Position Description Form (PDF)

College: Sir Sandford Fleming

Incumbent's Name: Vacant

Position Title: CAWT Laboratory Technologist Payband: I

Position Code/Number (if applicable): S00446

Scheduled No. of Hours____35_____

Appointment Type:_____X_____12 months _____less than 12 months

Supervisor's Name and Title: Jennifer Andersen, Manager, CAWT

Completed by: Brent Wootton/Eva Rees Date: July 20, 2007
Last Revision: June 2013
HR Lead Review: June 14, 2013

Signatures:

Incumbent: Date:
(Indicates the incumbent has read and understood the PDF)

Supervisor: Date:

Instructions for Completing the PDF

1. Read the form carefully before completing any of the sections.

2. Answer each section as completely as you can based on the typical activities or requirements fo the position and not on exceptional or rare requirements.

3. If you have any questions, refer to the document entitled "A Guide on How to Write Support Staff Position Description Forms" or contact your Human Resources representation for clarification.

4. Ensure the PDF is legible.

5. Responses should be **straightforward and concise using simple factual statements.**

Position Summary

Provide a concise description of the overall purpose of the position.

The CAWT Laboratory Technologist is responsible for the effective coordination, set-up and execution of a wide range of experiments and analyses in the Centre for Alternative Wastewater Treatment (CAWT) at the Frost Campus. The incumbent will implement a variety of research projects by developing and validating laboratory methods and procedures necessary for project research. The incumbent will conduct laboratory analyses as required for water and wastewater treatment research in an accredited lab. The incumbent will maintain CAWT equipment, including analytical instrumentation and bench equipment, as well as any infrastructure; undertake trouble-shooting and repair work, and coordinate and assist in technical aspects of research projects.

The incumbent will maintain effective relationships with industry clients, external agencies and internal partners and will prepare project documentation, including progress and final reports as required.

The incumbent will coordinate the work of laboratory technicians, students and others as necessary to meet project deliverables. The incumbent will develop, organize and oversee CAWT lab operations ensuring safe, accurate and effective use of facilities and equipment and that all health and safety procedures are developed and followed for the protection of students, staff, and faculty.

Duties and Responsibilities

Indicate as clearly as possible the significant duties and responsibilities associated with the position. Indicate the approximate percentage of time for each duty. Describe duties rather than detailed work routines.

	Approximate % of time annually*
1. Originate, plan and organize analytical laboratory and field/onsite procedures, tests, and experiments according to Standard Methods, OMOE, and USEPA guidelines, and as required for an accredited testing facility as well as per project plan requirements. Develop, modify, and execute experiments in support of CAWT research activities and funded goals and objectives. Advise and assist Director of Research, CAWT Operations Manager, scientists, faculty, CAWT technicians, student workers, graduate students, and others requiring CAWT analytical services. Demonstrate a high level of analytical and problem-solving expertise to address any technical, logistical and physical issues with experiments. Deal with safety issues by developing and planning protocols for safe use of potentially hazardous chemicals and equipment.	30%
2. Operate and understand theoretical principles of a complex accredited laboratory by developing and validating SOPs and methods, operating and maintaining bench and analytical instrumentation including, but not limited to: Atomic Absorption Spectrophotometer, UV/Vis Spectrophotometer, Gas Chromatography/Mass Spectrometer, Anion/Cation chromatography, ICP Spectrophotometry (ICP-OES, ICP-MS), Liquid Chromotography/Mass Spectrometer, High Performance Liquid Chromatographer, luminometer, respirometer, DO, Conductivity, pH, ORP meters, microbiological testing equipment, incubators, heating blocks, evaporators, distillation units and water purification systems, chemical digestion equipment, nephelometers, fumehoods, sewage pumps, peristaltic pumps, multi-probe sensory units, flow meters, temperature recording devices, environmental chamber, and other laboratory equipment.	30%
3. Repair, maintain and calibrate CAWT facilities and infrastructure, including outdoor CAWT wetland vaults and associated pumps and process systems including the SCADA system. Maintain environmental controls for greenhouse including maintaining equipment and research activities. Adapt and modify current facilities and equipment to address new techniques.	10%
4. Maintain laboratory inventory levels and equipment needs by coordinating with other technicians and staff. Conduct research on appropriate material, products and supplies for lab analysis and experiments. Obtain quotes, work with staff to prepare purchase orders and follow up with suppliers, inspect orders for completion and install equipment upon arrival at college. Obtain necessary approvals to ensure expenditures are within budget.	5%
5. Maintain effective relationships with both industry clients and external agencies by communicating with and meeting with project partners for research planning and development sessions so current changes in methodology and technology can be applied to laboratory components.	15%

