

Key Research Findings

This analysis was based on the pre-determined criteria and measures listed below:

Section	Description	Measures
Student Demand	Includes an assessment of OCAS (2007 - 2011) enrolment data at other colleges in terms of mean growth rate with a specific focus on Fleming's direct competitors where appropriate (Georgian, Sheridan, Seneca and Durham) Trends in certificate, diploma, degree, apprenticeship and continuing education (where available). Click Below to Access Full Source Document: Fall Enrollment Trend	● Strong = Fleming enrolment growth is outpacing system and is equal to or greater than 3% ● Moderate = Fleming enrolment growth is equivalent to system demand and is between 1.0 to 2.9% ● Weak = Fleming enrolment growth is less than the system demand and is less than 1%
Labour Market	Includes projected employment rate growth based on a consolidation of various Ontario, Canadian, and US sources including HRSDC, Sector Council Reports US Bureau of Labour Statistics, and the MTCU Employment Profile.	● Strong = Between 5-6 positive labour market indicators ● Moderate = Between 3-5 positive labour market indicators ● Weak = Between 1-2 or no positive labour market indicators
Competitive Analysis	Includes the number of actual colleges offering the program as well as the ratio of applications to acceptances at Fleming compared to other colleges and specific comment about Fleming's direct competitors where appropriate (Georgian, Sheridan, Seneca and Durham) Click Below to Access Full Source Document: Fall Conversion Report	● Strong = Fleming conversion ratio is greater than 2 below the system ● Moderate = Fleming conversion ratio is 1 above, below or equal to the system ● Weak = Fleming conversion ratio is greater than 2 above than the system
Financial Analysis	Includes a review of Contribution to Overhead (CTO) for existing programs (2010-11) Click Below to Access Full Source Document: Costing Analysis	● Strong = CTO is greater than 35% ● Moderate = CTO is between 30 - 34% ● Weak = CTO is between 20 – 30% No Contribution = 19% or less

Key Research Findings

Key Performance Indicators	Includes KPI trends from the Key Performance Indicator Summary 5 Year Historical Overview KPI Data from Reporting Years 2008-2012. Click Below to Access Full Source Document: Key Performance Indicators	● Strong = Above system average in 6-7 indicators ● Moderate = Above system average in 3-5 indicators ● Weak = Above system average in 0-2 indicators.
Resource Analysis	Requires school level assessment regarding space, technology, capital equipment and human resources. Recommendations from recent Program Review Reports included here	

Key Research Findings

Earth Resources Technician (54407)

Student Demand¹

• **STRONG**

The following information consists of OCAS yearly student fall registration data as well as a mean growth rate and average student registration for each program under these categories:

Certificate

- Confederation is the only school to offer a certificate program
- The program has experienced steady growth except for between 2009-2010, when registration levels dropped by **23%**; however there was an increase the following year of **35%**

Diploma

- Fleming's registration has been growing steadily, but experienced a slight decrease of **39%** from 18 to 11 registrations in 2008-2009, but a **109%** increase the following year
- Cambrian and Northern both offer a similar diploma program called Mining Engineering Technician, and both colleges have experienced negative growth throughout the past five years

Advanced Diploma

- Cambrian is the only college to offer advanced diplomas
- Both programs offered by Cambrian have a low average registration of **2 students**, and one program has a mean growth rate of **-67%**

Certificate

Program: 44411 - MINING AND MINERAL PROCESSING																																			
	2007			% Change (07-08)			2008			% Change (08-09)			2009			% Change (09-10)			2010			% Change (10-11)			% Mean Growth Rate (07-11)	5 Year Average Reg. Students									
CONFEDERATION	15						15			22			47			22			17			-23			17			23			35			20	19
Total	15						15			22			47			22			17			-23			17			23			35			20	19

¹ Registration data obtained from the Program Counts by Applicant Type Report (RPT0050P) in the OCAS Reporting and Analytics Cube December 7, 2011.

Some programs/colleges may not be included because they were missing MCU codes in the OCAS dataset

Prepared by Fleming Data Research (07-2012)

Key Research Findings

Diploma

Program: 54407 - GEOLOGICAL ENGINEERING TECHNICIAN

	2007	2008	% Change (07-08)	2008	2009	% Change (08-09)	2009	2010	% Change (09-10)	2010	2011	% Change (10-11)	% Mean Growth Rate (07-11)	5 Year Average Reg. Students
FLEMING	13	18	38	18	11	-39	11	23	109	23	22	-4	26	17
Total	13	18	38	18	11	-39	11	23	109	23	22	-4	26	17

Program: 54411 - MINING ENGINEERING TECHNICIAN

	2007	2008	% Change (07-08)	2008	2009	% Change (08-09)	2009	2010	% Change (09-10)	2010	2011	% Change (10-11)	% Mean Growth Rate (07-11)	5 Year Average Reg. Students
CAMBRIAN	107	104	-3	104	48	-54	48	30	-38	30	29	-3	-24	64
NORTHERN	23	27	17	27	12	-56	12	19	58	19	10	-47	-7	18
Total	130	131	1	131	60	-54	60	49	-18	49	39	-20	-23	82

Advanced Diploma

Program: 64407 - GEOLOGICAL ENGINEERING TECHNOLOGY

	2007	2008	% Change (07-08)	2008	2009	% Change (08-09)	2009	2010	% Change (09-10)	2010	2011	% Change (10-11)	% Mean Growth Rate (07-11)	5 Year Average Reg. Students
CAMBRIAN	2			2			2							2
Total	2			2			2							2

Program: 64411 - MINING ENGINEERING TECHNOLOGY

	2007	2008	% Change (07-08)	2008	2009	% Change (08-09)	2009	2010	% Change (09-10)	2010	2011	% Change (10-11)	% Mean Growth Rate (07-11)	5 Year Average Reg. Students
CAMBRIAN	3			3	1	-67	1						-67	2
Total	3			3	1	-67	1						-67	2

Key Research Findings

Labour Market

• **MODERATE**

HRSDC²

Geological and Mineral Technologists and Technicians (NOC – 2212)

- Job Openings (2011/2020): **12,000**
- Job Seekers(2011/2020): **14,953**
- Post Secondary Education Graduates: **12,935**
- “Geological and mineral technologists and technicians provide technical support and services or may work independently in the fields of oil and gas exploration and production, geophysics, petroleum engineering, geology, mining and mining engineering, mineralogy, extractive and physical metallurgy, metallurgical engineering and environmental protection. They are employed by petroleum and mining companies, consulting geology and engineering firms, and by governments and educational institutions as well as by a variety of manufacturing, construction and utilities companies.”

US Bureau of Labour³

Geological and Petroleum Technicians (SOC – 19-4041)

- Employment Growth (2010/2020) **Increase 15%**
 - **14,400**(2010) to **16,500** (2020)
- Percent change in employment, projected 2010-20
 - Geological and Petroleum Technicians **15%**
 - Total, All Occupations **14%**
 - Life, Physical, and Social Science Technicians **11%**
- “High prices and growing demand for natural resources, especially oil and natural gas, are expected to increase demand for geological exploration and extraction in the future. Historically, when oil and natural gas prices are low, companies limit exploration and hire fewer technicians. When prices are high, however, companies explore and extract more. If oil prices remain high over the long run, the demand for geological and petroleum technicians will remain high as well.”

Sector Report Council⁴

- According to the Association of Professional Geoscientists of Ontario (APGO), there has been a “growth of over **65%** in the last year in the numbers of Geoscientist-in-Training and student members.”

² "Technical Occupations In Physical Sciences (221)." *Human Resources and Skills Development Canada*. N.p., 13 June 2012. Web. 13 June 2012. <<http://www23.hrsdc.gc.ca/occupationsummarydetail.jsp?&tid=38>>.

³Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2012-13 Edition*, Geological and Petroleum Technicians, Web. <http://www.bls.gov/ooh/life-physical-and-social-science/geological-and-petroleum-technicians.htm>, June 13, 2012

⁴ Hanson, Kristin E. "2011 Annual Report." *Association of Professional Geoscientists of Ontario*. N.p., 1 May 2011. Web. 13 June 2012. <http://www.apgo.net/files/2011_Annual_Report.pdf>.

