



CSA Global
Mining Industry Consultants



NI43 101 Technical Report

Technical Report on the Greater Cobalt Project, Larder Lake Mining Division, Ontario

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Report prepared for

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Date and Signature Page

This Report titled “Technical Report on the Greater Cobalt Project, Larder Lake Mining Division, Ontario” for First Cobalt Corp. and dated 31 July 2017 was prepared and signed by the following author:

[“SIGNED AND SEALED”]

{*Ian Trinder*}

Dated at Toronto, ON

31 July 2017

Report Effective Date:

15 June 2017

Ian Trinder, M.Sc., P.Geo. (ON, MB)

Principal Geologist

CSA Global Geosciences Canada Ltd

CERTIFICATE OF QUALIFICATION

CERTIFICATE OF QUALIFICATION OF AUTHOR – Ian Trinder, M.Sc., P.Ge.

I, Ian D. Trinder, M.Sc., P.Ge. (ON, MAN), do hereby certify that:

1. I reside at 4185 Taffey Crescent, Mississauga, Ontario, L5L 2A6.
2. I am employed as a Principal Geologist by CSA Global Geosciences Canada Ltd located at 365 Bay St., Suite 501, Toronto, Ontario, Canada. M5H 2V1.
3. I graduated with a degree in Bachelor of Science Honours, Geology, from the University of Manitoba in 1983 and a Master of Science, Geology, from the University of Western Ontario in 1989.
4. I am a Professional Geoscientist (P.Ge.) registered with the Association of Professional Engineers and Geoscientists of Manitoba (APEGM, No. 22924) and with the Association of Professional Geoscientists of Ontario (APGO, No. 452). I am a member of the Society of Economic Geologists and of the Prospectors and Developers Association of Canada.
5. I have approximately 30 years of direct experience with precious and base metals mineral exploration in Canada, USA and the Philippines including project evaluation and management. Additional experience includes the completion of various National Policy 2A and NI 43-101 technical reports for gold and base metal projects.
6. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
7. I have visited the Cobalt Project.
8. I am author of the technical report titled: “Technical Report on the Greater Cobalt Project, Larder Lake Mining Division, Ontario” for First Cobalt Corp. dated 31 July 2017 (the “Report”). I am responsible for all sections of the Report.
9. I have no prior involvement with the Issuer, Vendor or the Property.
10. As of the effective date of the technical report (15 June 2017), to the best of my knowledge, information, and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
11. I am independent of the Issuer, the Vendor and the Property applying all the tests in section 1.5 of National Instrument 43-101.
12. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
13. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

DATED this 31st day of July 2017

[“SIGNED AND SEALED”]

{*Ian Trinder*}

Ian D. Trinder, M.Sc., P. Geo.

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1 Summary

This technical report (the “Report”) was prepared by CSA Global Canada Geosciences Ltd (CSA Global) at the request of Mr Peter Campbell, Vice President Business Development of First Cobalt Corp. (“First Cobalt” or “the Issuer” or “the Company”) and focuses on the exploration potential of the Issuer’s Greater Cobalt Project (“Project”) in Ontario. The Report is specific to the standards dictated by National Instrument 43-101 (“NI 43-101”), companion policy NI43-101CP and Form 43-101F1 (Standards of Disclosure for Mineral Projects). This Report is dated 31 July 2017 with an Effective Date of 15 June 2017.

First Cobalt’s Greater Cobalt Project in eastern Ontario comprises one group of near contiguous claims in the historic Silver Centre mining camp, herein referred to as the Silver Centre Property, and one group of non-contiguous claims in the historic Cobalt mining camp herein referred to as the Cobalt Area Properties, approximately 400 kilometres (km) north of Toronto. The Cobalt Area Property claims lie within an 8 km radius of the community of Cobalt and the Silver Centre Property is approximately 25 km southeast of the community of Cobalt, west of Lake Temiskaming and the Ottawa River which form the Ontario-Quebec provincial border in this area. As of the Effective Date of this Report, the Project covers a total area of approximately 4,301 hectares (ha).

The Silver Centre Property, situated in South Lorrain Township, comprises:

1. The 619.15 ha Keeley-Frontier claim group comprised of 13 contiguous patented (fee simple) mining claims with surface and mining rights totalling approximately 174.29 ha and five contiguous mining leases with mining rights only totalling approximately 444.86 ha.
2. The CSH claim group comprised of seven contiguous staked mining claims totalling 34 claim units and covering approximately 544 ha.
3. The CIC claim group comprised of 17 contiguous and non-contiguous staked mining claims totalling 136 claim units and covering approximately 2,176 ha.
4. The BMC South claim group comprised of eight contiguous staked mining claims totalling eight claim units and covering approximately 128 ha.

First Cobalt holds an option to earn a 100% interest in the five mining leases, 13 patented mineral claims and seven unpatented mineral claims of the Keeley-Frontier claim group. Upon earning a 100% interest, Canadian Silver Hunter shall be granted a 2% net smelter return royalty, subject to First Cobalt having the right to purchase 1% for \$1 million over the ensuing 10 years. The Company may elect to accelerate the earn-in.

First Cobalt holds a 100% interest in the 17 staked mining claims of the CIC claim group by way of its acquisition of Cobalt Industries of Canada Inc. (Cobalt Industries) announced on 23 January 2017.

As announced on 7 June 2017, First Cobalt holds a 100% interest in the eight staked mining claims of the BMC South claim group which were acquired from Brixton Metals Corp.

The Cobalt Area Properties include:

1. The BMC North claim group comprised of 14 unpatented (staked) mining claims totalling 151 units and 2,416 ha in the townships of Coleman, Gillies Limit and Lorrain.
2. The Yukon Refinery claim group comprised of approximately 16.268 ha (40.2 acres) of surface rights only patents with a tailings management facility and a cobalt-silver extraction refinery.



As announced on 7 June 2017, First Cobalt holds a 100% interest in the 14 staked mining claims which were acquired from Brixton Metals Corp.

First Cobalt announced on 1 June 2017 that it had entered into an option agreement with Cobalt One Limited (Cobalt One) to earn into a 50-50 joint venture on the Yukon cobalt extraction refinery and 16.268 ha (40.2 acres) of permitted property in Cobalt, Ontario. It is anticipated that this joint venture agreement will be superseded by the transaction announced on 26 June 2017 whereby First Cobalt would acquire Cobalt One.

To CSA Global's knowledge, the patents, leases and claims are currently in good standing and there are no current or pending challenges to ownership of the Properties.

As of the Effective Date, First Cobalt does not currently hold any Exploration Plans or Permits for exploration work proposed on mining claims and mining leases in this Report. The Keeley-Frontier group patented claims do not require an Exploration Plan or Permit. First Cobalt warrants that they will acquire any and all government permits required to execute the proposed early exploration activities where required on the Project properties. First Cobalt warrants that it will consult with the appropriate First Nation and Metis communities as required per the Ontario Mining Act.

Environmental, permitting, legal, title, taxation, socio-economic, marketing, and political or other relevant issues could potentially materially affect access, title or the right or ability to perform the work recommended in this report on the Property. However, at the time of this report, CSA Global is unaware of any such potential issues affecting the Properties.

The Greater Cobalt Project is located in the historic Silver Centre and Cobalt mining camps. The various Properties are generally accessible via all weather roads and seasonal all-terrain vehicle (ATV) trails.

Most services and supplies required for a mineral exploration program are available in the City of Temiskaming Shores, approximately 25 km north of the centre of the Project area. Given the mining history of the Cobalt Camp and the proximity of mining communities such as Kirkland Lake and Sudbury and service centres such as North Bay, exploration and mining personnel are readily available in the region. The city of Greater Sudbury is located approximately 200 km by road southwest of the Properties at the intersection of the Trans-Canada Highway, Highway 69S and Highway 144N.

Other than several powerlines, all-weather roads and ATV trails, no infrastructure is present within the Properties. The centre of the Project area lies approximately 15 km east of Provincial Highway 11 and the Ontario Northland rail line. Hydro One 115 kV and 230 kV transmission lines cross or are near the Project property areas. Abundant water resources are present in the lakes, rivers, creeks, and beaver ponds on the Properties.

As of the Effective Date, it appears that First Cobalt both holds and has the option acquire sufficient mining claims necessary for proposed exploration activities and potential future mining operations (including potential tailings storage areas, potential waste disposal areas, and potential processing plant sites) should a mineable mineral deposit be discovered.

The climate in the Project area is warm summer humid continental with warm and often hot summers and long, cold winters. Season-specific mineral exploration may be conducted year-round. Swampy areas and lakes/ponds may be best accessed for drilling and ground geophysical surveys during the winter months when the ground and water surfaces are frozen. Mine operations in the region can operate year-round with supporting infrastructure.

The Project area is characterised by rocky, rolling bedrock hills with locally steep ledges and cliffs, separated by valleys filled with clay, glacial material, swamps and streams. Total relief within the Project area is approximately 200 m with topography varying from 250 m to 380 m above sea level (ASL) in the Silver Centre Property, and 180–355 m ASL in the Cobalt Area Property claims. Local relief is commonly up to 30 m, although some ridges are up to 60 m or more above surrounding lowlands.

Vegetation is typical boreal forest with mixed second growth forest of mixed coniferous and deciduous trees, including poplars, birch, maple, pine, spruce, alders, and willows. Swampy low-lying areas contain abundant tag alders.

The initial discovery of silver in the region was made west of Lake Temiskaming in 1903 during the construction of the Temiskaming and Northern Ontario Railway. This began a rich mining history in the area. The location along the railway was named Cobalt after one of the elements found in the arsenide minerals within the veins. The first mines commenced production as early as 1904 and mining was, more or less, continuous until 1989 with production peaking in 1911 (Petruk *et al.*, 1971). In addition to silver, cobalt, nickel and copper were recovered from the ore. Mineralisation was not just limited to the area immediately around Cobalt, but was recovered from areas with similar geology within the Cobalt embayment of the Southern Province, from Gowganda in the west to Silver Centre in the southeast.

Information on the Project's early exploration and ownership history (pre-1950) is limited and incomplete, particularly with respect to the Ministry of Northern Development and Mines (MNDM) online assessment files. Some additional hardcopy information on early exploration in the Project area is available in historic Resident Geologist's notes and donated files archived at the District Geologist's office in Kirkland Lake.

Three historic mines are located within First Cobalt's Silver Centre Property. The Keeley Mine of Keeley Silver Mines Ltd produced intermittently from 1908 to 1942 with most of the production occurring between 1921 and 1931. Total reported production was 12,154,353 oz Ag (378,043 kg) and 1,617,684 lb (73,377 kg) Co. The Frontier Mine was operated by Mining Corporation of Canada Ltd from 1921 to 1943 and produced 6,695,415 oz (208,251 kg) Ag and 1,683,769 lb (763,746 kg) Co and 12,158 lb (5,515 kg) Ni. Keeley Frontier Mines Ltd/Canadian Keeley Mines Ltd operated the combined Keeley and Frontier mines during the 1963–1965 period and produced 347,645 oz (10,812 kg) Ag, 9,003 lb (4,083 kg) Co and 14,358 lb (6,512 kg) Ni. The 1963–1965 production was primarily from the Keeley Mine and included reprocessed tailings. Sergiades (1968) reported total production of 1,182,772 g (38,027 oz) Ag; 12,930 kg (28,481 lb) Co and 6,085 kg (13,404 lb) Ni from the Bellelenn Mine between 1910 and 1943 (intermittent).

The Cobalt/Silver Centre area is underlain by Precambrian rocks of the Superior and Southern provinces (Guindon *et al.*, 2016). Outliers of Paleozoic strata are exposed immediately to the north in the Haileybury area and further to the north between New Liskeard and Englehart.

Archean Keewatin rocks are the oldest rocks in the Cobalt/Silver Centre area and form the southernmost portion of the Western Abitibi sub-province of the Superior Province. These rocks include predominantly intermediate to mafic metavolcanic flows with intercalated metasedimentary rocks. The Archean rocks were folded and intruded by mafic to ultramafic dikes and granite stocks and batholiths. The eroded Archean surface is unconformably overlain by relatively flat lying Paleoproterozoic sedimentary rocks of the Huronian Supergroup which forms the mildly deformed Cobalt Embayment of the Southern Province. At the northeast edge of the Cobalt Embayment in the Cobalt area, the Huronian Supergroup rocks comprise only the Cobalt Group (Gowganda and Lorrain formations) and are commonly found filling interpreted paleo-valleys or troughs in the Archean basement. Early Proterozoic-age Nipissing Diabase intrudes both the Archean basement and the Huronian sediments. The Nipissing Diabase are the most abundant and



widespread igneous rocks intruding the Huronian Supergroup sediments and occur as dykes, and sills up to several hundred metres thick. In the Cobalt area, the Nipissing diabase is interpreted as a thick undulating sheet intruding the Cobalt Group sediments at or immediately above the Archean unconformity.

The grade of regional metamorphism in the area ranges from subgreenschist facies in the Huronian sedimentary rocks to greenschist facies in the Archean metavolcanic rocks (Born and Hitch, 1990). Contact metamorphism of sedimentary rocks of the Gowganda and Lorrain Formations occurred during the emplacement of Nipissing diabase.

The oldest rocks on the Project's Silver Centre Property are folded, faulted, and steeply dipping metamorphosed Archean (Keewatin) intermediate to mafic pillowed flows, tuffs, and agglomerates. Numerous early (Haileyburian) biotite lamprophyre and hornblende lamprophyre intrude the Archean volcanics (McIlwaine, 1970). Huronian-age Gowganda Formation, Coleman Member sediments were subsequently deposited in basins on the erosional surface of the Archean volcanics. Nipissing Diabase intrudes the Archean volcanics and the Huronian sediments and is approximately 277 m thick in the Keeley-Frontier Mine area. Numerous faults are present in the area with several periods of deformation postulated: the earliest faults are pre-ore, and most of this set strike north; there are possibly two ages of northwest-trending faults, pre- and post-olivine diabase intrusion; and finally, a minor north-easterly trending set of faults.

The native silver-cobalt arsenide veins in the Silver Centre area typically contain native silver, cobaltite, lollingite, niccolite, breithauptite, smaltite and calcite (Mayer and Pearson, 1989). Mineralogically, the veins are similar to those in the main Cobalt camp; however, their structural and stratigraphic setting is different. Whereas more than 90% of the silver produced in the main Cobalt camp came from veins in the Huronian Cobalt Group sediments adjacent to (underlying) the lower diabase sill contact, productive veins in the South Lorrain township (Silver Centre) area were predominantly in Archean metavolcanic rocks adjacent to (overlying) the upper contact of the diabase sill. Only limited production came from veins in Archean rocks below the diabase in the Keeley mine (Mayer and Pearson, 1989). No significant silver-bearing veins have yet been found in Cobalt Group sediments in the South Lorrain township area.

The Keeley and Frontier Mines were developed on the most significant and productive veins in the Silver Centre camp on the northwest flank of the South Lorrain diabase dome and comprise both north-south and east-west vein systems. The productive parts of these veins occur within about 120 m (400 ft) of the Nipissing Diabase/Keewatin contact with the richest veins being those that continued into the diabase. Historically, the most important veins on the property were the Woods and Watson which strike north-south and the No. 26, No. 20 and No. 16 veins and to a lesser extent the No. 28 vein, all of which strike approximately east-west (Mayer and Pearson, 1989). Other historic occurrences of quartz-carbonate veining with sporadic arsenide Ag-Co mineralisation are present within the Project area.

The Cobalt Camp (and the satellite Silver Centre Camp) is the type locality of arsenide silver-cobalt vein deposits which are the exploration target at the Greater Cobalt Project. At both camps the veins occur in the Nipissing diabase and in the Huronian Cobalt Group sediments and Archean metavolcanic rocks within about 200 m of their contact with the diabase.

As of the Effective Date of the Report, First Cobalt had initiated its 2017 exploration program designed to increase its understanding of the silver-cobalt potential of the Silver Centre Property. The work underway includes:

- Digital compilation of historic Keeley-Frontier mine data to generate a three-dimensional (3D) geological model



- Detailed and property-scale structural mapping of mineralised veins and host rocks
- Bore-hole geophysics and televiwer imaging of drillholes from the 2012 drilling campaign
- Systematic surface sampling at known prospects and occurrences throughout the property

Results of the program will be compiled, interpreted and reported as the work is completed.

Previous historic surface based exploration has relied largely on prospecting for mineralised fractures supported by overburden stripping and pitting programs. In addition to prospecting methods, the Issuer should consider testing and using modern geophysical and geochemical techniques to identify features controlling arsenide Ag-Co mineralisation or the arsenide Ag-Co veins themselves at the Cobalt Project.

CSA Global concludes that the Greater Cobalt Project and particularly the Silver Centre Property, has potential to host arsenide Ag-Co vein deposits and exploration is warranted. First Cobalt's 2017 exploration program is intended to provide a better understanding of the extent of cobalt mineralisation within the historic Keeley-Frontier Mine as well as explore known silver-cobalt prospects on the Silver Centre Property. These areas will be specifically targeted during this program. Historic exploration and development on the Silver Centre Property focused on the narrow high-grade silver-rich portions of the vein structures. Historic assays indicate cobalt-rich veins were encountered during mining but not often followed up or exploited, as silver was the focus. The Company intends to gain an appreciation for the cobalt zonation within the Keeley-Frontier mine area, the exploration potential of known and potentially new high-grade mineralised structures and of the potential for disseminated mineralisation, which could be amenable for bulk mining.

CSA Global considers the Greater Cobalt Project and its Silver Centre Property to be at an early stage of exploration and recommends a multifaceted exploration program including historical data compilation, prospecting, geological mapping, testing of modern geophysical and geochemical methods and conducting follow-up surveys and finally diamond drill testing of targets developed from the initial studies.

First Cobalt has scheduled a 2017 exploration program for the Silver Centre Property which is now in progress. Work is to include:

- Digital compilation of historic Keeley-Frontier mine data to generate a 3D geological model
- Detailed and property-scale structural mapping of mineralised veins and host rocks
- Bore-hole geophysics and televiwer imaging of drillholes from the 2012 drilling campaign targeting the Beaver Lake Fault west of the former mine
- Systematic surface sampling at known prospects and occurrences throughout the property
- Detailed magnetic survey of the property
- 5,000 m of diamond drilling within the footprint of the Keeley-Frontier Mine testing targets from the 3D geological model
- 2,000 m of regional exploration drilling to identify new mineralised fault systems.

First Cobalt has proposed a preliminary budget of \$1,000,000 for the 2017 work program as detailed below. CSA Global concurs with First Cobalt's program and budget.

