

# MINING in NEWFOUNDLAND and LABRADOR

Fall 2021



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# MINERAL DEVELOPMENT REVIEW

Newfoundland and Labrador is home to major metal and mineral companies and projects, and a key producer of commodities important to the Canadian and global economy. With increasing global demand for critical minerals, driven in large part by their role in the transition to a low-carbon and digitized economy, Newfoundland and Labrador has the potential to produce minerals that support secure and resilient supply chains to meet global demand.

Critical minerals currently produced and shipped from Newfoundland and Labrador include nickel, copper, cobalt, fluorspar and antimony. Newfoundland and Labrador has critical minerals with advanced economic studies or resource estimates including rare earth elements, copper,

tungsten, molybdenum, uranium, vanadium and zinc. Advancement of resource delineation, project scoping and resolution of technical challenges for such projects continues to be the focus of supports and Canada's efforts to bolster critical mineral projects.

The Newfoundland and Labrador mining industry utilizes green technology and practices, and produces a greener product. For example, Vale's Long Harbour processing facility produces nickel, copper, and cobalt using hydrometallurgical technology. The hydromet process used at Long Harbour is more efficient and replaces traditional refining and smelting stages. Eliminating smelting also eliminates carbon dioxide emissions making it a much greener alternative. Additionally, iron ore



Canada Fluorspar Team  
Photo credit - Colin Pittman and Canada Fluorspar (NL) Inc.

from the Labrador Trough region has higher grades and lower impurities, this helps lower the carbon footprint during steel production compared to lower quality ores.

Minerals are required for the transition to the green economy and having these supplied through a jurisdiction with available clean power and a robust regulatory structure such as Newfoundland and Labrador is aligned with climate change goals.

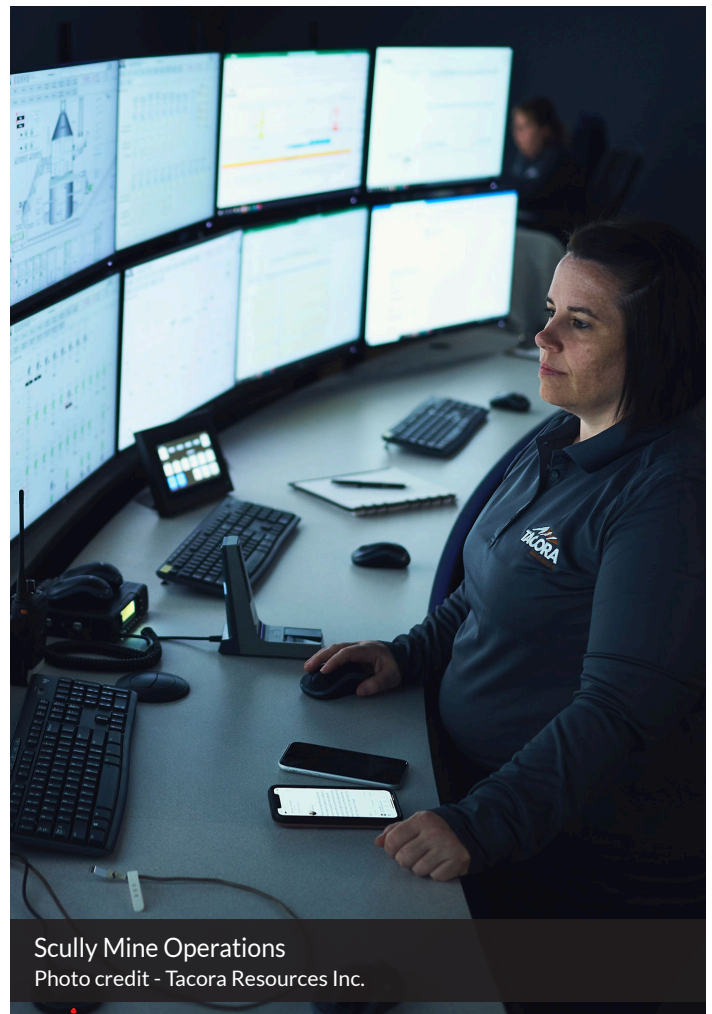
According to Fraser Institute's 2020 Investment Attractiveness Index, Newfoundland and Labrador ranked within the top 10 mining jurisdictions in the world. Factors such as mineral potential, transparent permitting, solid infrastructure and a skilled workforce contribute to its attractiveness. The appreciation of the provincial mineral potential is reflected in the 752 mineral exploration applications processed to October, an increase of 193 per cent, and expenditures for 2021 mineral exploration that are projected to be over \$82.6 million – an increase of 24 per cent from 2020.

Newfoundland and Labrador is committed to being a globally competitive top tier jurisdiction for mineral exploration and development. Claim staking in the province is done through the Mineral Lands Administration Portal (MinLAP). MinLAP is a tool that provides clients the ability to stake claims, but also to manage licences including submission of annual assessment reports. The Mineral Incentive Program also continues to provide \$1.7 million in financial assistance to support and encourage mineral exploration in Newfoundland and Labrador. The Program includes junior exploration assistance and prospector assistance.

The Newfoundland and Labrador mineral industry is forecasted to produce a 2021 estimated record

