the theories, principles, practices, and techniques of hydrology, hydraulics, geology, and engineering as would typically be obtained through a Bachelor's degree to aid in the interpretation of scientific and technical data.
- Knowledge of USGS principles, methods, and practices in order to collect, adjust, correlate, and interpret hydrologic data by USGS standards.
- Skill in the use of hydrologic-data collection and analysis equipment in the field and in the office.
- Basic knowledge of computer applications for the compilation, analysis, representation, and evaluation of hydrologic information.

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

Supervisor assigns work in detail and fully reviews work in progress. This review is typically

maintained through spot checks to monitor progress and conformance to instructions. Recurring work assignments covered by explicit procedures and guidelines are performed independently. Completed work is reviewed for compliance with instructions and to assure the quality of the work.

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

USGS policies, regulations, and standard practices or instructions (such as TWRI Handbooks, USGS Manuals) provide guidelines to be followed. Supervisor may indicate source of instruction or available guidelines but incumbent will generally determine the appropriate guides to use. Deviations from guides or incomplete instructions are referred to the supervisor. However, in the field, standard guides or practices may be modified or adapted to meet unusual work situations.

FACTOR 4 - COMPLEXITY (Level 4-2, 75 points)

Work assignments contribute to further development of professional hydrologic knowledges and experiences. Work assignments may require incorporation of a variety of standard procedures and methods to complete a series of sequential and specific phases of a broad hydrologic study.

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

The scope of projects at this level typically provides unbiased, basic hydrologic information that meets the scientific standards of the USGS. The effect of this work contributes to the basic understanding of hydrologic systems that serves, in part, as a basis for responsible and beneficial management of water resources by local, state, or other Federal authorities.

FACTOR 6 - PERSONAL CONTACTS (Level 6-2, 25 points)

Personal contacts are normally with other hydrologists or technicians in the organization, but occasionally, as directed by the supervisor or Project Chief, with cooperators or general public.

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

Purpose of contacts within the organization is to gain or exchange information. Contacts external to the organization are limited to obtaining or exchanging information of a factual nature. Occasional contacts with the general public are to accomplish data collection, to communicate with observers, or to talk with property owners.

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

The position requires moderate periods of standing and sitting while in the office. While in the field, considerable walking, lifting, bending, climbing, and stream wading is necessary to collect data.

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

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

TOTAL POINTS - 1435

GRADE CONVERSION - GS-07

GS-1300, Job Family Standard for Professional Physical Science Work, 10/97

Primary Standard

(Source Document Std PD S030)