Table 1: 2017 Silver Centre Property exploration program and budget (May 2017 to April 2018)

	Task	Budget (\$)
General	Project Geo (1/2 time May 2017 to April 2018)	\$60,000
	Data compilation – 3D model	\$15,000
	Property rehabilitation (July)	\$10,000
Field work	Structural mapping	\$40,000
	Outcrop wash and channel sampling	\$15,000
	Historic drillhole and dump sampling	\$15,000
	Prospecting	\$10,000
	Borehole geophysics and televiewer	\$25,000
Keeley-Frontier mine area drilling	Mine site drilling (5,000 m)	\$400,000
	Mineralogy (GeoMet) (Nov)	\$5,000
	Drilling geo	\$80,000
	Drilling tech	\$40,000
Regional exploration	Airborne mag geophysics	\$50,000
	Magnetic data 3D modelling	\$20,000
	Exploration drilling (2,000 m)	\$200,000
	Borehole geophysics	\$15,000
TOTAL		\$1,000,000



2 Introduction

2.1 Issuer

This technical report ("Report") was prepared by CSA Global at the request of Mr Peter Campbell, Vice President Business Development of First Cobalt, and focuses on the exploration potential of the Issuer's Greater Cobalt Project, in particular the Silver Centre Property in vicinity of Cobalt, Ontario.

First Cobalt's registered office is at Suite 488, 1090 West Georgia St., Vancouver, BC V6E 3V7 and its corporate head office is at Suite 201, 140 Yonge Street, Toronto, ON M5C 1X6. It is a TSX Venture Exchange (TSXV) listed exploration and development company currently focused on cobalt exploration in the Cobalt region of Ontario, Canada and the Central African Copperbelt in the Democratic Republic of Congo.

2.2 Terms of Reference

CSA Global was commissioned by the Issuer to prepare a technical report on its Greater Cobalt Project in Ontario, Canada. The Report is specific to the standards dictated by NI 43-101, companion policy NI43-101CP and Form 43-101F1 (Standards of Disclosure for Mineral Projects). The Report focuses on the exploration potential of the Project and is intended to enable the Issuer and potential partners to reach informed decisions with respect to the Project.

The effective date of this Report is 15 June 2017. The Report is based on information known to CSA Global at that date.

The Issuer reviewed draft copies of this Report for factual errors. Any changes made because of these reviews did not include alterations to the interpretations and conclusions made. Therefore, the statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Report.

2.3 Sources of Information

This report has been prepared by CSA Global based on review of publicly available geological reports, maps, assessment files, mining claim information and technical papers, and company letters and memoranda made available by the Issuer, as listed in Section 19 (References) of this Report. CSA Global has taken reasonable steps to verify the information provided where possible.

CSA Global also had discussions with the management and consultants of the Issuer Dr Frank Santaguida, P.Geo. and Mr Peter Campbell, P.Eng., First Cobalt's Vice Presidents of Exploration and Business Development respectively and Mr David Jamieson, P.Geo., First Cobalt's consulting geologist.

2.4 Qualified Person Property Inspection

Mr Ian Trinder, M.Sc., P.Geo., CSA Global Principal Geologist and Qualified Person (QP), is responsible for the preparation of this report. Mr Trinder has a Master of Science degree in geology and is a registered Professional Geoscientist (P.Geo.) in good standing registered in the Provinces of Ontario and Manitoba Canada (APGO no. 0452, APEGM no. 22924). Mr Trinder has over 30 years' experience in the mining industry with a background in international precious and base metals mineral exploration including resource estimates, project evaluation and management.

The Author completed a one-day field visit at the Greater Cobalt Project on 6 June 2017. First Cobalt's Dr Frank Santaguida, Mr Peter Campbell and Mr David Jamieson accompanied and guided the Author during the field visit, providing valuable insight into the history and current status of the Silver Centre Property and the Keeley-Frontier claim group in particular.

The Author considers that the site visit is current under Section 6.2 of NI 43-101.

2.5 Units and Currency

The Metric System or SI System is the primary system of measure and length used in this Report and is generally expressed in kilometres, metres and centimetres; volume is expressed as cubic metres, mass expressed as metric tonnes, area as hectares, and zinc, copper and lead grades as percent or parts per million. The precious metal grades are generally expressed as grams/tonne but may also be in parts per billion or parts per million. Conversions from the SI or Metric System to the Imperial System are provided below and quoted where practical. Many of the geologic publications and more recent work assessment files now use the SI system but older work assessment files almost exclusively refer to the Imperial System. Metals and minerals acronyms in this report conform to mineral industry accepted usage and the reader is directed to online resources at https://en.wikipedia.org/wiki/List_of_chemical_elements and http://cms.unige.ch/sciences/terre/research/Groups/mineral_resources/opaques/ore_abbreviations.php

Other abbreviations include UTM = Universal Transverse Mercator; NAD = North American Datum; WGS = World Geodetic System.

Conversion factors utilised in this report include:

- 1 troy ounce/ton = 34.2857 grams/tonne
- 1 gram/tonne = 0.0292 troy ounces/ton
- 1 troy ounce = 31.1035 grams
- 1 gram = 0.0322 troy ounces
- 1 pound = 0.4536 kilograms
- 1 foot = 0.3048 metres
- 1 mile = 1.609 kilometres
- 1 acre = 0.4047 hectares
- 1 square mile = 2.590 square kilometres.

The term gram/tonne or g/t is expressed as "gram per tonne" where 1 gram/tonne = 1 ppm (part per million) = 1,000 ppb (part per billion). Other abbreviations include ppb = parts per billion; ppm = parts per million; oz/t = ounce per short ton; Moz = million ounces; Mt = million tonne; t = tonne (1,000 kilograms); SG = specific gravity; lb/t = pound/ton; and, st = short ton (2,000 pounds).

Unless otherwise mentioned, all UTM coordinates in this Report are provided in the datum of Canada, NAD83 Zone 17 T.

All currency in this report in Canadian dollars (C\$) unless otherwise noted. As of the effective date of this report, the Bank of Canada exchange rate between the US and Canadian Dollars was approximately US\$1.00 = C\$1.33.



3 Reliance on Other Experts

CSA Global has relied upon the Ontario MNDM for online information on mining claim location and status and patented claim location (Section 4). The MNDM disclaims any guarantee or warranty that their information is accurate, complete or reliable. CSA Global has relied upon the Issuer, its management and legal counsel for information related to underlying contracts and agreements pertaining to the acquisition of the mining claims, mining leases and patented claims and their status (Section 4). CSA Global has not independently verified ownership or mineral title beyond information that is publicly available or been provided by the Issuer. The Property description presented in this report is not intended to represent a legal, or any other opinion as to title.

4 Property Description and Location

4.1 Project Location

First Cobalt's Greater Cobalt Project in eastern Ontario comprises one group of near contiguous claims in the historic Silver Centre mining camp, herein referred to as the Silver Centre Property, and one group of non-contiguous claims in the historic Cobalt mining camp herein referred to as the Cobalt Area Properties, approximately 400 km north of Toronto. The Cobalt Area Property claims lie within an 8 km radius of the community of Cobalt and the Silver Centre Property is approximately 25 km southeast of the community of Cobalt, west of Lake Temiskaming and the Ottawa River which form the Ontario-Quebec provincial border in this area (Figure 1).

The individual properties are approximately centred at the coordinates listed in Table 2.

Table 2: Approximate centre points of the Greater Cobalt Project properties (Zone 17T, NAD83)

Property	UTM east	UTM north	Latitude	Longitude
Cobalt Area	599,400	5,249,500	47°23'30" North	79°41'00" West
Silver Centre	611,875	5,228,140	47°11'50" North	79°31'23" West

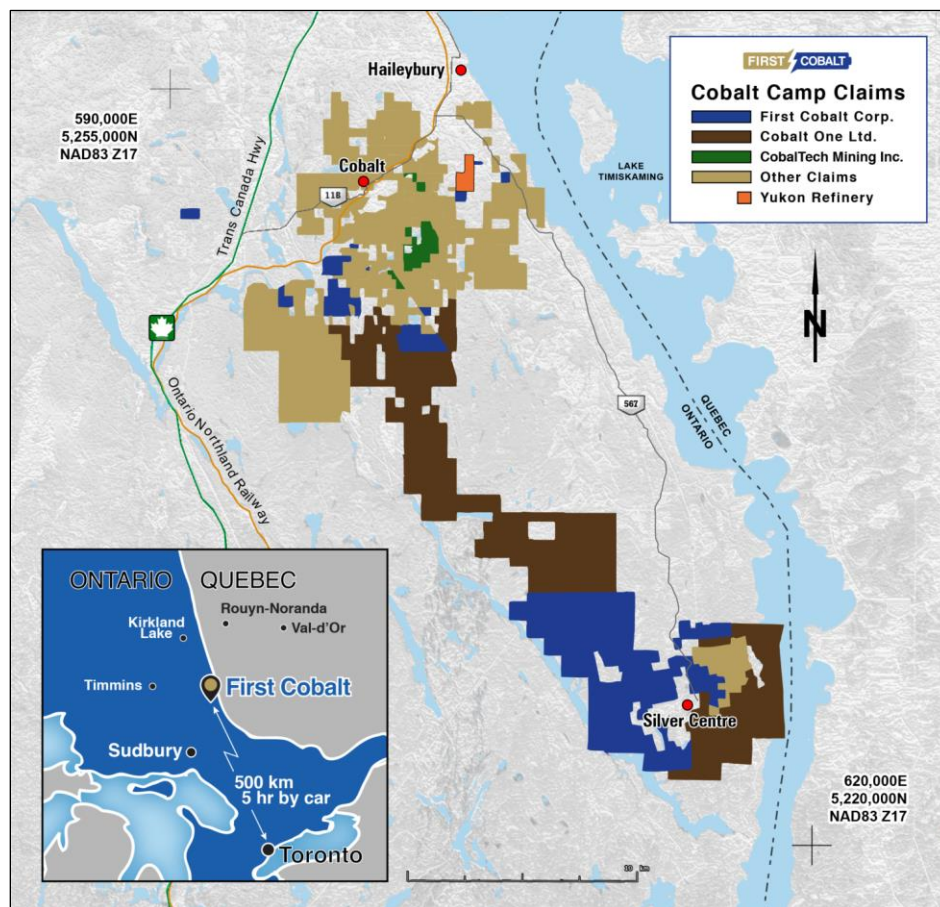


Figure 1: Greater Cobalt Project location



4.2 Project Description and Title

As of the Effective Date of this Report, the Project comprises 46 unpatented claims (229 units totalling approximately 3,664 ha), five leases (approximately 444.862 ha) and 16 patent claims (approximately 191.9 ha). Claim descriptions are summarised in Table 3, Table 4 and Table 5 as property group and type of claim.

The reader is referred to [Appendix 1](#) for a description of Ontario mineral tenure.

Table 3: Description of Crown Grant patented claims of the Greater Cobalt Project

Property	Claim group	Current claim no.	Old claim no.	Parcel description	PIN	Township/ area	Area (ha)	Mining land tax (\$)	Provincial tax (\$)	Rights	Owner	First Cobalt interest
Silver Centre	Keeley-Frontier	T9299	HR17	14082SST	61391-0067	South Lorrain	15.58	62.32	101.00	M+SR	Canadian Silver Hunter	Option to earn 100%
		T9771	HS 39	8342NND	61391-0084	South Lorrain	17.705	70.82	72.00	M+SR	Canadian Silver Hunter	Option to earn 100%
		T10155	HR 16 N pt	4851NND	61391-0037	South Lorrain	7.689	30.76	31.00*	M+SR	Canadian Silver Hunter	Option to earn 100%
			HR 16 S pt	7361NND	61391-0036	South Lorrain	7.689	30.76	31.00	M+SR	Canadian Silver Hunter	Option to earn 100%
		T10285	HR 19	4815NND	61391-0039	South Lorrain	17.705	70.82	72.00	M+SR	Canadian Silver Hunter	Option to earn 100%
		T10286	HR 21	4852NND	61391-0041	South Lorrain	18.009	72.04	74.04	M+SR	Canadian Silver Hunter	Option to earn 100%
		T10287	HR 22	4929NND	61391-0128	South Lorrain	12.788	51.15	73.00	M+SR	Canadian Silver Hunter	Option to earn 100%
		T10288	RL 455	14081SST	61391-0127	South Lorrain	14.771	59.08	74.61	M+SR	Canadian Silver Hunter	Option to earn 100%
		T10289	RL 456	14081SST	61391-0127	South Lorrain	16.187	64.75		M+SR	Canadian Silver Hunter	Option to earn 100%
		T10359	HR 25	5305NND	61391-0038	South Lorrain	8.903	35.61	73.00	M+SR	Canadian Silver Hunter	Option to earn 100%
		10365	HR20	4911NND	61391-0081	South Lorrain	1.35	31.68*	72.54	M+SR	Canadian Silver Hunter	Option to earn 100%
		T19308	HR 68	2730SST	61391-0040	South Lorrain	1.174	4.7	73.00	M+SR	Canadian Silver Hunter	Option to earn 100%
		T32960	-	13533SST	61391-0066	South Lorrain	16.697	66.79	74.00	M+SR	Canadian Silver Hunter	Option to earn 100%
		T46400	-	14999SST	61391-0035	South Lorrain	19.393	77.57	74.00	M+SR	Canadian Silver Hunter	Option to earn 100%
		13		14	14		175.64	728.85*	895.19*			
Cobalt Area	Yukon Refinery Cobalt One JV option	T174	-	8284 SEC SST	61358-0228	Bucke	n/a	n/a	n/a	SRO	36569 Yukon Inc.	Option to earn 50%
		T11517	-	22822 SEC SST	61358-0229	Bucke	n/a	n/a	n/a	SRO	36569 Yukon Inc.	Option to earn 50%
		-	-	24578 SEC SST	61390-0213	Lorrain	n/a	n/a	n/a	SRO	36569 Yukon Inc.	Option to earn 50%
		3					16.268*	n/a**	n/a**			

* Approximate value; ** The refinery has been in receivership for a number years and taxes were not being paid. Under the purchase plan, all back taxes will be paid with proceeds of the sale. Future annual tax amounts are unknown at this time.

Table 4: Description of 21-year mineral leases of the Greater Cobalt Project

Property	Group	Lease	Parcel	PIN	Lease name	Township	Ha	Start date	Expiry date	Annual property rent	Rights	Owner	First Cobalt interest	Description
Silver Centre	Keeley-Frontier	108217	4621LT	61391-0217 (LT)	T43338	South Lorrain	18.288	9/1/2017	8/31/2028	\$55.00	MRO	Canadian Silver Hunter	Option to earn 100%	Mining Claim T43338
		108218	4622LT	61391-0135 (LT)	CLM112	South Lorrain	210.663	9/1/2017	8/31/2028	\$635.00	MRO	Canadian Silver Hunter	Option to earn 100%	Mining Location CLM112 comprising Mining Claims T44483 to T44494 inclusive, being land and land under the water of the Montreal River
		108219	4623LT	61391-0129 (LT)	CLM111	South Lorrain	186.661	9/1/2017	8/31/2028	\$563.00	MRO	Canadian Silver Hunter	Option to earn 100%	Mining Location CLM111 comprising Mining Claims T43553, T44411, T44412, T44413: T44477 to T44482 inclusive, and T45225, saving and excepting the row of the ONR crossing the said claims
		109383	4977LT	61391-0203 (LT)	T29994	South Lorrain	12.634	6/1/2013	5/31/2034	\$38.00	MRO	Canadian Silver Hunter	Option to earn 100%	Mining Claim T29994 (recorded as Mining Claim T34601)
		109590	5690LT	61391-0205 (LT)	T40521	South Lorrain	16.616	2/1/2015	1/31/2036	\$50.00	MRO	Canadian Silver Hunter	Option to earn 100%	Mining Claim T40521, T/W LT290848
					5		444.862			\$1,341.00				

Table 5: Description of unpatented claims of the Greater Cobalt Project

Property	Claim group	Claim no.	Township	Claim units	Ha	Recording date	Claim due date	Work required	Recorded holder	First Cobalt interest	Notes
Silver Centre	CSH	4250892	South Lorrain	6	96	2010-Jul-16	2017-Jul-16	\$2,400	Canadian Silver Hunter Inc.	Option to earn 100%	MRO in part subject to WP2008-327 Banked credits from 2012 drilling to be filed
		4268658	South Lorrain	2	32	2013-Sep-27	2018-Jan-21	\$800	Canadian Silver Hunter Inc.	Option to earn 100%	
		4269659	South Lorrain	8	128	2012-Jan-09	2019-Jan-09	\$412	Canadian Silver Hunter Inc.	Option to earn 100%	MRO in part subject to WP2008-327
		4269660	South Lorrain	8	128	2012-Jan-09	2019-Jan-09	\$412	Canadian Silver Hunter Inc.	Option to earn 100%	
		4275020	South Lorrain	4	64	2015-May-26	2017-May-26	\$1,600	Canadian Silver Hunter Inc.	Option to earn 100%	\$3,200 assessment filed by FCC on 25 May 2017
		4275021	South Lorrain	3	48	2015-May-26	2017-May-26	\$1,200	Canadian Silver Hunter Inc.	Option to earn 100%	\$2,030 assessment filed by FCC on 25 May 2017
		4286434	South Lorrain	3	48	2017-Jan-23	2019-Jan-23	\$1,200	Canadian Silver Hunter Inc.	Option to earn 100%	Being land under water
		7		34	544			\$8,024			
	CIC	4282446	Lorrain	4	64	2016-Nov-04	2018-Nov-04	\$1,600	Cobalt Industries of Canada	100% by acquisition of Cobalt Industries of Canada announced 23 January 2017	MRO subject to WP2008-333; Excluding patent
		4282449	Lorrain	4	64	2016-Nov-04	2018-Nov-04	\$1,600	Cobalt Industries of Canada	100% as above	MRO subject to WP2008-333/WP2008-327 Excluding patent
		4282748	Lorrain	4	64	2016-Nov-04	2018-Nov-04	\$1,600	Cobalt Industries of Canada	100% as above	MRO subject to WP2008-327
		4278692	South Lorrain	2	32	2016-Nov-04	2018-Nov-04	\$800	Cobalt Industries of Canada	100% as above	MRO in part subject to WP2008-327
		4280570	South Lorrain	1	16	2016-Nov-24	2018-Nov-24	\$400	Cobalt Industries of Canada	100% as above	MRO subject to WP2008-327
		4282406	South Lorrain	14	224	2016-Nov-24	2018-Nov-24	\$5,600	Cobalt Industries of Canada	100% as above	MRO subject to WP2008-333/WP2008-327
		4282445	South Lorrain	4	64	2016-Nov-04	2018-Nov-04	\$1,600	Cobalt Industries of Canada	100% as above	MRO subject to WP2008-333
		4282447	South Lorrain	16	256	2016-Nov-04	2018-Nov-04	\$6,400	Cobalt Industries of Canada	100% as above	MRO subject to WP2008-333
		4282448	South	4	64	2016-Nov-	2018-	\$1,600	Cobalt Industries of	100% as above	MRO subject to WP2008-333/WP2008-327