Key Research Findings

Working in Canada⁵

Geological and Mineral Technologists and Technicians (NOC – 2212)

- Ontario Rating: **Not Available (except for Fair in the Northeast region)**

- **Wage Range by Region:**

Location	Wage (\$/hr)		
	Low	Median	High
Ontario	13.00	26.00	56.41
Hamilton--Niagara Peninsula Region	N/A	N/A	N/A
Kingston - Pembroke Region	N/A	N/A	N/A
Kitchener--Waterloo--Barrie Region	N/A	N/A	N/A
London Region	13.00	26.00	56.41
Muskoka-Kawartha Region	13.00	26.00	56.41
Northeast Region	N/A	N/A	N/A
Northwest Region	N/A	N/A	N/A
Ottawa Region	13.00	26.00	56.41
Stratford--Bruce Peninsula Region	N/A	N/A	N/A
Toronto Region	15.00	19.58	31.67
Windsor-Sarnia Region	13.00	26.00	56.41

Competitive Analysis⁶

● **MODERATE**

The following information consists of OCAS yearly fall application and registration data as well as a conversion ratio for each program under this category:

Certificate

- Confederation has had a relatively constant conversion ratio throughout the past five years, with a **4:1 ratio** in 2011

Diploma

- Only three colleges offer this program, none of which includes any of Fleming's direct competitors
- Fleming's conversion ratio in 2011 (**5:1**) was slightly lower than the system ratio for the Mining Engineering Technician program (**4:1**)

⁵ "Geological and Mineral Technologists and Technicians." *Working in Canada*. N.p., 23 May 2012. Web. 13 June 2012. <http://www.workingincanada.gc.ca/report_educational-eng.do?cip=40.06&area=8792&lang=eng&noc=2212&action=final&source=4&titleKeyword=earth+resources>.

⁶ Application data obtained from OCAS College Count Cube October 19, 2011
Registration data obtained from the Program Counts by Applicant Type Report (RPT0050P) in the OCAS Reporting and Analytics Cube December 7, 2011.
Some programs/colleges may not be included because they were missing MCU codes in the OCAS dataset
Prepared by Fleming Data Research (07-2012)

Key Research Findings

Advanced Diploma

- Both advanced diploma programs offered by Cambrian have been experiencing lowering conversion ratios throughout the past five years

Certificate

Program: 44411 - MINING AND MINERAL PROCESSING															
	App. 2007	Reg. 2007	Conversion Ratio	App. 2008	Reg. 2008	Conversion Ratio	App. 2009	Reg. 2009	Conversion Ratio	App. 2010	Reg. 2010	Conversion Ratio	App. 2011	Reg. 2011	Conversion Ratio
CONFEDERATION	0			56	15	4:1	72	22	3:1	70	17	4:1	92	23	4:1
Total	0			56	15	4:1	72	22	3:1	70	17	4:1	92	23	4:1

Diploma

Program: 54407 - GEOLOGICAL ENGINEERING TECHNICIAN															
	App. 2007	Reg. 2007	Conversion Ratio	App. 2008	Reg. 2008	Conversion Ratio	App. 2009	Reg. 2009	Conversion Ratio	App. 2010	Reg. 2010	Conversion Ratio	App. 2011	Reg. 2011	Conversion Ratio
FLEMING	58	13	4:1	78	18	4:1	80	11	7:1	93	23	4:1	112	22	5:1
Total	58	13	4:1	78	18	4:1	80	11	7:1	93	23	4:1	112	22	5:1

Program: 54411 - MINING ENGINEERING TECHNICIAN															
	App. 2007	Reg. 2007	Conversion Ratio	App. 2008	Reg. 2008	Conversion Ratio	App. 2009	Reg. 2009	Conversion Ratio	App. 2010	Reg. 2010	Conversion Ratio	App. 2011	Reg. 2011	Conversion Ratio
CAMBRIAN	260	107	2:1	316	104	3:1	142	48	3:1	107	30	4:1	113	29	4:1
NORTHERN	67	23	3:1	86	27	3:1	75	12	6:1	59	19	3:1	60	10	6:1
Total	327	130	3:1	402	131	3:1	217	60	4:1	166	49	3:1	173	39	4:1

Advanced Diploma

Program: 64407 - GEOLOGICAL ENGINEERING TECHNOLOGY															
	App. 2007	Reg. 2007	Conversion Ratio	App. 2008	Reg. 2008	Conversion Ratio	App. 2009	Reg. 2009	Conversion Ratio	App. 2010	Reg. 2010	Conversion Ratio	App. 2011	Reg. 2011	Conversion Ratio
CAMBRIAN	10	2	5:1	8			9	2	5:1	0			0		
Total	10	2	5:1	8			9	2	5:1	0			0		

Key Research Findings

Program: 64411 - MINING ENGINEERING TECHNOLOGY												
	App. 2007	Reg. 2007	Conversion Ratio	App. 2008	Reg. 2008	Conversion Ratio	App. 2009	Reg. 2009	Conversion Ratio	App. 2010	Reg. 2010	Conversion Ratio
CAMBRIAN	18			25	3	8:1	10	1	10:1	7		
Total	18			25	3	8:1	10	1	10:1	7		12

Financial Analysis

• **WEAK**

Source: Program Costing Analysis 2010/2011

- Contribution to Overhead: 26.9%
- Program Weight: 1.30
- Funding Unit: 2.30

Key Performance Indicators

• **STRONG**

Source: Key Performance Indicator Summary 5 Year Historical Overview KPI Data from Reporting Years 2008-2012

KPI1-Graduation Rate	+6% above system
KPI2-Working	+4% above system
KPI3-Working Related	+25% above system
KPI4-Grad. Satisfaction	+2% above system
KPI8-Student Satisfaction-Learning	+3% above system
KPI9-Student Satisfaction- Teachers	+6% above system
KPI11-Grad. Satisfaction-Program	+4% above system

Resource Analysis

Equipment

The following information was extracted from the 2009 program review:

- Replace ancient geophysical equipment
- Increase the program budget
- Remove equipment from storage rooms that is waste or surplus

Staffing

The following information was extracted from the 2009 program review:

- Get more Faculty and expertise on board

Space

The following information was extracted from the 2009 program review:

- Improve lab conditions and maintenance
- Repaint classrooms
- Recover lab tops

Key Research Findings

Appendix

The following is the original environmental scan conducted by the Library Researchers to form the basis of the previous summary of Key Research Findings Report.

Overview of the Profession:

NOC: 2212

http://www.workingincanada.gc.ca/report_educational-eng.do?cip=40.06&area=8792&lang=eng&noc=2212&action=final&source=4&titleKeyword=earth+resources

Description

Geological and mineral technologists and technicians provide technical support and services or may work independently in the fields of oil and gas exploration and production, geophysics, petroleum engineering, geology, mining and mining engineering, mineralogy, extractive and physical metallurgy, metallurgical engineering and environmental protection. They are employed by petroleum and mining companies, consulting geology and engineering firms, and by governments and educational institutions as well as by a variety of manufacturing, construction and utilities companies.

Included Job Titles

assayer, geological technician, geophysical technologist, groundwater technologist, log technician, marine geoscience technologist, metallurgical technologist, mineralogy technician, mining engineering technologist, mining technologist, petroleum engineering technologist, petroleum technician, petrology technician, reservoir engineering technician, rock mechanics technician, seismic technician, welding technologist.