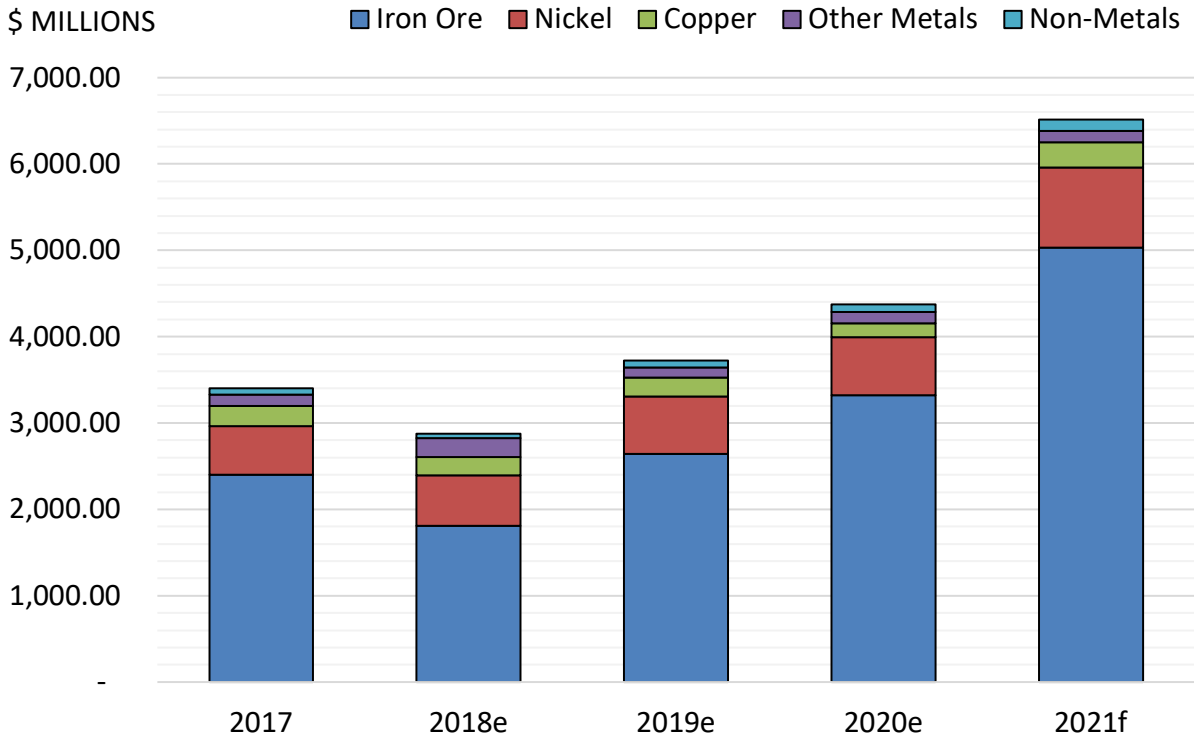
gross value of mineral shipments (GVMS) of \$6.5 billion, the increase largely due to higher commodity prices. While iron ore has had the most significant increase in value since the earlier January 2021 forecast, the value of shipments is forecast to increase for most other commodities as well.

The mineral industry continues to be a significant source of employment in the Province, particularly in rural areas. The mining industry is forecast to generate 7,947 person years of employment in 2021, representing an increase of 16 per cent from 2020. Employment remains strong in the iron ore sector and at the Voisey's Bay Mine Expansion (VBME) project with minimal impact from the pandemic.



Scully Mine Operations  
Photo credit - Tacora Resources Inc.

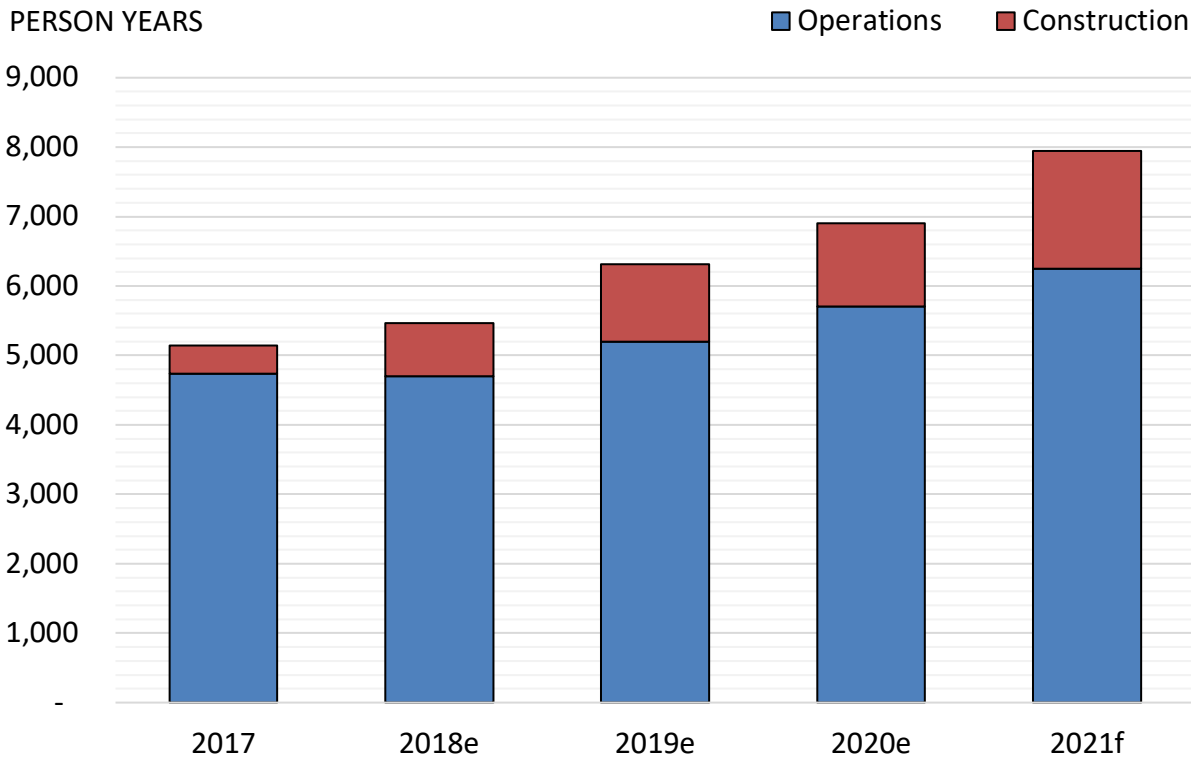
# Gross Value of Mineral Shipments



e: Estimate; f: Forecast

Figure 1 Gross Value of Mineral Shipments (Source: Source: Department of Industry, Energy and Technology and Statistics Canada)

# Mining Average Employment



e: Estimate; f: Forecast

Figure 2 Mining Average Employment (Source: Department of Industry, Energy and Technology and Statistics Canada)



## Industry Highlights

**Iron Ore Company of Canada:** On July 20, 2021, IOC hosted the Government of Canada, Government of Newfoundland and Labrador and the College of the North Atlantic to announce a \$3 million investment from ACOA's Regional Economic Growth through Innovation (REGI) program and an additional \$1.5 million through the Department of Industry, Energy and Technology to develop a state-of-the-art mobile hyperspectral scanning unit.