Property	Claim group	Claim no.	Township	Claim units	Ha	Recording date	Claim due date	Work required	Recorded holder	First Cobalt interest	Notes
			Lorrain			04	Nov-04		Canada		
		4282450	South Lorrain	12	192	2016-Nov-04	2018-Nov-04	\$4,800	Cobalt Industries of Canada	100% as above	MRO subject to WP2008-333/WP2008-327
		4282451	South Lorrain	12	192	2016-Nov-04	2018-Nov-04	\$4,800	Cobalt Industries of Canada	100% as above	MRO in part - 3rd party SRO patents
		4282702	South Lorrain	11	176	2016-Nov-30	2018-Nov-30	\$4,400	Cobalt Industries of Canada	100% as above	
		4282703	South Lorrain	13	208	2016-Nov-30	2018-Nov-30	\$5,200	Cobalt Industries of Canada	100% as above	
		4282704	South Lorrain	1	16	2016-Nov-30	2018-Nov-30	\$400	Cobalt Industries of Canada	100% as above	MRO -3rd party SRO patent MRO in part subject to WP2008-327
		4282747	South Lorrain	7	112	2016-Nov-04	2018-Nov-04	\$2,800	Cobalt Industries of Canada	100% as above	MRO in part – 3 rd party SRO patents MRO subject to WP2008-333/WP2008-327
		4282749	South Lorrain	12	192	2016-Nov-04	2018-Nov-04	\$4,800	Cobalt Industries of Canada	100% as above	MRO subject to WP2008-327
		4282750	South Lorrain	15	240	2016-Nov-04	2018-Nov-04	\$6,000	Cobalt Industries of Canada	100% as above	MRO subject to WP2008-327
		17		136	2176			\$54,400			
	BMC South	4264322	South Lorrain	1	16	2015-May-26	2019-May-26	\$100	Brixton Metals Corporation (BMC) to be transferred to Cobalt Industries of Canada Inc. (CIC)	100% - Acquisition from Brixton Metals announced June 7, 2017	
		4275041	South Lorrain	1	16	2015-May-26	2019-May-26	\$100	BMC to be transferred to CIC	100% as above	
		4275042	South Lorrain	1	16	2015-May-26	2019-May-26	\$100	BMC to be transferred to CIC	100% as above	
		4275044	South Lorrain	1	16	2015-May-26	2019-May-26	\$100	BMC to be transferred to CIC	100% as above	
		4275170	South Lorrain	1	16	2014-Oct-20	2018-Oct-20	\$100	BMC to be transferred to CIC	100% as above	
		4275171	South Lorrain	1	16	2014-Oct-20	2018-Oct-20	\$100	BMC to be transferred to CIC	100% as above	
		4278609	South Lorrain	1	16	2015-Jul-02	2019-Jul-02	\$100	BMC to be transferred to CIC	100% as above	

Property	Claim group	Claim no.	Township	Claim units	Ha	Recording date	Claim due date	Work required	Recorded holder	First Cobalt interest	Notes
		4278610	South Lorrain	1	16	2015-Jul-02	2019-Jul-02	\$100	BMC to be transferred to CIC	100% as above	
		8		8	128			\$800			
Cobalt Area	BMC North	1118210	Bucke	6	96	1997-Mar-04	2018-Jul-04	\$400	BMC to be transferred to CIC	100% as above	NE 1/4 OF N 1/2 LOT 14 CON 2 ETAL
		1118211	Bucke	4	64	1997-Mar-04	2018-Jul-04	\$902	BMC to be transferred to CIC	100% as above	NE 1/4 OF N 1/2 LOT 13 CON 2 ETAL
		4243946	Bucke	1	16	2009-Sep-22	2017-Sep-22	\$400	BMC to be transferred to CIC	100% as above	S1/4 OF NW1/4 OFS1/2 LOT 14, CON 1
		4275150	Coleman	1	16	2014-Dec-23	2018-Dec-23	\$300	BMC to be transferred to CIC	100% as above	S1/2 SW 1/4 of Lot 2 & 3, Con 3
		4275168	Coleman	1	16	2014-Oct-20	2019-Oct-20	\$200	BMC to be transferred to CIC	100% as above	NE1/4 N1/2 L16, CON5
		4275169	Coleman	1	16	2014-Oct-20	2019-Oct-20	\$200	BMC to be transferred to CIC	100% as above	NW1/4 N1/2 L15, CON5
		4275037	Gillies Limit	15	240	2015-Feb-02	2018-Feb-02	\$4,000	BMC to be transferred to CIC	100% as above	S1/2 OF BLOCK 6, & PART OF BLOCK 7
		4275043	Gillies Limit	1	16	2015-May-27	2018-May-27	\$400	BMC to be transferred to CIC	100% as above	Part of Block A
		4275172	Gillies Limit	2	32	2014-Oct-30	2017-Oct-30	\$531	BMC to be transferred to CIC	100% as above	PT BLOCK 4
		4275173	Gillies Limit	5	80	2014-Oct-30	2017-Oct-30	\$1,768	BMC to be transferred to CIC	100% as above	PT of Block A
		4275175	Gillies Limit	11	176	2014-Oct-30	2017-Oct-30	\$3,454	BMC to be transferred to CIC	100% as above	Pt of Block 2 and Part of Block 3
		4280114	Gillies Limit	1	16	2016-Sep-22	2018-Sep-22	\$400	BMC to be transferred to CIC Inc.	100% as above	PART OF E 1/2 OF BLOCK A
		4275034	Lorrain	1	16	2015-Feb-02	2018-Feb-02	\$258	BMC to be transferred to CIC	100% as above	NE1/4 L3, N1/2 C12
		4275036	Lorrain	1	16	2015-Feb-02	2018-Feb-02	\$128	BMC to be transferred to CIC	100% as above	NW1/4 LOT 1, S1/2 C12
		14		51	816			\$13,341			

Note: MRO = Mining rights only; SRO = Surface rights only

4.2.1 Silver Centre Property

The Silver Centre Property, situated in South Lorrain Township, comprises:

1. The 619.15 ha Keeley-Frontier claim group comprised of 13 contiguous patented (fee simple) mining claims with surface and mining rights totalling approximately 174.29 ha and five contiguous mining leases with mining rights only totalling approximately 444.86 ha (Table 3 and Table 4, Figure 2).
2. The CSH claim group comprised of seven contiguous staked mining claims totalling 34 claim units and covering approximately 544 ha (Table 5, Figure 2). Some claims have MRO because of Ministry of Natural Resources surface withdrawals as discussed in Section 4.3.3.
3. The CIC claim group comprised of 17 contiguous and non-contiguous staked mining claims totalling 136 claim units and covering approximately 2176 ha (Table 5, Figure 2). Some claims have MRO because of third party overlapping surface rights only patents or Ministry of Natural Resources surface withdrawals as discussed in Section 4.3.3.
4. The BMC South claim group comprised of eight contiguous staked mining claims totalling 8 claim units and covering approximately 128 ha (Table 5, Figure 2).

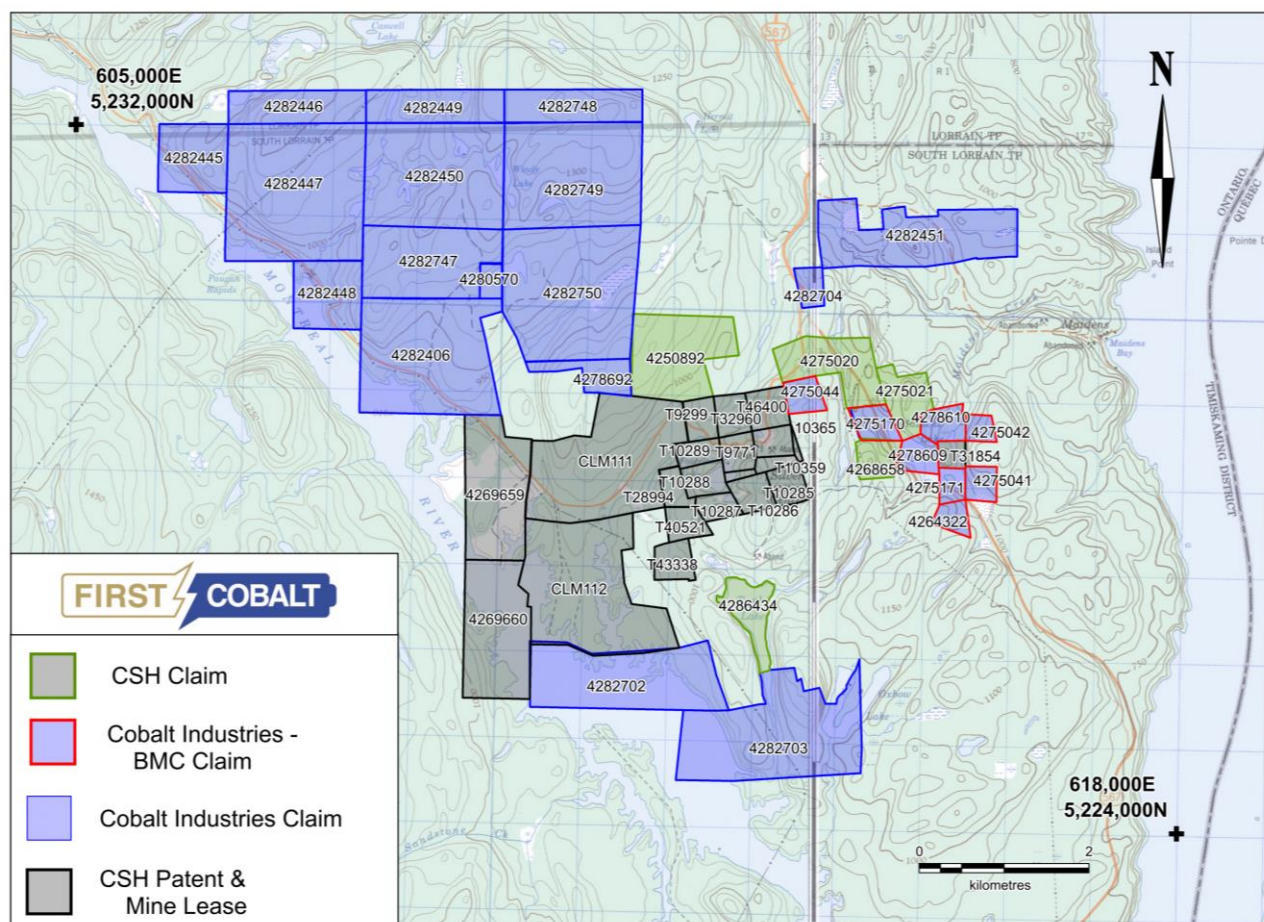


Figure 2: Greater Cobalt Project – Silver Centre Property claim location map



First Cobalt holds an option to earn a 100% interest in the 13 patented mineral claims and 5 mining leases of the Keeley-Frontier claim group, and the 7 unpatented mineral claims of the CSH claim group by way of acquisition of all outstanding share capital of Cobalt Projects International Corp. (Cobalt Projects), a privately-held Ontario-based mineral exploration Company as announced March 16, 2017. As consideration for the acquisition, the Company issued 4.45 million shares to existing shareholders of Cobalt Projects, which shall vest in six equal tranches over a four to 18-month period. Cobalt Projects holds the rights to earn up to a 100% interest in the Keeley-Frontier and CSH groups from Canadian Silver Hunter Inc.

First Cobalt may earn up to a 100% interest in the Keeley-Frontier and CSH groups as follows:

- 50% interest upon payment of \$850,000 (of which \$350,000 has been paid) and incurring expenditures of \$1,750,000 on the property over a period of three years
- 51% interest upon payment of \$200,000 within 60 days of having exercised the first option and producing a technical report in compliance with NI 43-101 – Standards of Disclosure for Mineral Projects by the fourth anniversary (24 January 2021)
- 100% interest upon payment of \$750,000 and incurring additional expenditures of \$1,250,000 by the fifth anniversary (24 January 2022).

Upon earning a 100% interest, Canadian Silver Hunter shall be granted a 2% net smelter return royalty, subject to First Cobalt having the right to purchase 1% for \$1 million over the ensuing 10 years. The Company may elect to accelerate the earn-in.

First Cobalt holds a 100% interest in the 17 staked mining claims of the CIC claim group by way of its acquisition of Cobalt Industries of Canada Inc. (Cobalt Industries) announced 23 January 2017. Cobalt Industries is now a 100% owned subsidiary of First Cobalt and will serve as the holding company for the Greater Cobalt Project properties. In consideration for the acquisition of all the outstanding share capital of Cobalt Industries, the Company issued 6,900,000 common shares. All securities issued in connection with the acquisition are subject to an 18-month escrow arrangement restricting resale of the securities. Under the terms of the escrow arrangement, the securities will be released from escrow in five equal tranches, with the first release occurring six months following completion of the acquisition.

As announced 7 June 2017, First Cobalt holds a 100% interest in the eight staked mining claims of the BMC South claim group which were acquired by making a \$325,000 cash payment to Brixton Metals Corp. for a 22-claim package in the Silver Centre and Cobalt town areas.

4.2.2 Cobalt Area Property

The Cobalt Area Property includes:

1. The BMC North claim group comprised of 14 unpatented (staked) mining claims totalling 151 units and 2,416 ha in the townships of Coleman, Gillies Limit and Lorrain (Table 5, Figure 3).
2. As announced 7 June 2017, First Cobalt holds a 100% interest in the 14 staked mining claims which were acquired by making a \$325,000 cash payment to Brixton Metals Corp. for a 22-claim package in the Silver Centre and Cobalt town areas.
3. The Yukon Refinery claim group comprised of approximately 16.268 ha (40.2 acres) of surface rights only patents (Table 3, Figure 3) with a tailings management facility and a cobalt-silver extraction refinery.
4. First Cobalt announced on 1 June 2017 that it had entered into an option agreement with Cobalt One Limited (Cobalt One) to earn into a 50-50 joint venture on the Yukon cobalt extraction refinery and (40.2 acres) of permitted property in Cobalt, Ontario for potential future processing and tailings

management options. In consideration for the option to enter a 50-50 joint venture, First Cobalt made a non-refundable payment of \$750,000 to Cobalt One. First Cobalt will have until 31 December 2017 to exercise the option. On exercise, First Cobalt will be obligated to pay Cobalt One an additional \$2.25 million and pay the equivalent of 50,000,000 shares of ASX-listed Cobalt One in cash or shares of First Cobalt (approximate value of \$5.5 million). The agreement is subject to certain conditions including, but not limited to, the receipt of all necessary regulatory and other approvals including the approval of the TSX Venture Exchange. It is anticipated that this joint venture agreement will be superseded by the transaction announced on 26 June 2017 whereby First Cobalt would acquire Cobalt One (see Section 16).

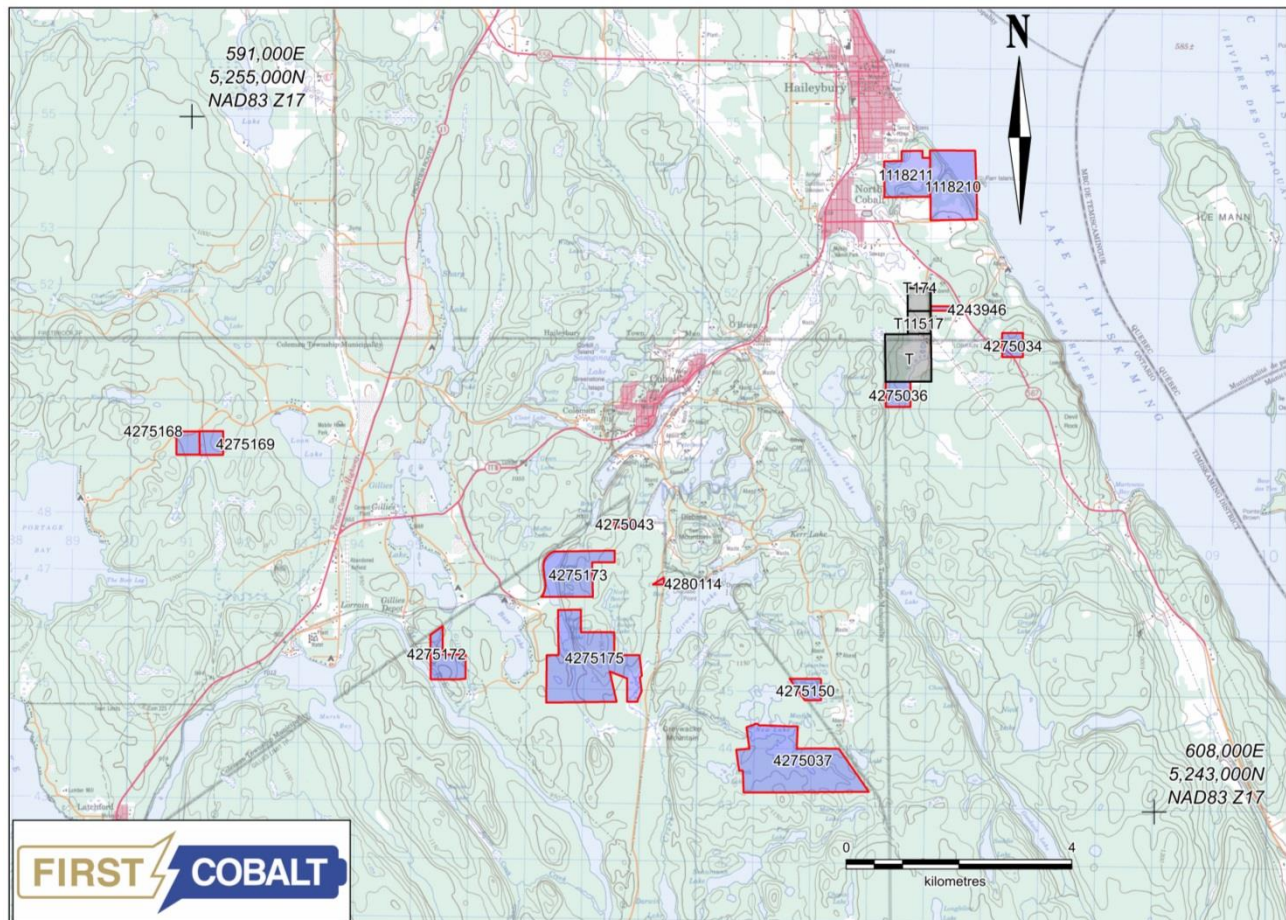


Figure 3: Greater Cobalt Project – Cobalt Area Property claim location map

4.3 Property Claim Status

To the best of CSA Global's knowledge, the Greater Cobalt Project mining claims, mining leases and patented mining claims currently in good standing and First Cobalt warrants that there are no current or pending challenges to ownership of the Project claims of which it is aware.

