

Canadian provincial and territorial geological surveys



Canadian provincial and territorial geological surveys

Geological surveys are government agencies that provide geoscience information to the public, thus supporting responsible resource development and encouraging investment. Geoscience information is used by governments to make informed decisions and create effective policy on resource development, land use, and environmental stewardship. The provincial and territorial surveys are the main stewards for public geoscience within their borders. They conduct programs that address jurisdictional priorities and provide systematic information about bedrock and surficial geology, mineral deposits, energy, geohazards, environmental science, hydrogeology, and marine geology.

Canada's national survey, the Geological Survey of Canada, focusses on programs that are thematic or of national scope. The GSC also partners with provinces and territories on projects of common interest.



This booklet, produced by the Committee of Provincial and Territorial Geologists, provides information on the core activities of Canada's provincial and territorial surveys, and how to access key publications and services.



British Columbia Geological Survey

PO Box 9333 Stn Prov Gov't
Victoria, British Columbia, V8W 9N3
www.BCGeologicalSurvey.ca



Yukon Geological Survey

PO Box 2703
Whitehorse, Yukon, Y1A 2C6
www.geology.gov.yk.ca



Alberta Geological Survey

402, Twin Atria Building, 4999 - 98 Avenue
Edmonton, Alberta T6B 2X3
ags.aer.ca



Northwest Territories Geological Survey

P.O. Box 1320, 4601-B 52 Avenue
Yellowknife, Northwest Territories, X1A 2L9
www.nwtgeoscience.ca/



Saskatchewan Geological Survey

11th floor, 1945 Hamilton Street
Regina, Saskatchewan, S4P 2C7
<https://sgshome.ca/>



CANADA-NUNAVUT
GEOSCIENCE OFFICE

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BUREAU GÉOSCIENTIFIQUE
CANADA-NUNAVUT

KANATAMI-NUNAVUMI
GEOSCIENCE TITIGAKVIIT

Canada-Nunavut Geoscience Office
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Iqaluit, Nunavut, X0A 0H0
<http://www.cngo.ca>



Manitoba Geological Survey
360-1395 Ellice Ave
Winnipeg, Manitoba, R3G 3P2
www.manitoba.ca/minerals



Ontario Geological Survey Branch
Ministry of Energy, Northern Development and Mines
Willet Green Miller Centre, 933 Ramsey Lake Road, 3rd Floor
Sudbury, Ontario, P3E 6B5
www.mndm.gov.on.ca/en/mines-and-minerals/geology



Ministère de l'Énergie et des Ressources naturelles du Québec
Direction générale de Géologie Québec
5700, 4^e Avenue Ouest, D-307, Québec, G1H 6R1
<https://mern.gouv.qc.ca/>



Geological Survey of Newfoundland and Labrador
Natural Resources Building, 50 Elizabeth Avenue
P.O. Box 8700
St. John's, Newfoundland and Labrador, A1B 4J6
<https://www.gov.nl.ca/nr/mines/geoscience/>



New Brunswick Geological Survey
1350 Regent Street, Room 150
Fredericton, New Brunswick, E3C 2G6
www2.gnb.ca/content/gnb/en/departments/erd/energy/content/minerals.html



Nova Scotia Department of Energy and Mines - Geological Survey
1701 Hollis Street
PO Box 698, Halifax, Nova Scotia, B3J 2T9
<http://novascotia.ca/natr/meb/>

British Columbia Geological Survey



Celebrating its 125th anniversary in 2020, the British Columbia Geological Survey conducts field mapping and laboratory projects to establish the geological evolution and mineral resources of the province, providing information to guide societal decisions centred on the Earth sciences. The Survey has 28 staff and is headquartered in the provincial capital, Victoria, with a second office in Vancouver to serve the mineral exploration industry.

Core activities

Drawing on continuously advancing concepts and technologies, the Survey connects government, the minerals industry, and communities to the province's geology and mineral resources. The information provided by the Survey is used for effective mineral exploration, sound land use management, and responsible governance, benefitting decisions that balance the economy, the environment, and community interests.

Bedrock geoscience: mapping, stratigraphy, sedimentology, structural geology, geochronology, stable isotopes, litho geochemistry, petrogenesis, physical volcanology, tectonics

Surficial geoscience: mapping, glacial geology, ice-flow indicators, indicator minerals, water, stream-sediment and till geochemistry

Minerals: mineral deposit research, deposit modelling, mineral occurrence database, mineral potential, regional metallogeny

Energy: coal, oil and gas

Environmental: land use

Data management: databases, digital geology, 3D mapping, Open Geoscience

Outreach: geoheritage, education, Global Geopark

Web service: www.MapPlace.ca

MapPlace is the Survey database-driven geospatial web service that is designed to reduce the costs of accessing and analyzing multidisciplinary geoscience data in BC. Users can browse, visualize, and download data and create custom maps.

Commodities produced

- Major: coal, copper, gold
- Minor: industrial minerals, aggregates, silver, molybdenum, lead, zinc, jade
- Potential: rare metals, tantalum, cobalt, graphite



Annual publications

All BCGS publications are available at no cost from www.BCGeologicalSurvey.ca

- Geological Fieldwork, a Summary of Field Activities and Current Research
- Provincial Overview of Exploration and Mining in British Columbia
- Mines, Mine Development, Selected Proposed Mines, and Selected Exploration Projects in British Columbia
- British Columbia Coal Industry Overview



Local geoscience meetings

- BCGS Annual Open House (November, Victoria)
- AME Mineral Exploration Roundup (January, Vancouver)
- Minerals South (November, various locations)
- Minerals North (May, various locations)
- Kamloops Exploration Group (April, Kamloops)

Contacts

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Victoria, BC V8T 4J1
250-952-0372
geological.survey@gov.bc.ca

Mineral Development Office
300-865 Hornby Street
Vancouver, BC, V6Z 2G3
604-660-3332

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Yukon Geological Survey



The mandate of Yukon Geological Survey is to provide the geoscience information required for responsible resource and land management for the well-being and public safety of Yukoners. The survey acquires and disseminates geological and geohazard knowledge to support mineral exploration, to inform resource and land management planning, and to engage communities, schools and the public.

