

Professional Engineers  
and Geoscientists of BC

## 2010 Compensation Survey

### SAMPLE JOB CLASSIFICATION FLOWCHART AND EXPANDED BENCHMARK EMPLOYMENT DESCRIPTIONS

**June 1, 2010**

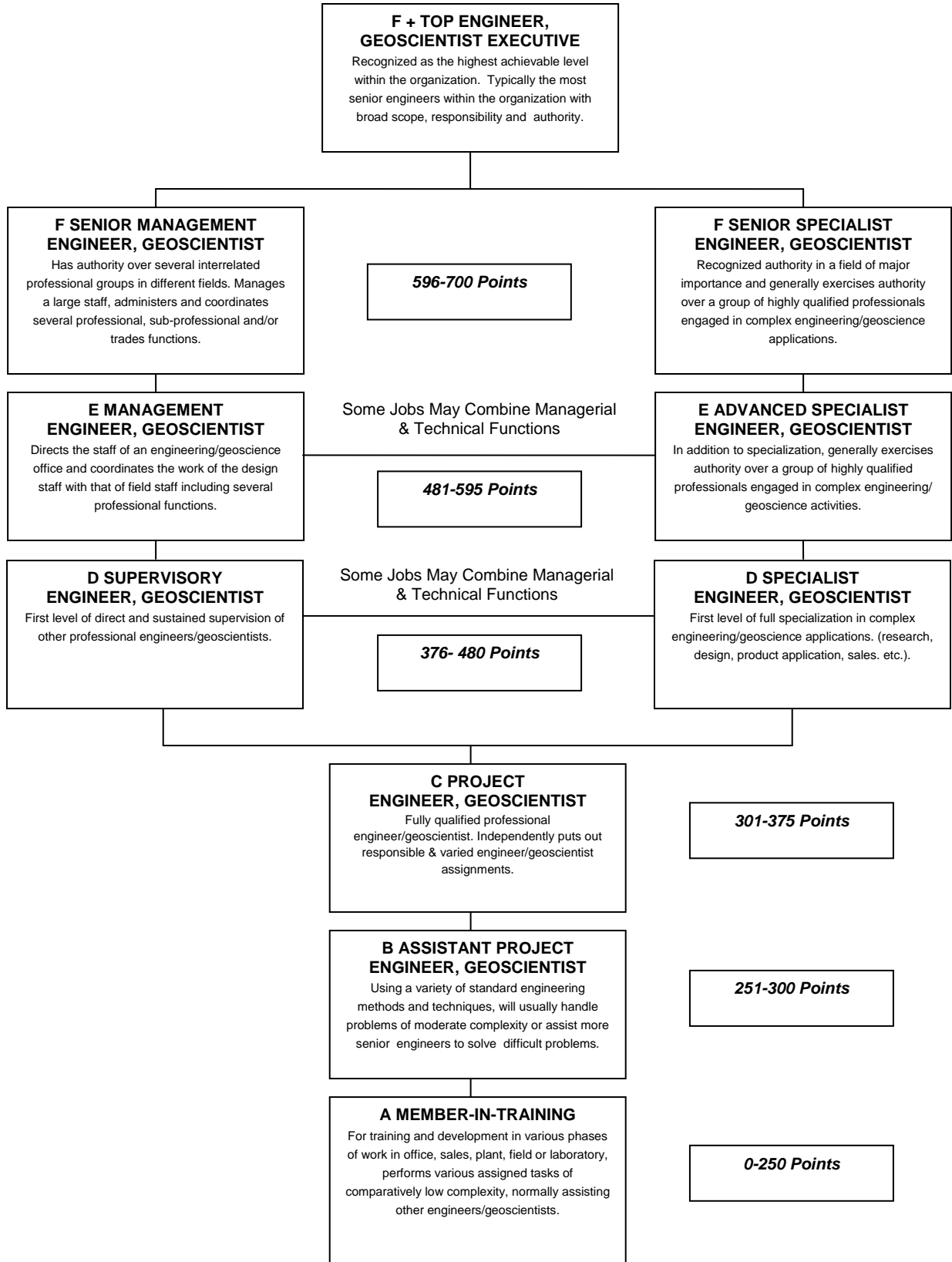
This document contains a sample Job Classification Flowchart with corresponding Employment Responsibility Evaluation point scores and expanded Benchmark Employment Descriptions to be used as a reference check when determining one's own Employment Responsibility Evaluation.