**Vale Newfoundland and Labrador:** In 2021, Vale continued work on its Voisey's Bay Mine Expansion (VBME) project, which involves the expansion of two underground mines, Reid Brook and Eastern Deeps. The Reid Brook deposit produced its first ore in June 2021 and Eastern Deeps start-up is anticipated in 2022.

On November 1, 2021, Vale announced that Intertek Group Plc, a leading assurance, inspection, product testing and certification company, indicated that the low-carbon footprint of the Long Harbour nickel rounds positions Vale well in the growing electric vehicle industry. The Long Harbour refinery produces nickel using hydrometallurgy and delivers lower greenhouse gases and costs, and higher recoveries of valuable by-products such as cobalt. In October 2021, Vale received the first shipment of nickel concentrate from Manitoba to fill a nickel production gap at the Long Harbour Processing Plant prior to the VBME ramp-up and beginning full production.

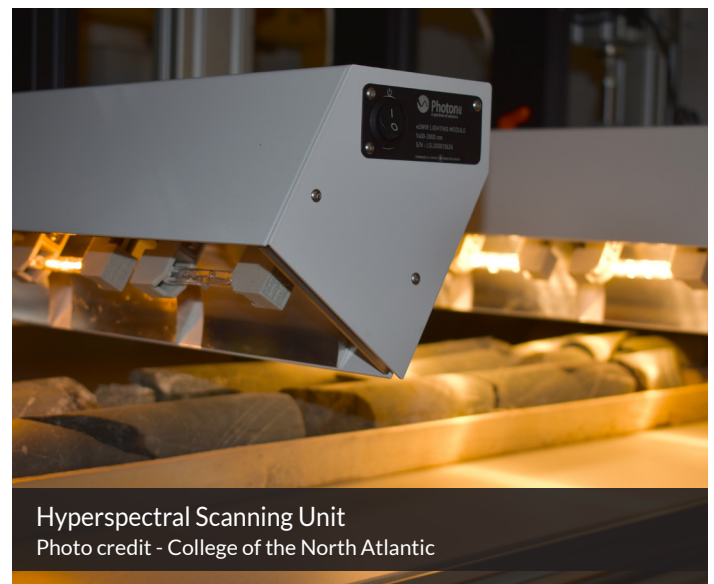
**Tacora Resources Inc:** In July 2021, Tacora registered a mine tailings impoundment area expansion for environmental assessment. Tacora has indicated the operation has reserves that will last up to 2047 and the expansion is required to provide matching tailings impoundment capacity.

**Canada Fluorspar:** In 2021, CFI completed construction of the Blue Beach Marine Terminal located at Blue Beach Cove near St. Lawrence with the first shipment of fluorspar from the new terminal occurring in July 2021.

**Beaver Brook Antimony Mine:** After suspending operations in November 2020, Beaver Brook Antimony Mine resumed underground mining operations in September 2021, and is transitioning to full-time milling operations.

**Gold Rush:** With recent high-grade gold discoveries, the province is a hotspot for gold exploration companies and investors. Gold exploration has primarily been focused in central Newfoundland with activity expanding from Gander to Millertown to Port Aux Basques along the Red Indian Fault Line. Other areas include gold activity on the Connaigre and Burin Peninsulas as well as in the Deer Lake area.

Gold exploration activity is at the forefront in exploration expenditures with some larger programs drilling in the hundreds of thousands of metres and others advancing towards production.



## Commodity Price Highlights

**Iron Ore:** Iron ore prices reached record levels in 2021 as global steel production increased and seaborne iron ore supply was limited. Iron ore prices peaked at \$USD 235.55/dmt on May 12, 2021. This peak was driven by the availability of vaccines and global stimulus helping to strengthen demand for raw materials. Competition among purchasers of steel to secure supplies pushed spot prices upwards. A recent downward turn in price can be associated with a reduction in steel production in China due to decreased property development and lower carbon emissions policies.

**Nickel:** In March 2021, nickel prices took a sharp downward price correction after hitting a six-year high the previous month. Prices recovered over the summer, but came under downward pressure in September following a reduction in steel production. Nickel prices are closely related to demand from stainless steel producers. Prices have recovered reflecting high demand from alloy makers in the United States and Europe.

**Copper:** The price of copper was high in 2020 as the market started to recover from COVID-19 and Chinese demand grew. The price fluctuated over the course of 2021 as suppliers attempted to keep up with demand. In August 2021, copper prices took a downward turn as demand from China diminished coupled with concerns of increasing inflation in the United States. The copper market experienced an increase in price in October as the market became undersupplied.

**Gold/Silver:** The price of gold fluctuated throughout 2021, decreasing from March to May, increasing over the summer and decreasing again in the fall. While the price of gold has been tied to the performance of the US dollar, it has remained

relatively high. The price of silver briefly fell below \$USD22/troy oz. at the end of September, representing the lowest level in more than a year. Downward pressure on the price of silver has been more pronounced than gold due to supply chain related disruptions and material shortages.

**Antimony:** The price of antimony has been on a steady rise since the onset of the pandemic. In 2021, prices for antimony have increased from \$CAD9,619 per tonne to \$CAD18,073 per tonne. Experts indicate that China's environmental policies are the main factor pushing the price upward. Recent price increases throughout September are due to restricted domestic supply.



# IRON ORE

## Iron Ore Company of Canada (IOC)

Location:	Labrador West
Project:	Carol Lake
Status:	Producing
Commodity:	Iron Ore
Project Life of Mine:	Multi-generational
Employment:	2,093 person years



Stacker-Reclaimer  
Photo credit - Iron Ore Company of Canada

IOC first began mining iron ore in the Schefferville / Menihek area of Québec and Labrador in 1954 and expanded into Labrador West in 1962 where it has been producing at the Carol Lake project ever since. The Labrador Iron Ore Royalty Corporation (LIORC) holds 15.1 per cent equity ownership, while Mitsubishi Corp. holds 26.2 per cent and Rio Tinto holds the remaining 58.7 per cent.