6. Facilitate training/orientation sessions/demonstrates procedures for new lab staff, student workers, placement workers, and technicians inform them of procedures, policies and best practices. Assist in recruitment and selection of student workers, monitor attendance, coordinate and oversee project work, delegate tasks, and provide day-to-day guidance for student workers.	5%
6. Other duties as assigned.	5%

* To help you estimate approximate percentages:
½ hour a day is 7% 1 hour a day is 14% 1 hour a week is 3%
½ day a week is 10% ½ day a month is 2% 1 day a month is 4%
1 week a year is 2%

1. Education

A. Check the box that best describes the **minimum** level of **formal** education that is required for the position and specify the field(s) of study. Do not include on-the-job training in this information.

□ Up to High School □ 1 year certificate □ 2 year diploma

□ Trade certification **X** 3 year diploma / degree □ 4 year degree or 3 year diploma / degree plus professional certification

□ Post graduate degree (e.g. Masters) or 4 years degree plus professional certification

□ Doctoral degree

Field(s) of Study:

Analytical Chemistry, Toxicology, Environmental Resource Studies or similar science-related discipline
Emphasis on Environmental Applications or Wastewater Treatment is preferred

B. Check the box that best describes the requirement for specific course(s), certification, qualification, formal training or accreditation in addition to and not part of the education level noted above and in the space provided specify the additional requirement(s). Include only the requirement that would typically be included in the job posting and would be acquired prior to the commencement of the position. Do not include courses that are needed to maintain a professional designation.

□ No additional requirements	
x Additional requirements obtained by course(s) of a total of 100 hours or less	
□ Additional requirements obtained by course(s) of a total between 101 and 520 hours	
□ Additional requirements obtained by course(s) of a total of more than 520 hours	

2 Experience

Experience refers to the minimum time required in prior position(s) to understand how to apply the techniques, methods and practices necessary to perform this job. This experience may be less than experience possessed by the incumbent, as it refers only to the minimum level required on the first day of work.

Check the box that best captures the typical number of year of experience, in addition to the necessary education level, required to perform the responsibilities of the position and, in the space provided, describe the type of experience. Include any experience that is part of a certification process, but only if the work experience or on-the-job training occurs after the conclusion of the educational course or program.

□ Less than one (1) year

□ Minimum of one (1) year

□ Minimum of two (2) years

X Minimum of three (3) years — Practical, related working experience in the following: Analytical and Environmental Chemistry methods, and instrumentation, including Mass Spectrometry, Atomic Absorption, ICP Spectrometry, Ion Chromatography. Trouble shooting electrical and electronic components, operations and function of computers and highly technical instrumentation. Working knowledge of analytical chemistry techniques including analysis of water, wastewater, and soil samples. Experience repairing, maintaining and trouble shooting, calibrating and operating highly technical and sensitive instrumentation; experience creating analytical chemistry methodologies for environmental applications.

Knowledge of pumps, associated electrical systems.

Experience in development and review of scientific experimental designs, assisting in research methods and preparing formal reports for clients.

Strong interpersonal and communication skills required. Practical experience in organizational techniques and inventory control. Ability to liaise with outside agencies and industry. High level of analytical and problem solving expertise.

First Aid, CPR, WHMIS and confined space certification is preferred

□ Minimum of five (5) years

□ Minimum of eight (8) years

3. Analysis and Problem Solving

This section relates to the application of analysis and judgement within the scope of the position.

The following charts help to define the level of complexity involved in the analysis or identification of situations, information or problems, the steps taken to develop options, solutions or other actions and the judgement required to do so.

Please provide up to three (3) examples of analysis and problem solving that are regular and recurring and, if present in the position, up to two (2) examples that occur occasionally:

	#1 regular & recurring
Key issue or problem encountered.	Analyze numerous wastewater samples for many different parameters, for multiple ongoing projects in a space of only two weeks. Calibrate and prepare all instruments (e.g. Mass Spectrometry, Atomic Absorption, Ion Chromatography) for analysis determining through experimentation the range of calibration and the potential chemical interference that may occur according to sample types. Adjusting chemistry where necessary.
How is it identified?	Learning sequence dictates a short timeline for completion of high level analysis involving multiple instruments and protocols running simultaneously.