Core activities

Bedrock geoscience: mapping, sedimentology, stratigraphy, structural geology, geochronology, geophysics, litho-geochemistry, tectonics, thematic studies

Surficial geoscience: mapping, geochronology, soils, glacial and periglacial geomorphology, permafrost, placer studies

Minerals: mineral deposit research, mineral potential assessments, regional metallogeny, drill core library

Energy: geothermal, hydrocarbon studies

Geohazards: earthquakes, landslides, ground subsidence, radon, fluvial floods

Data management: digital geology maps, mineral occurrence data, stream sediment chemistry, publications, Assessment Reports, Web map gallery, geochronologic and geochemical data

Outreach: educational programs, engagement with First Nations communities

Web services: <https://yukon.ca/en/geology-publications-data>

Yukon Geological Survey publications, data, and industry files can be accessed online using the Integrated Data System (IDS) search tool. In addition to the IDS, an online map gallery allows users to view and download a variety of data and reports

Commodities produced

- Major: gold, copper, silver
- Potential: lead, zinc



Annual publications

- Yukon Exploration and Geology Overview
- Yukon Exploration and Geology Annual Technical Papers
- Yukon Placer Mining Industry Report
- Yukon Mineral Deposits Summary

Local geoscience meetings

- Yukon Geoscience Forum
(November; Whitehorse)
- Yukon Placer Forum
(November; Whitehorse)
- Gold Show
(May, Dawson City)
- Annual mineral industry workshop/field trip



Contacts

Bedrock Geology unit
91807 Alaska Highway
Whitehorse, Yukon, Y1A 2C6
867-667-8508

www.geology.gov.yk.ca

Minerals and Surficial Geology units
301 Main Street
Whitehorse, Yukon
867-667-3201

www.geology.gov.yk.ca

Dr. Carolyn Relf
Chief Geologist/Director
867-667-8519

Carolyn.Relf@gov.yk.ca



Alberta Geological Survey



Since 1920, the Alberta Geological Survey (AGS) has provided information and advice to the Government of Alberta, provincial regulatory agencies, industry, and the public. The AGS is responsible for the systematic description of Alberta's geology and resources, and for providing geoscience information supporting regulatory decisions about resource development, land use, environmental protection, and public safety. The AGS, a branch of the Alberta Energy Regulator, is based in the provincial capital, Edmonton.

Core activities

The Alberta Geological Survey generates, manages, and communicates integrated geoscience knowledge of Alberta's surface and subsurface geology and Earth resources. Our geoscience programs focus on geological hazards and groundwater resources for public safety and security, energy and mineral resources for economic development and prosperity, and landscape evaluation for environmental sustainability. In addition to our website (ags.aer.ca), two repositories provide the public access to a wealth of geological information: 1) the Core Research Center in Calgary contains approximately 2 million m of core and 20 million vials of cuttings related to oil and gas exploration and development; and 2) the Mineral Core Research Facility in Edmonton contains approximately 60,000 m of mineral exploration core, 12,500 m of coal core, and 17,000 rock samples.

Bedrock geoscience: subsurface characterization, mapping and modelling, stratigraphy, structural geology

Surficial geoscience: mapping, ice-flow indicators, indicator minerals

Groundwater: quality, quantity, and availability at local and regional scales

Minerals: surface and subsurface mineral potential, including emerging resources and critical minerals opportunities

Energy: coal, oil and gas

Environmental: land use; Earth observation using satellite-based technologies to evaluate land change over time

Geohazards: earthquake studies and landslide evaluations

Outreach: educational products including Minecraft gaming models, printable 3D geological models, and a virtual tour of Alberta geological sites of interest

Web services

Visit us at ags.aer.ca to access more than 2500 geological reports, 400 maps, and 1300 datasets (digital data, shapefiles, digital imagery, and interactive GIS data and mapping tools). Current projects and activities are also highlighted, along with additional geoscience information about Alberta.

Commodities produced

- Major: oil, gas, NGL, coal, aggregate, limestone
- Minor: silica sand, gold, building stone, salt, clay, shale, bentonite, ammolite, sulphur
- Potential: lithium, uranium, vanadium, titanium, diamond, potash, phosphate, REEs, helium





Local geoscience meetings

- Geoconvention (May, Calgary)
geoconvention.com
- Calgary Mineral Exploration Group
megcalgary.com

Contacts

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Phone: 780-638-4491

Website: ags.aer.ca

Information requests: ags-info@agr.ca

Mineral Core Research Facility
5405 Elaniuk Road
Edmonton, Alberta
780-466-1779

Core Research Center
3545 Research Way NW,
Calgary, Alberta
403-297-6400

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Vice President,
Alberta Geological Survey Branch
Alberta Energy Regulator
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Northwest Territories Geological Survey



The Northwest Territories Geological Survey (NTGS) is a Division of the Department of Industry, Tourism and Investment, Government of the Northwest Territories. The NTGS advances the geoscience knowledge of the Northwest Territories by conducting and publishing geoscience research, analyzing mineral and petroleum potential, and offering excellence in digital data management. The NTGS also conducts environmental geoscience research and outreach activities.