IOC operates a mine, concentrator and pellet plant near Labrador City with a 418 kilometre rail line, the Québec North Shore and Labrador Railway, linking the mine to its own port facility in Sept-Îles. IOC ships iron ore to markets throughout the world, predominantly in North America, Europe, the Middle East, North Africa and the Asia-Pacific regions. IOC has remote operational logistics optimization centres in Labrador City and Sept-Îles. These centres help ensure the efficiency of the operation to achieve maximum productivity.

IOC has mineral reserves and resources of 1.3 billion tonnes and 1.8 billion tonnes, respectively, with an average grade of approximately 38 per cent iron. Annual production capacity is 23.3 million tonnes of high-grade concentrate of which 14 million tonnes can be processed to produce 12.5 million tonnes of pellets. Rio Tinto's 2021 full year guidance for IOC's saleable production (concentrate plus pellets) was revised to 16.2 from 17.9 million tonnes to reflect production levels year-to-date.

In 2021, IOC was released from further environmental assessment on the Smallwood North pit extension project. Smallwood North pit is being developed as a smaller pit to provide an alternate source of ore to ensure ongoing operations and life of mine plan.





DSO Operations Tata Steel  
 Photo credit - Tata Steel Minerals Canada Limited

### Tata Steel Minerals Canada Limited (TSMC)

- Location:** Menihek
- Status:** Producing
- Commodity:** Iron Ore
- Employment:** 275 person years

TSMC is a joint venture between Tata Steel of India (82 per cent), a large global steel producer and Ressources Québec (18 per cent), the Government of Quebec investment agency. Four railways are involved in transporting ore to the Port of Sept-Îles; the KéRail spur line, Tshiuetin Rail Transportation (TSH), the Québec North Shore and Labrador Railway (QNS&L), and, at the southern end of the system, haulage is completed on Chemin de Fer Arnaud to

stockpiling and ship loading facilities on the Pointe-Noire side of the Port of Sept-Îles.

The project has the capacity to produce 4.2 million tonnes of iron ore fines per year with potential expansion for up to 6 million tonnes per year. Tata's end products are destined for Tata Steel's manufacturing plants in Britain and other parts of Europe.

TSMC has operated a direct shipping ore project using crushing, drying and screening to produce ore with iron content of approximately 60 per cent. The Company has a concentrator to beneficiate ore to an average iron grade of 64 per cent. Recent commission of this plant will enable TSMC to operate year-round.



## Tacora Resources Inc. (Tacora)

<b>Location:</b>	Wabash
<b>Project:</b>	Scully Mine and mill
<b>Status:</b>	Producing
<b>Commodity:</b>	Iron Ore
<b>Project Life of Mine:</b>	26 years
<b>Employment:</b>	357 person years

Tacora, a Canadian company incorporated in British Columbia, is owned by MagGlobal LLC and Proterra M&M MGCA B.V. The Scully Mine consists of open pit mines, a concentrator and processing facilities, waste rock and tailings management facilities and a spur railway that connects to the Quebec North Shore and Labrador railway where ore is railed to the port operator Société Ferroviaire et Portuaire de Pointe-Noire at Sept-Îles, Quebec.

Historically, the site had an annual production capacity of 5.6 to 6.0 million tonnes of iron concentrate. Tacora's short term strategy is to achieve name plate production capacity of 6.25

million tonnes per year of high-grade, low-impurity iron ore concentrate by the first half of 2022. Production has been ramping up since the second quarter of 2019 and the Company plans production rates of 5.8 to 7.55 million tonnes per year over the next 22 years.

Tacora registered an expansion to its existing tailing impoundment area for environmental assessment (EA) in July 2021. The tailings expansion will allow the mine to extend mine operations by 22 years to fully utilize reserves and is currently under provincial EA review.

In June 2021, Tacora announced a 2021/22 Scully Mine Apprentice Scholarship Program to encourage the growth of a diversified skilled trades mining workforce within the Labrador West region. The scholarships are valued at \$3000 with one of equal value being offered to Women in Mining Trades to support women entering trades that are relevant to the mining industry.



Scully Mine Operations  
Photo credit - Tacora Resources Inc.

## Champion Iron Limited (Champion)

<b>Location:</b>	near Wabush
<b>Project:</b>	Kamistiatusset (Kami)
<b>Status:</b>	Developing
<b>Commodity:</b>	Iron Ore

In 2021, Champion acquired Kamistiatusset Iron Ore Project located in the Labrador Trough. The Kami project is a potential high-grade iron ore project with proven and probable mineral reserves of 517.2 million tonnes. Champion is currently revising the Kami project's scope and has initiated work intended to update the Feasibility Study, which is expected to be completed in the second half of 2022.

## Joyce Direct Iron Inc.

<b>Location:</b>	Menihek
<b>Project:</b>	Joyce Lake
<b>Status:</b>	Developing
<b>Commodity:</b>	Iron Ore
<b>Project Life of Mine:</b>	7 years
<b>Employment:</b>	310 person years (construction); 269 person years (operations)

Joyce Direct Iron Inc., the project proponent for the Joyce Lake Direct Shipping Ore project is 100 per cent owned by Century Global Commodities Corporation (Century), a Toronto Stock Exchange listed company. The ore deposit lies on a peninsula in Attikamagen Lake 20 kilometres northeast of Schefferville.

Century started exploration on the Joyce Lake project in 2008 and identified a reserve of 17.72 million tonnes at 59.71 per cent iron. A 2015 feasibility study outlined a project that was expected to produce 2.5 million tonnes per year with an initial mine life of 7 years with low-cost, dry crushing and dry screening. It is expected

that iron ore will be transported by truck to the railway owned by Tshiuetin Rail Transportation Inc. and subsequently the Québec North Shore and Labrador railway for transportation to the Port of Sept-Îles with shipping services to be secured.

In May 2021, the Company submitted an updated environmental assessment registration document to both provincial and federal governments. In November 2021, the company was advised that an environmental impact statement is required for the project.

