

SIEMENS

**British Columbia
CYBER SECURITY Landscape
Ports, Terminals and Mines**

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Executive Summary

The Ports & Terminals and Mining report was prepared by PrismTeck Inc. through thorough research. The research process spanned three months and involved gathering data from various sources, such as online. The report covers ports and terminals in Canada and Mining companies in Canada and abroad where mining operations are conducted, impacting Canada's economy.

Siemens Canada has recently introduced its Cybersecurity business division and has major plans of investment across Canada, specifically BC. Considering this, initial market research on BC's target market was required, and that is where PrismTeck

highlighted major revenue sectors and suggested Siemens to target those.

The research initially focused on identifying the Ports & Terminals, and Mines across Canada and other regions. Information about these Establishments, including descriptions, ongoing projects, cybersecurity measures, and future plans for digitisation, was extracted from their respective websites and news sources. Additionally, the report covers relevant contacts from each port, terminal and mine – including information about their email addresses, phone numbers, and LinkedIn profiles. The collected data was then compiled into a structured report format, providing valuable insights into the Ports & Terminals and Mining industry.

An aerial night view of a city and port, overlaid with a glowing network of white dots and lines. The city lights are visible in the background, and a large ship is docked at the port in the foreground. The network overlay consists of numerous white dots connected by thin white lines, creating a complex web-like pattern across the top half of the image.

Ports and Terminals

Canada's ports and terminals are vital to the country's economy, contributing significantly to revenue and employment. Key ports, including Port of Vancouver, Port Alberni, Port of Prince Rupert, and Nanaimo Port, along with various terminals, play a crucial role. In 2020, they handled over 340 million tonnes of cargo, engaging in trade with 170 countries, resulting in billions of dollars in economic output and supporting numerous jobs.

The port authorities contribute around \$53 billion in economic output and \$25 billion in GDP annually, generating approximately \$2.1 billion in tax revenue for the government. They directly employ around 71,000 individuals, with an additional 90,000 jobs in supporting industries and 53,000 induced jobs through employee spending. Moreover, they also play a significant role in the cruise sector, generating over \$4 billion in revenue for the economy.



Port Alberni Port Authority



Location	Website	Revenue	No. of Employees
2750 Harbor Rd, Port Alberni, BC V9Y 7X2, Canada	https://papa-appa.ca/	\$29.6 million	51 to 200

About

The port was founded in 1947 and was regulated by the Harbor Commission’s Act of 1964 as a Harbor Commission. Port Alberni Harbor is the closest deep-sea port to the Pacific Rim and one of the best deep-sea inland harbors on the North American continent. The Alberni Inlet is easily navigable by vessels up to and including Panamax size. To the extent that these activities are specified in the Alberni Port Authority Letters Patent, the Port Alberni Port Authority is responsible for day-to-day operations of the harbor and the long-term development and improvement of waterfront facilities, including recreational marinas and secondary industries.

Cybersecurity

Port Alberni Port Authority has led a few cybersecurity programs, including regular risk assessments, employee training, and security technologies to detect and prevent cyber threats. Port Alberni Port Authority also works closely with other port stakeholders, including government agencies and private companies, to share information and coordinate cybersecurity efforts.

Services

Their primary export is of Forest Products. They also lease land to many businesses and private ventures and offer rental support for small-scale businesses. Additionally, they operate six successful Marinas on behalf of Small Craft Harbours.

Projects

The Port Alberni Port Authority is pursuing a strategic opportunity to develop a new container trans-shipment hub in the Alberni Inlet to enhance various economic, environmental and sustainable practices. PATH’s aim is to facilitate trade and support economic growth in Canada by opening opportunities for various businesses such as warehouses, biotech, LNG export, seaplane services and private-sector fuel companies.

Once fully automated, PATH could help create 288,720 full-time jobs. It aims to be Canada’s largest and most modern container terminal and promises to help various businesses by offering them incentives. These incentives will surely include the authority’s support, adequate security, and the latest technologies.

Contacts of Port

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Mining

Canada's mining sector is a global leader, producing over 60 minerals and metals. In 2021, its mineral production reached \$55.5 billion, with a 20% increase from the previous year. The industry directly employed 403,000 individuals and indirectly supported 263,000 jobs.

Canadian mining companies hold assets in 96 countries, with foreign direct investment reaching \$65.1 billion, and their direct investment abroad amounted to \$106.1 billion. Mining contributed 7.9% to Canada's GDP in 2021, totaling \$156 billion. The report covers 87 mines operating in Canada and abroad, reflecting the sector's significant impact on the national and global scale.