Core activities

Bedrock geoscience: mapping, sedimentology, stratigraphy, structural geology, basin analysis, geochronology, geophysics, litho-geochemistry, tectonics, thematic studies

Surficial geoscience: mapping, geochronology, glacial and periglacial geomorphology, geophysics, geochemistry, indicator minerals

Minerals: mineral deposit research, deposit modelling, mineral occurrence database, mineral potential, regional metallogeny

Energy: conventional and unconventional oil and gas, geothermal

Permafrost geoscience: permafrost stability, ground temperature monitoring, thaw slumps, hydrology, environmental and infrastructure impacts

Environmental: environmental geochemistry, climate change, land-use planning

Data management: databases, digital geology, Open Geoscience, AI

Outreach: geoscience education, company and prospector support, prospector training, community events

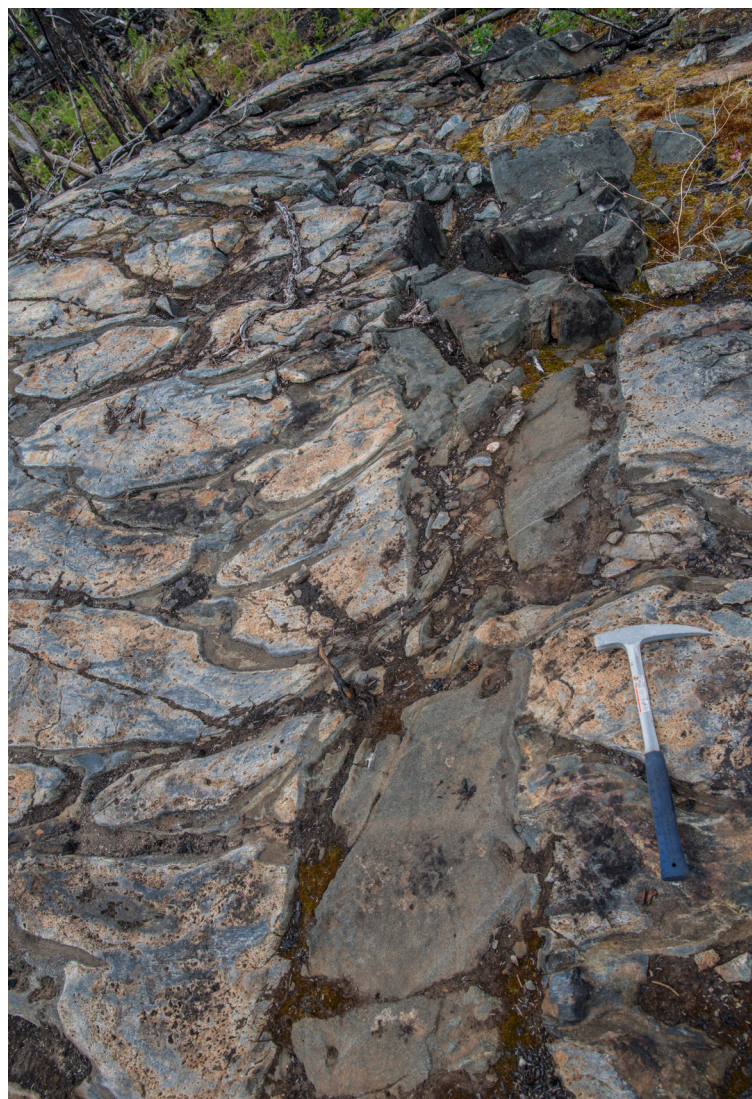
Web services: <https://www.nwtgeoscience.ca/>

NTGS web applications provide search, display, and download capabilities for Northwest Territories geoscience information and publications

<http://webapps.nwtgeoscience.ca/WebAppsV2/SearchHome.aspx>

Commodities produced

- Major: diamonds
- Minor: industrial minerals, oil and gas
- Potential: gold, rare metals and elements, lead, zinc, silver, copper, cobalt, bismuth, tungsten



Annual publication

- Northwest Territories Mineral Exploration Overview, published annually in November and updated the following March

Local geoscience meeting

- Yellowknife Geoscience Forum (November, Yellowknife)



Contacts

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Saskatchewan Geological Survey



Saskatchewan

The Saskatchewan Geological Survey (SGS) has a mandate to provide high-quality, easily accessible geoscience data to inform and facilitate the responsible exploration for, and development of, Saskatchewan's mineral and petroleum resources, thereby advancing Saskatchewan's natural resource advantage. The SGS has forty staff and is based in Regina, with a northern satellite office in La Ronge.

Core activities

The SGS conducts geoscience investigations across Saskatchewan to advance knowledge of the province's geologic history, and the mineral and petroleum resources associated with these diverse geological settings. This work encompasses a wide range of technical expertise and includes collaborations with other institutions in Canada and globally. High-quality, pre-competitive public geoscience information supports the exploration for mineral and petroleum resources by industry stakeholders, and informs the development government policy and regulations with respect to the province's resource sector.

Precambrian geoscience: bedrock mapping programs in the Precambrian Shield of northern Saskatchewan that include surficial geology, stratigraphy, structural geology, geochronology, litho geochemistry, and industrial minerals and metallogenic ore system studies

Petroleum and natural gas (Phanerozoic) geoscience: research on Phanerozoic sedimentary rocks and petroleum resources of southern Saskatchewan by the Petroleum Geology Unit, based out of the Subsurface Geological Laboratory in Regina

Geoscience data management: management of SGS data, GIS services, technical review of mineral assessment reports, geophysical data acquisition and research, administration of the La Ronge Precambrian mineralized core and sample repository

Land use: evaluating broad mineral and petroleum resource potential to aid in developing regulatory and policy decisions

Education and outreach partnerships: partnerships with various organizations and educational institutions in Saskatchewan to inform the public on the benefits of geosciences and natural resource development, and to train future geoscientists.