## Labrador Iron Mines (LIM)

<b>Location:</b>	Menihek
<b>Project:</b>	Houston Project
<b>Status:</b>	Developing
<b>Commodity:</b>	Iron Ore
<b>Project Life of Mine:</b>	12 years
<b>Employment:</b>	297 person years

Labrador Iron Mines Holdings Limited (LIMH), through its majority owned subsidiaries Labrador Iron Mines Limited (LIM) and Schefferville Mines Inc. (SMI), is seeking to resume development of its Houston project.

In 2021, LIM released an updated preliminary economic assessment (PEA) of the Houston project, demonstrating production of 2 million tonnes of iron per year and total production of 23.4 million tonnes over the life of the mine. The PEA estimates a total initial capital expenditure of \$86.8 million.

The PEA is based on conventional open pit truck and shovel operations targeting high-grade iron for processing in a dry sizing plant, which consists of crushing and screening to produce lump and sinter fines products. The products would be railed to Sept-Îles for shipment to market.



## Vale Newfoundland and Labrador Limited (VNL)

<b>Location:</b>	Voisey's Bay/Long Harbour
<b>Projects:</b>	Voisey's Bay Open Pit Mine, Voisey's Bay Mine Expansion Project and Long Harbour Processing Plant
<b>Status:</b>	Producing
<b>Commodity:</b>	Nickel, Copper and Cobalt
<b>Project Life of Mine:</b>	34 years with underground mine expansion
<b>Employment:</b>	3,490 person years (includes Mine, LHPP and construction)

VNL operates an integrated open-pit mining and milling operation in Voisey's Bay producing both nickel and copper concentrates. The copper concentrate is sold directly to market while the nickel concentrate is sent to the Long Harbour Processing Plant (LHPP) where it is processed using hydromet technology to produce nickel rounds, copper cathode and cobalt rounds. Through the first half of 2021, VNL reported production of 24,000 tonnes of nickel, 10,600 tonnes of copper and 939 tonnes of cobalt from Voisey's Bay.

The underground Voisey's Bay mine expansion (VBME) is approximately 66 per cent complete with executed capital expenditures of US\$1.323 million as of July 28, 2021. In June 2021, the Reid Brook deposit at the VBME project produced its first ore. The project involves developing two underground mines (Reid Brook and Eastern Deeps) reaching an annual production rate of 40,000 tonnes of nickel in concentrate by 2025 with approximately 20,000 tonnes of copper and 2,600 tonnes of cobalt as

by-products. Eastern Deeps first ore is anticipated in 2022. Total estimated capital expenditures to complete construction and commissioning of the VBME Project is estimated at approximately US\$1.7 billion.

The LHPP is advancing its production ramp-up with completion expected to coincide with the completion of the VBME Project. Long Harbour reached record production levels in quarter one of 2021. During the month of March, Long Harbour set a monthly finished Nickel production record of 4,042 tonnes, 9 per cent higher than the previous record set in December 2018. Upon ramp-up, the LHPP is expected to have a nominal capacity of approximately 50,000 metric tonnes of finished nickel per year. The quality of product produced from the LHPP is considered high and has the potential to achieve significant premiums in the market. In November 2021, Vale announced, through a third party assessment, that nickel rounds produced at the LHPP have a carbon footprint of 4.4 tonnes of carbon dioxide equivalent per tonne of nickel. This is about one-third Nickel Institute average for Class 1 nickel.

The LHPP has recently received concentrate from Vale's Manitoba operations for future processing. The current import of concentrate is to maintain ramp up at Long Harbour while there is slightly lower production of concentrate at Voisey's Bay during the transition from open pit to underground mining.





Underground at Voisey's Bay  
Photo credit - Vale Newfoundland and Labrador Limited



# COPPER

## Rambler Metals and Mining Canada Limited (RMM)

<b>Location:</b>	Baie Verte
<b>Project:</b>	Ming Mine and Nugget Pond Mill
<b>Status:</b>	Producing
<b>Commodity:</b>	Copper-Gold
<b>Project Life of Mine:</b>	20 years
<b>Employment:</b>	208 person years

RMM achieved initial commercial production on November 1, 2012. During 2021, the Company continues to focus on regaining a production profile of 1,350 tonnes per day at 2 per cent copper and expects to achieve this by the end of 2021. RMM will evaluate expansion opportunities from this base level once achieved. RMM operates the Ming Copper Mine, Nugget Pond Concentrator and a year-round bulk storage and shipping facility at Goodyear's Cove.

On December 23, 2020, RMM signed a letter of intent with Maritime Resources to sell its gold circuit at the Nugget Pond mill for \$2.0 million cash and C\$0.5 million in common shares of Maritime Resources Corp. The gold circuit last operated in 2012 and a study is being completed to determine the optimal configuration so RMM and Maritime Resources can operate the copper concentrator and gold circuit concurrently.

Throughout 2021, RMM secured financing to undertake operational improvements, procure mining equipment, accelerate exploration and support production through 2021 and 2022.

# GOLD

## Anaconda Mining Inc. (Anaconda)

<b>Location:</b>	Baie Verte
<b>Project:</b>	Point Rouse
<b>Status:</b>	Producing
<b>Commodity:</b>	Gold
<b>Employment:</b>	105 person years

Anaconda operates the Point Rouse project, consisting of the Pine Cove open pit mine, the Pine Cove mill and tailings facility, the Stog'er Tight Mine, the Argyle gold Mine, and approximately 11,000 hectares of prospective gold-bearing property.

In 2020, Anaconda produced 18,268 ounces of gold from the Point Rouse project, resulting in the sale of 17,918 ounces of gold, generating revenue of \$41.5 million. In November 2021, the company revised its guidance downward to 12,000 ounces, due to development challenges that delayed access to higher-grade ore. Production of gold in 2021 continued from mining at Argyle with supplement feed from Pine Cove stockpiles. The Company continues to announce encouraging drill results from its infill drill program at the Stog'er Tight Deposit, which is being incorporated into pit designs and a resource estimate in anticipation of a potential development scenario at Stog'er Tight.