Employment evaluation is difficult to undertake without guidance from an experienced employment analyst. To assist APEGBC members in determining their level of responsibility, sample benchmark employment descriptions have been developed.

Positions range from the most junior to that of a top engineering/geoscience executive. As your employment will not match exactly with any of these, the points you give your position will vary from the benchmark samples evaluated, both on the various factors and in total points.

These benchmark descriptions and point scores are intended to help guide members when refining their own evaluations.

# Job Classification Flowchart



# Sample Benchmark Employment Descriptions

| A  | B  | C   | D   | D   |
|--|--|---|---|---|
| MEMBER-IN-TRAINING   | ASSISTANT PROJECT ENGINEER/GEOSCIENTIST  | PROJECT ENGINEER/GEOSCIENTIST   | SUPERVISORY ENGINEER/GEOSCIENTIST   | SPECIALIST ENGINEER/GEOSCIENTIST  |
| <p><b>Summary</b><br/>For training and development in various phases of engineering/geoscience work in office, sales, plant, field or laboratory, performs various assigned tasks of comparatively low complexity, normally assisting other engineers/geoscientists.</p>   | <p><b>Summary</b><br/>Using a variety of standard engineering/geoscience methods and techniques, will usually handle problems of moderate complexity or assist more senior engineers/geoscientists to solve difficult problems.</p>  | <p><b>Summary</b><br/>Fully qualified professional engineer/geoscientist. Independently puts out responsible &amp; varied engineer/geoscientist assignments.</p>  | <p><b>Summary</b><br/>This is the first level of direct and sustained supervision of other professional engineers/geoscientists.</p>  | <p><b>Summary</b><br/>First level of full specialization in complex engineering/geoscience applications (research, design, product application, sales etc).</p>   |
| <p><b>Duties</b><br/>Receives training in the various phases of office, plant field or laboratory engineering/geoscience work as classroom instruction or on-the-job assignments. Tasks assigned include: preparation of simple plans, designs, calculations, costs and bills of material in accordance with established codes, standards, drawings or other specifications. May carry out routine technical surveys or inspections and prepare reports.</p> | <p><b>Duties</b><br/>Normally regarded as a continuing portion of an engineers/geoscientists training and development. Receives assignments of limited scope and complexity, usually minor phases of broader assignments. Uses a variety of standard engineering/geoscience methods and techniques in solving problems. Assists more senior engineers/geoscientists in carrying out technical tasks requiring accuracy in calculations, completeness of data and adherence to prescribed testing, analysis, design or computation methods.</p> | <p><b>Duties</b><br/>Carries out responsible and varied engineering/geoscience assignments requiring general familiarity with a broad field of engineering/geoscience and knowledge of reciprocal effects of the work upon other fields. Problems usually solved by use of combination of standard procedures, medication of standard procedures, or method developed in previous assignments. Participates in planning to achieve prescribed objectives.</p>     | <p><b>Duties</b><br/>Supervises an engineering/geoscience group of up to about 10 professional and/or nonprofessional technical people performing a variety of duties, normally in a single field of engineering/geosciences. Delegates components to staff, sees the work through to meet schedules and coordinates assignments with other groups. Requires application of mature engineering/geoscience knowledge in planning and conducting projects having scope for independent accomplishment and coordination of the difficult and responsible assignments. Assigned problems make it necessary to modify established guides, devise new approaches, apply existing criteria in new manners, and draw conclusions from comparative situations.</p> | <p><b>Duties</b><br/>This is the first level of full specialization. Requires application of mature engineering/geoscience knowledge in planning and conducting projects having scope for independent accomplishment and coordination of the difficult and responsible assignments. Confers as required with senior engineers and management of the company, occasionally with contractors, consultants and suppliers. Assigned problems make it necessary to modify established guides, devise new approaches, apply existing criteria in new manners, and draw conclusions from comparative situations.</p> |