Web services

View, analyze, and download Saskatchewan geoscience data through the Saskatchewan Mining and Petroleum GeoAtlas (www.saskatchewan.ca/geoatlas) or access the SGS GeoHub (<https://hub-saskatchewan.opendata.arcgis.com/pages/sgs>) for more information on SGS programs and products.

Commodities produced

- Major: potash, uranium, oil and gas
- Minor: gold, coal, sodium and potassium sulphate, salt, clays, helium
- Potential: base metals, diamonds, rare earth elements, platinum group and specialty metals, silica sand



Annual publications

- Summary of Investigations of research projects
- Saskatchewan Exploration and Development Highlights
- Prospect Saskatchewan informational brochure on oil and gas
- Resource Map of Saskatchewan

All SGS publications are available at no cost from <https://publications.saskatchewan.ca/#/categories/1197>

Local geoscience meetings

- Saskatchewan Geological Open House (early December, Saskatoon)
- Williston Basin Petroleum Conference (May, biennially in Regina)
- Core Days (September, La Ronge)



Saskatchewan GeoHub Terms of Use Saskatchewan.ca

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Saskatchewan Geological Survey

The Saskatchewan Geological Survey is responsible for investigating, managing and distributing information on the geology, and mineral and petroleum resources of the province.

[Featured Map](#) | [Latest from SGS](#) | [GeoAtlas](#) | [Databases](#) | [Publications](#) | [Datasets](#)



Saskatchewan Resources

Learn about the areas of resource potential in the province of Saskatchewan through an interactive story map.

[Launch the Story Map](#)

Contacts

Main Office
1945 Hamilton Street,
Regina, SK, S4P 2C7, 306-787-2476

Subsurface Geological Laboratory
201 Dewdney Avenue East
Regina, SK, S4N 4G3, 306-787-0650

La Ronge Precambrian Geological Laboratory
P.O. Box 104, 1310 La Ronge Avenue,
La Ronge, SK S0J 1L0, 306-425-4498

Dr. Gary Delaney
Chief Geologist and Executive Director
306-787-1160
Gary.Delaney@gov.sk.ca

Canada-Nunavut Geoscience Office



CANADA-NUNAVUT
GEOSCIENCE OFFICE

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BUREAU GÉOSCIENTIFIQUE
CANADA-NUNAVUT

KANATAMI-NUNAVUMI
GEOSCIENCE TITIGAKVIIT

The youngest jurisdiction in Canada, becoming a territory in 1999, Nunavut does not yet have a formal survey. Instead, the Canada-Nunavut Geoscience Office (CNGO) is managed and funded by the federal government through Natural Resources Canada (Lands and Minerals Sector), Crown-Indigenous Relations and Northern Affairs Canada, and the Government of Nunavut (Economic Development and Transportation). The CNGO is managed with input from a Management Board with representatives from the federal and territorial governments and Nunavut Tunngavik Inc., the organization that ensures the Nunavut Land Claims Agreement is adhered to. An Agreement-in-Principle was signed in August 2019 between the governments of Canada and Nunavut. This agreement is a significant step toward Nunavut assuming control over its Crown lands and natural resources.

The CNGO office is in Iqaluit. The CNGO's mandate is to provide accessible geoscience information and expertise in Nunavut and support: responsible resource exploration and development; responsible infrastructure development; geoscience-capacity building; and geoscience education, training and awareness. To accomplish this mandate, the CNGO conducts research and publishes maps and reports about the geology and resources of Nunavut. In collaboration with many partners, CNGO aims at engaging the public on key geoscience issues.

Core activities

CNGO has expertise in Precambrian, Paleozoic, and Quaternary geology, GIS, and online geoscience data dissemination.

Bedrock geoscience: regional bedrock mapping, targeted Paleozoic and stratigraphic research, regional airborne geophysical surveys

Surficial geoscience: mapping, glacial geology, permafrost, community-level granular aggregate and industrial minerals

Minerals: mineral exploration and deposit studies

Geoscience for infrastructure development: permafrost, climate change, landscape hazards, seabed mapping

Data management: databases, digital geology

Outreach: community engagement, pre-and post- fieldwork information sessions, course modules and workshops at schools and Nunavut Arctic College, training of students and participants of the Inuit Learning and Development Program

Web services

CNGO web applications provide display and download capabilities. The NunavutGeoscience.ca website is an open access data portal to public geoscience information that is available for Nunavut.

Commodities produced

- Major: gold, iron
- Potential: diamonds, lead, zinc, silver, copper, uranium, nickel



Annual publications

- Summary of Activities
- Nunavut Exploration Overview

All CNGO publications are available at no cost from www.cngo.ca

All Geological Survey of Canada publications are available on GEOSCAN at <http://geoscan.nrcan.gc.ca/>

Local geoscience meeting

- Nunavut Mining Symposium (April, Iqaluit)



Contacts

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<http://www.cngo.ca>

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Linda.Ham@canada.ca

Manitoba Geological Survey



The Manitoba Geological Survey collects, analyzes, distributes, and archives information about Manitoba's geology and mineral resources to attract exploration investment, foster sustainable mineral and petroleum developments, inform government policy and land management, and contribute to the quality of life and economic prosperity of all Manitobans.