American Pacific Mining



Location	Website	Revenue	No. of Employees
Suite 910 - 510 Burrard Street, Vancouver, BC V6C 3A8, CA	www.american-pacific.ca	\$41.6 Billion	10,000+



About

American Pacific Mining (APM) is a Canadian mineral exploration company with a focus on precious metal properties in the Western United States. It is owned by a group of shareholders, and its headquarters are located in British Columbia, Canada. APM holds a diverse portfolio of mineral exploration projects, including the Tuscarora Gold Project in Nevada, the Madison Copper-Gold Project in Montana, and the Gooseberry Gold-Silver Project in Nevada. While the exact number of mines may vary as projects progress, APM's portfolio consists of multiple projects at different stages of exploration and development. The company's properties span across various regions within the Western United States.

Products

American Pacific Mining's primary products are gold, silver, and other precious metals. These metals are widely recognized for their value and have a range of applications in industries such as jewelry, currency, electronics, and dentistry. Gold and silver, in particular, are considered desirable commodities due to their rarity, durability, and intrinsic worth. American Pacific Mining concentrates its exploration efforts on identifying and developing mineral projects that have the potential to yield significant deposits of these valuable metals. The company aims to capitalize on the demand for gold, silver, and other precious metals in both industrial and investment markets through its exploration and potential mining activities in the Western United States.

Projects

American Pacific Mining Corp (APM) has announced its 2023 budget and work program for the Palmer Project, an advanced-stage, high-grade volcanogenic massive sulphide-sulphate (VMS) project in Alaska. The US \$25.5 million work program includes a resource infill drill program, geotechnical drilling, camp construction, and ongoing environmental and engineering studies. APM aims to upgrade mineral resources and advance the Palmer Project towards a feasibility study. Given the significant investment and the need to de-risk the asset, enhanced security and digitization measures may be necessary to protect data, manage operations efficiently, and support remote monitoring. APM's joint venture partner, Dowa Metals & Mining Co., Ltd., will fund the entire 2023 program, and APM has the option to contribute to minimize dilution. APM operates the project and receives a management fee for overseeing the work program.

Contacts of Mine

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Aris Mining



Location

550 Burrard Street,
suite 2900
Vancouver, BC V6C
0A3

Website

www.arisgold.com

Revenue

\$785.6 Million

No. of Employees

1001-5000

About

Aris Mining Corporation is a Canadian mining company (TSX: ARIS) with a strong leadership team experienced in building successful gold mining companies. They operate the Segovia and Marmato mines in Colombia, producing over 230,000 ounces of gold in 2021. Aris Mining also has a significant 20% ownership stake in the Soto Norte project in Colombia, with the option to increase it to 50%. They own the Toroparu project in Guyana and the Juby project in Ontario, Canada. The company is dedicated to promoting responsible small-scale mining, ensuring legal and safe operations that prioritize environmental protection.

Cybersecurity

Aris Mining Corporation is committed to prioritizing security and cybersecurity in its operations. The company implements robust security management systems, adheres to international standards, and promotes personal responsibility for security among its workforce. Regular assessments and audits are conducted to identify vulnerabilities and improve security practices. The company invests in employee training and provides necessary resources to effectively respond to security breaches. Aris Mining Corporation aims to maintain a secure and resilient operational environment.

Products

Aris Mining Corporation primarily focuses on gold mining and production.

Projects

The Juby Project is a gold exploration project in Ontario, Canada, located near Gowganda and the Timmins gold camp. It covers over 14,000 acres and focuses on the Tyrrell Shear Zone (TSZ) within the Abitibi greenstone belt. The project has access to infrastructure such as highways, a power transmission line, and water resources. Security measures are necessary to protect the exploration site, mineral resources, and drilling data from theft and unauthorized access. Digitization would involve managing geological data and exploration-related information securely, while cybersecurity measures would be essential to safeguard digital infrastructure and ensure the confidentiality and integrity of project data.

Contacts of Mine

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PTM Digital Spendings:

Ports & Terminals	No. of Employees	Revenue	2022 Cyber Security Investment (approx)	2022 Digital Investment (approx)
Port Alberni	51 to 200	\$29.6 million		CA\$10 million
Nanaimo port	11 to 50	\$4.7 million		CA\$10 million
Prince Rupert port	51 to 200	\$33.4 million		CA\$15 million
Port of Vancouver	501 to 1000	\$309 million		CA\$100 million