Job Duties

Geological and mineral technologists perform some or all of the following duties:

- Conduct or direct geological, geophysical, geochemical, hydrographic or oceanographic surveys, prospecting field trips, exploratory drilling, well logging or underground mine survey programs
- Operate and maintain geophysical survey and well logging instruments and equipment
- Prepare notes, sketches, geological maps and cross sections
- Prepare, transcribe or analyze seismic, gravimetric, well log or other geophysical and survey data
- Assist engineers and geologists in the evaluation and analysis of petroleum and mineral reservoirs
- Prepare or supervise the preparation of rock, mineral or metal samples and perform physical and chemical laboratory tests
- Conduct or assist in environmental audits, in the design of measures to minimize undesirable environmental effects of new or expanded mining and oil and gas operations, and in the development of waste management and other related environmental protection procedures
- May supervise oil and gas well drilling, well completions and work-overs
- May conduct or supervise studies and programs related to mine development, mining methods, mine ventilation, lighting, drainage and ground control
- May assist engineers and metallurgists in specifying material selection, metal treatments or corrosion protection systems

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- May assist hydrogeologists in evaluating groundwater and well circulation and in report preparation
- May develop specifications for heat treatment of metals or for welding, design welding fixtures, troubleshoot welding processes or quality problems and supervise welding projects.

Geological and mineral technicians perform some or all of the following duties:

- Participate in geological, geophysical, geochemical, hydrographic or oceanographic surveys, prospecting field trips, exploratory drilling, well logging or underground mine survey programs and in environmental audits and related environmental protection activities
- Operate and maintain geophysical survey and well logging instruments and equipment
- Prepare notes, sketches, geological maps and cross sections
- Assist in preparing, transcribing or analyzing seismic, gravimetric, well log or other geophysical and survey data
- Assist in the preparation of rock, mineral or metal samples and in conducting physical and chemical laboratory tests
- Assist in hydrogeological field and laboratory studies and in preparation of reports
- Carry out a limited range of other technical functions in support of geology, geophysics and petroleum and mining engineering.

Related Occupations

- Civil Engineering Technologists and Technicians
- Electrical and Electronics Engineering Technologists and Technicians
- Mapping and Related Technologists and Technicians
- Supervisors, Mining and Quarrying
- Supervisors, Oil and Gas Drilling and Service
- Chemical Technologists and Technicians

Muskoka-Kawartha Region Median wage = \$26.00 per hour

Low \$13.00 Median \$26.00 High \$56.41

No local jobs listed

Toronto Region

Low \$15.00 Median \$19.58 High \$31.67

Provincially

Low \$13.00 Median \$26.00 High \$56.41

Labour Market

Working in Canada

1. Employment potential for the Kawartha Region is “Not Available” (Working in Canada)

http://www.workingincanada.gc.ca/report_educational-eng.do?cip=40.06&area=8792&lang=eng&noc=2212&action=final&s=2&source=4&titleKeyword=eart h+resources#report_tabs_container2

HRDSC

2. National Outlook – 10-Year Projection (2011-2020)

<http://www23.hrsdc.gc.ca/occupationsummarydetail.jsp?&tid=38>

This occupation (Earth Resources Technician) is part of a larger occupational group called Geological and Mineral Technologists and Technicians

Occupations in this group	Applied Chemical Technologists and Technicians (2211),
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Key Research Findings

	Geological and Mineral Technologists and Technicians (2212), Meteorological Technicians (2213)
Employment (non-student) in 2010	28,404
Median Age of workers in 2010	38.1 years old
Average Retirement Age in 2010	59 years old

Over the 2008-2010 period, this occupation experienced a drop in employment, while its unemployment rate increased significantly. The unemployment rate is now the highest among the natural and applied sciences occupations. The average hourly wage increased at the same rate as for all occupations. According to key labour market indicators, the number of job seekers was more than sufficient to fill the job openings in this occupation.

Over the 2011-2020 period, an occupation will be in excess demand (a shortage of workers) if the projected number of job openings is significantly greater than the projected number of job seekers. An occupation will be in excess supply (a surplus of workers) if the projected number of job openings is smaller than the projected number of job seekers. For **Technical Occupations In Physical Sciences**, over the 2011-2020 period, job openings (arising from expansion demand and replacement demand) are expected to total **12,000** and **14,953** job seekers (arising from school leavers, immigration and mobility) are expected to be available to fill the job openings.

Based on projections and considering that labour supply exceeded demand in this occupation over the 2008-2010 period, it is expected that there will continue to be a surplus of labour so that the number of job seekers will be greater than the job openings over the 2011-2020 period. The majority of job openings will arise from retirements, despite a retirement rate on par with the average for all occupations. Employment growth will be slightly higher than average employment growth in the economy. This will be a big improvement over the 2001-2010 period when employment declined. The strong employment growth will be due to the strong growth in professional, scientific and technical services as a result of projected increases in investments in machinery, equipment, research and development and subcontracting services. With regard to labour supply, the majority of job seekers will come from the school system. However, a large number of workers will leave this occupation to work in another occupation, in part because the number of school leavers will exceed the labour demand.

Projection of Cumulative Job Openings and Job Seekers over the Period of 2011-2020

	Level	Share
Expansion Demand:	4,100	34%
Retirements:	6,449	54%
Other Replacement Demand:	813	7%
Emigration:	657	5%
Projected Job Openings:	12,000	100%
	Level	Share

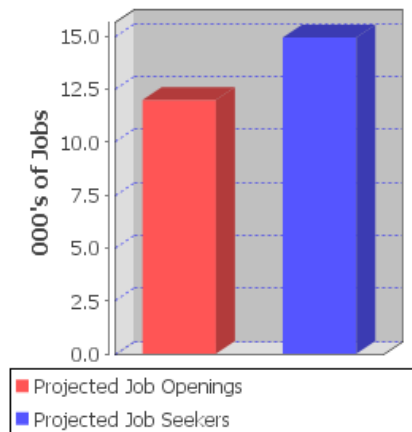
Key Research Findings

School Leavers:	12,935	87%
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Immigration:	3,942	26%
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Net Mobility	-3,230	-22%
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Projected Job Seekers:	14,953	100%
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US Bureau of Labour

<http://www.bls.gov/ooh/life-physical-and-social-science/geological-and-petroleum-technicians.htm>
Job Outlook

Employment of geological and petroleum technicians is expected to increase by 15 percent from 2010 to 2020, about as fast as the average for all occupations. High prices and growing demand for natural resources, especially oil and natural gas, are expected to increase demand for geological exploration and extraction in the future. Historically, when oil and natural gas prices are low, companies limit exploration and hire fewer technicians. When prices are high, however, companies explore and extract more. If oil prices remain high over the long run, the demand for geological and petroleum technicians will remain high as well.

Geological and Petroleum Technicians

Percent change in employment, projected 2010-20

Geological and Petroleum Technicians

15%

Total, All Occupations

14%

Life, Physical, and Social Science Technicians

11%

Note: All Occupations includes all occupations in the U.S. Economy.

Source: U.S. Bureau of Labor Statistics, Employment Projections program

Employment projections data for geological and petroleum technicians, 2010-20

Key Research Findings

Occupational Title	SOC Code	Employment, 2010	Projected Employment, 2020	Change, 2010-20		Employment by Industry
				Percent	Numeric	
SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program						
Geological and Petroleum Technicians	19-4041	14,400	16,500	15	2,100	

<http://www30.hrsdc.gc.ca/NOC/English/NOC/2006/Profile.aspx?val=2&val1=2212>

2212 Geological and Mineral Technologists and Technicians

Geological and mineral technologists and technicians provide technical support and services or may work independently in the fields of oil and gas exploration and production, geophysics, petroleum engineering, geology, mining and mining engineering, mineralogy, extractive and physical metallurgy, metallurgical engineering and environmental protection. They are employed by petroleum and mining companies, consulting geology and engineering firms, and by governments and educational institutions as well as by a variety of manufacturing, construction and utilities companies.