Core activities

Bedrock geoscience: mapping, stratigraphy, sedimentology, structural geology, geochronology, stable isotopes, litho-geochemistry, petrogenesis, tectonics, thematic studies

Surficial geoscience: mapping, stratigraphy, geochronology, ice flow history, glacial landforms, till geochemistry, clast counts, kimberlite-indicator minerals (KIMs), aggregate

Minerals: mineral deposit research, deposit modelling, mineral occurrence database, mineral potential, regional metallogeny

Energy: conventional and unconventional oil and gas

Environmental: carbon capture and storage, protected areas, land-use planning

Water: deep saline aquifers, salt water disposal

Data management: databases, digital geology, 3-D mapping, integrated mining and quarrying system, Map Gallery, Petrinex

Commodities produced

- Major: nickel, copper, zinc, gold, silver, oil
- Minor: cesium, natural gas, gypsum, high-Ca limestone, aggregate, crushed stone, dimension stone, high-purity dolomite, halite, bentonite
- Potential: frac sand, potash, lithium, diamonds, helium, vanadium, graphite



Web service: <http://www.gov.mb.ca/iem/geo/index.html>

The Manitoba Geological Survey website offers, at no charge, current and historical geoscience information to assist the exploration, mining and petroleum industry, academia, and the general public. These include the GIS Map Gallery, an interactive map portal to view, query and extract diverse information including mineral disposition and geoscience data; commodity-specific data; surficial geology maps and digital data; and an online tracker for Geological Survey activities.



Annual publications

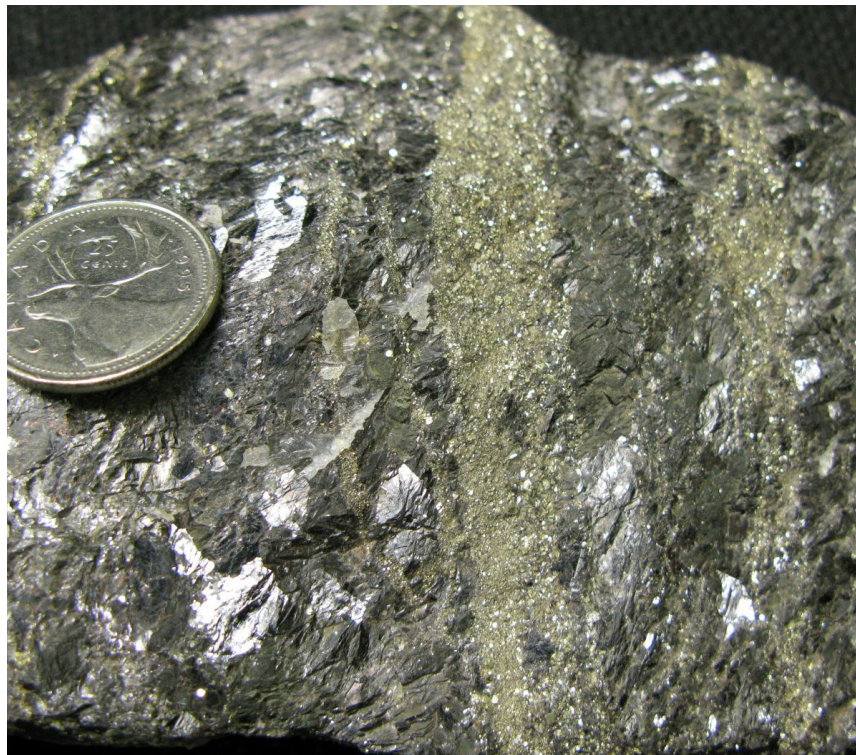
All MGS publications are available at no cost from <http://www.manitoba.ca/iem/info/index.html>

Annual reports on fieldwork and the geological program are published in

- Report of Activities (<http://www.manitoba.ca/iem/geo/field/index.html>)
- Preliminary Maps (<http://www.manitoba.ca/iem/info/library/downloads/pmap.html>)

Local geoscience meetings

- Central Canada Mineral Exploration Convention (yearly in November, Winnipeg) <https://ccme-convention.ca/>
- Manitoba Prospectors and Developers Association (member meetings throughout the year, Winnipeg) <http://mpda.ca/>
- Women in Mining, Winnipeg Chapter (member meetings throughout the year, Winnipeg) <http://wimwinnipeg.com>



Contacts

Manitoba Geological Survey
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Winnipeg, MB R3G 3P2

www.manitoba.ca/minerals

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Michelle Nicolas

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Ontario Geological Survey



The Ontario Geological Survey is the provincial government organization responsible for documenting and distributing geoscience information. The survey has 115 staff and is headquartered in Sudbury. Eight satellite offices throughout the province serve the mineral exploration industry and a variety of other clients.

Core activities

Bedrock geoscience: Precambrian and Paleozoic bedrock geology mapping, airborne geophysical surveys, stratigraphy, structural geology, geochronology, litho-geochemistry, tectonics, physical volcanology

Surficial geoscience: 2-D and 3-D mapping, airborne and ground-based geophysical surveys, stratigraphy, geochronology, indicator mineral studies, till and soil geochemistry, aggregate resource assessments, remote predictive mapping

Minerals: Mineral Deposit Inventory database, mineral resource assessments, regional metallogeny, mineral deposit research, recommendations for exploration, investment attraction

Energy: oil and gas

Environmental and groundwater: groundwater, lake water, lake sediment and stream-sediment surveys, aquifer mapping, stable isotopes

Water: deep saline aquifers, salt water disposal

Data management: databases, digital geology, geophysical surveys, 3-D mapping, Open Geoscience

Outreach: Indigenous communities, education, prospecting training

Web services

Geoscience data collected by the OGS can be viewed using the OGSEarth application (www.ontario.ca/ogsearch).

