APEGS COMPETENCY INTERPRETATION STATEMENTS FOR ENGINEERING AND GEOSCIENCE

Competency Interpretation Statements (Engineering)

Engineering: Category 1 – Technical Competence Minimum overall competence level: **3**	
Competency Description	**APEGS Interpretation**
1.1 Regulations, Codes & Standard Demonstrate your knowledge and awareness of Canadian regulations, codes and standards. This includes local engineering procedure and practices as applicable.	Candidate to provide an example that cites specific regulations, codes, or standards and how it impacted their engineering work. Saying "I was familiar with Saskatchewan's XXXXX regulations in this engineering project . . . " is not sufficient. Does the example: - Reference a Canadian regulation/code/standard? - Cite a specific section of regulation/code/standard? - Explain how a specific regulation/code/standard affected or was impacted by the application of engineering principles?
1.2 Project & Design Constraints Demonstrate knowledge of materials, or operations as appropriate, project and design constraints, design to best fit the purpose or service intended and address inter-disciplinary impacts.	Candidate to provide an example that identifies a **technical** constraint that affected their engineering design/work and how they managed that constraint. Does the example: - Clearly specify what the constraint was? - Show how the situation required the application of engineering principles to manage the constraint?

1.3 Risk Identification & Mitigation Analyze technical risks and offer solutions to mitigate the risk.	Candidate to provide an example that clearly identifies a technical risk and how they mitigated it using engineering knowledge. Does the example: - Describe a technical risk (i.e. related to the application of engineering principles)? - Clearly explain the identified risk? - Demonstrate the application of engineering principles to identify or mitigate the risk?
1.4 Application of Theory Apply engineering knowledge to design solutions.	Candidate to provide an example that specifies the engineering theory used and how they applied it to solve a problem. Saying "I used structural design principles to . . . " is too general. Ensure the example rises to a level of 'moderately complex' (a '3' rating). Does the example: - Identify a specific engineering theory that was used? - Verify the theory was applied to a problem of 'moderate complexity' in the application of engineering principles?

1.5 Solution Techniques Be able to understand solution techniques and independently verify the results.	Candidate to provide an example that explicitly identifies which solution technique they used. The most common example type is using engineering software to model a problem and then verifying the model output (e.g. by hand calculations, measurements, etc.). If using a software model, ensure it requires engineering knowledge to arrive at a result – simply filling in an on-line tool for example, is not sufficient. The solution or the independent verification must involve the application of engineering principles. Does the example: - Specify a solution technique (e.g. software modelling)? - Demonstrate how the technique was used on an engineering problem? - Show how the candidate independently verified the results? Note: There can be a supervisor reviewing their work.
1.6 Safety Awareness Demonstrate your knowledge and awareness of Canadia regulations, codes and standards pertaining to safety.	Candidate to provide an example that relates an engineering problem to a safety issue or demonstrates how they used engineering to address safety regulations/guidelines. They should ensure the example is specific on which safety guidelines was used. Participating in general safety activities such as OHS training, confined space training, morning safety meetings are not acceptable examples because they do not involve applying engineering principles. Does the example: - Refer to a specific safety guideline or regulation that impacted the candidate's engineering work? - Show how the candidate incorporated the safety guidelines or regulations in their design (e.g.)? - Demonstrate the application of engineering principles (isn't just following standard safety procedures)?

1.7 Systems & Their Components Demonstrate understanding of systems as well as of components of systems.	Candidate to provide an example that demonstrates that they understand the engineering aspects of each system component and how these components were inter-related in the system. They should be specific on demonstrating their understanding of the components. The candidate must demonstrate an understanding of engineering principles in either the overall system or in at least one of the components. Does the example: - Specify an engineering system with multiple components? - Demonstrate that the candidate is familiar with each individual component and their interactions within the system?
1.8 Project & Process Lifecycle Exposure to all stages of the process/project life cycle from concept and feasibility analysis through implementation.	Candidate to provide an example of project management in an engineering context where they were exposed to all stages of the project life cycle (initiation to closing). Relate the example to a specific engineering project. Does the example: - Relate to an engineering project (not just a project management example)? - Demonstrate exposure to most/all stages of the project life cycle (not just one or two stages)?
1.9 Peer Review & Quality Control Demonstrate your understanding of the role of peer review and quality management that is essential to engineering practice in Canada.	Candidate to provide an example that addresses both aspects of this competency – peer review and quality control. Showing development or participation in quality control planning and monitoring is important. They should relate quality control to specific Canadian quality standards. Does the example: - Cite specific QA/QC procedures the candidate developed or followed to undertake engineering work? - Demonstrate the candidates' use of peer review in engineering work?