Example Titles

- assayer
- geological technician
- geophysical technologist
- groundwater technologist
- log technician
- marine geoscience technologist
- metallurgical technologist
- mineralogy technician
- mining engineering technologist
- mining technologist
- petroleum engineering technologist
- petroleum technician
- petrology technician
- reservoir engineering technician
- rock mechanics technician
- seismic technician
- welding technologist

[View all titles](#)

Main duties

Geological and mineral technologists perform some or all of the following duties:

- Conduct or direct geological, geophysical, geochemical, hydrographic or oceanographic surveys, prospecting field trips, exploratory drilling, well logging or underground mine survey programs
- Operate and maintain geophysical survey and well logging instruments and equipment
- Prepare notes, sketches, geological maps and cross sections
- Prepare, transcribe or analyze seismic, gravimetric, well log or other geophysical and survey data
- Assist engineers and geologists in the evaluation and analysis of petroleum and mineral reservoirs

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- Prepare or supervise the preparation of rock, mineral or metal samples and perform physical and chemical laboratory tests
- Conduct or assist in environmental audits, in the design of measures to minimize undesirable environmental effects of new or expanded mining and oil and gas operations, and in the development of waste management and other related environmental protection procedures
- May supervise oil and gas well drilling, well completions and work-overs
- May conduct or supervise studies and programs related to mine development, mining methods, mine ventilation, lighting, drainage and ground control
- May assist engineers and metallurgists in specifying material selection, metal treatments or corrosion protection systems
- May assist hydrogeologists in evaluating groundwater and well circulation and in report preparation
- May develop specifications for heat treatment of metals or for welding, design welding fixtures, troubleshoot welding processes or quality problems and supervise welding projects.

Geological and mineral technicians perform some or all of the following duties:

- Participate in geological, geophysical, geochemical, hydrographic or oceanographic surveys, prospecting field trips, exploratory drilling, well logging or underground mine survey programs and in environmental audits and related environmental protection activities
- Operate and maintain geophysical survey and well logging instruments and equipment
- Prepare notes, sketches, geological maps and cross sections
- Assist in preparing, transcribing or analyzing seismic, gravimetric, well log or other geophysical and survey data
- Assist in the preparation of rock, mineral or metal samples and in conducting physical and chemical laboratory tests
- Assist in hydrogeological field and laboratory studies and in preparation of reports
- Carry out a limited range of other technical functions in support of geology, geophysics and petroleum and mining engineering.

Educational Programs Leading to this Occupation

- Geological and mineral technologists usually require completion of a two- to three-year college program in geological technology, petroleum technology, petroleum engineering technology, hydrogeology or groundwater technology, mining technology, mining engineering technology, mineralogy, metallurgical technology, or welding technology.
- Geophysics technologists usually require completion of a two- to three-year college program in electronics technology.
- Geological and mineral technicians usually require completion of a one- to two-year college program in a related field.
- Certification in geological and mineral technology or in a related field is available through provincial associations of engineering/applied science technologists and technicians and may be required by employers.
- In Quebec, membership in the regulatory body is required to use the title of Professional Technologist.
- A period of supervised work experience, usually two years, is required before certification.

Additional information

- There is limited mobility between occupations in this group.
- Mobility may be possible between geophysical technology and electronic technology.
- Mobility may be possible between some occupations in this group and related fields of civil engineering technology.

Key Research Findings

Classified elsewhere

- *Civil Engineering Technologists and Technicians* ([2231](#))
- *Electrical and Electronics Engineering Technologists and Technicians* ([2241](#))
- *Mapping and Related Technologists and Technicians* ([2255](#))
- *Supervisors, Mining and Quarrying* ([8221](#))
- *Supervisors, Oil and Gas Drilling and Service* ([8222](#))
- Technologists and technicians whose primary duties are to perform chemical laboratory tests (in [2211](#) *Chemical Technologists and Technicians*)

Educational Competitors

Fleming College (Diploma – Co-Op)

Earth Resources Technician

<http://flemingcollege.ca/programs/earth-resources-technician>

Cambrian College (Diploma)

Mining Engineering Technician

<http://www.cambriancollege.ca/Programs/Programs/201209MNTN.HTM>

Cambrian College (Diploma – 3years)

Mining Engineering Technologist

<http://www.cambriancollege.ca/Programs/Programs/201209MNTY.HTM>

Northern College (Diploma)

Mining Engineering Technician

<http://www.northernnc.on.ca/mining-engineering-technician>

Northern College (Diploma – Distance)

Mining Engineering Technician

<http://www.northernnc.on.ca/demet>

Confederation College

Mining Techniques

<http://www.confederationnc.on.ca/node/452>

http://www.confederationnc.on.ca/program_calendar/452

Boreal

Techniques du Genie de construction (Civil et Minier)

<http://www.collegeboreal.ca/programmes-cours/etudes-a-temps-plein/techniques-du-genie-de-construction-civil-et-minier/>

Boreal

Technologie du Genie de construction (Civil et Minier)

<http://www.collegeboreal.ca/programmes-cours/etudes-a-temps-plein/technologie-du-genie-de-construction-civil-et-minier/>

Key Research Findings

Professional Associations:

Geology Association of Canada

<http://www.gac.ca/wp/>

Mineralogical Association of Canada

<http://www.mineralogicalassociation.ca/>

Canadian Institute of Mining & Metallurgy

<http://www.cim.org/splash/index.cfm>

Mining Association of Canada

<http://www.mining.ca/site/index.php/en/>

Association of Professional Geoscientists of Ontario

<http://www.apgo.net/index.htm>

National Association of Geoscience Teachers

(Publishes Journal of Geoscience Education)

www.nagt.org

College	APS	MTCU Code	APS Title	MTCU Title	WT	FU	TF	Family
CONF	1182	44411	Mining Techniques	Mining And Mineral Processing	1.30	1.20	1.00	4411
CAMB	1036	54411	Mining Engineering Technician	Mining Engineering Technician	1.30	2.50	2.00	4411
NORT	1038	54411	Mining Engineering Technician	Mining Engineering Technician	1.30	2.50	2.00	4411
CAMB	1037	64411	Mining Engineering Technology	Mining Engineering Technology	1.30	3.60	3.00	4411
CAMB	1045	64407	Geological Engineering Technician	Geological Engineering Technician	1.30	2.3		4407
CAMB	1025	64407	Geological Engineering Technology	Geological Engineering Technology	1.30	3.40		4407
SSFL	106164407	64407	Earth Resources Technician	Geological Engineering Technician	1.30	2.30		4407

Other

FIND MORE CAREERS AT WWW.ECO.CA

ECO CANADA • ENVIRO CAREER

Key Research Findings

GEOLOGICAL AND GEOPHYSICAL TECHNICIAN



Geological and geophysical technologists specialize in measuring and interpreting data to support the exploration, production, and management of natural resources. They work with a variety of professionals, including geologists, geophysicists, and engineers, and in a number of industries, for example oil and gas, mining, and construction. Geological and geophysical technologists are also involved in site reclamation and environmental hazard cleanup.

At a Glance

Imagine you are looking up at a 20-metre slope of dirt, rock, and pine trees that is to become part of a proposed road connecting a new alpine ski resort with the main highway. You are a geological technologist working as part of the team that will map the area's geological conditions and hazards. Before the road can be built, design engineers will need to know what geological features and characteristics must be factored into their design. You and your team are responsible for taking measurements and providing data to the engineers so the road's design is as safe and durable as possible.

As a geological technologist, you specialize in measuring and quantifying geological conditions for infrastructure engineering, oil and gas exploration, and mining. For this project, you're responsible for gathering data on the characteristics that will affect the new road's design. For example, you will have to measure slope stability so engineers will know what precautions to take against landslides and erosion. Using specialized instruments, you'll measure vibrations at specific points along the road's proposed route to estimate the soil's stability and how it will hold up under heavy construction equipment and tourist traffic. You will also drill boreholes and map cracks and other areas of ground deformation. Once you know where these cracks are, you will use an inclinometer to measure and record ground movement and shifting near them because these will be the weakest parts of the slope.

In addition to recording all this data, you'll be involved in researching and studying aerial photographs of the area to assess the probability of landslides and avalanches. Your team will analyze and interpret all this information then pass it on to the road's design engineers, so they know what measures they must include in order to safeguard against landslides, erosion, and other geological hazards.

Job Duties

Duties vary significantly from job to job, but the following list includes typical job duties one might encounter as a geological and geophysical technologist:

- Collect and analyze samples, for example rock, soil, and core samples.