Is further investigation required to define the situation and/or problem? If so, describe.	If variables change ie: Chemical interferences, specific needs of client (minimum detection level), adjustments and changes to the protocol must be made to complete analysis in the allotted time and as required. This could mean adding steps to the protocol, or adjusting chemical make up of the samples being tested. Instruments might have to be adapted to a new procedure that they were not originally designed for.
Explain the analysis used to determine a solution(s) for the situation and/or problem.	Given time, tests and experiments using a modified protocol will be performed. The incumbent will use the results of these tests to make the necessary changes, i.e. adding a new step to the procedure, or learning a new standard method. Set up quality control checks to detect errors in sampling and analysis as they occur and make adjustments based on results.
What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	In most cases there are existing protocols that suit the instrumentation at hand, but original research and adaptations to existing lab techniques must be done to arrive at solutions for many problems. Analytical Chemistry journals and standard references are used periodically as a starting point.

3. Analysis and Problem Solving

	#2 regular & recurring
Key issue or problem encountered	Trouble shoot CAWT outdoor well cell system: e.g. effluent not leaving pipe – pooling on surface.
How is it identified?	Deviation – minor or major – from normal operations (e.g. odours, pooling of effluent, plants dying, lack of expected treatment, other problems or issues).
Is further investigation required to define the situation and/or problem? If so, describe.	Incumbent must investigate the situation thoroughly prior to taking action.
Explain the analysis used to determine a solution(s) for the situation and/or problem.	Incumbent will use cumulative knowledge from other Fleming staff to learn what is known about system, incumbent will need to become familiar with process design drawings and general operations throughout all seasonal and operational conditions, and in consultation with the Scientist, Facilities personnel, and ET staff, determine best course of action for resolving problem.

What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	Current Fleming Facilities Management & Technical Support personnel will be an important resource until the incumbent has surpassed through experience the existing knowledge of Fleming personnel. Other resources include wetland textbooks, and peer reviewed journals. The scientist will be an important resource for solving these problems.

	~~#3 regular & recurring~~
Key issue or problem encountered	
How is it identified?	
Is further investigation required to define the situation and/or problem? If so, describe.	
Explain the analysis used to determine a solution(s) for the situation and/or problem.	
What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	

3. Analysis and Problem Solving

	#1 occasional (if none, please strike out this section)
Key issue or problem encountered	Maintaining laboratory accreditation (CALA and ISO 17025) ensuring all protocols are followed by staff for all audited procedures including students, technicians, internal and external partners and visitors
How is it identified?	Incumbent will be involved in developing and validating laboratory SOPs and methods, will participate in internal and external audits to achieve and maintain ISO accreditation. The incumbent will need to conduct quality control checks on analytical procedures. Inconsistencies with tests or with samples results from outside lab will need to be corrected and reported to the assessor during the accreditation process.
Is further investigation required to define the situation and/or problem? If so, describe.	Isolating the cause of the inconsistency will require extensive investigation.

Explain the analysis used to determine a solution(s) for the situation and/or problem.	ISO laboratory methods for quality assurance and quality control will be implemented.
What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	ISO 17025 Standard, Standard Methods (CAWT subscribes), as well as governmental standards (e.g. USEPA) will be used.

~~#2 occasional~~ ~~(if none, please strike out this section)~~

Key issue or problem encountered	
How is it identified?	
Is further investigation required to define the situation and/or problem? If so, describe.	
Explain the analysis used to determine a solution(s) for the situation and/or problem.	
What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	

4. Planning/Coordinating

Planning is a proactive activity as the incumbent must develop in advance a method of acting or proceeding, while coordinating can be more reactive in nature.

Using the following charts, provide up to three (3) examples of planning and/or coordinating that are regular and recurring and, if present in the position, up to two (2) examples that occur occasionally:

	#1 regular & recurring
List the project and the role of the incumbent in this activity.	Implementation of a planned research project in the CAWT facilities, including set up, monitoring and troubleshooting a laboratory experiment. Process includes reviewing the plan and coordinating the activities to build the experiement. Incumbent will assist in the study and experimental design before and during the project. The incumbent would source any necessary equipment and supplies and potentially adapting and modifying existing equipment to suit the experiment. The final result is the development of an experiment that produces the results and analysis that suits the scientific needs for the client within financial and logistical constraints.
What are the organizational and/or project management skills needed to bring together and integrate this activity?	Incumbent needs to work independently to organize the necessary resources build, troubleshoot any potential issues and test the experiment, within a specified, frequently compressed time frame. Also, this work may involve the assistance of students and other CAWT workers, who would require specific direction in this activity. There could also be work required by other department staff (Facilities) and would require effective communications skills to monitor the project This project would also require regular communication with, Operations Manager, and with other project partners and stakeholders.
List the types of resources required to complete this task, project or activity.	Instrument and Equipment Manuals, Standard Methods, Plumbing and electrical procedures, Internet sources, Liaise with partners, internal and outside professionals, develop safety protocols when required
How is/are deadline(s) determined?	Deadline is determined by Operations Manager.
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	Incumbent in consultation with Operations Manager decides if changes are required. Incumbent tests and assesses the procedure and decides if the system is working properly. If schedules or priorities of others need to change, the Operations Manager will approve.

4. Planning/Coordinating

	#2 regular & recurring
List the project and the role of the incumbent in this activity.	Plan and coordinate the testing and analysis activities within an analytical laboratory.
What are the organizational and/or project management skills needed to bring together and integrate this activity?	Incumbent must maintain inventory of all required reagents and supplies for laboratory analyses. Because of limits to volume throughput, analyses must be preplanned among various projects all of which have their own deadlines.
List the types of resources required to complete this task, project or activity.	Laboratory manuals, science journals, internet sources, as well as Fleming personnel.
How is/are deadline(s) determined?	Deadlines are determined in consultation with the Scientist, Operations Manager and project collaborators.
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	Incumbent is responsible for coordination of laboratory capacity in consultation with the Operations Manager.

	~~#3 regular & recurring~~
List the project and the role of the incumbent in this activity.	
What are the organizational and/or project management skills needed to bring together and integrate this activity?	
List the types of resources required to complete this task, project or activity.	
How is/are deadline(s) determined?	
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	

4. Planning/Coordinating

	~~#1 occasional~~ ~~(if none, please strike out this section)~~
List the project and the role of the incumbent in this activity.	
What are the organizational and/or project management skills needed to bring together and integrate this activity?	
List the types of resources required to complete this task, project or activity.	
How is/are deadline(s) determined?	
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	

	~~#2 occasional~~ ~~(if none, please strike out this section)~~
List the project and the role of the incumbent in this activity.	
What are the organizational and/or project management skills needed to bring together and integrate this activity?	
List the types of resources required to complete this task, project or activity.	
How is/are deadline(s) determined?	
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	

5. Guiding/Advising Others

This section describes the **assigned responsibility** of the position to guide or advise others (e.g. other employees, students). Focus on the actions taken (rather than the communication skills) that directly assist others in the performance of their work or skill development.

Though Support Staff cannot formally "supervise" others, there may be a requirement to guide others using the incumbent's job expertise. This is beyond being helpful and providing ad hoc advice. It must be an assigned responsibility and must assist or enable others to be able to complete their own tasks.

Check the box(es) that best describe the level of responsibility assigned to the position and provide an example(s) to support the selection, including the positions that the incumbent guides or advises.

Regular & Recurring	Occasional	Level	Example
x	□	Minimal requirement to guide/advise others. The incumbent may be required to explain procedures to other employees or students.	Incumbent will be required to explain laboratory procedures to lab technicians, student employees, graduate student researchers, and others that may be using CAWT facilities.
X	□	There is a need for the incumbent to demonstrate correct processes/ procedures to others so that they can complete specific tasks.	Demonstrates safe and proper use of chemicals and all analytical equipment
X	□	The incumbent recommends a course of action or makes decisions so that others can perform their day-to-day activities.	Coordinates the efforts of project team members (students and technicians), monitoring tasks and ensuring project stays on schedule. Utilizes expertise to assist technicians and other staff by designing procedures, protocols and methods and recommend the best course of action for others.
□	□	The incumbent is an active participant and has ongoing involvement in the progress of others with whom he/she has the responsibility to demonstrate correct processes/procedures or provide direction.	
□		The incumbent is responsible for allocating tasks to others and recommending a course of action or making necessary decisions to ensure the tasks are completed.	.

6. Independence of Action

Please illustrate the type of independence or autonomy exercised in the position. Consideration is to be given to the degree of freedom and constraints that define the parameters in which the incumbent works.