4.3.1 Patented Mining Claims

The patented claims include both surface and mining rights and would have been legally surveyed at the time of patent application.

The patented lands transferred under the Crown Grant to the patentee are generally subject to the following exclusions/qualifications:

- Five to ten percent (5–10%) of the lands are reserved for the Crown for the purpose of constructing roads;
- All pine trees on the lands are reserved for the Crown and may be cut and removed by any person to whom the Crown grants a timber licence; however, the patentee of the lands may, without a licence, cut and use pine trees for building, fencing and fuel on the land or any other purpose essential to the working of the mines thereon as long as it compensates the Crown or the licence-holder, as applicable, for the value of such trees;
- Free use, passage and enjoyment of navigable waters flowing through any part of the lands are reserved for the Crown; and
- Access and use of shorelines of all rivers, streams and lakes on the lands are reserved for vessels, boats and persons which use such waters for fishery purposes.

In addition, deemed exclusions/qualifications set out in the Ontario Public Lands Act (PLA) include:

- Wood, gravel and other materials required for the construction or improvement of roads may be taken by the Ministry of Natural Resources and Forestry, or a person authorised by it, from the land without compensation to the patentee (Public Lands Act, s. 65(2)); and
- Any portage which exists, or has existed, over the lands may be used by any person travelling on waters connected by said portage without the permission of, or payment to, the owner of the lands (Public Lands Act, s. 65(4)).

CSA Global is unaware of any other encumbrances on the patented mining claims other than a royalty described in Section 4.3.4 below and property tax payments. The patented claims are subject annual property taxes which totalled approximately \$1,625 in 2016 (Section 4.2).

4.3.2 Mining Leases

Unless a mining lease states otherwise, a mining lease vests in the leaseholder all title of the Crown in the lands described and all mines and minerals within those lands. Mining leases require a plan of survey approved by the Surveyor General of Ontario. The Silver Centre Property, Frontier-Keeley group's five mining leases are for mining rights only, surface rights are retained by the Crown. A right to lease the surface rights for development purposes exists through the Ontario Mining Act.

Ontario mining leases have an initial term of 21 years and are renewable for further 21-year terms. The holder of a mining lease cannot transfer, mortgage, charge or sublet the lease or make the lease subject to a debenture without the written consent of the Minister.

To maintain a lease in good standing, the holder of a mining lease in Ontario must comply with various requirements under Ontario's Mining Act. The lands, surface rights or mining rights issued under a lease must be used solely for the purposes of the mining industry. Any breach of this requirement could invalidate a lease.

All mining leases issued in Ontario are subject to a number of reservations. These reservations relate to such public interest matters as power lines, pipelines, roads, railways and waterways. In addition, pursuant to modernisation amendments in effect as of 2009, every lease issued under the act, including leases issued or renewed before the enactment of the amendment, includes or is deemed to include the provision that the lessee's rights under the lease are subject to the protection provided for existing Aboriginal or treaty rights



in section 35 of the *Constitution Act 1982* and the lessee shall conduct itself on the demised premises in a manner consistent with the protection provided to any such rights.

CSA Global is unaware of any other encumbrances on the leases other than a royalty described in Section 4.3.4 below and lease rental payments. Total annual rental requirement for the Frontier-Keeley group's five leases is \$1,341.00. The earliest first term lease expiry date is 31 August 2028.

4.3.3 *Unpatented Mining Claims*

The Project's staked mining claims have not been legally surveyed. The staked claims include no surface rights; however, a right to acquire the surface rights for development purposes exists through the Ontario Mining Act. The Mining Act also provides legal access to the land for the purpose of exploration.

Staked claims are generally subject to the following reservations:

- 400 ft surface rights reservation around all lakes and rivers
- Sand and gravel reserved
- Peat reserved.

Certain staked claims also:

- Include land under water
- Are MRO or part MRO where all or part of the surface rights within the claim are held by a third party
- Exclude roads
- Exclude hydro right of ways.

In addition, Silver Centre Property mining claims 4280570, 4282406, 4282445, 4282446 4282447, 4282448, 4282449, 4282450, 4282747, 4282748, 4282749, 4282750, and parts of 4250892, 4269659, 4282704 and 4278692 are subject to wind power area applications for surface rights only (SRO) under the PLA (WP2008-327 and WP2008-333). Under the Mining Act s. 28(2) (3), the wind power PLA SRO applications have priority over the mining claims. Any surface mineral exploration activities conducted on claims will therefore require notification and approval of the company holding the applications; this would be completed as part of the exploration permit/plan application process (see Section 4.6). If the PLA SRO applications lapse, are withdrawn or are not accepted or approved, a mining claim staked during the time that the overlapping application was pending shall be deemed to be amended to include the minerals and rights that were the subject of the application (in this case, SRO) as if the application had never existed.

CSA Global is unaware of any other encumbrances on the staked claims other than a royalty described in Section 4.3.4 below and annual mining claim assessment work requirements and. First Cobalt must perform \$400 worth of approved assessment work per mining claim unit, per year filed on or before the claim due date (anniversary date). Table 5 details the assessment costs and current due dates for the staked mining claims of the Temagami Project. Total annual assessment requirement for the Project's staked mining claims is \$91,600; however, because of previously filed excess assessment work, as of the Effective Date, the total required assessment for the next due dates is only \$76,565. Assessment work for mining claims 4275020 and 4275021 due on 26 May 2017 has been filed with the MNDM and is awaiting approval. Mining claim 4250892 26 July 2017 will have banked assessment credits applied. The next claim due will be 22 September 2017 (Table 5).



4.3.4 *Royalties*

Upon First Cobalt earning a 100% interest, the 13 patented mining claims, five leases and seven staked mining claims of the Silver Centre Property's Frontier-Keeley group are subject to a 2% net smelter return royalty payable to Canadian Silver Hunter. First Cobalt will have the right to purchase 1% for \$1 million over the ensuing 10 years.

4.4 **Environmental Liabilities**

4.4.1 *Patented Mining Claims*

Upon earning its 100% interest in the Silver Centre Property Keeley-Frontier group's 13 patented mineral claims First Cobalt will become responsible for all historic environmental liabilities on the patented claims and any necessary rehabilitation. This work would be covered in a mine closure plan for any new proposed mine.

First Cobalt warrants that it has not received from Canadian Silver Hunter or any government authority, notice of, or communication relating to, any actual or alleged breach of any environmental laws, regulations, policies or permits with respect to the Keeley-Frontier patented claims.

Ontario's Abandoned Mines Information System (AMIS) documents four AMIS sites totalling 21 features on the 13 Keeley-Frontier group patented claims (Table 6, Figure 4). The features are historic waste dumps, unconfined tailings, surface trenches and pits, raises and stopes to surface and exploration shafts. Of the features, one is rehabilitated, two are considered not a hazard and 18 are considered a hazard. Since First Cobalt will become responsible for the ongoing maintenance of any remediation efforts on the patents (fencing, signage, etc.) upon earning its 100% interest in the claims, CSA Global recommends that First Cobalt locate and document the hazards and environmental liabilities and inspect them on a semi-annual basis.

4.4.2 *Unpatented Mining Claims*

First Cobalt is not liable for environmental issues existing on its unpatented mining claims prior to their staking date. A claim holder would however become liable for a pre-existing hazard if it were to disturb it, for example excavating a stockpile. If in the future, a party obtains mining rights by taking a mining claim to lease or patent, they will then be responsible for the pre-existing liabilities on the claim (stockpiles, tailings etc.) and any necessary rehabilitation. This work would be covered in a mine closure plan for any new proposed mine.

Of note, under the Mining Act an individual or company not responsible for creating a pre-existing mine hazard may apply to voluntarily undertake mine hazard rehabilitation work without becoming liable for the pre-existing environmental issues on the site. Applications are to be sent to the Director of Mine Rehabilitation for review and if approved, the Director may set conditions that must be met by the applicant. Once approved, applicants shall carry out voluntary rehabilitation according to their approved rehabilitation plan, in accordance with the standards in the Mine Rehabilitation Code of Ontario as specified by the Director.

AMIS documents known abandoned mine features within the Greater Cobalt Project's (staked) mining claims. Eight AMIS sites totalling 21 features are present on the Silver Centre Property's (staked) mining claims (Table 6, Figure 4). The features are historic surface trenches and pits, raises to surface and exploration shafts. Of the features, five are rehabilitated, eight are considered not a hazard, five are

considered a hazard and the status of three are unknown. As noted above, First Cobalt is not liable for these pre-existing hazards. First Cobalt warrants that it has not received from its property vendors or any government authority any notice of, or communication relating to, any actual or alleged breach of any environmental laws, regulations, policies or permits with respect to the Project's staked claims.

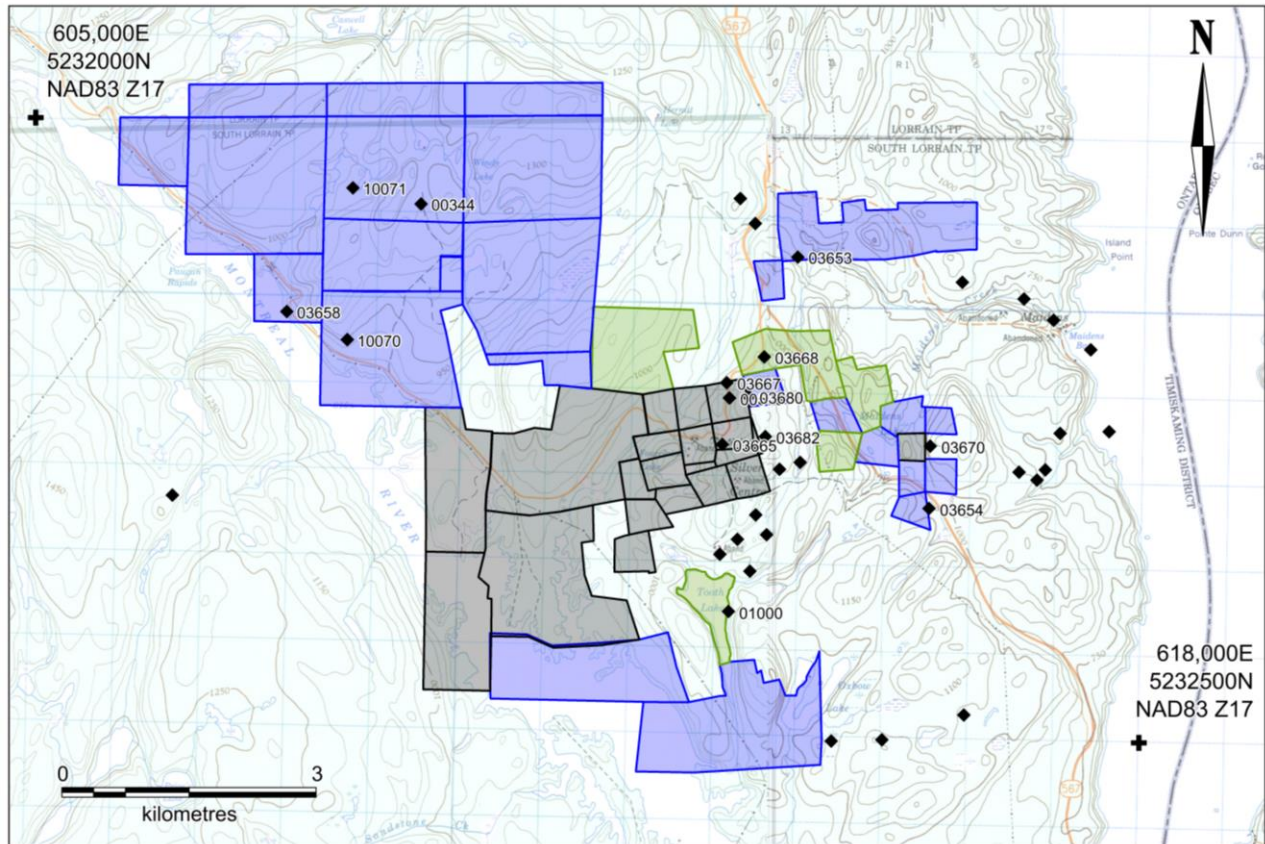


Figure 4: AMIS documented abandoned mine feature locations within the Silver Centre Property

Table 6: *AMIS documented abandoned mine feature locations within the Silver Centre Property*

Claim group	Claim ID	Patent ID	AMIS site ID	Mine feature ID	Mine feature type description	Mine hazard status	Mine feature condition description	Northing	Easting
CIC	4282450		00344	81814	Exploration shaft – vertical shaft	Not available		5231096	609509
CIC	4282451		03653	74487	Exploration shaft - inclined shaft	Active hazard	2000 assessment; sunk in rock at the edge of a huge outcrop, water filled to 0.5 m below grade surface (bgs). Archives indicate shaft depth of 15 m.	5230567	613910
CIC	4282448		03658	74489	Trench	Not a hazard	2000 assessment; shallow trench.	5229814	607970
CIC	4282703		03673	74527	Exploration shaft – vertical shaft	Rehabilitated	2000 assessment; backfilled using rock dump material (true depth unspecified).	5224710	614027
CIC	4282703		03673	82115	Trench	Not a hazard	2000 assessment; shallow trench.	5224810	614289
CIC	4282406		10070	81815	Exploration shaft – vertical shaft	Not available		5229500	608680
CIC	4282450		10071	81816	Exploration shaft – vertical shaft	Not available		5231268	608710
BMC	4264322		03654	82083	Trench	Not a hazard	2000 assessment; shallow trench.	5227577	615478
BMC	4264322		03654	82084	Trench	Not a hazard	2000 assessment; long shallow trench	5227539	615447
BMC	4275044		03680	74537	Shaft – 2 compartments – vertical shaft	Active hazard	2000 assessment; shaft #1: partially filled-in, backfill material may have subsided.	5228933	613373
BMC	4275044		03680	74538	Shaft – 1 compartment – vertical shaft	Active hazard	2000 assessment; shaft #4: water filled to 1 m below grade surface (bgs), historical depth not specified.	5228867	613392
BMC	4275044		03680	74539	Shaft – 1 compartment – vertical shaft	Active hazard	2000 assessment; shaft #5: historical depth unspecified.	5229158	613576
BMC	4275044		03680	81321	Shaft – 2 compartments – unknown	Rehabilitated	2000 assessment; shaft #6: shaft located on T46581 (formerly RI474); partly backfilled – old pipe sticking out of the ground - small depression in ground suggest subsidence, historical depth of shaft unspecified in report.	5229740	613651
BMC	4275044		03680	81322	Trench	Not a hazard	2000 assessment; long shallow trench.	5229754	613732
BMC	4275044		03680	82285	Raise to surface	Rehabilitated	2000 assessment; raise: suspected raise – filled in or capped, although uncertain, 2 old pipes sticking out (pressure equalisation) suggest capping, historical depth unspecified in report.	5228947	613374
BMC	4275044		03680	82504	Shaft – 2 compartments – vertical shaft	Active hazard	2000 assessment; shaft #2: known as Harris no. 1 shaft – log covered – logs are partially rotted initially fenced but fence is down, water filled to 2.5 m below grade surface. Historical depth of shaft is unspecified.	5228976	613364
Keeley-Frontier	4275020		03668	82167	Shaft – 1 compartment – inclined shaft	Rehabilitated	2000 assessment; shaft #1: backfilled in the northeast trending trench, there is a small metal pipe in the wider part of the trench. The area looks like it was filled a long time ago. Original depth unspecified, slumped to 1 m.	5229397	613543

Claim group	Claim ID	Patent ID	AMIS site ID	Mine feature ID	Mine feature type description	Mine hazard status	Mine feature condition description	Northing	Easting
Keeley-Frontier	4275020		03668	82168	Trench	Not a hazard	2000 assessment; shallow trench lies directly south of shaft #1.	5229389	613543
Keeley-Frontier	4275020		03668	82169	Trench	Not a hazard	2000 assessment; long shallow trench close to pond, shaft #2 inside trench on south end.	5229388	613514
Keeley-Frontier	4275020		03668	82170	Trench	Not a hazard	2000 assessment; shallow trench curves to the west.	5229417	613533
Keeley-Frontier	4275020		03668	82473	Shaft – 1 compartment – vertical shaft	Rehabilitated	2000 assessment; shaft #2: rehabilitated, backfilled.	5229370	613502
Keeley-Frontier		T46400	00573	82057	Shaft – 1 compartment – inclined shaft	Active hazard	2000 assessment; shaft – was fence once but fence is now mostly down. There are rotted logs covering the shaft -- some of the logs have fallen in the shaft.	5228911	613147
Keeley-Frontier		T46400	00573	82058	Waste rock dump	Not a hazard	2000 assessment; rock pile.	5228920	613140
Keeley-Frontier		T10286	03665	74515	Exploration shaft – inclined shaft	Active hazard	2000 assessment; open, inclined exploration shaft: timbered two compartments, inclined at 80° east, Keeley no.4 shaft in literature, true depth unspecified in report.	5227952	613140
Keeley-Frontier		T10285	03665	74516	Shaft – 1 compartment – unknown	Active hazard	2000 assessment; shaft #4: collapsed head frame over the shaft, timber cribbed, Keeley no.3 shaft. Historical depth unspecified.	5227958	613220
Keeley-Frontier		T10155	03665	74517	Shaft – 2 compartments – unknown	Active hazard	2000 assessment; shaft: 2 compartments, backfilled with rock and wood, known as Frontier no.3 shaft. Historical depth of shaft unspecified in report.	5228419	613163
Keeley-Frontier		T10155	03665	74518	Shaft – 1 compartment – inclined shaft	Active hazard	2000 assessment; logs used to cap shaft. Fence is down, Frontier no.1 shaft. Historical depth of shaft unspecified in report.	5228483	613286
Keeley-Frontier		10365	03665	74519	Exploration shaft – vertical shaft	Active hazard	2000 assessment; timber cribbed.	5228479	613450
Keeley-Frontier		T10155	03665	74520	Tailings – unconfined	Active hazard	2008 tailings assessment; approximately 70% of the tailings surface is covered by a pond. A waste rock pad is situated on the southeast edge of the basin, adjacent the site access road. A small tailings beach occurs in the southwest section of basin.	5228539	613011
Keeley-Frontier		T10155	03665	82093	Shaft – 2 compartments – vertical shaft	Active hazard	2000 assessment; shaft covered with logs to form a “cap”; water filled to 12 m below grade surface. Historical depth not specified in report.	5228369	613075
Keeley-Frontier		T10286	03665	82094	Shaft – 2 compartments – vertical shaft	Active hazard	2000 assessment; caving in at surface – rock pile occurs near the shaft, listed as Keeley no.5 shaft in literature – unknown total depth, not specified in report.	5227789	613136
Keeley-Frontier		T10286	03665	82095	Stope	Active hazard	2000 assessment; stope inclined at 35° east, partially filled in on one side. Depth of stope unspecified.	5227999	613143