Key Research Findings

- Extract and interpret geological information from aerial photographs, satellite images, contour maps, and cross sections.
- Process and interpret geophysical data acquired using gravitational, magnetic, electromagnetic, seismic, and other remote sensing methods.
- Operate and maintain geophysical survey and well-logging instruments and equipment.
- Conduct geophysical surveys for locating environmental problems, for example contaminant plumes and buried hazardous waste mapping.
- Maintain geological and geophysical databases.
- Analyze core samples from drilling sites.
- Interpret hydrogeological maps, reports, and studies.

Work Environment

Geological/ geophysical technicians work in a variety of locations, including, but not limited to:

In the office:

- Gathering, entering, and analyzing data, including spatial and seismic data
- Preparing maps
- Communicating on the phone and in meetings with clients, colleagues, and stakeholders
- Preparing reports

In the field:

- Conducting geophysical surveys
- Collecting rock, soil, and water samples
- Supervising drilling and coring operations

In the lab:

- Processing and studying samples, cores, and cuttings
- Examining sections to determine mineral content

Where to Work

There are a number of places geological and geophysical technologists can find employment. They include:

- Environmental and engineering consulting firms
- Federal, provincial/territorial, and municipal government departments
- Firms in other industries, for example oil and gas and mining
- Exploration and survey firms
- Self-employed consultant

Education

In most cases, the minimum education requirement to work as a geological/ geophysical technician is a college technical diploma. The following post secondary programs are most applicable to a career in this field:

- • Geology
- • Environmental earth science
- • Hydrogeology
- • Geography
- • Geographic information systems (GIS)

It is not mandatory to be certified in order to work as a geological/ geophysical technician, though some practitioners choose to become certified technologists through their provincial association.

If you are a high school student considering a career as a geological/ geophysical technician, you should have a strong interest in:

- • Chemistry
- • Physics

Key Research Findings

- Math
- Geography

Earnings

Geological/ geophysical technicians make between \$43,300 and \$54,300 per year in Canada, depending on years of experience and education.

Related Careers

- Avalanche forecaster
- Biochemist
- Cartographer
- Environmental chemist
- Environmental engineer
- Environmental geologist
- Environmental geophysicist
- Geographer
- Geomatics Technician
- GIS analyst
- Glaciologist
- Hydrologist
- Petroleum engineer
- Reclamation specialist
- Remote sensing technologist
- Remediation specialist
- Seismologist
- Soil scientist

Also from Eco-Canada – Core competencies

(source: http://www.cecab.org/public/documents/NOS_Profiles_TT.pdf)

Technician/Technologist Profile - Mining (B4)

Type 1

Environmental A Assessments, Remediation, Restoration and Reclamation

A.1 Conducting environmental impact assessments

A.1.1 Identify the geographic, social, economic, and environmental scope and parameters to be used for the impact assessment study.

A.1.2 Develop a project management plan for the impact assessment study for proposed developments, change in facility operations, change in land use, amended or proposed new policies, etc.

A.1.3 Review earth and life science inventories and existing studies to determine if sufficient baseline data is available for the impact assessment study.

A.1.5 Consult with stakeholders (including regulators, municipalities, public, interest groups, Aboriginals, NGOs, etc.) to gather information regarding the perceived impacts of development activities on the communities, the environment and the natural resources.

A.1.6 Assess areas of potential impact such as biophysical, social, economic, and heritage resources.

A.1.7 Assess qualitative and quantitative environmental issues, risks or problems, including their cumulative effect and corresponding socio-economic impacts, to develop mitigative plans and measures.

Key Research Findings

A.1.8 Prepare environmental impact assessment report(s), including mitigation, environmental protection, and recovery plans.

A.2 Conducting environmental site assessment (ESA - Phase 1 and Phase 2)

A.2.17 Develop site remediation/restoration/reclamation plans and programs, including objectives, targets, contamination description, issue resolution process, pilot requirements, time schedule, and cost estimate.

B Policy, Legislation and Regulations

B.5 Developing environmental policies, measures and standards

B.5.31 Review existing and/or proposed environmental policies/legislation/standards (and the rationale supporting them) to assess implications to stakeholders, including customers and suppliers.

B.6 Interpreting/enforcing/complying with environmental regulations and standards

B.6.36 Provide expert advice to senior management, internal staff, regulatory bodies, interest groups and the

public on matters related to disputes, compliance and other environmental issues, including processes for acquiring regulatory approval.

B.6.39 Prepare regulatory applications, permits, and operational permit reports (including air permits, waste

disposal permits, resource harvesting permits, etc.).

B.6.41 Develop plans and programs to meet regulatory requirements, including monitoring programs and

employee information and communication plans.

B.6.42 Implement programs, including monitoring activities, to ensure regulatory compliance.

C Pollution Prevention, Abatement and Control

C.7 Coordinating environmental aspects of facility design and operation

C.7.47 Determine the environmental aspects of the needs and requirements associated with the design and

operation of the proposed facility, plant, landfill, etc.

C.8 Implementing pollution prevention, abatement and control (PAC) methods

C.8.53 Assess operations and processes for potential pollution problems (involves identifying contaminant

sources, determining their characteristics and the severity of the problems).

E Sampling and Analytical Work Related to Environmental Activities

E.14 Developing environmental sampling, testing and monitoring programs

E.14.96 Determine the need and scope for sampling program, including environmental indicators, and sampling

constraints (such as access to sites, fiscal or other limitations).

February 11, 2004 Page 1 of 5

Technician/Technologist Profile - Mining (B4)

Type 1

E.14.97 Develop environmental sampling protocols, including the frequency and timing of sampling, optimum

locations for continuous or discreet sampling, data capture systems, sampling procedures, sampling methodology, personnel, parameter list for analysis, data quality objectives, etc.

E.14.98 Develop site-specific work plans, including Quality Assurance/Quality Control (QA/QC) methods, measuring/monitoring procedures and analytical equipment to be used for the specific application (e.g. air, water, soil, sediments, rock, fauna, flora, human, workplace, etc.).

Key Research Findings

E.14.99 Modify existing sampling programs to reflect evolving environmental circumstances (for example, change

in parameter tests, sampling locations, sampling frequency, etc.).

E.15 Collecting samples and data for environmental purposes

E.15.102 Deploy analytical test instruments or sampling equipment (such as data capture systems, continuous

monitoring devices, drilling cores, water bailers, etc.), including assembly and documentation of any deviation to standard procedures.

E.15.103 Collect samples and specimens from air, water, flora, fauna, soil, fish, tree, human, etc., using more

routine sampling procedures and apparatus.

E.15.104 Collect samples and specimens from air, water, flora, fauna, soil, fish, tree, human, etc., using more

complex sampling procedures and apparatus.

E.15.105 Use appropriate techniques to prepare (code, preserve, pretreat and transport) samples for analysis

while maintaining chain of custody requirements and sample integrity.

E.15.108 Perform direct measurement of physical parameters for air/water/soil, including for example, temperature, flow rates, pressure, gaseous/particulate emissions, etc.

E.15.111 Maintain appropriate records and ongoing documentation pertaining to analytical work, including

regulatory documentation.

E.16 Analyzing and interpreting environmental samples and data

E.16.117 Interpret analytical data to identify trends, significant changes from historical patterns, deviations, or

evidence of environmental stresses, etc.

E.16.119 Conduct quality control reviews of data collection, processing, and analysis to ensure data is 'fit for

purpose' using accepted scientific practices and proper Quality Assurance/Quality Control (QA/QC) protocols.

E.16.120 Prepare summary reports of analysis results using technical formats such as tables, charts, and diagrams for integration into technical reports and/or presentation to expert and/or non-expert audience

through scientific journals, oral presentations, etc.

Type 2

Environmental A Assessments, Remediation, Restoration and Reclamation

A.1 Conducting environmental impact assessments

A.1.4 Review facility/development design, production/manufacturing processes.

A.2 Conducting environmental site assessment (ESA - Phase 1 and Phase 2)

A.2.11 Carry out visual inspection of site and neighbouring properties to inventory/identify current operations,

evidence of discharges, visible contamination, buried tanks, dumping, etc.

A.2.16 Evaluate possible remediation/restoration/reclamation alternatives, taking into account costs, technological constraints, and stakeholders' concerns.