1.10 Engineering Documentation Transfer design intentions to drawings and sketches; Understand transmittal of design information to design documents.	Candidate to provide an example that shows that they developed design documents (from sketches or concepts) and understood how documentation moves through the documentation process (e.g. reviews, approvals, approved for construction, etc.). These design documents are typically drawings, but may take other forms, such as written technical descriptions. Does the example: - Demonstrate personal involvement in creating design documents? - Show an understanding of the documentation process?

Engineering: Category 2 – Communication Minimum overall competence level: **3**	
Competency Description	**APEGS Interpretation**
2.1 Oral Communication (in English/French) Demonstrate effective verbal communication with team members, clients, contractors, and members of the public in Canada's official languages (English or French).	Candidate to provide an example that describes a time they verbally conveyed technical information in an engineering environment. Examples that say 'I give project updates at regular meetings' are too general; they need to be specific on the purpose, content and audience of the presentations they provided. Did they create all the content or just some of it?
2.2 Writing (in English/French) Demonstrate your ability to communicate effectively in writing with team members, clients, contractors, and members of the public in Canada's official languages (English or French).	Candidate to provide an example that describes a time conveyed written technical information in an engineering environment. They must ensure the example is engineering related and mentions specific examples of written documents.
2.2 Reading and Comprehension (in English/French) Demonstrate your ability to effectively review key documents in Canada's official languages (English or French).	Candidate to provide an example that describes a time they read and comprehended engineering documents; simply reviewing contracts or project related documents may not be sufficient.

Engineering: Category 3 – Project and Financial Management Minimum overall competence level: **2**	
Competency Description	**APEGS Interpretation**
3.1 Project Management Principles Awareness of project management principles.	Candidate to provide an example that shows they understand project management principles in an engineering environment (e.g. charter, scope development, execution, monitoring, etc.). They should also demonstrate an understanding of their purpose (e.g. why is scope important?). They shouldn't just list principles but relate them to specific work examples.
3.2 Level of Responsibility Demonstrate increasing level of responsibility for project planning and implementation.	Candidate to provide an example that demonstrates an increasing level of engineering responsibility over time. They should not simply list a set of current responsibilities as this doesn't demonstrate a change in responsibilities over time.
3.3 Expectations vs Resources Manage expectations in light of available resources.	Candidate to provide an example that describes the expectations (e.g. deadlines, meeting technical specifications, etc.) and how they used their engineering knowledge to manage the expectations given the available resources. They should clearly identify the expectations and resources they were balancing.
3.4 Financial & Budgets Understand the financial aspects of their work.	Candidate to provide an example that demonstrates they have gained an understanding of financial aspects of their work. Simple calculations of materials costs (e.g.) are not sufficient. Providing evidence of a wider range of financial aspects (e.g. budgeting, estimating, cost monitoring, etc.) is required.
3.5 Response to Feedback Ask for and demonstrate response to feedback.	Candidate to provide an example that describes a time they received feedback on their engineering work (preferably technical) and how they responded to that feedback. Giving feedback to a contractor on their work (e.g.) doesn't address this competency.

Engineering: Category 4 – Team Effectiveness Minimum overall competence level: **3**	
Competency Description	**APEGS Interpretation**
4.1 Work Respectfully Work respectfully and with other disciplines/people.	Candidate to provide an example that demonstrates how they have worked with other disciplines/co-workers in their engineering work. They should provide a specific engineering example (project) that shows their interactions with others.
4.2 Resolve Difference Work to resolve differences.	Candidate to provide an example that describes a time they had to resolve a difference with a co-worker, contractor, etc. They should not use general examples of conflict management (e.g.?) but provide a real-life example where they had to resolve a difference. The difference should be related to an engineering issue.