| <p><b>Recommendations, Decisions and Commitments</b><br/>Few technical decisions called for and normally decisions that are made will be of a routine nature invariably having ample precedent or in line with clearly defined procedures.</p>   | <p><b>Recommendations, Decisions and Commitments</b><br/>Recommendations are limited to the solution of the problems rather than the end results. Decisions made are normally within established guidelines. Refers unusual problems to more senior engineers/geoscientists. Errors in work would usually be detected before results become serious.</p>   | <p><b>Recommendations, Decisions and Commitments</b><br/>Makes independent studies, analyses, interpretations and conclusions. Assignments are responsible and varied. Within the scope of an assignment, work is relied upon as sound and authoritative. Recommendations and decisions are usually based on precedent. Difficult, complex or unusual decisions are usually referred to more senior authority. Errors of judgment might cause serious losses.</p> | <p><b>Recommendations, Decisions and Commitments</b><br/>Recommendations reviewed for soundness of judgment but usually accepted as technically accurate and feasible. Modifies existing engineering/geoscience criteria as occasion demands by devising new approaches to the solution of problems. Errors could cause delays, possibly extending into areas where expenditures might be involved.</p>   | <p><b>Recommendations, Decisions and Commitments</b><br/>Modifies existing engineering/geoscience criteria as occasion demands by devising new approaches to the solution of problems. Recommendations reviewed for soundness of judgment but usually accepted as technically accurate and feasible. Errors could cause delays, possibly extending into areas where expenditures might be involved.</p>   |
| <p><b>Supervision Received</b><br/>Works under close supervision where the work is reviewed for accuracy, adequacy and conformance with prescribed procedures.</p>   | <p><b>Supervision Received</b><br/>Tasks and duties are assigned in detail and work is under close review by more senior engineers/geoscientist. Results are usually reviewed in detail and technical guidance is usually available.</p>   | <p><b>Supervision Received</b><br/>Work is not generally supervised in detail and the amount of supervision varies with the assignment. Usually more senior supervision is available to review work programs to give guidance.</p>  | <p><b>Supervision Received</b><br/>Work is assigned in terms of objectives, relative priorities and critical areas that impinge on work of other units. Work is carried out within broad guidelines, but informed guidance is available.</p>  | <p><b>Supervision Received</b><br/>Work is assigned in terms of objectives, relative priorities and critical areas that impinge on work of other units. Work is carried out within broad guidelines, but informed guidance is available.</p>  |
| <p><b>Leadership Authority</b><br/>May give work assignments and check work of 1-5 technicians or helpers.</p>   | <p><b>Leadership Authority</b><br/>May give technical guidance to one or two junior engineers/geoscientist, or technicians, assigned to work on a common project.</p>  | <p><b>Leadership Authority</b><br/>May guide the work of several more junior engineers/geoscientists or technicians when they are employed on the same projects. Supervision over other engineers/geoscientist not usually a regular or continuing responsibility.</p>  | <p><b>Leadership Authority</b><br/>Makes recommendations concerning selection and termination, and is responsible for the training, rating and discipline of staff. Outlines and assigns work, and reviews it for technical adequacy.</p>   | <p><b>Leadership Authority</b><br/>As a recognized technical specialist, serves as a consultant to others, advising on technical problems, reviewing work for accuracy and adequacy. May serve as a mentor.</p>   |
| <p><b>Guide to Entrance Qualifications</b><br/>Bachelor's degree in Engineering/Geoscience or Applied Science or its equivalent; little or no practical experience.</p>  | <p><b>Guide to Entrance Qualifications</b><br/>Bachelor's degree in Engineering/Geoscience or Applied Science or its equivalent, normally with two to three years, working experience from the graduation level.</p>   | <p><b>Guide to Entrance Qualifications</b><br/>Bachelor's degree in Engineering/Geoscience or Applied Science, or its equivalent, normally with minimum three to five years' related working experience from the graduation level.</p>  | <p><b>Guide to Entrance Qualifications</b><br/>Bachelor's degree in Engineering/Geoscience or Applied Science or its equivalent, normally with five to eight years' experience related to the type of work since graduation.</p>  | <p><b>Guide to Entrance Qualifications</b><br/>Bachelor's degree in Engineering/Geoscience or Applied Science or its equivalent, normally with five to eight years' experience related to the type of work since graduation.</p>  |