What are the instructions that are typically required or provided at the beginning of a work assignment?	
Regular and Recurring	Occasional (if none, please strike out this section)
Incumbent has significant freedom to act under general direction of CAWT Operations Manager with daily supervisory contact. The Operations Manager will request specific analyses and the incumbent will follow appropriate laboratory protocols. Where such protocols are not in use in CAWT, the incumbent will research, develop and implement appropriate methods, largely independent of the CAWT Operations Manager.	

What rules, procedures, past practices or guidelines are available to guide the incumbent?	
Regular and Recurring	Occasional (if none, please strike out this section)
Information is available for these applications. MOE manuals, Standard Methods, and USEPA methods are all available. Journals and a small number of texts can be referenced to aid in the creation of new analytical techniques. Information from outside sources such as Ministry of Environment and through some liaising with colleagues outside of the college. Instrument manuals only supply operational info, Methods are created by research and drawing on incumbent experience.	

How is work reviewed or verified (eg. feedback from others, work processes, Supervisor)?	
Regular and Recurring	Occasional (if none, please strike out this section)
Work is reviewed periodically to several times weekly depending on the task. Feedback is given periodically to several times weekly depending on the activities from Operations Manager	

6. Independence of Action

Describe the type of decisions the incumbent will make in consultation with someone else other than the Supervisor?	
Regular and Recurring	Occasional (if none, please strike out this section)
Equipping lab as needed to maintain accredited status will require ordering appropriate equipment and supplies – requiring decisions and extensive consultation with other supply companies, and outside labs. Other examples include consulting Fleming personnel concerning routine operational matters and making appropriate decisions (e.g. making decisions as needed for IT needs or requesting something from facilities, etc.)	

Describe the type of decisions that would be decided in consultation with the Supervisor.	
Regular and Recurring	Occasional (if none, please strike out this section)
Permission to access funds for items not specifically part of the approved budget (e.g. major repairs or purchase of capital equipment). All health and safety, personnel as well as security issues requiring managerial attention or intervention..	

Describe the type of decisions that would be decided by the incumbent.	
Regular and Recurring	Occasional (if none, please strike out this section)
Research methodologies and adapt existing instrumentation to perform required analysis. Develop and validate laboratory methods and SOPs as required in an ISO and/or CALA accredited laboratory Implementing efficiencies in routine laboratory operations	

7. Service Delivery

This section looks at the service relationship that is an assigned requirement of the position. It considers the required manner in which the position delivers service to customers. It is not intended to examine the incumbent's interpersonal relationship with those customers and the normal anticipation of what customers want and then supplying it efficiently. It considers how the request for service is received and the degree to which the position is required to design and fulfil the service requirement. A "customer" is defined in the broadest sense as a person or groups of people and can be internal or external to the College.

In the table below, list the key service(s) and its associated customers. Describe how the request for service is received by the incumbent, how the service is carried out and the frequency.

Information on the service		Customer	Frequency (D, W, M. I)*
How is it received?	How is it carried out?		
To provide results of lab tests	Design and execute lab experiments, written reports, Lab protocols and methods,	CAWT staff, Researchers, External partners	D
Provide advice and information on research proposals	Research required information and provide advise required	External College Partners and	W
New experiment/protocol required	Develop a new experiment/protocol to meet customer needs	Researchers	M

* D = Daily W = Weekly M = Monthly I = Infrequently

8. Communication

In the table below indicate the type of communication skills required to deal effectively with others. Be sure to list both verbal (e.g. exchanging information, formal presentations) and written (e.g. initiate memos, reports, proposals) in the section(s) that best describes the method of communication.

Communication Skill/Method	Example	Audience	Frequency (D, W, M ,I)*
Exchanging routine information, extending common courtesy	Exchange information	Other technicians and technologists	D
	To liaise with external partners of the College To exchange information and learn of new techniques, journals and other new information	Provincial and federal government agencies, and university partners	W
Explanation and interpretation of information or ideas	.To conduct tours and. training sessions in order to plan new types of applications in analytical tours or for potential research partners	Trent University, other clients	M
	Purchase chemicals and instrumentation To learn of new instrumentation and techniques in chemistry field	Suppliers	W

Imparting technical information and advice	To advise how to complete their analytical chem. goals and to aid in the repair and calibration of their highly technical chemistry related equipment	Other technicians and Technologists	D
	To advise CAWT researchers in the completion of their complex analytical chemistry needs	Researchers	D
	Demonstrates proper use of equipment, monitors, acts as resource, delegates tasks	Students, other technicians	D
	Demonstrates Safe and proper use of chemicals and all analytical equipment – complicated or simple		
	Explains research experiment results and progress to non-technical individuals	Industry clients	W
Instructing or training			
Obtaining cooperation or consent			
Negotiating			

* D = Daily W = Weekly M = Monthly I = Infrequently

9. Physical Effort

In the tables below, describe the type of physical activity that is required on a regular basis. Please indicate the activity as well as the frequency, the average duration of each activity and whether there is the ability to reduce any strain by changing positions or performing another activity. Activities to be considered are sitting, standing, walking, climbing, crouching, lifting and/or carrying light, medium or heavy objects, pushing, pulling, working in an awkward position or maintaining one position for a long period.