Engineering: Category 5 – Professional Accountability Minimum overall competence level: **3**	
Competency Description	**APEGS Interpretation**
5.1 Code of Ethics Demonstrate an awareness of your own scope of practice and limitations.	Candidate to provide an engineering example that relates a specific engineering example to an ethical principle they followed in the course of their work. To meet the requirement of "moderate experience" the example should demonstrate an ethics choice being made.
5.2 Awareness of Limitations Demonstrate an awareness of your own scope of practice and limitations.	Candidate to provide an engineering example that demonstrates a time when they recognized their engineering limitations and describes how they resolved the issue.
5.3 Conflict of Interest Understand how conflict of interest affects your practice.	Candidate to provide an example that describes a time when they encountered a real or potential conflict of interest in an engineering context, how it could have affected their practice, and how they dealt with the situation. In cases where they don't have a specific real-life example, providing a hypothetical situation that could have occurred on a project is acceptable. They must understand the definition of 'conflict of interest'.
5.4 Professional Liability Demonstrate and awareness of professional accountability.	Candidate to provide an example that addresses both 'professional accountability' and 'liability' in an engineering context. What are the differences between accountability and liability? What impacts will be incurred if they or their company is found liable in an engineering situation?

5.5 Use of Stamp & Seal Demonstrate an understanding of appropriate use of the stamp and seal.	Candidate to provide an example that demonstrates their understanding of the proper use of the stamp/seal in an engineering context. Simply stating how to properly use the stamp and seal is not acceptable, they must include an understanding of why this is important.
5.6 Strengths & Weakness Understand own strengths/weaknesses and know how they apply to one's position.	Candidate to provide an example that demonstrates an understanding of their personal strengths and weaknesses (i.e. 'soft skills') and how they affect their engineering work. This competency does not ask for technical or engineering knowledge gaps; those items are covered in other sections.

Engineering: Category 6 – Social, Economic, Environmental and Sustainability Minimum overall competence level: **2**	
Competency Description	**APEGS Interpretation**
6.1 Public Impacts & Safeguards Demonstrate an understanding of the safeguards required to protect the public and the methods of mitigating adverse impacts.	Candidate to provide an example that demonstrates how their engineering work impacted the public in regard to safeguards. How does their engineering work contribute to safeguarding the public? They should avoid general statements that could apply to non-engineers.
6.2 Engineering and the Public Demonstrate your understanding of the relationship between the engineering activity and the public.	Candidate to provide an example that demonstrates how their engineering work relates to the public. How does their engineering relate to or serve the public?
6.3 Role of Regulatory Bodies Understand the role of regulatory bodies on the practice of engineering.	Candidate to provide an example that demonstrates their understanding of the purpose of regulatory bodies. Candidates should define the 'role of regulatory bodies'. Why do they exist? What is their purpose? How do regulatory bodies impact their engineering work? Simply listing regulatory agencies, they have worked with is not sufficient.
6.4 Sustainability & Practice Guidelines Be aware of any specific sustainability clauses that have been added to practice guidelines that apply to their area.	Candidate to provide an example that demonstrates an awareness of sustainability in practice guidelines. They should cite a specific sustainability clause and explain how they applied engineering principles to address it. Notes: - sustainability, in this context, pertains to 'environmental' sustainable development (NOT sustaining a business model). - This competency is not the same as 'promotion of sustainability' (6.5).

6.5 Promotion of Sustainability To the extent possible, recognizing the candidate's position of influence, consider how sustainability principles could be applied and promoted in his/her specific work.	Candidate to provide an example that demonstrates a time when they used their engineering knowledge and/or position to promote sustainable development in a project. Notes: - sustainability, in this context, pertains to 'environmental' sustainable development (NOT to e.g. sustaining a business model).