Claim group	Claim ID	Patent ID	AMIS site ID	Mine feature ID	Mine feature type description	Mine hazard status	Mine feature condition description	Northing	Easting
Keeley-Frontier		T10285	03665	82096	Stope	Active hazard	2000 assessment; small hole on the edge of a "trench". The "trench" was a stope capped with plywood. Now, it is filled with soil and few trees, previously fenced, but fence is now down. Historical depth of stop unspecified in report.	5228000	613303
Keeley-Frontier		T10155	03665	82097	Shaft – 3 compartments – inclined shaft	Active hazard	2000 assessment; shaft: timber cribbed, 3-compartment shaft, inclined at 80° east, known as Haileybury silver shaft. Historical depth of shaft not verified in report.	5228586	613367
Keeley-Frontier		T10285	03665	82468	Exploration shaft – unknown	Rehabilitated	2000 assessment; possible shaft location backfilled, known as Keeley no.1 shaft in literature; the shaft collar was not identified, according to a historical map, the shaft is located between the adjacent concrete structure and the rock pile.	5228113	613292
Keeley-Frontier		T10285	03665	82493	Shaft – 2 compartments – vertical shaft	Active hazard	2000 assessment; known as Keeley no.2 shaft in literature, covered with wood of 50 cm in diameter, there is some regrowth on top of plywood, two old pipes are sticking out. Historical depth of shaft unspecified in report.	5228022	613360
Keeley-Frontier		T10359	03665	82495	Shaft – 2 compartments – vertical shaft	Active hazard	2000 assessment; known as Crompton shaft, timber, partially filled-in. Historical depth of shaft unspecified in report.	5228197	613208
Keeley-Frontier		10365	03665	82496	Open pit	Active hazard	2000 assessment; water filled to 2 m below grade surface. Depth unspecified but >2 m.	5228469	613459
Keeley-Frontier		T46400	03667	74522	Shaft – 2 compartments – vertical shaft	Rehabilitated	2000 assessment; backfilled (known as former no. 1 shaft in literature). Historical depth of shaft unspecified in report.	5229089	613111
Keeley-Frontier		T46400	03667	74524	Waste rock dump	Not a hazard	2000 assessment; rock pile, report does not specify if rock pile is waste.	5229085	613093
Keeley-Frontier		T46400	03680	82283	Stope to surface	Active hazard	2000 assessment; full of water – log covered – fence down, coordinates taken from site map(approximate).	5228970	613340
Keeley-Frontier		T46400	03680	82284	Shaft – 1 compartment – inclined shaft	Active hazard	2000 assessment; inclined shaft #3: known as Harris no.2 shaft – timbered cribbed fenced needs to be fixed - not solid. Hazard dimensions unspecified in report, depth undetermined in report.	5228961	613331

4.5 Required Exploration Permits

As of the Effective Date, First Cobalt does not currently hold any Exploration Plans or Permits for exploration work proposed on mining claims and mining leases in this Report (Section 18). The Keeley-Frontier group patented claims do not require an Exploration Plan or Permit. First Cobalt warrants that they will acquire any and all government permits required to execute the proposed early exploration activities where required on the Project properties. A brief discussion of exploration plans and permits that might be required for early exploration activities on First Cobalt's mining claims and mining leases follows.

Ontario Mining Act regulations require exploration plans and permits, with graduated requirements for early exploration activities of low to moderate impact undertaken on mining claims, mining leases and licenses of occupation. Exploration plans and permits are not required on patented mining claims.

There are a number of exploration activities that do not require a plan or permit and may be conducted while waiting for a plan or permit is effective. These may include the following:

- Prospecting activities such as grab/hand sampling, geochemical/soil sampling, geological mapping
- Stripping/pitting/trenching below thresholds for permits
- Transient geophysical surveys such as radiometric, magnetic
- Other baseline data acquisition such as taking photos, measuring water quality, etc.

4.5.1 Exploration Plan

Those proposing to undertake minimal to low impact exploration plan activities (early exploration proponents) must submit an exploration plan. Early exploration activities requiring an exploration plan include:

- Geophysical activity requiring a power generator
- Line cutting, where the width of the line is 1.5 m or less
- Mechanised drilling for the purposes of obtaining rock or mineral samples, where the weight of the drill is 150 kg or less
- Mechanised surface stripping (overburden removal), where the total combined surface area stripped is less than 100 m² within a 200-m radius
- Pitting and trenching (of rock), where the total volume of rock is between 1 m³ and 3 m³ within a 200-m radius.

In order to undertake the above early exploration activities, an exploration plan must be submitted and any surface rights owners must be notified. Aboriginal communities potentially affected by the exploration plan activities will be notified by the MNM and have an opportunity to provide feedback before the proposed activities can be carried out.

4.5.2 Exploration Permit

Those proposing to undertake moderate impact exploration permit activities (early exploration proponents) must apply for an exploration permit. Early exploration activities that require an exploration permit include:

- Line cutting, where the width of the line is more than 1.5 m
- Mechanised drilling, for the purpose of obtaining rock or mineral samples, where the weight of the drill is greater than 150 kg



- Mechanised surface stripping (overburden removal), where the total combined surface area stripped is greater than 100 m² and up to advanced exploration thresholds, within a 200-m radius
- Pitting and trenching (rock), where the total volume of rock is greater than 3 m³ and up to advanced exploration thresholds, within a 200-m radius.

The above activities will only be allowed to take place once the permit has been approved by the MNDM. Surface rights owners must be notified when applying for a permit. Aboriginal communities potentially affected by the exploration permit activities will be consulted and have an opportunity to provide comments and feedback before a decision is made on the permit.

4.5.3 *First Nation Consultations*

First Cobalt warrants that it will consult with the appropriate First Nation and Metis communities as required per the Ontario Mining Act.

4.5.4 *Exploration on Mining Rights Only Mining Claims*

Under Ontario's Mining Act, surface rights owners must be notified prior to conducting exploration activities. Where there is a surface rights holder of land, a person who:

- Prospects, stakes or causes to be staked a mining claim;
- Formerly held a mining claim that has been cancelled, abandoned or forfeited;
- Is the holder of a mining claim and who performs assessment work; or
- Is the lessee or owner of mining lands and who carries on mining operations,

on such land, shall compensate the surface rights holder for damages sustained to the surface rights by such prospecting, staking, assessment work or operations.

4.6 **Other Significant Factors and Risks**

Environmental, permitting, legal, title, taxation, socio-economic, marketing, and political or other relevant issues could potentially materially affect access, title or the right or ability to perform the work recommended in this report on the Properties. However, at the time of this report, CSA Global is unaware of any such potential issues affecting the Properties.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

The Greater Cobalt Project is located in the historic Silver Centre and Cobalt mining camps. The Property areas are accessible as follows:

5.1.1 Silver Centre Property

The Silver Centre Property is accessible via all-weather paved highway as follows:

1. From Highway 11B in the town of North Cobalt take Lakeview Avenue 1.2 km east.
2. Lakeview avenue changes to Silver Centre Road, continue 2.8 km south.
3. Silver Centre Road changes to Provincial Highway 567, continue south 24.3 km to the gravel access road to the historic Silver Centre camp.
4. Turn right onto the Silver Centre camp road and travel 2.1 km to the historic Frontier Mine area located on the Keeley Frontier group of claims. Several forestry access roads, trails and hydro transmission line right-of-way provide access to portions of the Silver Centre Property. Other than an access trail along the north shore of the Montreal River, the northwestern CSH claims generally have only limited road and trail access.
5. From the Silver Centre turn-off, continue south on Highway 567 three km to the south shore of Maiden Lake to access the eastern CSH and BMC claims of the Silver Centre Property.

5.1.2 Cobalt Area Property

The various non-contiguous Cobalt Area Property claims are accessible via all-weather gravel roads, trails and hydro transmission line right-of-way located off Highways 11B and 567 in and around the towns of Cobalt and North Cobalt.

5.2 Climate

The climate in the Project area is warm summer humid continental (Koppen climate classification Dfb). This region has warm and often hot summers with long, cold winters. It is situated northeast of the Great Lakes, making it prone to arctic air masses.

Ville Marie, Québec, on the east side of Lake Temiskaming, is the closest centre representative of the Properties for which Environment Canada (2017) climatic records are available (1981 to 2010). Mean summer temperature is approximately 17 degrees Celsius (°C); however, extreme daily summer maximum temperatures can reach 40°C. Mean winter temperature is -12.5°C; however, extreme daily winter minimum temperatures can reach -50°C. Average annual precipitation (combined rain and snow) is approximately 836.5 mm per year. Monthly precipitation is relatively equal year-round but typically the greatest amount of precipitation falls from late spring to early fall and the least precipitation occurs in the winter months. Some snow cover is expected six months of the year. Mean total rainfall is 655.9 mm. Mean total annual snowfall is 180.6 cm. Smaller lakes in the immediate area are typically frozen between December and March.



Season-specific mineral exploration may be conducted year-round. Swampy areas and lakes/ponds may be best accessed for drilling and ground geophysical surveys during the winter months when the ground and water surfaces are frozen. Mine operations in the region can operate year-round with supporting infrastructure.

5.3 Local Resources and Infrastructure

Most services and supplies required for a mineral exploration program are available in the City of Temiskaming Shores (2016 Census population of 9,920), an amalgamated municipality (formerly the Town of Haileybury, New Liskeard and the Township of Dymond) at the head of Lake Temiskaming approximately 25 km north of the centre of the Project area. The Town of Cobalt (2016 Census population of 1,128), at the north end of the Project area offers some basic services. Given the mining history of the Cobalt Camp and the proximity of mining communities such as Kirkland Lake and Sudbury, as well as service centres such as North Bay, exploration and mining personnel are readily available in the region.

The city of Greater Sudbury (2016 Census population of 161,531) is located approximately 200 km by road southwest of the Project at the intersection of the Trans-Canada Highway, Highway 69S and Highway 144N. Sudbury is located 390 km north of Toronto. A world leader in nickel mining, milling, smelting and refining, Greater Sudbury has diversified and is now a regional service centre for northeastern Ontario, having established itself as a major centre of finance, business, tourism, health care, education, government, and science and technology research. Over 300 mining supply and service companies are in Greater Sudbury. A full range of equipment, supplies and services required for any mining development is available in Greater Sudbury.

Other than several powerlines, all-weather roads and ATV trails, no infrastructure is present within the Properties. The centre of the Project area lies approximately 15 km east of Provincial Highway 11 and the Ontario Northland rail line which provides freight services for the transportation of mineral and forest products, chemicals, petroleum and other products to and from northeastern Ontario and northwestern Quebec. Hydro One 115 kV and 230 kV transmission lines cross or are near the Project property areas.

Abundant water resources are present in the lakes, rivers, creeks, and beaver ponds on the Properties.

As of the Effective Date, it appears that First Cobalt both holds and has the option acquire sufficient mining claims necessary for proposed exploration activities and potential future mining operations (including potential tailings storage areas, potential waste disposal areas, and potential processing plant sites) should a mineable mineral deposit be discovered.

5.4 Physiography

The major topographic feature of the area is Lake Temiskaming located immediately east of the Project (Figure 1). The Montreal River immediately to the west of the Project and Lake Temiskaming itself (part of the Ottawa River system) are the major drainage channels in the area.

The Project lies adjacent to one of the Canadian Shield's rare "clay belts". These late/post-glacial lacustrine deposits preserve well developed accumulations of sediment that are well suited to agriculture. As a result, the area to the north of the Project area retains a robust agricultural community, particularly north of Lake Temiskaming.

The Project area is characterized by rocky, rolling bedrock hills with locally steep ledges and cliffs, separated by valleys filled with clay, glacial material, swamps and streams. Total relief within the Project area is approximately 200 m with topography varying from 250 m to 380 m ASL in the Silver Centre Property, 180–



300 m ASL in the northeastern Cobalt Area Property claims near Temiskaming Lake and 280–355 m ASL in the southwestern Cobalt Area Property claims. Local relief is commonly up to 30 m, although some ridges are up to 60 m or more above surrounding lowlands.

Vegetation is typical boreal forest with mixed second growth forest of mixed coniferous and deciduous trees, including poplars, birch, maple, pine, spruce, alders, and willows. Swampy low-lying areas contain abundant tag alders. Locally, the clay-belt extends intermittently south into Project area supporting limited farmland but outside of the Project properties.

6 History

6.1 Regional Exploration and Development History

The initial discovery of silver in the region was made west of Lake Temiskaming in 1903 during the construction of the Temiskaming and Northern Ontario Railway. This began a rich mining history in the area. The location along the railway was named Cobalt after one of the elements found in the arsenide minerals within the veins. The first mines commenced production as early as 1904 and mining was more or less, continuous until 1989 with production peaking in 1911 (Petruk *et al.*, 1971). In addition to silver, cobalt, nickel and copper were recovered from the ore. Mineralisation was not just limited to the area immediately around Cobalt, but was recovered from areas with similar geology within the Cobalt embayment of the Southern Province, from Gowganda in the west to Silver Center in the southeast.

Guindon *et al.* (2016) tabulated the historic production (1904 to 1989) from approximately 140 silver-cobalt properties in the Cobalt embayment. First Cobalt's Greater Cobalt Project lies within the Cobalt and Silver Center mining camps. Table 7 presents the historic production from approximately 107 mines in the Cobalt and Silver Centre camps. The information is suspected to be under-reported, in part, due to lease mining during the 1930s (Guindon *et al.*, 2016). Only two of the historic mines are located within First Cobalt's Silver Centre Property. The Author has been unable to verify the information in Table 7 and the information is not necessarily indicative of the mineralisation on the Properties.

Table 7: Silver, cobalt, nickel and copper production at Cobalt and Silver Center mining camps (1904 to 1989)

Mine	Township	Tons milled	Ag (oz)	Co (lb)	Ni (lb)	Cu (lb)	Years of production
Cobalt Camp							
Agaunico and Reuthel Mine	Bucke	NA	980,000	4,350,000	418,717	216,767	1905-1960
Cobalt Contact Mine	Bucke	11,074	26,000	31,000			1912-1944
Dotsee Mine	Bucke	NA	125	8,000			1906-1939
Genesee Mining	Bucke	NA	66,236	12,063			1915-1965
Green-Meehan & Red Rock Mine	Bucke	NA	498,000	27,000		6,000	1905-1939
Harrison-Hibbert & Ruby Mine	Bucke	NA	876,500	214,600	69,458		1920-1963
North Cobalt and Hunter Mine	Bucke	NA	1,453				1909
Casey Cobalt-Silver Mines	Casey	NA	9,373,085	356,418	141,733	88,437	1908-1966
Langis	Casey & Harris	49,542	653,882	25,474	8,013	8,550	1983-1989
Agnico Surface Dumps	Coleman	28,907	51,051	7,455	2,606	15,204	1974-1975
Agnico Tailings Mill	Coleman	312,248	607,097	78,827	1,151,744	124,576	1967-1970
Alexandra Silver (Silverfields)	Coleman	1,322,813	17,793,862	357,501	493,255	238,893	1964-1983
Beaver Consolidated Mines Ltd	Coleman	65,191	7,127,858	139,472	1,397		1907-1940
Beaver-Temiskaming Mine	Coleman	218,816	3,986,761	240,735	76,395	130,614	1977-1988
Ben Tailings	Coleman	1,676	3,715	564	196	511	1969-1970
Brady Lake Property	Coleman	55,485	7,000,000	190,641	8,620	11,320	1910-1960
Buffalo Mines Ltd	Coleman	332,449	14,155,558	152,269			1905-1959
Cart Lake	Coleman	NA	84,193	7,779	2,378	3,070	1966
Chambers Ferland Mining	Coleman	NA	2,030,000				1908-1958

Mine	Township	Tons milled	Ag (oz)	Co (lb)	Ni (lb)	Cu (lb)	Years of production
Chambers Ferland Mining	Coleman	NA	2,175,469	13,000	2,400		1904-1932
Christopher and Cobalt Lode	Coleman	NA	35,378	2,140	511	895	1966
Christopher Silver Mines Ltd	Coleman	NA	4,100,000				1906-1964
City of Cobalt	Coleman	NA	14,000,000	25,000			1907-1930
Cobalt Badger Silver	Coleman	NA	3,475	112	89		1929-1940
Cobalt Lake	Coleman	175,129	6,900,708	146,073	7,920		1908-1943
Cobalt Lode Silver	Coleman	263,140	4,493,542	2,545,117	610,716	459,078	1917-1956
Cobalt Silver Queen	Coleman	6,969	1,406,000	168,311	102		1905-1939
Cobalt Townsite	Coleman	913,268	37,362,032	1,852,765	163,687	90,288	1907-1939
Cochrane Cobalt Mining	Coleman	2,671	33,280	2,702			1913-1939
Colonial Mining	Coleman	63,687	1,211,956	3,671			1907-1954
Coniagas 73 Shaft	Coleman	207,875	889,617	57,576	19,197	143,823	1975-1985
Coniagas Mines	Coleman	750,164	33,963,067	310,557	3,543	47,470	1905-1943
Conisil Mines	Coleman	NA	100,000				1961-1965
Consolidated Silver Banner	Coleman	NA	41,700			412	1927-1964
Cross Lake O'Brien	Coleman	129,670	11,600,000	98,248	38,843	172,611	1928-1966
Crown Reserve mining	Coleman	58,596	20,325,302	33,682			1908-1948
Drummond Mines	Coleman	60,808	3,887,585	245,807			1905-1936
Farah Mining	Coleman	557	8,952				1923-1926
Foster Cobalt Mining	Coleman	2,818	1,159,390	457,164	21,766	24,121	1951-1956
Frontier	Coleman	2,870	39,433	5,538	1,841	2,522	1973
Hargrave Silver Mines	Coleman	1,534	506,927	6,418			1905-1920
Hudson Bay Mines	Coleman	52,370	6,452,266	185,572	1,630		1905-1953
Juno Metals	Coleman	2,674	46,391				1918-1922
Kerr Lake Mining	Coleman	235,503	28,502,037	650,094		1,792	1905-1948
King Edward Mining	Coleman	53,357	1,294,233	3,466	1,310	18,618	1905-1964
LaRose Mines	Coleman	57,544	17,479,977	200,000	111,010		1904-1948
Lawson	Coleman	NA	4,213,513				1905-1953
Little Nipissing	Coleman	NA	82,000				1906-1945
Mayfair Mines	Coleman	NA	26,240				1945-1953
McKinely-Darragh Savage Mines	Coleman	NA	17,300,000				1904-1952
Mensilvo Mines	Coleman	62,571	374,824	149,508	21,605	21,834	1913-1964
Nancy Helen Mines	Coleman	249	91,770				1907-1911
Nerlip Mines	Coleman	613	911	2,949	2,502		1940-1944
New Bailey Mines	Coleman	90,769	3,131,352	76,780		4,084	1912-1966
Nipissing Mines	Coleman	NA	32,000,000				1904-?
Nipissing Mines	Coleman	NA	7,000,000				1904-?
Nipissing Mines	Coleman	NA	1,000				1915-1917
Nipissing Mines	Coleman	1,066,589	32,000,000	3,636,704			1905-1951
Nipissing Mines	Coleman	NA	300,000				1932?
Nipissing Mines	Coleman	NA	20,000,000				1910?-1967