## Marathon Gold Corporation (Marathon)

<b>Location:</b>	Central
<b>Project:</b>	Valentine Lake Project
<b>Status:</b>	Developing
<b>Commodity:</b>	Gold
<b>Project Life of Mine:</b>	13 years
<b>Employment:</b>	404 person years (construction) 426 person years (operations)

Marathon is a Toronto-based gold exploration and development company and is 100 per cent owner of the Valentine Lake Project located approximately 55 kilometres southwest of Millertown, NL. The Company released the results of a feasibility study (FS) in March 2021 that projected average gold production of 173,000 ounces per year between 2024 and 2033.

The Valentine Lake Project is currently under environmental assessment (EA). On October 29, 2021, Marathon was informed by the Minister of Environment and Climate Change that, additional information is required to supplement the environmental impact statement. Marathon has advised, the extended regulatory process will require a rescheduling of the planned development timeline and estimate an impact of approximately 6 months.

The construction period is expected to last 22 months and, once operational, the mine will operate 24 hours per day, seven days a week, on a 12-hour shift basis. Initial capital investment is estimated at \$305 million and life-of-mine capital investment is estimated at \$662 million. The project has mineral reserves of 2.05 million ounces (47.06 million tonnes at 1.36 grams per tonne gold).

## Matador Mining Ltd. (Matador)

<b>Location:</b>	near Port aux Basque
<b>Project:</b>	Cape Ray Gold
<b>Status:</b>	Developing
<b>Commodity:</b>	Gold
<b>Project Life of Mine:</b>	7 years
<b>Employment:</b>	280 person years (construction); 140 person years (operations)

Matador is a Western Australia-based gold exploration company with its tenure covering 120 kilometres along strike of the Cape Ray Shear. Matador plans to develop a 1.2 million tonnes per year mining and processing operation.

In May 2020, Matador announced the results of a scoping study for the Cape Ray project. The study revealed the viability of a standalone gold operation. During the mine life, projected gold production will be 504,000 ounces, averaging 88,000 ounces per year during the first four years. Total silver production is expected to be 863,000 ounces averaging 124,000 ounces per year. The initial capital cost is estimated at \$137 million with an anticipated payback of 1.75 years. The Project has current resources of 837,000 ounces at 2.00 grams per tonne gold.

The project was originally registered for environmental assessment in July 2016 and an environmental impact statement (EIS) is required. An extension has been granted and is due August 24, 2022. Matador announced in July 2021 that environmental baseline studies are nearing completion.

Matador is currently undertaking its largest exploration program carried out at Cape Ray, with upwards of 45,000 metres of diamond drilling. Technical studies are underway in support of a future prefeasibility study (PFS) including metallurgical, geotechnical and environmental work. A PFS will commence at the end of 2021/22 exploration season.

## Maritime Resources Corp. (Maritime)

<b>Location:</b>	Green Bay
<b>Project:</b>	Hammerdown and Orion
<b>Status:</b>	Developing
<b>Commodity:</b>	Gold
<b>Project Life of Mine:</b>	9 years
<b>Employment:</b>	150 people in operations

Maritime is a gold mining and exploration company that holds a 100 per cent interest in the Green Bay Property and the Whisker Valley exploration project located in the Baie Verte mining district. The Hammerdown Mine was last

operated by Richmond Mines between 2000 and 2004, producing 143,000 ounces of gold at an average mine grade of 15.7 grams per tonne gold through a combination of narrow vein open pit and underground mining.

The Hammerdown Gold project was released from environmental assessment in May 2021. Maritime is well financed and completion of a feasibility study is expected by the end of 2021. Maritime reports that it is on schedule to secure permits and approvals for construction in 2022. The project has estimated average production of 57,900 ounces of gold per year.



Grebes Nest Open Pit  
Photo credit - Colin Pittman and Canada Fluorspar (NL) Inc.

# FLUORSPAR

## Canada Fluorspar (NL) Inc. (CFI)

<b>Location:</b>	St. Lawrence
<b>Project:</b>	AGS Fluorspar
<b>Status:</b>	Producing
<b>Commodity:</b>	Fluorspar
<b>Employment:</b>	255 person years

CFI operates an open pit mine, a mill facility, a man-made tailings facility and a recently constructed marine shipping terminal. CFI began shipping its fluorspar concentrate product to market in 2018.

Grebes Nest Pit is being mined with waste material used to construct mine roads and supply materials for the tailings dam construction. CFI also plans to develop the Center Pit and the Open Cut Pit. The operation has design production of 200,000 tonnes of acid-grade fluorspar per year.

The first shipment from the newly constructed Blue Beach Marine Terminal took place in July 2021. This infrastructure eliminates the need to truck fluorspar concentrate to a terminal in Marystown, reducing costs and the environmental footprint. The Blue Beach Marine Terminal will also create flexibility in terms of the variety of ships that are available to ship fluorspar product and it provides an opportunity for CFI to ship aggregate to the seaborne market. This has the potential to extend the life of the operation.

# LIMESTONE AND DOLOMITE

## Atlantic Minerals Limited (AML)

<b>Location:</b>	Lower Cove, Port au Port Peninsula
<b>Project:</b>	Lower Cove Quarry
<b>Status:</b>	Producing
<b>Commodity:</b>	Limestone and Dolomite
<b>Project Life of Mine:</b>	Potentially greater than 25 years
<b>Employment:</b>	88 person years

AML is a leading producer of chemical grade limestone, chemical grade dolomite and construction aggregates for the worldwide market. Lower Cove has been in production since 1988.

AML operates 24 hours a day, seven days a week, for nine months of the year. Clients include the power, steel, agricultural, pulp and paper and construction industries. An associated marine facility is capable of loading 3,000 tonnes per hour into Panamax class vessels. Products are shipped to locations in Canada, the United States, South America and Europe.



# ANTIMONY

## Beaver Brook Antimony Mine Inc. (BBAM)

Location:	Glenwood
Project:	Beaver Brook
Status:	Producing
Commodity:	Antimony

BBAM is owned by China Minmetals Rare Earth Group Co. Ltd. On November 17, 2020, BBAM temporarily suspended operations at the mine citing the pandemic as hampering its operations. Mining restarted September 28, 2021, with full time milling operations resuming late 2021. BBAM anticipates hiring over 100 personnel on-site for mining and milling activities and the project has a remaining mine life of up to 2 years.