Embedded links in OGSEarth allow users to download maps and data from GeologyOntario (www.ontario.ca/geology)

Commodities produced

- Major: gold, nickel, copper, platinum group metals, zinc, salt, sand and gravel
- Minor: silver, cobalt, clay, stone, lime, dolomitic lime, cement, nepheline syenite, gypsum, wollastonite, talc, semi-precious gemstones, oil and gas
- Potential: lithium, indium, selenium, tellurium, diamonds, vanadium, quartz (silica), graphite, chromium, rare earth elements, phosphate



Annual publications

- Summary of Field Work and Other Activities (annual report of OGS mapping work)
- Report of Activities, Resident Geologist Program (six annual reports from the regional offices)
- Recommendations for Exploration

Local geoscience meetings

- Ontario Prospectors Exploration Showcase (April, Thunder Bay) and Northeastern Ontario Mines and Minerals Symposium (fall, various locations in northeastern Ontario)
- Ontario Petroleum Institute Annual Meeting (spring or fall, various locations)
- Regional-Scale Groundwater Geoscience in Southern Ontario: An Ontario Geological Survey–Geological Survey of Canada–Conservation Ontario Geoscientists Open House (spring, various locations)



Contacts

Ontario Geological Survey Branch, Ministry of Energy, Northern Development and Mines
Willet Green Miller Centre
933 Ramsey Lake Road, 7th Floor
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705-670-5755 or 1-888-415-9845 (toll-free)

OGS@ontario.ca

Québec Ministère de l'Énergie et des Ressources naturelles



Québec



The mission of the Ministère de l'Énergie et des Ressources naturelles is to acquire geoscientific knowledge to ensure the development and optimal use of energy, land, and mineral resources in Québec from a sustainable development perspective. Its Mining sector relies on 200 staff members and is headquartered in Québec City, with satellite offices in Val-d'Or and Montréal. Géologie Québec evaluates and promotes the mineral potential of the province, by the acquisition, processing, integration, and distribution of geoscientific knowledge on mineral resources. Québec's strength lies not only in its mineral potential, but also in the excellence of its labour pool, training institutions and specialized research centres. In addition, Québec is a world leader in the capture and processing of geoscientific data.

Core activities

Bedrock geoscience: mapping, stratigraphy, structural geology, geochronology, lithogeochemistry

Surficial geoscience: mapping, glacial geology, iceflow analysis, indicator minerals, till geochemistry, lake sediments

Mineral potential assessment: favourable areas for exploration, mineral potential modelling and assessment studies, regional metallogeny

Promotion: annual events and international missions

Outreach: Discovery days (during the Québec Mines+Énergie Convention), public events, education

Data management and web services

http://sigeom.mines.gouv.qc.ca/signet/classes/I1102_indexAccueil?!=F

SIGÉOM is a unique spatial reference geomining information system, which contains the entire Québec geoscientific database collected over the past 150 years. Every year, it grows richer with additional data coming mainly from geological surveys undertaken by the Ministry, prospecting and exploration assessment reports by exploration companies, and geoscientific studies by university researchers.

Commodities produced

- Major: gold, iron, nickel, titanium, niobium, zinc, diamond, feldspar, graphite, mica, salt, slicium
- Minor: antimony, bismuth, cadmium, cobalt, copper, silver, platinum group elements, selenium, sulphur, tellurium
- Advanced projects: apatite, lithium, rare earth elements, vanadium

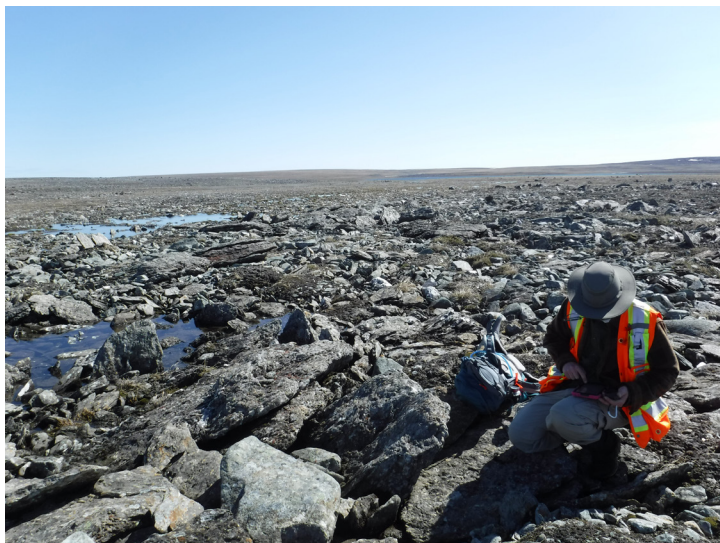


Annual publications

- Investing in Québec's mining sector: mern.gouv.qc.ca/english/publications/mines/mining-sector.pdf

Local geoscience meetings

- Québec Mines+Énergie Convention (November, Québec City, QC)
- Nunavik Mining Workshop (April, Kuujuaq, QC)



Contact

Centre de service des mines
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service.mines@mern.gouv.qc.ca

Geological Survey of Newfoundland and Labrador



The Geological Survey of Newfoundland and Labrador is responsible for mapping the geological framework of the province to interpret and explain its geological evolution, and to describe, interpret, and explain the distribution, nature, quantity, and origin of the province's mineral resources. It currently has three sections (Regional Geology; Mineral Deposits; Terrain Sciences & Geoscience Data), with offices and a geochemical laboratory in St. John's, the provincial capital.

Core activities

Bedrock geoscience: mapping, stratigraphy, sedimentology, paleontology, structural geology, geochronology, geophysics, litho-geochemistry

Surficial geoscience: mapping, glacial limits and ice flow, lake-sediment geochemistry, till geochemistry and mineralogy, indicator minerals, glacial isostatic adjustments, aggregate assessments

Minerals: mineral deposit research, mineral occurrence database, mineral potential, regional metallogeny

Energy: oil and gas

Geohazards: coastal erosion and flooding, landslides

Environmental: land use, environmental geochemistry, climate change

Data management: databases, digital geology

Outreach: prospector support, geoheritage database, Global Geoparks, UNESCO World Heritage, education programs

Web services

We have a comprehensive suite of online tools, including links to public geoscience, industry reports, and other data, and real-time mineral land tenure. GeoScience OnLine Includes interactive maps of geology, geophysics, geochemistry, mineral occurrences, and mineral land tenure (gis.geosurv.gov.nl.ca). The GeoFiles database (<https://gis.geosurv.gov.nl.ca/minesen/geofiles/>) is a repository of documents about provincial geoscience including mineral exploration assessment reports, reports and maps, university theses, books, and unpublished reports and maps. The MIRIAD page (<https://www.gov.nl.ca/nr/mines/exploration/minerallands/>) provides real-time claim staking and status information.