Mine	Township	Tons milled	Ag (oz)	Co (lb)	Ni (lb)	Cu (lb)	Years of production
Nipissing Mines	Coleman	NA	1,750,000				1904-1967
Nipissing Mines	Coleman	NA	300,000				1913-1967
No. 407 Shaft	Coleman	NA	5,200				1926
No. 407 Shaft	Coleman	92,159	1,838,433	157,597	37,687	69,370	1966-1971
No. 96 Shaft	Coleman	56,153	1,236,879	73,970	22,329	46,738	1969-1974
Nova Scotia Silver	Coleman	7,184	1,082,774	114,199			1906-1952
O'Brien	Coleman	NA	33,655,872	835,764	1,481	2,130	1905-1966
O'Brien Dumps	Coleman	8,524	26,709	2,204	710	2,633	1968-1970
Ophir Cobalt Mines (1)	Coleman	NA	69				1921
Penn Canadian Mines	Coleman	189,356	4,418,802	190,650	11,246	26,806	1908-1974
Peterson Lake Silver Cobalt	Coleman	NA	909,064	27,303			1906-1966
Peterson Lake Silver Cobalt	Coleman	60,341	5,627,297				1912-1916
Princess Claim	Coleman	NA	3,713,805				1908-1922
Red Jacket Property	Coleman	NA	3	354			1938-1943
Refinery	Coleman	NA	11,656				1983-1985
Reinhardt Cross Lake Group	Coleman	NA	278,631	2,532	484	141	1949-1951
Right of Way Mines	Coleman	NA	169,000				1906-1935
Right of Way Mines	Coleman	23,073	2,800,000				1906-1935
Savage Mine	Coleman	646,439	4,500,000	465,582	11,348	51,751	1904-1954
Silver Cliff Mining	Coleman	20,552	535,246	9,314	15,380	6,287	1908-1954
Silver Cross Cobalt	Coleman	NA		3,091			1940-1942
Silver Leaf Mining	Coleman	321	495,443	1,206			1906-1931
Smith Cobalt Mines	Coleman	NA		914			1939-1940
Temiskaming Mining	Coleman	149,807	12,118,796	202,687	25,337	6,261	1907-1963
Trethewey Silver Cobalt Mines	Coleman	17,666	7,256,470	216,198			1904-1943
Trout Lake	Coleman	44,705	1,783,536	250,530	85,506	33,312	1969-1977
University Mines	Coleman	400	790,000	82,681			1905-1968
Victoria Silver Cobalt Mines	Coleman	NA	1,000				1906-1910
Violet Mining	Coleman	NA	897,291				1905-1925
Claim A.3	Gillies Limit	NA		900			1935-1940
Cleopatra Mining	Gillies Limit	NA	2,500,000				1964-1968
Cobalt A53 Mining	Gillies Limit	NA		2,251			1946
Provincial Mine	Gillies Limit	258	286,897	54,473	2,842		1908-1940
Waldman Silver Mines	Gillies Limit	58	33,525	2,066			1910-1930
Wyandoh Silver Mines	Gillies Limit	29	33,699	1,234			1910-1937
Harmak Mining	Harris	NA	4,625	12,925			1966
Lang-Caswell	Lorrain	NA	1,503	4,932			1936
Silver Centre Camp							
Bellellen Mine ⁽¹⁾	South Lorrain	NA	38,027	28,481			1910-1943
Canadian Lorrain Mine	South Lorrain	NA	276,825	16,678			1926-1940
Curry Mine	South Lorrain	87	49,821	7,691			1916-1938

Mine	Township	Tons milled	Ag (oz)	Co (lb)	Ni (lb)	Cu (lb)	Years of production
Gilgreer mine	South Lorrain	NA	446	1,732			1936-1943
Harris Mines	South Lorrain	462	13,659	26,286			1925-1939
Keeley and Frontier Mines ⁽¹⁾	South Lorrain	NA	19,197,413	3,310,556	27,252	10,292	1908-1965
Lorrain Lake Mines	South Lorrain	22,405	1,093,404	64,458			1924-1943
Nipissing Lorrain Mine	South Lorrain	NA	350,000	5,521			1925-1929
Silver Eagle Claim	South Lorrain	NA	7,989				1918
Wettlaufer Mine	South Lorrain	6,861	2,593,041	23,910			1909-1940
TOTAL ⁽²⁾		8,007,036	492,538,553	23,279,622	3,624,786	2,087,211	1904-1989

Source: Guindon *et al.*, 2016

Notes: (1) Historic mine located within the First Cobalt's Silver Centre Property area. (2) The Author has been unable to verify the information in Table 7 and the information is not necessarily indicative of the mineralisation on the Properties.

6.2 Exploration History of the Silver Centre Property

6.2.1 Silver Centre Property Peripheral to the Keeley-Frontier Patents

On 13 March 2012, Canadian Silver Hunter announced that it staked seven claims totalling 79 claim units adjacent to its existing Keeley-Frontier patents. Then, on 19 November 2012, Canadian Silver Hunter announced that it acquired a one-third interest in Veinlode Silver Mines Limited (Veinlode), thereby acquiring an indirect interest in certain claims in the Silver Centre area. Canadian Silver Hunter subsequently announced on 19 February 2014, that it acquired from Veinlode a 100% interest in five mining rights only leases and 26 mineral claims adjacent to the its Keeley-Frontier patents.

As announced 16 March 2017, First Cobalt holds an option to earn a 100% interest in Canadian Silver Hunter's five mining leases and seven unpatented mineral claims which together with the 13 Keeley-Frontier patents (see Section 6.2.2) forms the Keeley-Frontier claim group.

First Cobalt also holds a 100% interest in the 17 mining claims of the CIC claim group by way of its acquisition of Cobalt Industries announced 23 January 2017 and a 100% interest in the eight mining claims of the BMC South claim group purchased from Brixton Metals Corp on 7 June 2017.

The known exploration history of these 32 mineral claims and five mining leases in the Silver Centre Property, peripheral to the core Keeley-Frontier patents, is summarised in Table 8, based on available online Ontario government assessment files and MDI files. The approximate locations of the historic work areas are noted in Figure 5 with the Map ID and or MDI number referenced in Table 8. The exploration history of the core Keeley-Frontier patents is presented separately in Section 6.2.2.

Table 8: General exploration history of the Silver Centre Property peripheral to Keeley-Frontier patents

Year	Map ID	Assessment file/reference	Operator	Work history
1950	49	31M03NW0009	H G Miller	PDRILL 2 Ddh/435'
1952	59	31M04NE0040	Macfie Expl Ltd	PDRILL 1 Ddh/266.5'
1956	57	31M04NE0027	W Hammerstrom	GEOLOG Mapping
1959	50	31M04NE0039	W Hammerstrom	ASSAY Dd Core PDRILL 6 Ddh/6011'
1960	33	31M03NW0018	Geoscientific Prospectors Ltd	ASSAY Dd Core PDRILL 2 Ddh/2510'
1961	60	31M04NE0032	Keeley-Frontier Mines	PDRILL 1 Ddh/200'
1963	48	31M03NW0010	E De Camps	PDRILL 1 Ddh/200'
1963	58	31M04NE0033	Bi-met Mines Ltd	PDRILL 1 Ddh/121'
1965	45	31M03NW0021	M Oslund	PDRILL 2 Ddh/202.5'
1970	46	31M04NE0035	J Price	PDRILL 3 Ddh/318'
1973	21	31M04NE0003	Aggressive Mining Ltd	GCHEM 500 Rx Samp/dd Core/co Ag GEOLOG Mapping PDRILL 8 Ddh/3186'/dd Core Samp VLF 30 Lmi
1974	20	31M04NE0024	F Joubin P Hermiston	MAG Unknown
1974	44	31M04NE0029	J Price	PDRILL 1 Ddh/105'
1987	52	31M04NE0021	Place Resc Corp Winteroad Resc Ltd	ASSAY Dd Core PDRILL 2 Ddh/2956'
1995	28	31M03NW0040	John A Gore	MAG 5.1 Km PCUT 5.5 Km VLF 4.2 Km
1995	39	31M03NW0032	Hugh A Moore	MAG 5.6 Km PCUT 5.7 Km VLF 5.6 Km
1996	25	31M03NW0047	John A Gore	ASSAY 15 Samples PCUT 35 Days PROSP 32 Days PSTRIP 11 Areas
1996	31	31M03NW0048	John A Gore	MAG 6.1 Km PCUT 6.1 Km PROSP 3 Claims VLF 5.3 Km
1996	31	31M03NW0033	John A Gore	GCHEM 40 Samples GLCOMP Geol Map Incl Sample Locations
1996	34	31M03NW0042	B Wright	PROSP 7 Days
1997	43	31M03NW0049	Hugh A Moore	GCHEM 39 Samples
1998	10	31M04NE2012	Dave Ross Hanes James Malcolm MacLachlan Sherwood Plunkett	GCHEM 29 Samples PROSP 4 Days
1998	15	31M04NE2011	Wolverine Expl And Mineral Recovery	GCHEM Approx 38 Samples PROSP 3.5 Days
1998	29	31M03NW2002	John A Gore	IP 14.5 Line Km MAG 24.26 Line Km PCUT 31.75 Line Km

Year	Map ID	Assessment file/reference	Operator	Work history
1999	2	31M04NE2010	Dave Ross Hanes James Malcolm Maclachlan Sherwood Plunkett	GCHEM 23 Samples PROSP 20 Days
1999	7	31M04NE2009	Dave Ross Hanes James Malcolm Maclachlan Sherwood Plunkett	GCHEM 11 Samples PROSP 1 Claim
1999	13	31M04NE2013	Dave Ross Hanes James Malcolm Maclachlan Sherwood Plunkett	PROSP 2 Days
1999	19	31M04NE2021	Dave Ross Hanes James Malcolm Maclachlan Sherwood Plunkett	GCHEM 101 Soil 65 Rock GEOL 1:1000 Geol Map MAG 1:2500 Total Field Contour Map PCUT 13 Days PMECH 5 Days Excavator VLF 1:2500 Profiles Map
1999	26	31M03NW2006	John A Gore	ASSAY 96 Samples PDRILL 3 Holes
1999	35	31M03NW2012	John A Gore	ASSAY 67 Samples GEOL2 Maps 1 1:200 1 1:2500
1999	40	31M03NW2004	Hugh A Moore	MAG 2.72 Line Km PCUT 2.72 Line Km VLF 2.72 Line Km
1999	42	31M03NW2009	John A Gore	EM 7 Line Km MAG 8.13 Line Km PCUT 8.13 Line Km VLF 8.13 Line Km
2000	4	31M04NE2023	Dave Ross Hanes James Malcolm Maclachlan Sherwood Plunkett	GCHEM 41 Rock 6 Soil Samples PROSP 28 Days
2000	23	31M04NE2019	Wolverine Expl And Mineral Recovery	GCHEM 4 Soil Samples PROSP 4 Hrs
2000	47	31M03NW2010	John A Gore	ASSAY 34 Samples PDRILL 1 Hole
2000	54	31M04NE2040	Frank Palmay John Ross Moses	ASSAY 58 Core Samples PDRILL 1 Hole
2000	56	31M04NE2020	Frank Palmay John Ross Moses	EM 9.43 Line Km PCUT 10 Line Km
2001	3	31M04NE2030	Dave Ross Hanes James Malcolm Maclachlan Sherwood Plunkett	ASSAY 15 Grab Samples GCHEM 10 Soil Samples GOVER 3 Till Samples PMECH 13 Hrs Backhoe 3 Areas PROSP 5.5 Days
2001	12	31M04NE2029	Marlene R Carr Wolverine Expl And Mineral Recovery	ASSAY 7 Grab Samples GCHEM 4 Alluvial Samples GEOL 1:10000 Geol Map
2001	22	31M05SE2037	Murray Simpson Outcrop Expl Ltd	GCHEM 14 Alluvial Samples

Year	Map ID	Assessment file/ reference	Operator	Work history
2002	1	31M04NE2037	Dave Ross Hanes James Malcolm MacLachlan Sherwood Plunkett	ASSAY 6 Grab Samples GCHEM 4 Soil Samples GOVER 9 Till & 2 Sed Samples LC 11.431 Line Km MAG 11.431 Line Km MICRO 51 Grains Microprobe Analysis PROSP 1:1250 Prosp Maps
2002	9	31M04NE2034	Marlene R Carr Wolverine Expl And Mineral Recovery	ASSAY 13 Samples MICRO 3 Polished Thin Sections PROSP 10 Man Days
2002	14	31M04NE2034	Marlene R Carr Wolverine Expl And Mineral Recovery	ASSAY 13 Samples MICRO 3 Polished Thin Sections PROSP 10 Man Days
2002	55	31M04NE2035	Frank Palmay John Ross Moses	ASSAY 64 Core Samples PDRILL 1 Hole
2003	5	31M04NE2038	Dave Ross Hanes James Malcolm MacLachlan Sherwood Plunkett	PMECH 1 Area Excavater PROSP 4 Man Days PSTRIP 1 Area
2003	11	31M04NE2039	Marlene R Carr Wolverine Expl And Mineral Recovery	PROSP 1:2000 Prosp Map
2003	27	31M03NW2019	John A Gore	PROSP 2 Man Days
2004	8	31M04NE2043	Marlene R Carr Wolverine Expl And Mineral Recovery	ASSAY 2 Rock Samples PROSP 1:2000 Prosp Map 8 Man Days
2004	24	20000000283	John A Gore	PROSP 3 Man Days
2004	51	31M04NE2041	Frank Palmay John Ross Moses	BENEF 1 Sample Caustic Dissolution
2005	53	20000000862	Frank Palmay John Ross Moses	ASSAY 117 Core Samples PDRILL 2 Holes 816 M
2006	32	20000002444	Adroit Resc Inc	work overlapped some of FCC claims AEM 241 Line Km AMAG 241 Line Km
2007	18	20000002299	Dave Ross Hanes James Malcolm MacLachlan Sherwood Plunkett	ASSAY 2 Samples PMAN 10 Man Days
2007	30	20000002465	Adroit Resc Inc	IP 23 Line Km MAG 25 Line Km
2007	32	20000002725	Adroit Resc Inc	work overlapped some of FCC claims ASSAY 64 Rock 42 Soil Samples GCHEM 42 Soil Samples PDRILL 9 Holes 1063m
2009	16	20000000115	Dave Ross Hanes James Malcolm MacLachlan Sherwood Plunkett	ASSAY 1 Sample PMAN 2 M Days
2009		20000004272	John A Gore	LC 2.775 Line Km MAG 2.775 Line Km VLF 2.775 Line Km
2011	6	20000006591	Dave Ross Hanes James Malcolm MacLachlan Sherwood Plunkett	ASSAY 1 Sample PROSP 2 Man Days
2011	17	20000005679	Dave Ross Hanes James Malcolm MacLachlan Sherwood Plunkett	ASSAY 20 Soil Samples GCHEM 26 Soil Samples PMAN 2 Man Days

Year	Map ID	Assessment file/reference	Operator	Work history
2011	36	20000006393	Mhakari Gold Corp.	LC 11.7 L Km MAG 11.7 L Km VLF 11.7 L Km
2011	37	20000006529	John A Gore	LC 1.6 L Km MAG 1.6 L Km
2012	38	20000007308	John A Gore	PMECH 1 M Day
2012	41	20000007783	John A Gore	MAG 3.6 L Km

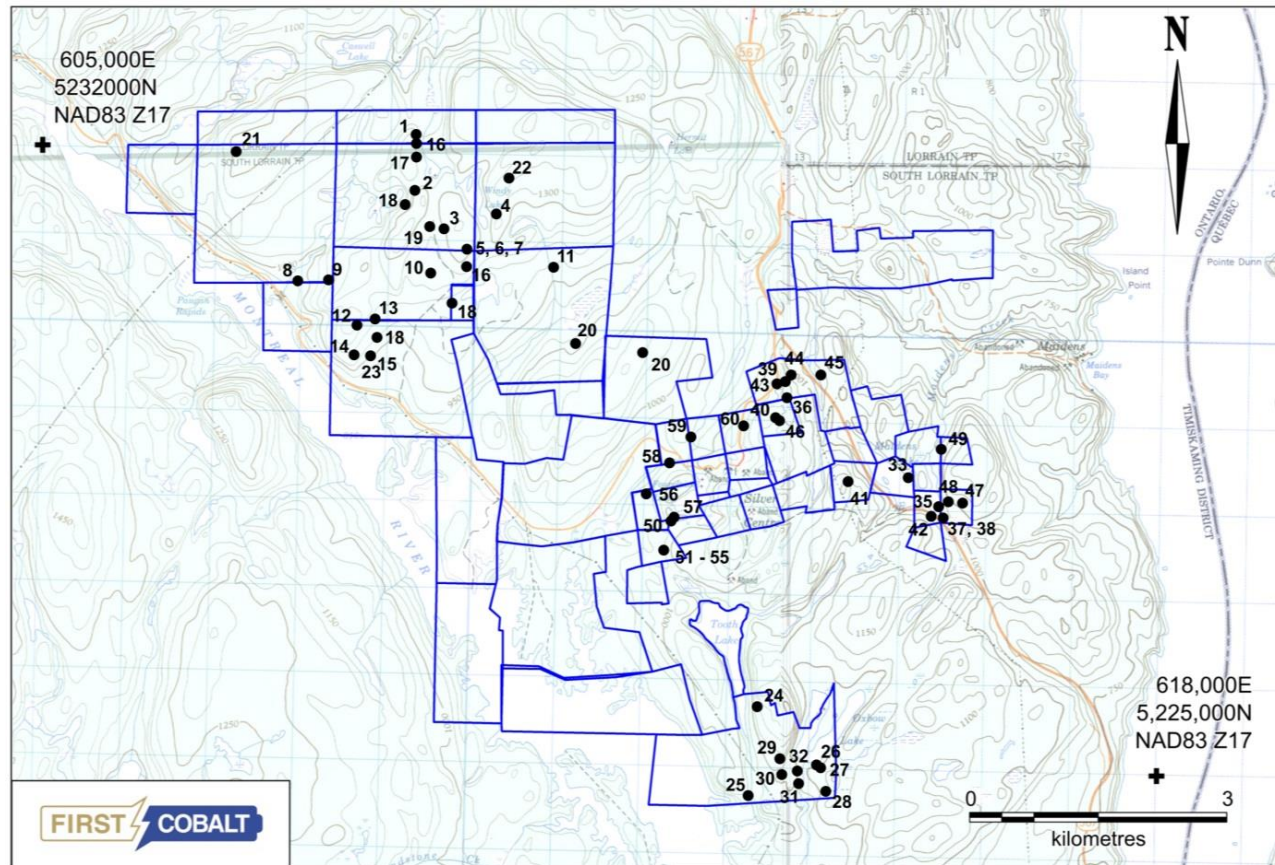


Figure 5: Silver Centre Property – location of assessment work areas peripheral to Keeley-Frontier patents

Note: Numbers correspond to assessment work index numbers in Table 8

6.2.2 Silver Centre Property – Core Keeley-Frontier Patented Claims Exploration History

As announced 16 March 2017, First Cobalt entered an option to earn a 100% interest in Canadian Silver Hunter's 13 core Keeley-Frontier patent claims, which together with five mining leases and seven unpatented mineral claims form the Silver Centre Property's Keeley-Frontier claim group. The exploration and development history is reasonably well documented as summarised below, however details are limited.