Engineering: Category 7 – Personal Continuing Professional Development

Minimum overall competence level: **3**

Competency Description	APEGS Interpretation
7.1 Professional Development Activities Demonstrate completion of professional development activities.	Candidate to provide an example that demonstrates completion of PD activities that relate to engineering. They should show how they participated in professional development that addressed technical gaps. It is important that activities include the maintenance or strengthening of knowledge in the application of engineering principles. **This competency asks, "What have you done?"**
7.2 Identify Training Needs Demonstrate awareness of gaps in knowledge and areas requiring further development.	Candidate to provide an example that identifies current gaps in their engineering knowledge that they plan to address in the <u>future</u>. They shouldn't just list past activities (i.e. 7.1 does that) but future planned activities. Ensure gaps are engineering related. It is important that activities include the maintenance or strengthening of knowledge in the application of engineering principles. **This competency asks, "What are your current gaps in abilities and technical knowledge that you plan to address in the future?"**
7.3 Professional Development Plan Develop a professional development plan to address gaps in knowledge and maintain currency in field of practice.	Candidate to provide an example that shows how they have developed a professional development plan and listed engineering activities they intend on addressing in this plan. They must describe a 'plan' – not just a list of activities – they should show they have a strategy to address technical gaps. It is important that activities include the maintenance or strengthening of knowledge in the application of engineering principles. **This competency asks, "What are my future plans to address the gaps identified in 7.2? Is there a concrete plan in place?"**

Competency Interpretation Statements (Geoscience)

Geoscience: Category 1 – Professionalism Minimum overall competence level: **3**	
Competency	**Interpretation**
1.1 Regulations, Codes & Standards Comply with relevant legislation, regulations, and statutory reporting requirements.	Candidate to provide an example that refers to specific legislation/regulations/reporting requirements and how they impacted their geoscience work. Stating "*I followed applicable environmental regulations"* is not sufficient. Does the example: - Reference a specific Canadian legislation/regulation/standard etc.? - Cite a specific section of legislation/regulations etc. and explain how it applies to the example?
1.2 Recognizing Limitations Practice within the bounds of personal expertise and limitations.	Candidate to provide an example that describes a situation where personal limitations of geoscience knowledge or experience were identified and shows what steps were taken to address them. Does the example: - Clearly specify a limit to geoscience knowledge or experience? - Specify how that limitation was overcome, for example, by obtaining advice from a more experienced colleague or supervisor? - Identify an example that relates to professional and not personal limitations?

1.3 Continuing Professional Development Increase relevant knowledge, skills, and level of performance over time.	Candidate to provide an example that demonstrates their knowledge, and skills have been purposefully built up over time by identifying gaps and obtaining training. The example must include how the gap is relevant to the area of practice. Does the example: - Clearly identify a gap and why it is relevant to the area of practice? - Clearly explain what training/experience was obtained to fill it? - Explain how training/experience contributed to an increased level of performance?
1.4 Relationship Management Maintain construction working relationships.	Candidate to provide an example that demonstrates an appreciation of the business culture in Canada by taking appropriate actions to maintain good working relationships with diverse people. They must ensure that sufficient details are given to describe the working relationship, the actions that were taken and the outcome. Does the example: - Identify the context of the working relationship? - Explain the steps that were taken and why they were appropriate? - Explain how the steps taken positively impacted the relationship?
1.5 Ethics Apply ethical principles.	Candidate to provide an example that demonstrates a time when they recognized an ethical dilemma and describes the appropriate decision or action that was taken to address it. The example must demonstrate an understanding of what the ethical issue was and why the chosen course of action was ethical. Does the example: - Explain what the ethical issue was? - Explain the action(s) that were taken? - Explain various options for what actions could have been taken and why the chosen course of action was ethical. - Show how a potentially unethical situation was avoided?