| E<br>MANAGEMENT ENGINEER/GEOSCIENTIST   | E<br>ADVANCED SPECIALIST ENGINEER/GEOSCIENTIST  | F<br>SENIOR MANAGEMENT ENGINEER/GEOSCIENTIST   | F<br>SENIOR SPECIALIST ENGINEER/GEOSCIENTIST  | F+<br>TOP ENGINEERING/GEOSCIENCE EXECUTIVE  |
|---|---|--|---|---|
| <b>Summary</b><br>Directs the staff of an engineering/geoscience office and coordinates the work of the design staff with that of field staff including several professional functions.   | <b>Summary</b><br>In addition to specialization, generally exercises authority over a group of highly qualified professionals engaged in complex engineering/geoscience activities.   | <b>Summary</b><br>Has authority over several interrelated professional groups in different fields. Manages a large staff, administers and coordinates several professional, sub-professional and/or mechanical trades' functions.  | <b>Summary</b><br>Recognized authority in a field of major importance and generally exercises authority over a group of highly qualified professionals engaged in complex engineering/geoscience applications.  | <b>Summary</b><br>Recognized as the highest achievable level within the organization. Typically the most senior engineers/geoscientists within the organization with broad scope, responsibility and authority.   |
| <b>Duties</b><br>Plans and allocates work on broad general assignments with the limits of company policy. Establishes working programs to attain objective in the most economical manner. Assists in developing and maintaining contacts inside and outside the company. Usually requires knowledge of more than one field or engineering/geoscience participates in short and long range planning; makes independent decisions on work methods and procedures within an overall program. Originality and ingenuity are required for devising practical and economical solutions to problems. May supervise large groups containing both professional and non-professional staff. | <b>Duties</b><br>Usually requires specialized knowledge in a particular field of engineering/geoscience. Participates in short and long range planning; makes independent decisions on work methods and procedures within an overall program. Originality and ingenuity are required for devising practical and economical solutions to problems. May exercise authority over a small group of highly qualified professional personnel engaged in complex technical applications. | <b>Duties</b><br>Works independently on broad, general assignments with responsibility for planning associated activities, limited only by company policy. Usually responsible for an engineering/geoscience administrative function, directing several professional and other groups engaged in inter-related engineering/geoscience responsibilities. Independently conceives programs and problems to be investigated. Participates in discussions, determining basic operating policies, devising ways of reaching program objectives in the most economical manner and of meeting any unusual conditions affecting work progress. | <b>Duties</b><br>Acts as an engineering/geoscience consultant, achieving recognition as an authority in an engineering/geoscience field of major importance to the organization. Independently conceives programs and problems to be investigated. Participates in discussions, determining basic operating policies, devising ways of reaching program objectives in the most economical manner and of meeting any unusual conditions affecting work progress. | <b>Duties</b><br>Within the framework of general policy, conceives independent programs and problems to be investigated. Plans or approves projects requiring the expenditure of a considerable amount of manpower and financial investment. Determines basic operating policies, and solves primary problems or programs to accomplish objectives in the most economical manner to meet any unusual condition. |