February 11, 2004 Page 2 of 5

Technician/Technologist Profile - Mining (B4)

Type 2

A.3 Developing/implementing site remediation (Phase 3) plans

Key Research Findings

A.3.18 Determine remediation clean-up targets to make the site fit for its intended use or return it to its original

condition (applies to all sites including watershed restoration, forestry site reclamation, mine closures, etc.).

A.4 Developing/implementing site restoration/reclamation (Phase 3) plans

A.4.26 Provide environmental inspection assessment during construction and reclamation to ensure that regulatory requirements are met and that procedures and plans are being followed.

B Policy, Legislation and Regulations

B.6 Interpreting/enforcing/complying with environmental regulations and standards

B.6.37 Interpret environmental legislation, e.g. Workplace Hazardous Materials Information System (WHMIS),

Transportation of Dangerous Goods (TDG), and Workplace Health and Public Safety Programme (WHPSP) regulations, standards, and municipal by-laws, and their implications to specific applications.

B.6.38 Define environmental performance requirements for specific jurisdictions.

B.6.43 Evaluate compliance with environmental regulations, including the documentation of violations and noncompliance episodes.

B.6.44 Prepare compliance and regulatory reports for internal use and for filing with regulatory agencies.

B.6.46 Conduct audits of the environmental performance of organizations and jurisdictions to determine the

adequacy of their policies and procedures, and non-compliance issues.

C Pollution Prevention, Abatement and Control

C.7 Coordinating environmental aspects of facility design and operation

C.7.48 Develop plans, protocols and procedures to address the environmental aspects of facility design, construction, operation and closing.

C.7.49 Coordinate the implementation of the environmental aspects of plans, protocols and procedures related

to facility construction and operations.

C.7.51 Implement measures to correct environmental or safety problems relative to the facility or operation site.

C.7.52 Implement the environmental aspects of decommissioning facilities, operations or exploitation sites.

C.8 Implementing pollution prevention, abatement and control (PAC) methods

C.8.57 Implement Pollution Prevention, Abatement, and Control (PAC) methods/solutions to prevent, abate,

control and reduce pollution, contamination or emissions (e.g. devise ways to prevent contamination of water by agri-chemicals and petroleum products).

E Sampling and Analytical Work Related to Environmental Activities

E.14 Developing environmental sampling, testing and monitoring programs

E.14.100 Maintain analytical test instruments and monitoring or sampling equipment as per manufacturers' usermaintenance

specifications and standard operating procedures, including calibration of instruments/equipment.

E.15 Collecting samples and data for environmental purposes

E.15.101 Determine the appropriate sampling containers, protocols, preservation methods, and collection

apparatus, etc.

Key Research Findings

E.16 Analyzing and interpreting environmental samples and data

E.16.116 Conduct statistical analysis of data using appropriate computer software, databases, etc.

E.16.118 Determine how results will be applied, for example redesigning sampling protocol, redesigning research

methodology, developing a baseline dataset, etc.

February 11, 2004 Page 3 of 5

Technician/Technologist Profile - Mining (B4)

Type 2

J Environmental Research and Technology Development

J.32 Designing/developing environmental research and development proposals, programs and projects

J.32.244 Write a proposal, communicating the scientific rationale behind the environmental research project to

obtain funding and/or approval from internal, industry, government, or other sources.

J.33 Conducting environmental research/publishing results

J.33.252 Provide expert guidance to others who may be assisting with the research within or outside the organization.

Type 3

A Environmental Assessments, Remediation, Restoration and Reclamation

A.2 Conducting environmental site assessment (ESA - Phase 1 and Phase 2)

A.2.9 Identify the scope of site assessment (phase 1 and 2) project.

A.2.14 Characterize environmental aspects of site (such as landforms, drainage, plant communities, and soil

properties) based on interpretation of data collected during site investigation, sampling and analysis (for example, contaminants, their concentration and general extent).

A.2.15 Prepare site assessment report(s) to meet regulatory requirements, identifying potential risk and scope

of further action by appropriate stakeholders, if necessary.

A.4 Developing/implementing site restoration/reclamation (Phase 3) plans

A.4.24 Develop appropriate construction and reclamation procedures and contingency plans based on best

management practices and a minimum "footprint".

A.4.28 Monitor post-restoration/reclamation conditions and results to assess if targets and regulatory requirements have been met.

B Policy, Legislation and Regulations

B.6 Interpreting/enforcing/complying with environmental regulations and standards

B.6.40 Negotiate the terms and approval of compliance procedures and permits, including approval of development plans and use of technology such as Pollution Prevention, Abatement, and Control (PAC) equipment and systems.

C Pollution Prevention, Abatement and Control

C.8 Implementing pollution prevention, abatement and control (PAC) methods

C.8.54 Characterize the attributes of processes and products generated (for example, chemical/biological

composition, toxicity, physical properties and degradability).

C.8.56 Develop recommendations for the best Pollution Prevention, Abatement, and Control (PAC) measure(s),

including the evaluation of control options versus process changes such as treating discharges versus upgrading the processes that created them.

D Waste Management Systems, Processes and Procedures

Key Research Findings

D.11 Developing/implementing waste management plans and programs

D.11.72 Assess the effectiveness and applicability of waste management programs and technologies to identify,

for example, appropriate waste management solutions.

G Environmental Management Systems/Risk Assessment/Health and Safety

G.20 Developing corporate environmental plans, policies and procedures

G.20.140 Advocate with senior management and other key stakeholders to ensure due consideration of and

commitment to environmental management and sustainable development principles and strategies.

February 11, 2004 Page 4 of 5

Technician/Technologist Profile - Mining (B4)

Type 3

G.20.141 Advise senior management and other stakeholders on environmental matters related to personal and corporate liability.

J Environmental Research and Technology Development

J.32 Designing/developing environmental research and development proposals, programs and projects

J.32.239 Participate in taskforces and committees (set up by industry, governments or professional associations)

to expand the body of knowledge on environmental research priorities, methodologies, and breakthroughs.

J.32.243 Define the scope, strategy and objectives for specific environmental research projects and programs.

J.33 Conducting environmental research/publishing results

J.33.249 Establish the framework, baselines and benchmarks against which environmental research outcomes

can be measured.

J.33.251 Conduct original research (e.g. eco-toxicology studies, developing models, identifying optimal agrichemical

application rates, etc.).

J.33.253 Analyze research findings to determine if research objectives have been met, or if research methodologies need to be modified.

Employment Postings:

See below for the variety of postings....

Key Research Findings

Productions Employees / General Labourer (Quebec City), SGS CANADA

Quebec City, QC, CANADA

Posted Mar 9, 2012 6 Position(s)

SGS is the world's leading inspection, verification, testing and certification company. Recognized as the global benchmark for quality and integrity, we employ 70.000 people and operate a network of more than 1,350 offices and laboratories around the world. In Canada, we presently have a staff of over 1800 employees in more than 50 locations from coast - to - coast. We have the following opportunities based out of our Quebec City, Quebec location.

Primary Responsibilities

This position will conduct a wide variety of testing and analysis on base and precious metal ores, industrial minerals and materials.

Reporting to

- . Department Supervisor, Group Leader and/or Senior Technician
- . This position works under general direction

Specific responsibilities

- . Receive, inspect, sort and label client samples.
- . Archive, return or dispose of client samples as per work sheet instructions.
- . Log client samples into the LIMS system and prepare sample labels.
- . Sort, crush, pulverize, split, and screen samples as required.
- . Conducts routine testing.
- . Works from sketches, detailed specifications and verbal instructions.
- . Calibration and set up of equipment prior to analysis.
- . Maintain and record equipment calibrations.
- . Carries out routine equipment maintenance under the direction of his/her supervisor.
- . Interpret and evaluate all results.
- . Compiles data, analyzes and prepares reports.
- . Maintains a clean working environment.
- . Follow all company health, safety and environmental policies.
- . Follow all Quality system protocols and report any discrepancies to the Supervisor.
- . May be asked to work in other areas of the Metallurgy/Mineralogy department when needed.
- . Some independent judgment required.
- . May be assigned and coordinate special or ad hoc projects as needed.