Terminals	No. of Employees	Revenue	2022 Cyber Security Investment (approx)	2022 Digital Investment (approx)
DP World	11 to 50	\$6.1 million		CA\$50 million
Cascadia Terminal (Viterra/Richardson)	1001 to 5000	\$897.6 million	CA\$10 million	CA\$100 million
Pembina - Vancouver Wharves	1001 to 5000	\$5.4 Billion		CA\$10 million
GCT	501 to 1000	\$149.8 million		CA\$100 million
Port Alberni Terminal	51 to 200	\$29.6 million		CA\$5 million
Prince Rupert Grain Terminal	1001 to 5000	\$897.6 million		CA\$50 million
Seaspan Vancouver Drydock	1001 to 5000	\$5.4 Billion		CA\$10 million
Canpotex Terminals Ltd – Neptune Terminal	51 to 200	\$69 million		CA\$5 million
Fibreco	11 to 50	\$4.9 million	CA\$10 million	CA\$20 million
BC Ferries	5001 to 10000	\$686.7 million		CA\$10 million
Cargill	10000+	\$114.6 billion		CA\$75 million
IOCO (Imperial Oil/Esso Petroleum Co)	501 to 1000	\$26.2 billion		CA\$50 million to CA\$100 million
Lynnterm Terminal	11 to 50	\$4.4 million	CA\$5 million	CA\$20 million
Pacific Coast Terminal	11 to 50	\$5.2 million	CA\$10 million	CA\$25 million
Trigone BC Terminal	51 to 200	\$178.3 million	CA\$2 million	CA\$10 million
Suncor Burrard Products Terminal	10000+	\$24.7 billion		CA\$50 million to CA\$100 million
Westshore Terminals Ltd (Roberts Bank)	201 to 500	\$266.3 million		CA\$50 million to CA\$100 million
Squamish Terminals	51 to 200	\$9.7 million		CA\$20 million

G3 vancouver terminal	11 to 50	\$4.9 million		CA\$10 million
Greater Victoria Harbor	11 to 50	\$3.9 million		CA\$20 million and CA\$50 million

Westrige Marine Terminal

Mines	No. of Employees	Revenue	2022 Cyber Security Investment (approx)	2022 Digital Investment (approx)
American Pacific Mining	10,000+	\$41.6 Billion	-	CA\$10 million and CA\$20 million
Aris gold	1001-5000	\$785.6 Million	CA\$2 million to CA\$5 million	CA\$10 million to CA\$20 million
Artemis Gold Inc.	11 to 50	\$2.2M		
Ascot Resources	11 to 50	\$15.5M	CA\$1 million to CA\$2 million	CA\$5 million to CA\$10 million
ATAC Resources	1001-5000	\$969.1Million	CA\$1 million to CA\$2 million	CA\$5 million to CA\$10 million
Avino Silver & Gold Mines	201-500	\$497.1 million	-	CA\$2 million to CA\$5 million
B2Gold Corp	1001-5000	\$911 million	CA\$1 million to CA\$2 million	CA\$5 million to CA\$10 million
Barrick Gold Corporation	501-1000	\$103.6 million	CA\$2 million to CA\$5 million	CA\$5 million to CA\$10 million
Bear Creek Mining	1001-5000	\$4.6 Billion	-	CA\$1 million to CA\$2 million
Blue Star Gold	11 to 50	\$5.6 Million	CA\$100,000 to CA\$200,000	CA\$500,000 to CA\$1 million
Calibre Mining	10,000+	\$611.1 Million	CA\$100,000 to CA\$200,000	CA\$1 million to CA\$2 million
Candelaria Mining	1001-5000	\$1.1Billion	CA\$100,000 to CA\$200,000	CA\$1 million to CA\$2 million
Capstone Mining	200-500	\$16.1 million	CA\$100,000 to CA\$200,000	CA\$1 million to CA\$2 million
Ceylon Graphite	10,000+	\$12.4 Billion	CA\$100,000 to CA\$200,000	CA\$500,000 to CA\$1 million
Coeur Mining	1001-5000	\$44.4 Million	CA\$100,000 to CA\$200,000	CA\$1 million to CA\$2 million
Conuma Coal Resources	501-1000	\$327.5 million	CA\$100,000 to CA\$200,000	CA\$500,000 to CA\$1 million
Eldorado Gold	1001-5000	\$13M	CA\$100,000 to CA\$200,000	CA\$1 million to CA\$2 million
Elevation Gold Mining	11 to 50	\$3.4M	CA\$100,000 to CA\$200,000	CA\$500,000 to CA\$1 million

Ports

Port Alberni Port Authority

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- <https://papa-appa.ca/opportunities/investment-opportunities/path/>
- <https://www.portalberniportauthority.ca/about-papa/security/>

Prince Rupert Port

- <https://www.rupertport.com/about/>
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Port of Vancouver

- <https://www.porttechnology.org/news/port-of-vancouver-advances-new-terminal-project/>
- <https://www.portvancouver.com/>
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DP World

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Cascadia Terminal

- https://ungc-production.s3.us-west-2.amazonaws.com/attachments/cop_2022/517637/original/Viterra%20full%20year%20report%202021.pdf?1662734591

Global Container Terminals (GCT)

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- https://globalterminalsCanada.com/wp-content/uploads/2021/03/GCT.Canada.Terminal.Services.Tariff.April_.2021.pdf
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Pembina - Vancouver Wharves

- <https://www.sec.gov/Archives/edgar/data/1714973/000171497318000011/kml10k-12x31x2017report.htm#s5f-80b26392304e009f4ee0eafd184ed5>
- <https://www.vanwharves.com/pages/aboutus.aspx>



Thank You



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