| <b>Recommendations, Decisions and Commitments</b><br>Makes responsible decisions not usually subject to technical review on all matters assigned except those involving large sums of money or long range objectives. Takes courses of action necessary to expedite the successful accomplishment of assigned projects. Implements policies affecting company expenditure and makes decisions affecting operations.   | <b>Recommendations, Decisions and Commitments</b><br>Makes responsible decisions not usually subject to technical review on all matters assigned except those involving large sums of money or long range objectives. Takes courses of action necessary to expedite the successful accomplishment of assigned projects.   | <b>Recommendations, Decisions and Commitments</b><br>Makes responsible decisions without reference to superiors. Implements approved major programs involving expenditures of large sums money. Errors in judgment could cause grave losses.   | <b>Recommendations, Decisions and Commitments</b><br>Makes responsible decisions without reference to superiors. Implements approved major programs involving expenditures of large sums of money. Errors in judgment could cause grave losses.   | <b>Recommendations, Decisions and Commitments</b><br>Responsible for long range planning, co-ordination, making specific and far-reaching management decisions. Keeps management associates informed of all matters of significant importance.  |
| <b>Supervisions Received</b><br>Broad direction from President or Vice President of company. Work is assigned only in terms of broad objectives to be accomplished, and is reviewed for policy, soundness of approach and general effectiveness.  | <b>Supervisions Received</b><br>Broad direction from President or Vice President of company. Work is assigned only in terms of broad objectives to be accomplished, and is reviewed for policy, soundness of approach and general effectiveness.  | <b>Supervision Received</b><br>Work is reviewed for accomplishment, adherence to company policy and coordination with other phases of company's operations.  | <b>Supervision Received</b><br>Work is reviewed for accomplishment, adherence to company policy and coordination with other phases of company's operations.   | <b>Supervision Received</b><br>Operates with broad management authority, receiving virtually no technical guidance and control; limited only by general objectives and policies of the organization.  |
| <b>Leadership Authority</b><br>Selects, rates, disciplines and terminates staff. Reviews and evaluates technical work. Coordinates staff requirements and disposition to suit schedule of work in hand and work planned. Allocates work to various section or project heads.  | <b>Leadership Authority</b><br>Outlines more difficult problems and methods of approach. Coordinates work programs and directs use of equipment and material.   | <b>Leadership Authority</b><br>Makes decisions regarding the selection, development, rating, discipline and termination of staff. Reviews and evaluates technical work. Selects schedules and coordinates to attain program objectives.  | <b>Leadership Authority</b><br>Reviews and evaluates technical work; selects, schedules and coordinates to attain program objectives.   | <b>Leadership Authority</b><br>Gives administrative direction to subordinate managers and contact with the work force is normally through such levels rather than direct.   |
| <b>Guide to Entrance Qualifications</b><br>Bachelor's degree in Engineering/Geoscience or Applied Science, or its equivalent, normally within a minimum of nine to twelve years of engineering/geoscience, and/or administrative experience from the graduation level.  | <b>Guide to Entrance Qualifications</b><br>Bachelor's degree in Engineering/Geoscience or Applied Science, or its equivalent, normally within a minimum of nine to twelve years of engineering/geoscience, and/or administrative experience from the graduation level.  | <b>Guide to Entrance Qualifications</b><br>Bachelor's degree in Engineering/Geoscience, or Applied Science, or equivalent. 13 years or more related working experience from graduation.  | <b>Guide to Entrance Qualifications</b><br>Bachelor's degree in Engineering/Geoscience, or Applied Science, or equivalent. 13 years or more related working experience from graduation.   | <b>Guide to Entrance Qualifications</b><br>Bachelor's degree in Engineering/Geoscience, or Applied Science, or equivalent with many years' authoritative engineering/geoscience and administrative experience. The incumbent is expected to possess a high degree of originality, skill and proficiency in the various broad phases of engineering/geoscience applications.                                     |