1.6 Obligations to Stakeholders Respond to obligations and responsibilities to the public. To the natural environment, to clients and to employers.	Candidate to provide an example that demonstrates their ability to balance stakeholder needs (e.g., clients or employers) with the obligation of Canadian Professional Geoscientists to safeguard the public interest and protect the natural environment. What actions were taken to ensure that the professional obligations were met? Does the example: - Specify a situation where consideration for the public and/or environment was appropriately balanced against other stakeholder expectations or requirements? - Show what methods, techniques or approaches were applied to resolve the issue? - Explain why the approach taken was the appropriate one.
1.7 Safety Awareness Contribute to health and safety in the workplace.	Candidate to provide an example that demonstrates their ability to address the health and safety of clients, coworkers, the public, or individuals, consistent with Canadian regulations, codes, and standards. The example should demonstrate an understanding of potential safety issues or impacts related to geoscience activities. What steps did they take to adhere to best practices and to maintain safety, reliability, and quality in their practice? Why is it important and what are the consequences of non-adherence? General safety activities such as mandatory OHS training, confined space training, morning safety meetings, etc. are not acceptable since they are applicable to all employees. The example must be specific to geoscience related activities. Does the example: - Demonstrate the steps taken to proactive address safety issues related to geoscience activities? - Demonstrate an understanding of the possible consequences of not addressing the issue(s)?

Geoscience: Category 2 – Scientific Method

Minimum overall competence level: **3**

Competency	Interpretation
2.1 Scientific Principles Apply scientific principles.	Candidate to provide an example that shows how a specific scientific principle or concept was applied to a geological study or investigation. The principle being applied must be explicitly stated. The example must explain why the principle was appropriate to the situation and how it was used to generate the outcome. Does the example: - Demonstrate use of appropriate scientific concepts to address the geoscience problem or investigation? - Explicitly state what the scientific principle was used and why? - Explain the analysis that was done and how it related to the outcome?
2.2 Scientific Literature Effectively utilize scientific literature.	Candidate to provide an example that demonstrates the appropriate use of scientific literature in geoscience work. Specify the sources that were used and explain why they were appropriate for the situation. Explain how the use of scientific literature impacted the results of the work. Does the example: - Provide a specific situation in where scientific or technical literature was used in a geoscience undertaking or project? - Include reference to the specific literature that was used and explain why it was relevant? - Explain how the effective use of scientific literature impacted the results?

2.3 Data Confidence Identify uncertainty and ambiguity in data, and limits to knowledge.	Candidate to provide an example that demonstrates their ability to identify and address uncertainty or ambiguity in geoscience data sets. How does the ambiguity/uncertainty affect the limits of knowledge about the geological history or conditions and why is it important. What steps were taken to address data limitations and how did data limitations affect the interpretation of the results? Does the example: - Provide a specific situation where data sets were collected and used for analysis in a geoscience context? - Explain the limitations of the data and how that was accounted for in the interpretation? - Give a description of the approaches used to remedy any data bias or describe the uncertainty?
2.4 Quality Assurance Apply principles of quality assurance and quality control (QA/QC).	Candidate to provide an example that describes a situation relating to quality assurance and quality control protocols and explains why the protocols are important. What would the impact of not following the protocols be? Does the example: - Provide a specific situation where protocols or standards are commonly followed in geoscience practice? - Link to a QA/QC process in a geoscience task? - Explain the importance of these measures and standards being in place for geoscience in the situation?

2.5 Scientific Risk Management Undertake relevant investigation and due diligence.	Candidate to provide an example that shows that the appropriate investigation and due diligence was undertaken to limit risk associated with the geoscience results. Explain any potential risks, unanticipated outcomes or hazards associated with the geoscience results and what was done to mitigate them. Show that the mitigation was effective. They should provide an example showing the potential concern for an identified risk to geoscience work (data gaps, poor work records, etc.). Does the example: - Explain the potential risks/hazards related to use of the geoscientific results? - Explain what was done to mitigate the potential risks? - Describe how the mitigation steps were effective?