Physical Activity	Frequency (D, W, M, I)*	Duration			Ability to reduce strain		
		< 1 hr at a time	1 - 2 hrs at a time	> 2 hrs at a time	Yes	No	N/A
Standing				D		X	
Lifting instruments, equipment Water jugs			D		X		
Setting up equipment and experiments				D	X		

* D = Daily W = Weekly M = Monthly I = Infrequently

If lifting is required, please indicate the weights below and provide examples.

□ Light (up to 5 kg or 11 lbs)	
X Medium (between 5 to 20 kg or 11 to 44 lbs)	Equipment and instruments
X Heavy (over 20 kg or 44 lbs)	Water jugs

10. Audio Visual Effort

Describe the degree of attention or focus required to perform tasks taking into consideration:

- the audio/visual effort and the focus or concentration needed to perform a task and the duration of the task, including breaks (eg. up to 2 hours at one time including scheduled breaks)
- impact on attention or focus due to changes to deadlines or priorities
- the need for the incumbent to switch attention between tasks (eg. multi-tasking where each task requires focus or concentration)
- whether the level of concentration can be maintained throughout the task or is broken due to the number of disruptions

Provide up to three (3) examples of activities that require a higher than usual need for focus and concentration.

Activity #1	Frequency (D, W, M, I)*	Average Duration		
		Short < 30 mins	Long up to 2 hrs	Extended > 2 hrs
Experiment performance	D			X
Can concentration or focus be maintained throughout the duration of the activity? If not, why? X Usually □ No There are occasional interruptions from staff.				

Activity #2	Frequency (D, W, M, I)*	Average Duration		
		Short < 30 mins	Long up to 2 hrs	Extended > 2 hrs
Calibrating precision instruments	D		X	
Can concentration or focus be maintained throughout the duration of the activity? If not, why? X Usually □ No				

Activity #3	Frequency (D, W, M, I)*	Average Duration		
		Short < 30 mins	Long up to 2 hrs	Extended > 2 hrs
Working on Computers requires higher than usual need for focus and concentration when completing complex and highly analytical data analysis, calculations and reconciliations.	D			X

Can concentration or focus be maintained throughout the duration of the activity? If not, why?
X Usually
□ No

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11. Working Environment

Please check the appropriate box(es) that best describes the work environment and the corresponding frequency and provide an example of the condition.

Working Conditions	Examples	Frequency (D, W, M, I)*
□ acceptable working conditions (minimal exposure to the conditions listed below)		
accessing crawl spaces/confined spaces	CAWT vaults, Environmental Chamber	W
dealing with abusive people		
dealing with abusive people who pose a threat of physical harm		
X difficult weather conditions	Occasionally need to work in wet, snow or cold temperatures to perform Field Procedures	I
□ exposure to extreme weather conditions		
X exposure to very high or low temperatures (e.g. freezers)	Work in CAWT environmental chamber (-40C)	I
X handling hazardous substances	Low dose exposure to chemicals is probably (hazardous) – Acids(Corrosives),(Alkalis) Bases, poison i.e. Cyanide, Arsenic, Solvents ie Toluene, Chloroform, etc.. Deals with radio-Active sources in instrumentation, Some UV and RF exposure as well.	D
X smelly, dirty or noisy environment	Some procedures requiring use of fume hoods to reduce odours do not eliminate them, exposure to chemicals, Instruments are just below noise threshold for hearing protection	D
X travel	To field locations locally and in remote locations (on average local travel – within 100	I

	km - is once every two months; travel to remote locations – hundreds of kms - is approximately once per year)	
X working in isolated or crowded situations	Incumbent works with potentially dangerous/Hazardous Chemicals and high voltage equipment on a daily basis, the incumbent works alone in the chemistry lab	D
□ other (explain)		

* D = Daily M = Monthly W = Weekly I = Infrequently