Skills

- . A minimum of a high school diploma (or equivalent) is required.
- . A post secondary education (degree and/or diploma) in a Science related program (Chemistry, Chemical Engineering, Geology etc.) is highly desirable.
- . A minimum of 1 - 3 years of experience in a laboratory setting is a strong asset.
- . Good hand/eye coordination when handling samples & various equipment.
- . Must use good judgment to identify and resolve problems on the job. When in difficulty refer problems to his/her supervisor for resolution.
- . Intermediate level of creativity required in solving routine problems.
- . Must be able to read, understand and follow work instructions in a safe, accurate and timely manner.
- . Able to work well under pressure during high (peak) work loads and balancing conflicting demands of high volume versus the quality of results.

Key Research Findings

- . Candidates should be proficient in using various type of computer software (Word, Excel, etc.).
- . Proven ability to manage and coordinate multiple projects in a fast-paced, highly professional environment.
- . Demonstrates excellent verbal and written communication skills including grammar and composition.
- . Ability to work well with others & independently.
- . Proven time management skills and a strong attention to detail.
- . Works well under pressure.
- . Extended hours and shiftwork may be required from time-to-time.
- . Travel to other SGS locations may be required from time-to-time.
- . Ensures full compliance with the company's Health & Safety, Code of Integrity, and Professional Conduct policies.

Additional Information

For candidates who meet these pre-requisites, SGS offers a stimulating professional, environment and a very competitive compensation package.

Please note that candidates applying for Canadian job openings must be authorized to work in Canada. SGS is the World's Leading Inspection, Testing, Verification & Certification Company

[Ap
ply
via
lin
k](https://emea3.recruitmentplatform.com//syndicated/private/syd_apply.cfm?ID=PL9FK026203F3VBQB6GQWQWOB&nPostingTargetId=49094&nPostingId=11231)

https://emea3.recruitmentplatform.com//syndicated/private/syd_apply.cfm?ID=PL9FK026203F3VBQB6GQWQWOB&nPostingTargetId=49094&nPostingId=11231

Job offer display :

mining engineering technician

Number of position(s) to fill : 1

Offer N° : 3105081

In-house job name (if different) : Technicien Traitement du minerai

In-house reference (competitive examination n°, code, etc.) : 19-0132

GENIVAR INC. - <http://www.genivar.com>

Equal access

We are an equal opportunity employer and encourage applications from women, visible minorities and Aboriginal peoples.

Work place

1075, 3e Avenue Est

Val-d'Or (Québec)

J9P4P8

Main functions

(The following information has not been translated.): Assister les ingénieurs dans les tâches de conception des plans et devis et des dessins techniques tels que schémas de procédé, P&ID et arrangements généraux. Procéder à l'estimation et au calcul de quantités des matériaux requis à la réalisation des projets. Élaborer des bilans de matières. Visiter les différents sites afin d'effectuer des campagnes d'échantillonnage et faire des relevés techniques. Participer à la rédaction de rapports techniques. S'impliquer dans les aspects techniques du processus d'appel d'offre et d'analyse des

Key Research Findings

soumissions. Assister aux réunions de l'équipe de conception. Effectuer toutes autres tâches connexes pouvant aider à la réalisation du projet.

Requirements and working conditions

Educational : Collegial (Diploma)

level : Completed

Years of experience related to the job offer : 1 to 6 months experience

Description of qualifications : (The following information has not been translated.): Diplôme d'études collégiales en technologie minérale option minéralurgie ou toute autre formation jugée équivalente.

Maîtrise du logiciel Bilmat. Expérience de stage en génie conseil sera considérée comme un avantage.

Sens de l'initiative, souci du détail. Capacité à travailler en équipe. Excellente communication tant à l'oral qu'à l'écrit. Être en mesure de se déplacer chez divers clients autant au Québec qu'à l'extérieur de la province.

Languages asked for : spoken languages : French

written languages : French

Salary offered : to be discussed

Number of hours per week : 40,00

Job status : permanent

full time

day

Job start date : 2012-06-11

Communication

Means of

communication :

Web site : <http://carrieres.genivar.com>

Job Number: 6437275

Title: Technician, mining (professional geoscientist) ([NOC: 2212](#))

Terms of Employment: Permanent, Full Time, Day, Evening

Salary: \$80,000.00 to \$120,000.00 Yearly for 40 hours per week, Bonus, Medical Benefits, Disability Benefits

Anticipated Start Date: As soon as possible

Location: Vancouver, British Columbia (2 vacancies)

Skill Requirements:

Education: Completion of college/CEGEP/vocational or technical training, Some university, Completion of university

Credentials (certificates, licences, memberships, courses, etc.): Certification by a provincial or territorial association

Experience: No experience

Languages: Speak English, Read English

Key Research Findings

Area of Specialization: Geophysics, Geology, Mining and mining engineering, Mineralogy

Type of Work Experience: Geological mapping, Field sampling and data acquisition, Scientific data processing, Data interpretation and evaluation, Non-industrial research, Industrial research, Regulatory investigation, Development of methods and techniques, Technical service and sales, Quality assurance and control, Environmental monitoring

Type of Industry Experience: Mineral resources and mining

Type of Field Work: On land, Underground

Type of Technical Experience: Mapping and surveying, Geological sampling analysis, Geophysical prospecting analysis, Mineralogy techniques, Geotechnical studies

Computer Systems: CAD - computer assisted design

Specific Skills: Conduct or direct surveys or survey programs, Assist in evaluation and analysis of petroleum and mineral reservoir, Prepare or supervise preparation of rock, mineral or metal samples, Conduct or supervise mining studies, Assist in the selection of materials, metal treatment or corrosion protection systems

Additional Skills: Know and use computer hardware and software

Security and Safety: Bondable, Basic security clearance

Transportation/Travel Information: Own transportation, Willing to travel

Work Site Environment: Outdoors

Work Conditions and Physical Capabilities: Fast-paced environment, Work under pressure, Tight deadlines, Attention to detail

Work Location Information: Urban area, Various locations, Remote location, Willing to relocate

Essential Skills: Reading text, Document use, Writing, Oral communication, Working with others, Problem solving, Critical thinking, Significant use of memory, Computer use, Continuous learning

Employer: The Staffing Exchange (Placement Agency)

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: colin@staffingexchange.com

Advertised until: 2012/06/03

Mine Technician

Key Research Findings

Job Order #: 5210685

Employer Name:

Cameco Corporation

Employer Address:



2121 11TH ST W
SASKATOON,SK
CANADA
S7M1J3

Employer Website:

www.cameco.com/careers

Employer Name: Cameco Corporation

Posted Date: 25-May-2012

Location: RABBIT LAKE MINE


of Positions: 1

Employment Terms: Full Time

Education: Technical/Applied Science Diploma

Experience: 3-5 Years

Apply By: 05-Jun-2012

How to Apply?: To explore this career opportunity, please visit www.cameco.com/careers. Deadline for applications is June 5, 2012. Please quote competition number R12-049.

Description

MINE TECHNICIAN

Rabbit Lake Operation

POSITION AND RESPONSIBILITIES

You will provide underground and surface technical support within the mine engineering department such as surveying, drafting, inspections, ground control, ventilation as well as report preparation. You will be responsible for ensuring mine layouts are planned and designed for mine excavations. Surveying will include line & grade for mine development, diamond drill layouts, survey asbuilts, stockpile surveys and construction surveys. You will also be required to update mine development drawings with asbuilt information.

EDUCATION AND QUALIFICATIONS

Key Research Findings

Requirements of the position:

- A technical diploma or certificate in a mining related field, or equivalent
- Three years of applicable mining experience
- Equivalent combination of education and work experience considered
- Work a rotational schedule and commute to site by aircraft

Assets:

- Knowledge of software programs such as Vulcan, ProMine, AutoCAD and iGantt
- Previous underground and surface surveying techniques

Applicants will be considered for a level within the job progression, which is appropriate to their qualifications

We offer:

- competitive pay
- superior benefits
- employee share ownership plan for all employees
- Live Better wellness program

Cameco values diversity. In keeping with this principle and our employment equity goals, we particularly encourage qualified applicants from the designated equity groups to apply.