Commodities produced

- Major: iron ore, nickel, copper, gold, fluorspar, antimony
- Minor: cobalt, limestone, dolomite, barite, pyrophyllite
- Historic: zinc, lead, silver, slate
- Potential: rare earth elements and rare metals, uranium



Annual publication

Our publications are freely available on the Geological Survey website at <https://www.gov.nl.ca/nr/mines/geoscience/>

- Current Research, an annual report highlighting Geological Survey field activities

Local geoscience meetings

- Mineral Resources Review (November, St. John's)
- Baie Verte Mining Conference (June, Baie Verte)
- Geological Association of Canada (Newfoundland Section) (February, St. John's)



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New Brunswick Geological Survey



The New Brunswick Geological Survey traces its origin to 1838, when Abraham Gesner was appointed as the first Provincial Geologist. The Survey has 20 permanent staff and is headquartered in Fredericton, with regional offices in Bathurst and Sussex. The province maintains three drill core repositories containing about 900,000 m of core derived from mineral exploration.

Core activities

The Survey acquires, catalogs, and distributes geological information about mineral and petroleum resource exploration, and coastal geohazards. Acquisition and dissemination of geoscience information by government plays a vital role in attracting investment in New Brunswick's mineral and petroleum sector. Geoscience data also provide the framework for making informed land-use decisions, identifying potential geohazards, mitigating coastal erosion, locating sources of construction aggregate, investigating groundwater, and managing forests.

Bedrock geoscience: mapping, stratigraphy, sedimentology, structural geology, geochronology, litho geochemistry, petrogenesis, tectonics

Surficial geoscience: mapping, geochronology, glacial geology, aggregate, till geochemistry

Minerals: mineral deposit research, mineral occurrence database, regional metallogeny, mineral potential, deposit modelling

Geohazards: coastal erosion, coastal zone mapping and monitoring

Energy: oil and gas

Environmental: land-use planning

Data management: databases, digital geology, Open Geoscience

Outreach: education

Web service

A variety of GIS open data are available on the Department of Natural Resources and Energy Development website through direct access in GIS software, download, or interactive web mapping applications. For example, the Mineral Exploration Map allows users to interactively view provincial geology, mineral claims, mineral occurrences, drill holes and exploration reports of work.

(<https://nbdnr.maps.arcgis.com/apps/webappviewer/index.html?id=9222d8a1ccf54f4a9655c9d7026112a3&locale=en>)

Commodities produced

- Major: zinc, lead, peat
- Minor: copper, silver, salt, industrial minerals
- Potential: potash, manganese, tungsten, molybdenum, gold, antimony, tin, indium
- Historic: potash, manganese, tungsten, gold, antimony, tin



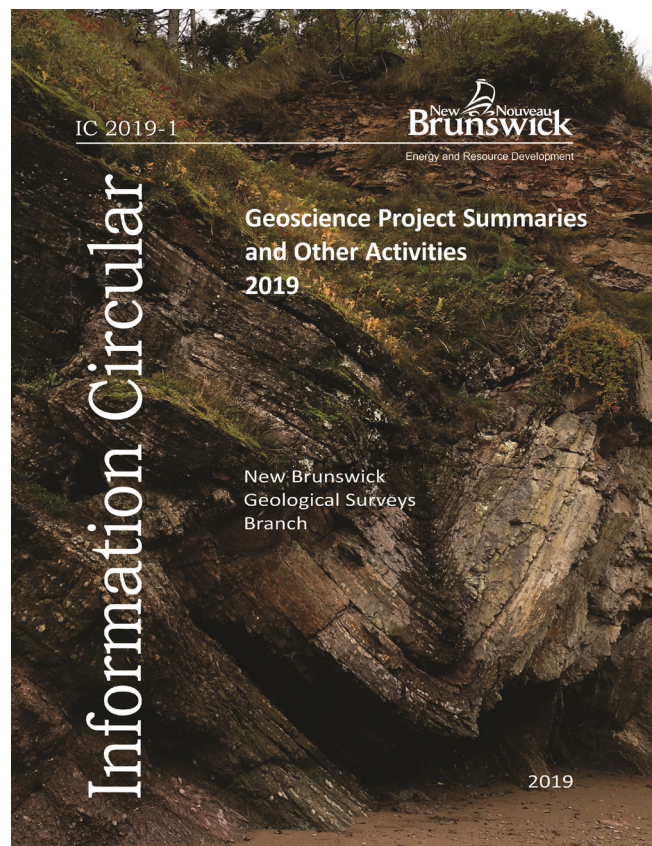
Annual publications

All NBGS publications are available for download at no cost from <http://dnr-mrn.gnb.ca/ParisWeb>

- Geoscience Project Summaries and Other Activities
- Geological Investigations
- Exploration, Mining and Petroleum Conference Abstracts Volume

Geoscience meetings

- Atlantic Geoscience Society (AGS) Colloquium (February)
- New Brunswick Exploration, Mining and Petroleum Conference (November, Fredericton)



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Nova Scotia Geological Survey



The Geological Survey provides knowledge and oversight of the province's geology and geological resources to help government achieve priorities in economic development, public health and safety, and resource stewardship. Services are delivered through four program areas: Regional Geoscience and Resource Evaluation, Environmental Geoscience, Information Services, and Exploration Services.