The original discovery of silver mineralisation on the Keeley claim (HR 19) was made in 1907 by prospectors J.M. Wood, R.J. Jowsey, and C. Keeley, leading to development of the Keeley Mine. In 1908, J.M. Wood discovered the Wood vein on the adjacent Beaver Lake claim (HR-21). Claims HR 19 and HR21 were sold to interests connected with "Farmers Bank" however the bank was never owner of the mine. The property,



under the name of Keeley Mine Limited, was worked by interests associated with the bank until 1911. The Farmers Bank then became involved, and the bank failed. The liquidators of the bank gained possession of the Keeley mine. The operating company, Keeley Mine Limited was kept in good standing and not allowed to fail. In 1913, Associated Gold Mines of Western Australia acquired an option on the property from Keeley Mine Limited and in August 1919, following several option renewals, the property and the majority of the stock in Keeley Mine Limited was transferred to Associated Gold (Knight, 1922). Keeley Silver Mines Ltd and the property were acquired by Anglo-Huronian Limited in 1933.

What is now known as the Frontier mine originated in the south half of the Haileybury Silver Mining Company's claim, HR 16. Henry Newburger, of Memphis, Tennessee, bought the south half of HR 16 from the Haileybury Silver Mining Company in 1912 and formed the Haileybury Frontier Company. Haileybury Frontier sank two shafts. Minor drifting and crosscutting was completed on the 75 and 150-foot levels of the northern of the two shafts. Both levels showed a strong vein carrying smaltite, but no significant silver. Henry Newburger died and the company went into liquidation in 1914. Joseph Newburger, brother of the deceased, bought in the property in the interests of his brother's widow, and the mine remained closed until the autumn of 1920. During the summer of 1920, Joseph Newburger had the mine dewatered and examined by representatives of several silver-mining companies. In 1920, a United States-based company represented by Horace Strong purchased the Haileybury Silver property (north half of HR16) and secured a one-year lease option to purchase the Frontier Mine (south half HR 16) (Knight, 1922). Strong discovered high-grade silver on the south half of claim HR 16 in 1921 immediately north of the Keeley claim (Willars, 1965). In 1921, the Mining Corporation of Canada amalgamated several companies and claims, including the Haileybury Silver Mines and Frontier Mine properties (north and south halves of HR 16 respectively), the former Compton (HR 25), Little Keeley (HS 40) and the Keeley Extension properties (HR39, HR 41) into Frontier Silver Mines Limited.

Both the Keeley and the Frontier Mines have extensive underground workings (Figure 6). As summarised by McIlwaine (1970), during initial operations five shafts were sunk on the Keeley property and three on the Frontier property. The main working shaft of the Keeley Mine was the No. 3 shaft, which extended to a depth of 174 m. The No. 1 shaft was an emergency exit and ventilation shaft. The No. 2 shaft served as a prospect shaft for the No. 4 vein. The No. 4 and No. 5 shafts were prospect shafts on the Woods vein. In addition to the shafts, there were originally six winzes, only two of which were operative in the last phase of mining in the 1960s. At the Frontier Mine the main working shaft was the No. 3 shaft sunk to a depth of 194 m. The F8 and F9 winzes extended to depths of 415 m and 444 m respectively. Sixteen shafts and winzes totalling 2,513 m were sunk on the Keeley Frontier group patents providing access to a maximum depth of 427 m.

The Keeley Mine of Keeley Silver Mines Ltd produced intermittently from 1908 to 1942 with most of the production occurring between 1921 and 1931. The Frontier Mine was operated by Mining Corporation of Canada Ltd from 1921 to 1943. A summary of reported production from the Keeley and Frontier Mines is presented in Section 6.5.1.

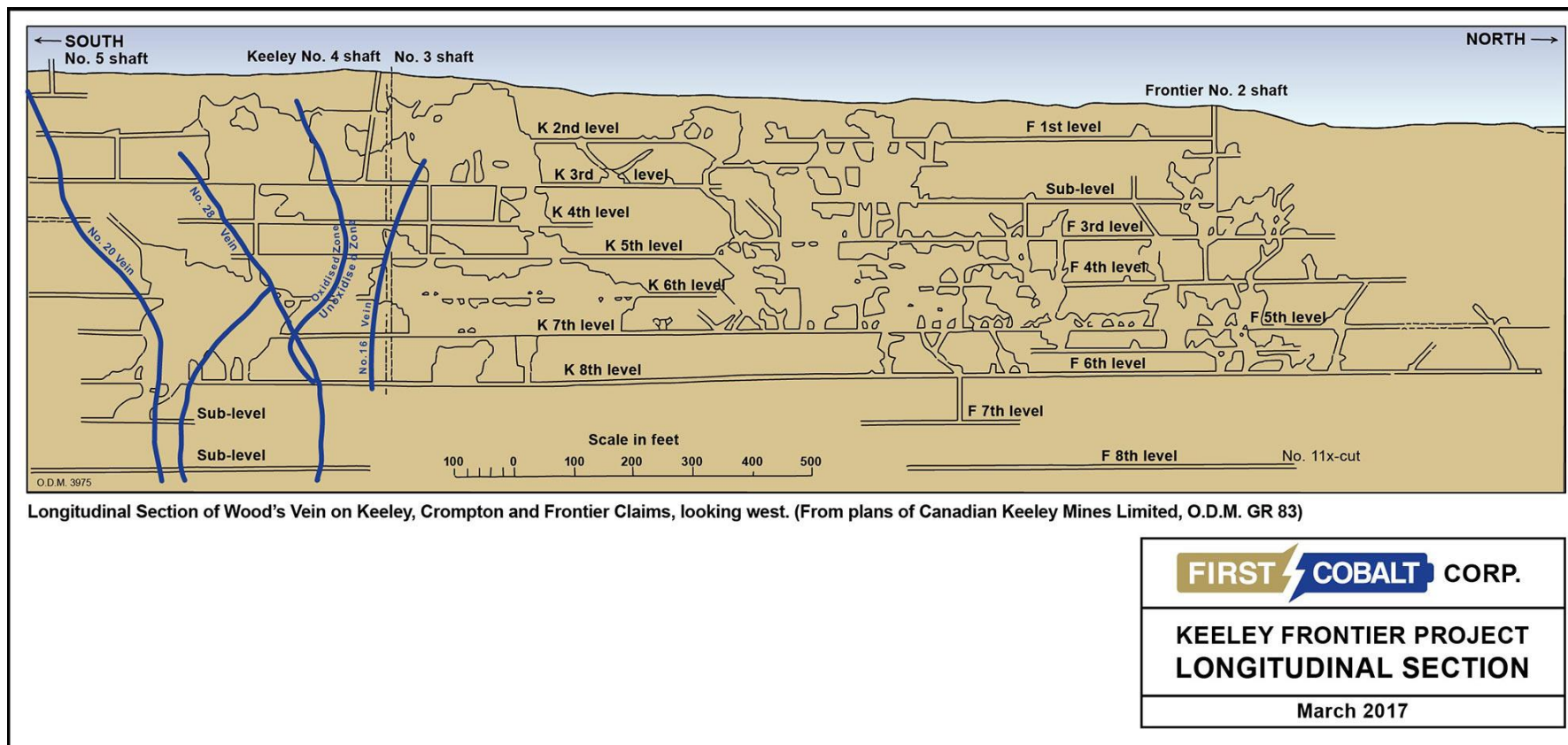


Figure 6: Longitudinal section Keeley-Frontier mine workings on the Woods vein looking west

In 1961 Keeley-Frontier Mines Limited purchased and consolidated the 13 patented claims that now form the core Keeley-Frontier patent claim group:

- Keeley claims HR19 and HR21 from Anglo-Huronian Limited that controlled Keeley Silver Mines Limited
- Frontier claims HR16, HR17, HR20, HR25, HR68 and HS39 from The Mining Corporation of Canada Limited which controlled Frontier Silver Mines Limited
- Claims HR22, RL455 and RL456 from Keeley Extension Mines Limited
- Claims T32960 and T46400 (formerly HS40 or the Little Keeley claim) from N. Oslund of Haileybury, Ontario.

Keeley-Frontier Mines Limited was subsequently re-organised as Canadian Keeley Mines Ltd in 1964, and then became Keeley Frontier Resources Inc. in 1980.

Keeley-Frontier began work on the property in 1961 and in 1962 the Keeley and Frontier mines were dewatered and rehabilitated. Keeley-Frontier connected the two mines at three points including the main haulage way between the 6th level of the Frontier Mine and the 8th level of the Keeley Mine. Access and services were provided largely through the Frontier No. 3 shaft and the 828 winze, which was deepened by Keeley-Frontier from the 11th to the 12th level. Development totals occurring between 1961 and 1965, include 1,110 m of drifting, 341 m of cross cutting, 39 m of shaft sinking and 1,117 m of raising. Little diamond drill exploration was done at the mines prior to 1961, but from 1961 to 1965, five surface drillholes and 276 underground drillholes were completed for a total of 15,922 m.

The Woods vein had been mined out by this time and the 1963–1965 Keeley-Frontier production as summarised in Table 11 (Section 6.5.1) came primarily from the Keeley Mine and reprocessed tailings.

Based on limited information available on level plans filed as assessment files with the MNDM, Agnico Eagle optioned the property circa 1969 to 1972 and completed an underground drill program.

M & M Porcupine Gold Mines (M & M Porcupine) acquired the property from Keeley Frontier Resources in 1984 (Pearson and Kerr, 1985).

155433 Canada Limited, a subsidiary of LaChib Development Corporation (LaChib) acquired the property from M & M Porcupine in 1987 (Mayer and Pearson, 1989). Geological consultants Derry, Michener, Booth and Wahl recommended a 4,570-m diamond drill program focusing on fault vein systems near Beaver Lake (Mayer and Pearson, 1989). This proposal incorporated many of the targets proposed by Hammerstrom, Thoday and Watts (1981). No exploration was conducted.

Circa 1994, Transway Capital Inc. (Transway) acquired the property from LaChib. Transway sold to Cobatec Ltd approximately 10,000 tons of surface muck which was removed to the latter's cobalt recovery plant under construction in the Cobalt area (Trussler, 1994). In 1995 Transway contracted JVX Ltd of Richmond Hill, Ontario to conduct time-domain spectral induced polarisation/resistivity (IP/RES), VLF-EM, magnetic and time domain electromagnetic (TDEM) surveys on the property, excluding the area covered by Beaver Lake, (JVX, 1996). Field work was completed between 5 June and 6 July 1995. Total coverage was 8,925 m of IP/RES with "a"-spacing of 25 and 50 m, 25,550 m of VLF-EM, 24,488 m of magnetics and approximately 6,650 m of TDEM. Truncations of magnetic patterns with coincident IP/RES and/or time domain EM surveys or VLF-EM surveys were interpreted to indicate the presence of five geophysical targets suggestive of disseminated to massive sulphide mineralisation and warranting diamond drill testing.

1695255 Ontario Inc. acquired the property from Transway on 13 April 2007. 1695255 Ontario Inc. changed its name to Silver Centre Resources Inc. (Silver Centre) effective 20 February 2007.

In 2010, Silver Centre contracted JVX Ltd to conduct magnetic, pole-dipole IP/RES and moving loop transient EM (TerraTEM) surveys over the Beaver Lake area in the southwestern part of the Keeley-Frontier group patents. Field work was completed in the 4–19 February 2010 period. Production was 61 sounding of TerraTEM, 3.2 km of magnetics, and 1.3 km of IP/RES using a grid with lines 50 m apart and oriented 075°. The magnetic data indicates the possible location of north-trending faults identified by previous property operators, which are now CSH targets. The TerraTEM survey was only conducted on Beaver Lake and produced ambiguous results. Pole-dipole IP/RES data for the whole project area has identified 50 IP anomalies of which 33 are classified as strong. Four of the IP anomalies have an associated resistivity high and 6 have an associated resistivity low, and 40 have no clear resistivity expression. The best quality anomalies reside in the 1995 IP/RES survey (JVX, 1996). The present IP/RES survey did not identify additional quality targets underneath Beaver Lake. The VLF-EM data did not present an easily interpretable array of information. However, given the shallow nature of the overburden, some of the responses are indicative of fault/shear zones, generally trending north-south.

Silver Centre Resources Inc. changed its name Canadian Silver Hunter Inc. effective 23 November 2010.

During 2012, Canadian Silver Hunter completed a six hole, 2,058 m diamond drill program on the Keeley-Frontier group claims (Table 9). The focus of the 2012 diamond drilling program were areas of the Beaver Lake Fault that had been the final target of exploration and mining when the mine closed in 1968.

Table 9: 2012 Canadian Silver Hunter diamond drill program

Drillhole	Easting UTM Z17 NAD83	Northing UTM Z17 NAD83	Collar elevation (m Est)	Collar azimuth (True)	Collar dip	Length (m)	Start date	Stop date	Samples	Remarks
CSH12-01	612607.99	5228414.47	307.52	220	-60.2	317	10 Jan 2012	14 Jan 2012	53	Test mineralisation potential at northern extension of Beaver Lake Fault
CSH12-02	612774.52	5228311.27	304.46	254	-47.6	362	14 Jan 2012	19 Jan 2012	64	Test mineralisation potential at north extension of Beaver Lake Fault and reported mineralisation intersected in in DDH U-106 (20.1 opt/10 ft, 7.6 opt/10 ft)
CSH12-03	612887.25	5227767.46	320.04	296	-62	404	23 Jan 2012	26 Jan 2012	79	Test mineralisation potential at intersection of #16 structure and Beaver Lake Fault
CSH12-04	612775.14	5228061.88	309.46	237	-58	338	27 Jan 2012	30 Jan 2012	74	Test mineralisation potential at intersection of Beaver Lake Fault and #28 structure
CSH12-05	612838.99	5227913.88	309.48	258	-58	362	31 Jan 2012	3 Feb 2012	69	Drilled to confirm reported Ag mineralisation below Level 12 Beaver Lake stope. Intersected Level 12 drift
CSH12-06	612838.99	5227913.88	309.48	253	-60	275	7 Feb 2012	9 Feb 2012	155	As with CSH12-05. Dip adjustment to avoid stope opening
TOTALS						2,058			494	

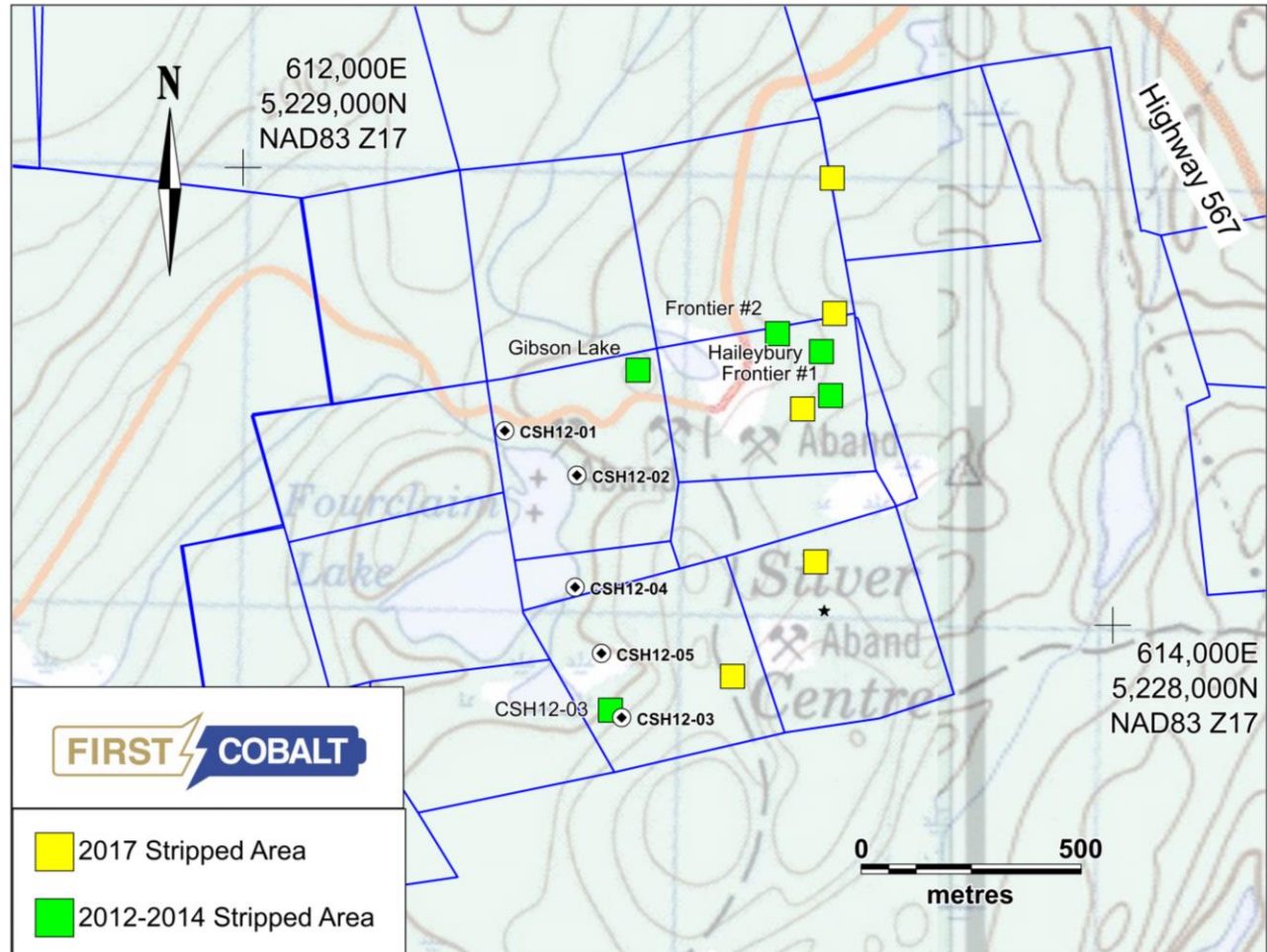


Figure 7: Location of Canadian Silver Hunter 2012 diamond drill collars and 2012-2014 power stripping and channel sampling

Diamond drilling was done under contract to Laframboise Drilling of Earlton, Ontario. The drill rig was mobilised on 8 January 2012 and was demobilised on 3 March 2012. Core was logged and cut in a rented facility in North Cobalt. Logging of the core was completed by Val Volodine of Richmond Hill, Ontario, and Dean Cutting, P.Geo. (APGO #1080) of Rouyn Noranda, Quebec. Assistance was provided by Al Kon of Haileybury, Ontario, Steve Novosel of Cobalt, Ontario, Charles Tatai of Cobalt Ontario, and Skylar Huard of Cobalt, Ontario. The program was managed by David Jamieson P.Geo., Dean Cutting P.Geo., and JVX Ltd.