To explore this career opportunity, please visit www.cameco.com/careers. Deadline for applications is June 5, 2012. Please quote competition number R12-049.

Safety is a top priority at Cameco. Successful candidates for all safety sensitive positions must pass a substance test as a condition of employment.

Job Number: 6455354

Title: Laboratory technician - metallurgy (General Lab Technician) ([NOC: 2212](#))

Terms of Employment: Permanent, Full Time, Shift, Weekend, Day, Evening

Salary: \$14.00 Hourly for 40 hours per week

Anticipated Start Date: As soon as possible

Location: Vancouver, British Columbia (1 vacancy)

Skill Requirements:

Education: Completion of college/CEGEP/vocational or technical training

Credentials (certificates, licences, memberships, courses, etc.): Not applicable, Not required

Experience: Experience an asset

Languages: Speak English, Read English, Write English

Area of Specialization: Mining and mining engineering, Mineralogy

Type of Work Experience: Scientific data processing, Laboratory analysis

Key Research Findings

Type of Industry Experience: Mineral resources and mining

Type of Technical Experience: Geological sampling analysis, Geochemical sampling analysis

Specific Skills: Prepare or supervise preparation of rock, mineral or metal samples, Assist in preparing rock, mineral or metal samples, Perform physical and chemical laboratory tests

Transportation/Travel Information: Public transportation is available

Work Conditions and Physical Capabilities: Fast-paced environment, Work under pressure, Tight deadlines, Repetitive tasks, Attention to detail, Combination of sitting, standing, walking

Essential Skills: Reading text, Document use, Numeracy, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Finding information, Computer use

Other Information: E-mail applications must include job title (General Lab Technician) in the subject line to avoid automatic deletion as junk mail. Only qualified applicants will be contacted for an interview.

Employer: Acme Analytical Laboratories (Vancouver) Ltd.

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: hrdept@acmelab.com

Advertised until: 2012/06/13

Job Number: 6435792

Title: Mining survey technician (Underground Surveyor) ([NOC: 2212](#))

Terms of Employment: Permanent, Full Time

Salary: \$80,000.00 to \$100,000.00 Yearly for 40 hours per week

Anticipated Start Date: As soon as possible

Location: Grande Prairie, Alberta (1 vacancy)

Skill Requirements:

Education: Completion of high school, Completion of college/CEGEP/vocational or technical training

Credentials (certificates, licences, memberships, courses, etc.): Certification by a provincial or territorial association

Experience: 3 years to less than 5 years

Languages: Speak English, Read English, Write English

Type of Field Work: Underground

Computer Systems: CAD - computer assisted design

Additional Skills: Know and use computer hardware and software

Key Research Findings

Essential Skills: Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

Other Information: Applicant should have a Surveying Technology Diploma and be familiar with AutoCad, SurvCadd and Microsoft Office Suite. Previous underground surveying experience is an asset.

Employer: Halliwell Consulting (Placement Agency)

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: james@halliwellconsulting.com

Advertised until: 2012/06/15

Job Order #: 5209240

Employer: Cameco Corporation

Name:

Posted: 17-May-2012

Date:

Location: CIGAR LAKE MINE



of: 1

Positions:

Employment: Full Time

Terms:

Education: Technical/Applied Science Certificate

Experience: 3-5 Years

Apply By: 05-Jun-2012

How to Apply?: To explore this career opportunity, please visit www.cameco.com/careers. Deadline for applications is June 5, 2012. Please quote competition number CIG12-018.

Description

TECHNICIAN, MINE

Cigar Lake Project, SK

POSITION AND RESPONSIBILITIES

You will provide underground and surface technical support within the mine engineering department such as surveying, drafting, inspections, ground control, ventilation as well as report preparation. You will be responsible for ensuring mine layouts are planned and designed for mine excavations. Surveying will include line & grade for mine development, diamond drill layouts, survey asbuilts, stockpile surveys and construction surveys. You will also be required to update mine development drawings with asbuilt information and maintain mine schedules while tracking performance and cost.

EDUCATION AND QUALIFICATIONS

Key Research Findings

Requirements of the position:

A technical diploma or certificate in a mining related field, or equivalent

Three years of applicable mining experience

Equivalent combination of education and work experience considered

Work a rotational schedule and commute to site by aircraft

Assets:

Knowledge of software programs such as Vulcan, ProMine, AutoCAD and iGantt Previous underground and surface surveying techniques

Applicants will be considered for a level within the job progression, which is appropriate to their qualifications

We offer:

competitive pay

superior benefits

employee share ownership plan for all employees

Live Better wellness program

Cameco values diversity. In keeping with this principle and our employment equity goals, we particularly encourage qualified applicants from the designated equity groups to apply.

Safety is a top priority at Cameco. Successful candidates for all safety sensitive positions must pass a substance test as a condition of employment.

Job Number: 6435792

Title: Mining survey technician (Underground Surveyor) ([NOC: 2212](#))

Terms of Employment: Permanent, Full Time

Salary: \$80,000.00 to \$100,000.00 Yearly for 40 hours per week

Anticipated Start Date: As soon as possible

Location: Grande Prairie, Alberta (1 vacancy)

Skill Requirements:

Education: Completion of high school, Completion of college/CEGEP/vocational or technical training

Credentials (certificates, licences, memberships, courses, etc.): Certification by a provincial or territorial association

Experience: 3 years to less than 5 years

Languages: Speak English, Read English, Write English

Type of Field Work: Underground

Computer Systems: CAD - computer assisted design

Key Research Findings

Additional Skills: Know and use computer hardware and software

Essential Skills: Reading text, Document use, Numeracy, Writing, Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Significant use of memory, Finding information, Computer use, Continuous learning

Other Information: Applicant should have a Surveying Technology Diploma and be familiar with AutoCad, SurvCadd and Microsoft Office Suite. Previous underground surveying experience is an asset.

Employer: Halliwell Consulting (Placement Agency)

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: james@halliwellconsulting.com

Advertised until: 2012/06/15

Job Number: 6403907

Title: Geological technician (for mining exploration) ([NOC: 2212](#))

Terms of Employment: Permanent, Full Time, Day

Salary: \$25.00 Hourly for 35 hours per week, Mileage Paid

Anticipated Start Date: As soon as possible

Location: Whitehorse, Yukon Territory (1 vacancy)

Skill Requirements:

Education: Some university, Completion of university

Credentials (certificates, licences, memberships, courses, etc.): Not applicable, Not required

Experience: 1 to less than 7 months

Languages: Speak English, Speak French, Read English, Read French, Write English, Write French

Area of Specialization: Geology, Mining and mining engineering

Type of Work Experience: Field sampling and data acquisition

Type of Industry Experience: Mineral resources and mining

Type of Field Work: On land, Airborne, Arctic

Type of Technical Experience: Mapping and surveying

Computer Systems: GIS - geographic information system

Specific Skills: Conduct or direct surveys or survey programs, Prepare or supervise preparation of rock, mineral or metal samples, Assist in preparing rock, mineral or metal samples, Prepare notes, sketches, geological maps and cross sections

Key Research Findings

Additional Skills: Know and use computer hardware and software

Transportation/Travel Information: Own transportation

Work Site Environment: Dangerous, Outdoors

Own Tools/Equipment: Safety glasses/goggles

Work Conditions and Physical Capabilities: Fast-paced environment, Repetitive tasks, Manual dexterity, Attention to detail, Combination of sitting, standing, walking

Work Location Information: Various locations, Remote location

Essential Skills: Oral communication, Working with others, Problem solving, Decision making, Critical thinking, Job task planning and organizing, Finding information, Computer use, Continuous learning

Other Information: First Aid and/or Wilderness First Aid- Firearm Safety - drivers license- legally able work in Yukon T- Residents of Yukon encouraged to apply- Avalanche safety training- Webmaster's skills

Employer: All-In Exploration Solutions Inc.

How to Apply:

Please apply for this job only in the manner specified by the employer. Failure to do so may result in your application not being properly considered for the position.

By E-mail: allinexploration@all-inexploration.com

Advertised until: 2012/06/01