Core activities

Bedrock geoscience: mapping, sedimentology, stratigraphy, structural geology, geochronology, stable isotopes, geophysics, litho geochemistry, tectonics, thematic studies

Surficial geoscience: mapping, geochronology, soils, glacial and periglacial geomorphology, glaciology, geophysics, geochemistry, indicator minerals

Metallic minerals: mineral deposit research, deposit modelling, mineral occurrence database, mineral potential, regional metallogeny

Industrial minerals: marketing, aggregate, sand and gravel, mineral occurrence database, building stone, potential

Geohazards: coastal vulnerability (flooding, erosion), karst, sinkholes, radon, acid rock drainage, salt-water intrusion, risk mapping

Groundwater: quantity, well-water quality, drought monitoring, risk mapping (arsenic, uranium, manganese, lead, methane), wells database, well monitoring, environmental geochemistry

Energy: coal, geothermal

Geoheritage: GeoParks, geoheritage sites, geotourism

Exploration services: core library, promotional activities, prospector's assistance, incentive programs, exploration monitoring, integrated resource management, trade shows

Information services: databases, GIS, application development, cartography, metadata, publications, editing, information management

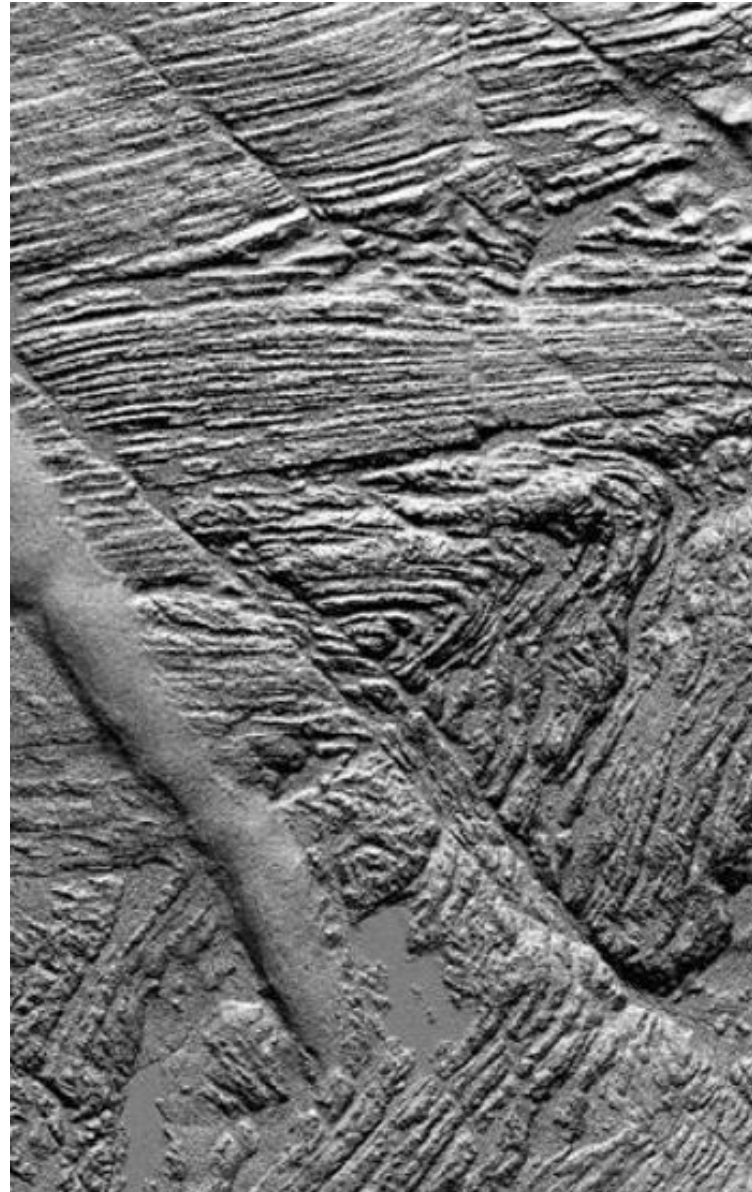
Web services

The Geoscience and Mines Branch provides internet access to its maps, data, and information through an online map gallery, downloadable GIS data products, searchable databases, and online interactive geoscience map applications. Access to all of our online products can be found at

<https://novascotia.ca/natr/meb/maps/>

Commodities produced

- Major: aggregate, gypsum, salt, limestone, coal, gold
- Minor: silica sand, anhydrite, building stone, barite, clay
- Potential: REE, nickel, cobalt, copper, lead, silver, zinc, niobium, tantalum, tungsten, lithium, vanadium, cesium, molybdenum, graphite, potash, antimony, arsenic, beryllium, bismuth, chromium, fluorspar, gallium, germanium, indium, manganese, strontium, tellurium, tin, titanium, zirconium



Annual publications

- Geoscience and Mines Branch Report of Activities is an annual publication of our activities. These reports can be found at <https://novascotia.ca/natr/meb/geoscience-online/report-of-activities-recent.asp>
- Mineral exploration assessment reports are technical reports submitted annually by holders of mineral exploration licences. These can be found by searching the NovaScan database.
- The Geological Record is a quarterly newsletter of geological survey activities and stories of interest to the geoscience community. Issues can be found at <https://novascotia.ca/natr/meb/pdf/tgr.asp>

Local geoscience meetings

- Atlantic Geoscience Society (AGS) Colloquium
(location rotates among maritime provinces)
- Mining Society AGM
(location varies in Nova Scotia)



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Join our representatives at annual national meetings such as the Prospectors and Developers Association conference in Toronto (PDAC) and the Association for Mineral Exploration (AME) Mineral Exploration Roundup in Vancouver.