Geoscience: Category 3 – Area of Geoscience Practice Minimum overall competence level: **3**	
Competencies	**Interpretation**
3.1 Project Planning Plan investigations based upon purpose of study, incorporating existing site-specific information and appropriate approaches.	Candidate to provide an example that demonstrates a time when they planned a geoscience investigation or study and details the approaches used. They should explain why those approaches were chosen for the type of investigation, how site-specific aspects were considered and accounted for, and summarize the outcome to state if the planning was effective for undertaking the investigation. Does the example: - Explain the purpose of the investigation? - Explain what the approach was and why it was appropriate? - Explain how site-specific information was dealt with? - Explain how the approach resulted in a successful investigation or study?
3.2 Data Analysis Acquire, process, and analyze data using appropriate methodologies.	Candidate to provide an example that demonstrates how a specific data set was collected, processed, and/or analyzed as part of a geoscientific study or project. They should demonstrate why that type of data was appropriate for the study and how the analysis contributed to the geoscientific results. Does the example: - Explain the specific method(s) used to collect and/or process the data? - Explain how the data was analyzed (include reference to any software used)? - Explain how the analysis contributed to the geoscientific results? - Explain how the data was processed the resulting analysis that followed?

3.3 Additional Data Consideration Incorporate relevant data from other sources.	Candidate to provide an example that shows how data from multiple sources was incorporated into a geoscientific study. They should describe why the data was relevant, what steps were taken to incorporate the data and how incorporation of the other data contributed to the result. Does the example: - Describe the source(s) of the other data and explain why it was relevant? - Explain how the data was processed to be incorporated into the study (e.g., did it have to be converted, georeferenced, levelled etc.)? - Explain how the data contributed to the geoscientific results?
3.4 Interpretation of Data Interpret and evaluate data to construct models consistent with purpose of investigation.	Candidate to provide an example that demonstrates the approaches used to evaluate data to construct geological models. They should clearly demonstrate that the tools used were appropriate for the type of investigation and how they contributed to the geoscientific results. They should include an explanation of how geoscientific principles were used to generate the model. Some common approaches for evaluating geoscientific data are maps, sections, logs, spreadsheets, charts, diagrams etc. Does the example: - Explain the specific method(s) chosen to evaluate the data and why they were suitable? - Explain how the data evaluation contributed to the geoscientific result?
3.5 Model Evaluation Critically evaluate models.	Candidate to provide an example that demonstrates a time they performed a critical analysis or evaluation of a geoscientific model. They should explain what steps were taken to analyze or evaluate the model and what the result of the analysis was. If the model was generated using sophisticated modelling software, the description must clearly explain what level of involvement the candidate had in evaluating the inputs and/or outputs (even if the modelling itself was done by someone else). Does the example: - Provide specific information about the type of model and why it was chosen? - Demonstrate what steps were taken to evaluate the model? - Explain how the evaluation contributed to the geoscientific results?

3.6 Outcomes Formulate conclusions and recommendations.	Candidate to provide an example that demonstrates how geoscientific results were used to formulate a conclusion or recommendation. Some examples of typical scientific outcomes are defining drill targets, site assessments, resource evaluation, etc. The example should give the resulting conclusion along with recommendations based on the outcome observed. Does the example: - Specify the situation and the approach taken to resolve a geoscience task? - Explain the tools and methods applied to work towards the solution? - Detail any concerns, modifications or deviations during the work to the point of resolution?
3.7 Adapting Methodologies Adapt methodologies to address unfamiliar situations	Candidate to provide an example that a time when an unfamiliar geoscience situation led to new or modified techniques being applied. This could be describing how mapping or sampling methods were altered or how new geoscience knowledge was gained to address the situation. The example must clearly explain what was unfamiliar, what steps were taken, and how the adapted methodology impacted the outcome. Does the example: - Identify an unfamiliar geoscience situation? - Discuss the changes made in response to the situation and elaborate on the resulting modifications? - Explain how the modification successfully addressed the situation?