# GYPSUM

## Atlas Salt (formerly Red Moon Resources)

Location:	Flat Bay
Project:	Ace Gypsum
Status:	Producing
Commodity:	Gypsum and Anhydrite
Project Life of Mine:	10 years
Employment:	6 person years

Atlas reactivated the Ace Gypsum deposit, a small past-producing mine, to extract gypsum and anhydrite, a form of gypsum. In August 2021, Atlas Salt Inc. announced its name changed from Red Moon Resources.

Atlas announced its first shipment of gypsum from the mine on September 4, 2018. Atlas uses traditional open-pit methods. Production varies

depending on contracted sales. Atlas estimates initial production rates for the first few years, between 100,000 – 250,000 tonnes per year reaching 300,000 to 450,000 tonnes should markets develop.

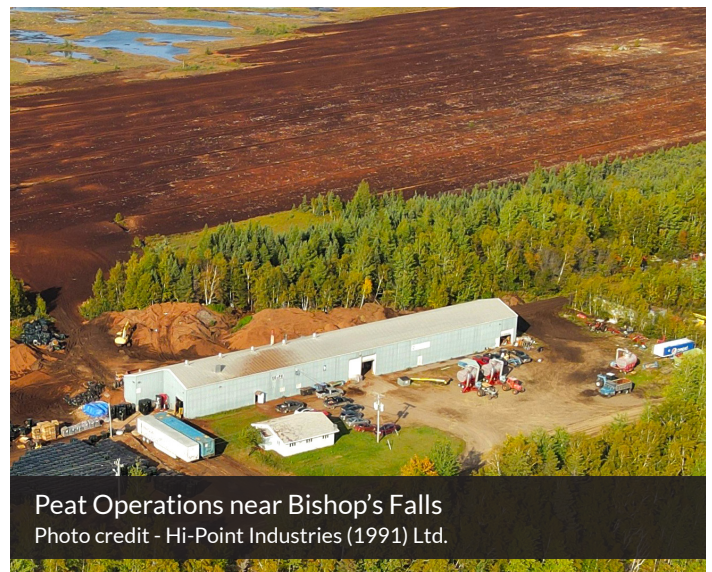
Atlas also has the Great Atlantic Salt Project and has secured financing to undertake a feasibility study.

# PEAT

## Hi-Point Industries (1991) Ltd. (Hi-Point)

Location:	Bishop's Falls
Status:	Producing
Commodity:	Peat
Employment:	20 person years

Hi-Point, established in 1991, is a local manufacturer of quality environmental and horticultural peat products. Its patented Oclansorb product is an organic, nontoxic, nonabrasive, lightweight, industrial oil absorbent used worldwide as a first response for handling hydrocarbon spills. Oclansorb is made from naturally occurring blonde sphagnum peat moss.



Peat Operations near Bishop's Falls  
Photo credit - Hi-Point Industries (1991) Ltd.

# PYROPHYLLITE

## Trinity Resources Ltd. (Trinity)

<b>Location:</b>	Conception Bay South
<b>Status:</b>	Producing
<b>Commodity:</b>	Pyrophyllite
<b>Employment:</b>	18 person years

First operated in 1904 under The North American Talc Company, Trinity is now a privately held company that in addition to producing pyrophyllite, sells waste rock for use as aggregates in white cement. The Company ships product from its own six-acre ship loading facility located within 4 km of the mine.



Trinity Resources' Loading Dock  
Photo credit - Trinity Resources Ltd.

# BARITE

## BarCan (formerly Barite Mud Services Inc.) (BarCan)

<b>Location:</b>	Buchans
<b>Status:</b>	Producing
<b>Commodity:</b>	Barite
<b>Project Life of Mine:</b>	>45 years
<b>Employment:</b>	23 person years

Formerly known as Barite Mud Services Inc., BarCan is a Newfoundland and Labrador-based company that is recovering barite from tailings produced from the American Smelting and Refining Company's (ASARCO) historic base metal mine in Buchans.

The barite product is used as a drilling mud for Newfoundland and Labrador offshore oil operations. Historically, the project has operated annually between May and October, reprocessing 40,000 to 50,000 tonnes of tailings per season to retrieve 10,000 to 15,000 tonnes of barite. BarCan did not operate in 2018 or 2019 and resumed production in 2020 after significant capital investment. BarCan has been expanding its Research and Development program to create new barium-based derivatives for industrial uses in North American and European export markets in 2021.



# RARE EARTH ELEMENTS

## Search Minerals Inc. (Search)

<b>Location:</b>	Southeast Labrador
<b>Project:</b>	Foxtrot
<b>Status:</b>	Developing
<b>Commodity:</b>	Rare Earth Elements
<b>Project Life of Mine:</b>	8 years (open pit) and 6 years (underground)
<b>Employment:</b>	140 person years (open pit) and 220 person years (underground)

Search Minerals, through its wholly owned subsidiary, Alterra Resources Inc., discovered the Critical Rare Earth Element (CREE) District in southeast Labrador. Search has completed a preliminary economic assessment (PEA) report for the Foxtrot deposit, a resource estimate for Deep Fox and is working on three exploration prospects including Fox Meadow, Silver Fox and Awesome Fox. The 2016 PEA on the Foxtrot project evaluated an open pit and underground mine development, estimated an initial capital cost of \$152 million (\$232 million including sustaining and closure capital) and after-tax payback of 4.4 years on a projected mine life of 8 years (open pit) and 6 years (underground).

Search filed the Foxtrot Rare Earth Element (REE) Mine for provincial (December 2017) and federal (January 2018) environmental assessment. Search is required to submit an environmental impact statement (EIS) for the project. The Company expects to submit a new EIS registration document upon the completion of an updated PEA which the Company has commissioned on the combined Deep

Fox/Fox Trot project with target completion of the study by the first quarter of 2022.

In September 2021, Search announced they are preparing a bulk sample to demonstrate the success of their bench scale results to produce a REE concentrate for further testing of their Direct Extraction Process. The 80 tonne bulk sample is expected to demonstrate that a continuous process involving crushing, grinding, and magnetic separation can treat large samples of mineralization and achieve the potential recoveries and quality of concentrates suggested by the small scale testing. This magnetic pilot plant testing is the first phase of a four phase planned program.