Geoscience: Category 4 – Complementary

Minimum overall competence level: **3**

Competencies	Interpretation
4.1 Oral Communication Deliver and comprehend oral communication.	Candidate to provide an example that demonstrates their ability to effectively communicate verbally in English (the language of business in Saskatchewan). The example must be in a geoscience context and must provide evidence that the language of communication was English. They must also demonstrate both understanding spoken English and speaking English so that others can understand. Does the example: - Explicitly demonstrate that the language of communication was English? - Demonstrate both speaking and understanding of spoken English?
4.2 Written Communication Deliver and comprehend written communication.	Candidate to provide an example that demonstrates their ability to effectively communicate in writing in English (the language of business in Saskatchewan). The example must be in a geoscience context and must provide evidence that the language of communication was English. They must also demonstrate both understanding written English and writing in English so that others can understand. Does the example: - Explicitly demonstrate that the language of communication was English? - Demonstrate both understanding something written by others and others understanding something written by the candidate?

4.3 Technical Communication Communicate technical information effectively to a variety of audiences.	Candidate to provide an example that demonstrates their ability to communicate technical geoscience information to a variety of target audiences. The example must show how technical geoscientific information was presented to different audiences. They must explicitly show what changes were made to make it appropriate for each different audience. Does the example: - Explain the type of technical geoscientific information? - Identify multiple distinct types of audiences (e.g. geoscience colleagues, the public, elementary school children, investors, community leaders etc.)? - Describe the approaches that were used for each different audience?
4.4 Management Manage activities.	Candidate to provide an example that demonstrates a time when they managed geoscience activities. This could include overseeing a mapping project, planning or coordinating data collection or analysis for a project, or organizing a conference, workshop or meeting. The example must be in a geoscience context and must include examples of the different aspects of the project that were managed, for example, people, processes, materials, logistics etc. Does the example: - Refer to various aspects of the project(s) that were managed? - Explain the methods/tools/techniques used to manage each aspect of the project or program?

4.5 Time Management Use time management skills.	Candidate to provide an example that demonstrates how they used effective time management skills in a geoscience context. Does the example: - Show how time management was used to handle multiple activities at once? - Discuss the methods/tools/techniques used?
4.6 Providing Supervision Provide direction to others.	Candidate to provide an example that demonstrates how they provided oversight, supervision or direction to others in a geoscience situation. This could be providing advice or instruction to other geoscientists, non-geoscience members of the team, summer students etc. Does the example: - Describe the relationship with the person/people being supervised? - Describe the nature of the direction/oversight/supervision?
4.7 Financial & Budgets Contribute to budgetary management.	Candidate to provide an example that demonstrates their ability to manage a budget or contribute to budget management for a geoscientific project, program or study. This could include evaluating quotes, estimating costs or controlling expenditures for all or part of a project/program/study. Does the example: - Describe specific aspects of the budget process? - Clearly explain the level of responsibility and accountability within the budget process?

4.8 Risk Identification & Mitigation Apply basic principles of risk management.	Candidate to provide an example that demonstrates how they implemented risk management principles in a geoscientific context. They must clearly identify the risk being addressed and the steps taken to mitigate the risk. The types of risks could include physical health and safety, financial, reputational, environmental etc. This competency is more general than competency 2.5 which is looking specifically for scientific risks. Does the example: - Clearly identify the type of risk? - Clearly identify what measures were taken to address the risk? - Explain how the steps taken reduced the risk?
4.9 Data Security Contribute to secure data management.	Candidate to provide an example that describes how they managed data in a secure way. They must explain how the data integrity was maintained through various protocols and procedures, including any specific methods or tools that were used. The example should demonstrate an understanding of why secure data management is important and what is at stake if data security is not maintained. Does the example: - Explain how data was received, stored and managed in a proper and secure manner? - Demonstrate an understanding of why data security is important? - Explain the potential risks of not maintaining proper data security?

4.10 Document Management Maintain comprehensive professional records.	Candidate to provide an example that demonstrates how they maintained professional records of data and other geoscience information. They should describe why records are important and the potential consequences of not keeping proper records. Possible examples include proper recording and archiving of field observations, labelling, storing and cataloguing samples, or preparing and retaining proper administrative records for a geoscience business. Does the example: - Describe how data and information was properly acquired, organized and stored? - Demonstrate an understanding of why keeping proper records is important? - Demonstrate an understanding of the risks of not keeping proper records?