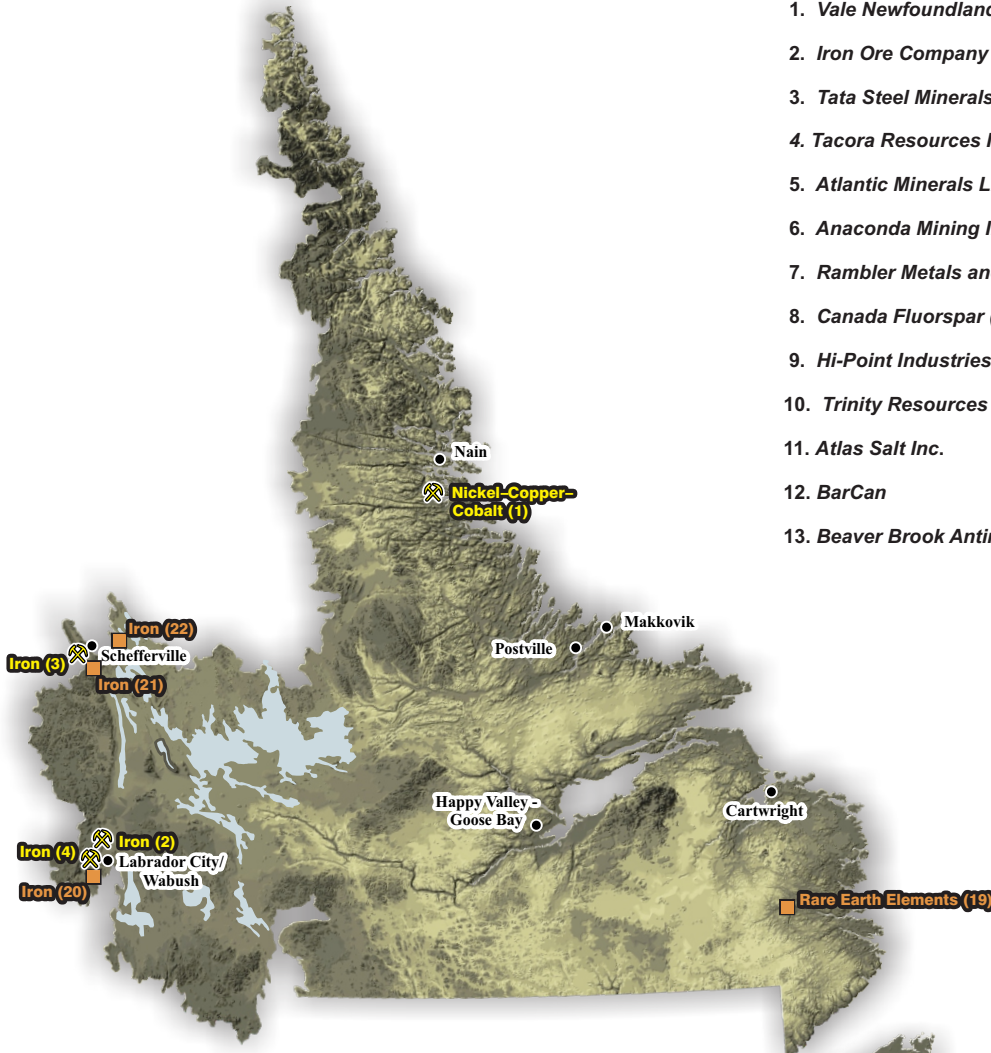
Truck Driver  
Photo credit - Colin Pittman and Canada Fluorspar (NL) Inc.



# PRODUCING MINES, DEVELOPING PROPERTIES AND PROCESSING FACILITIES

## 🛞 Producing Mines

1. Vale Newfoundland and Labrador Limited
2. Iron Ore Company of Canada
3. Tata Steel Minerals Canada Limited
4. Tacora Resources Inc.
5. Atlantic Minerals Limited
6. Anaconda Mining Inc.
7. Rambler Metals and Mining Canada Limited
8. Canada Fluorspar (NL) Inc.
9. Hi-Point Industries (1991) Ltd.
10. Trinity Resources Ltd.
11. Atlas Salt Inc.
12. BarCan
13. Beaver Brook Antimony Mine

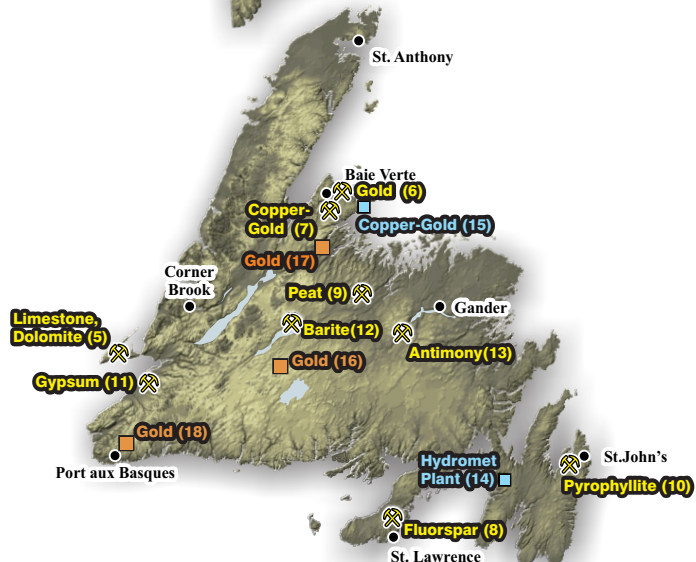


## 🏭 Processing Facilities

14. Vale Newfoundland and Labrador Limited
15. Rambler Metals and Mining Canada Limited

## 🏗️ Developing Properties

16. Marathon Gold Corporation
17. Maritime Resources Corporation
18. Matador Mining Ltd.
19. Search Minerals Inc.
20. Champion Iron Ltd.
21. Labrador Iron Mines Ltd.
22. Joyce Direct Iron Inc.



## Key Contacts

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