The NQ drill core was sawed in half at the North Cobalt facility, with one half returned to the core box for archive and the other half bagged and sent for aqua regia digestion and multielement (including Ag, Co, Ni, Bi, Sb) analysis (ICPOES finish) at AGAT Laboratories Ltd. Sample core lengths varied from 0.15 m to 1.5 m. AGAT collected the split core samples from the Company's core shack and delivered them to its preparation lab in Sudbury, Ontario. Pulps were then sent to AGAT facilities in Mississauga, Ontario for analysis. AGAT is a fully accredited laboratory and conforms with the requirements of CANP4E (ISO/IEC 17025:2005) and CANP1579 by the Standards Council of Canada.

Canadian Silver Hunter's quality assurance and quality control (QAQC) program included the use of certified reference standards and blank samples inserted into the assay stream by the Company's personnel every 25 samples in addition to the AGAT's internal QAQC programs. Samples assaying greater than 100 g/t Ag are



fire assayed with a gravimetric finish. QAQC also included sending selected pulp samples for check assays at an independent lab (ALS Chemex) using both four acid (MEMS61) and aqua regia (MEMS41) digestions for multielement analysis. Selected higher grade silver and several random sample rejects were chosen for screen metallic analysis for silver only, at AGAT Laboratories. A final silver number for the database was arrived at by averaging duplicate geochemical values; geochemical values were replaced by fire assay or screen metallic analyses when available. Canadian Silver Hunter indicated that screen metallic assaying is required to more accurately quantify silver values in higher grade portions of the mineralised zones due to the presence of coarse native silver.

Archived drill core is currently stored in a locked ocean shipping container at the historic Keeley-Frontier mine site.

Selected highlights are presented in Table 10. Diamond drillhole CSH12-03 returned significant silver values potentially in the historic # 40 vein structure between 111.0 m and 122.3 m downhole, with a composite silver value of 72.47 g/t Ag over 11.3 m, including 168.22 g/t over 4.2 m, with no individual silver assay below 2.4 g/t. The interval included the following screen metallic assays:

- 1,517 g/t over 0.3 m
- 479 g/t over 0.4 m
- 91 g/t over 0.3 m.

This # 40 vein system received relatively little historic underground drifting and there is no record of any historic surface drilling in the area. Further down hole, disseminated arsenides and fine calcite veining occur in what may be a parallel or second branch of the # 40 zone. Elevated copper and bismuth values also occur within both zones.

CSH12-04 returned a composite silver assay of 25.9 g/t over 4.3 m, starting at 254 m downhole which appears to correlate to the north extension of the Beaver Lake Fault.

CSH12-05 and CSH12-06 were drilled to test beneath the one stope developed on the Beaver Lake Fault before mine closure. CSH12-05 returned a composite silver value from the Beaver Lake Fault of 398.42 g/t over 1.9 m, however 0.9 m of this intersection was lost core or void due to the hole intercepting what is interpreted to be old workings at 258.8 m downhole. At 249 m, it appears that the hole broke into the corner of Beaver Lake drift, resulting in 0.9 m of lost core within a 1.1 m interval. Angular fragments of altered volcanic material containing cobalt arsenides were recovered and assayed 447 g/t Ag. The hangingwall samples assayed 226 g/t Ag over 0.4 m, and 65.9 g/t Ag over 0.4 m, while the footwall sample assayed 12.7 g/t Ag over 0.4 m.

A second zone of interest was located at 143 m in the form of a dark grey streaked calcite vein 33 cm in core length, which assayed 26.2 g/t Ag over 0.55 m. Several samples of faulted material between 15 m and 75 m returned anomalous silver, arsenic, cobalt values.

CSH12-06 was drilled to test within 25 m below and west of CSH12-05 to avoid the historic drift/stope area and returned a composite silver value of 58.21 g/t over 0.95 m. At 253 m, a 0.65 metre sample in the immediate hangingwall of the Beaver Lake Fault assayed 86.9 g/t Ag, and 108 ppm Bi, with subsequently check assaying returning 68 g/t Ag by screen metallic methods. This sample is described as having hairline carbonate veinlets with associated hematite and epidote alteration; chalcopryrite, arsenopyrite (possibly cobalt arsenides), bismuthite? and pyrite are common as grains and small masses.

The Beaver Lake Fault is interpreted to be located between 254.5 m and 255.1 m, consisting of a brittle fault zone with a 5.5 cm core length of pink carbonate-quartz vein at 60° to the core axis with grey metallic streaks and local silvery blebs (bismuthite?). The fault itself assayed 32.8 g/t Ag, 0.1% Co and 60 ppm Bi.

Table 10: 2012 Canadian Silver Hunter diamond drill program assay results

Drillhole	From (m)	To (m)	Length (m)*	Silver (g/t)**	Cobalt (ppm)**	Comment
CSH12-01	105.8	106.1	0.3	6.5		Anomalous As, Cu, Bi, Co; Beaver Lake Fault?
CSH12-02	285.75	286.05	0.3	3.3		Anomalous Cu, Bi, Co, Pb; Beaver Lake Fault?
CSH12-03	111	122.3	11.3	72.5		New Zone
including	117.9	122.3	4.4	168.2		New Zone
including	121.6	122.3	0.7	923.9		New Zone
CSH12-04	254	258.3	4.3	25.9		Beaver Lake Fault – North Drift Extension
CSH12-05	248	249.9	1.5	405.64		Beaver Lake Fault
including	248	248.4	0.4	65.9		
	248.4	248.8	0.4	226.0	17.5	
and	248.8	249.9	1.1	447.0	69.0	Sample interval 0.9 m of lost core (drift opening)
	249.9	250.3	0.4	12.7		
CSH12-06	253.85	254.8	0.95	58.2		Beaver Lake Fault
including	253.85	254.50	0.65	86.9	28.2	
and	254.50	254.80	0.30	32.8	1080	

* Intervals reported are core lengths; true widths of mineralisation are not known. ** Assay results are length weighted

In November 2012, Canadian Silver Hunter completed a bedrock stripping and channel sampling program on the Keeley-Frontier patent claim block at the DDH CSH12-03 collar area (#40 Vein System) and immediately west of Gibson Lake. The mechanical stripping, washing, and channel sampling was performed under contract by Laframboise Drilling of Earlton, Ontario. A John Deere 240D excavator was mobilised to the property on 1 November 2012 and was demobilised on 9 November 2012. Washing of the bedrock exposed by the excavator was then undertaken using a “Wajax Type” high pressure water pump supported by man and mechanical shoveling and brushing. After the exposed outcrops were washed, geological mapping was undertaken followed by markup of channel sampling intervals based on geological observations. Cold late fall temperatures limited the amount of detailed mapping possible, however basic geological observations were completed, and channel cut samples examined for mineralisation by the field geologist.

Channel samples were cut using a Stihl gas powered cut all saw using a diamond blade and chipped out using both manual chiseling and mechanical electric hammer chisel methods. After the channel samples were collected the channels were mapped, sample numbers assigned to the bags and aluminum tags with the sample numbers fixed in the channels at the end of the intervals. Samples were sealed in their bags and removed from the field sites to the core shack facility in North Cobalt for detailed examination and description. Samples were then resealed in their bags. Standards and blanks were inserted into the sample stream at the core facility roughly every 25 samples. In addition, the lab’s internal QAQC programs were relied upon. AGAT Laboratories provided pickup of the channel samples from the Company’s core shack in North Cobalt, and delivery to its preparation lab in Sudbury, Ontario. Analysis is performed at AGAT facilities in Mississauga, Ontario. AGAT is a fully accredited laboratory and conforms to the requirements of CANP4E (ISO/IEC 17025:2005) and CANP1579 by the Standards Council of Canada. Samples were submitted for aqua regia digestion and multielement (including Ag, Co, Ni, Bi, Sb) analysis (ICPOES finish). Samples returning



greater than 100 g/t Ag were fire assayed with a gravimetric finish. Sample channel lengths typically varied from 0.15 m to 1.5 m. The program was managed by David R. Jamieson P.Geo. (APGO #1843) of Peterborough, Ontario with field work performed by Dean R. Cutting P.Geo. (APGO #1080) of Rouyn-Noranda, Quebec.

The CSH12-03 collar area was stripped to expose bedrock in the area of the drillhole where it is interpreted to have intercepted the #40 vein system (Figure 7). Results returned in the drillhole were 168.22 g/t Ag over 4.2 m within an interval grading 72.47 g/t Ag over 11.3 m (Table 10). The stripping of the overburden was undertaken along the surface trace of hole CSH12-03 from the collar approximately 60 m to the west. The overburden was significantly deeper than expected requiring additional time and handling. Cold weather and the exposed outcrop rough surface prevented adequate power washing for mapping and channel sampling of the exposure. The work at this site was therefore suspended to await improved field conditions. No detailed geological mapping or channel sampling of the outcrop was undertaken in 2012. The outcrop exposure measures about 61 m by 10 m in an irregular shape. As of the Effective Date, it has yet to be mapped and sampled, and remains available for future evaluation.

The second area of mechanical stripping in the 2012 program is located immediately to the west of Gibson Lake (Figure 7 and Figure 8) to follow-up on grab sample results taken in the summer of 2012 from a historic blasted surface trench while prospecting geophysical IP anomalies.

There are no available records of previous exploration results in the Gibson Lake area. Silver and cobalt production are known to have occurred 300 m to the east from the Woods and Watson veins.

The stripped area of approximately 48 m by 10–15 m (Figure 8) exposed a pillowed mafic volcanic cut by numerous brittle looking fractures and faults trending principally between 310° and 330°, variably though normally steeply dipping. Disseminated pyrite grains and blebs, chalcopyrite, galena, sphalerite, arsenopyrite, native silver and bismuth were visible within and in proximity to many of the fractures in the system. Pyrite mineralisation is also associated with the pillow selvages. A total of 50.45 m of channel samples were collected in 77 samples. The average length weighted composite analysis for all 77 samples collected was 11.33 g/t Ag, 0.12% Pb, 0.14% Zn, and 0.12% Cu. Silver values ranged from 0.4 to 190 g/t with only seven samples assaying below 1.0 g/t. A similar widespread dispersion of Cu, Pb and Zn values was also noted with a high correlation to Ag values (65.9 ppm to 5,760 ppm Cu; 17 ppm to 1.46% Pb and 39.9 ppm to 1.72% Zn).

Selected highlights include:

- Channel line 2 returned a composite silver value of 70.4 g/t Ag over 1.85 m, including 190 g/t Ag over 0.6 m.
- Channel line 7 returned composite silver values of 69.3 g/t Ag over the full length of 2.9 m, including 86.8 g/t Ag, 0.91% Pb, 0.65% Zn, 0.28% Cu over 2.25 m. One sample returned a value of 174 g/t Ag and 1.46% Pb over 0.95 m.
- Channel line 8 returned a composite silver value of 28.0 g/t Ag over 2.05 m, with 0.58% Pb, and 0.69% Zn. The composite included a 0.6 m of 70 g/t Ag, 1.31% Pb, 1.64% Zn and 0.42% Cu.

It is significant to note that the Gibson Lake stripping area is approximately 100 m above the historic “productive zone” above the Nipissing diabase with which the Keeley-Frontier high grade silver zones are associated. Canadian Silver Hunter personnel recommended additional mechanical stripping, detailed mapping and channel sampling on the Gibson Lake structure extending to the northwest. Additional follow-up geophysics followed by shallow diamond drilling may be warranted after receipt of the channel sample analyses.

Historic exploration and production in the Silver Centre and Cobalt camps focused on trenching and underground drifting along narrow high-grade structures. Wider zones of lower grade mineralisation were not historically targeted but may now represent a valid exploration target for bulk mineable silver and cobalt mineralisation. These lower grade zones are potentially traceable using geophysics, surface drilling or mechanical stripping. Notably, strong chargeability anomalies from earlier Canadian Silver Hunter IP surveying suggests the presence of disseminated sulphide/arsenide targets along a northwest trending anomaly 100 m wide by at least 400 m long stretching northwest from the Gibson Lake stripping area.

In addition to the bedrock stripping and channel sampling, backhoe sampling was completed in 2012 along the edge of Little Beaver Lake at one location to examine the depth of tailings and distribution of silver and other metals in the tailings profile. Five samples were assayed at AGAT Labs and returned silver values between 74.8 g/tonne (2.18 ounces per ton) and 404 g/tonne (11.78 ounces per ton).

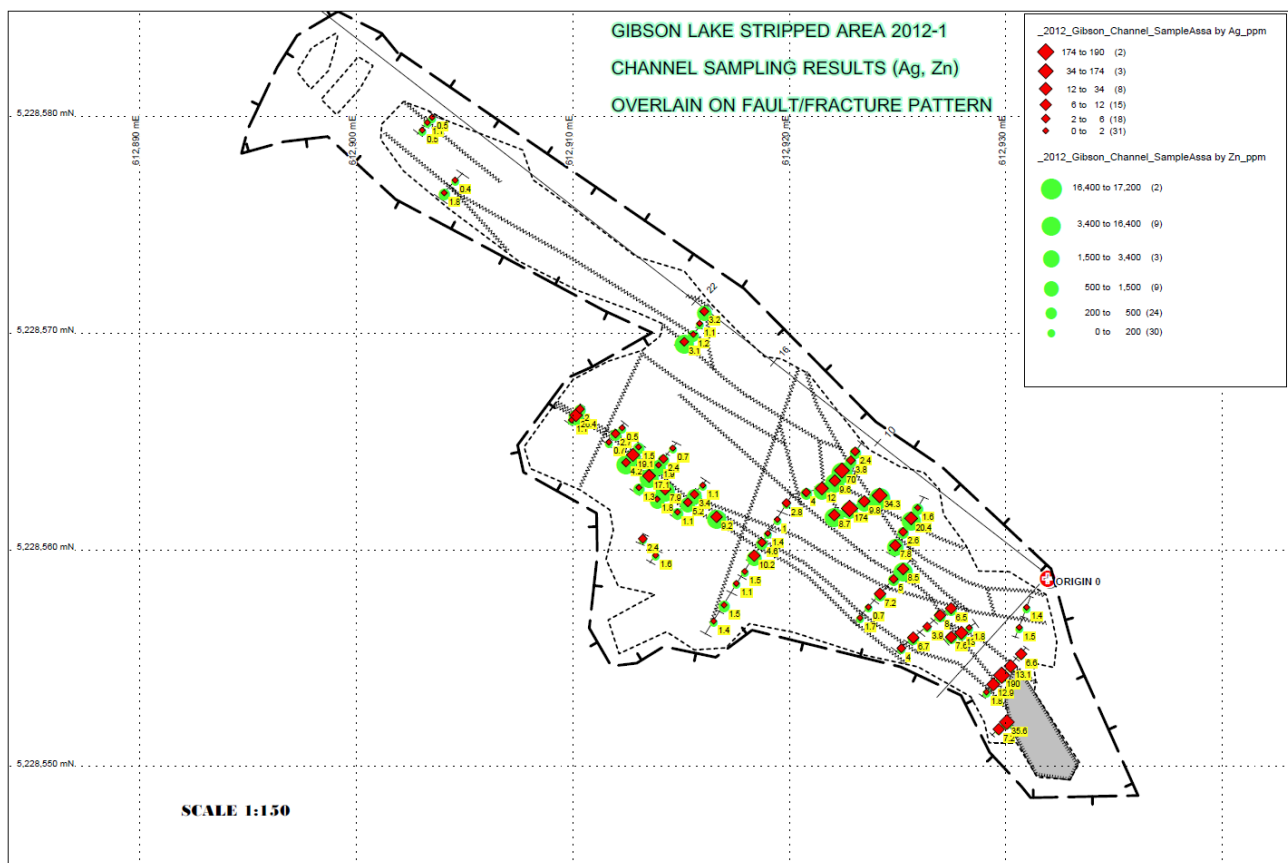


Figure 8: 2012 Gibson Lake stripped area – Channel sample results (Ag)

In 2013, Canadian Silver Hunter power-stripped an area along the #1 Fault structure, proximal to the Frontier #1 Shaft, approximately 440 m east of the Gibson Lake stripping area (Figure 7). No channel sampling was completed in 2013 due to depth of overburden and flooding of the trenches. In 2014, the area was revisited, with additional power-stripping, mapping and channel sampling. Results indicate that the #1 Fault structure in this area consists of a wide (20 m) zone of fractured, epidotized and silicified pillowed metavolcanics, cut by syenitic and micaceous dykes.

The Frontier #1 Shaft area channel samples returned anomalous silver, arsenic, and copper (up to 20.7 g/t Ag, 0.16% As and 25.7 to 1,650 ppm Cu). No discrete veins were sampled; higher metal values are associated



with pyrrhotite-pyrite-chalcopyrite veinlets within patchy epidote-silica altered metavolcanics. The mineralisation and assay results are similar to the Gibson Lake area, although the Gibson Lake area returned locally higher silver, zinc and lead values including 86.6 g/t Ag, 0.28% Cu, 0.65% Zn and 0.91% Pb over 2.25 m.

The excavating, power washing and channel cutting program was carried out under contract by Laframboise Drilling Inc. of Earlton Ontario, managed and supervised by David R. Jamieson P.Geo. and Dean R. Cutting P.Geo. Channel samples were cut with a gas-powered saw using a diamond blade, and sent for aqua regia digestion and multielement analysis (ICPOES finish) at AGAT Laboratories Ltd in Mississauga, Ontario. Sample collection, analysis and QAQC procedures were the same as those described for the 2012 stripping and channel sampling programs.

6.3 Exploration History of the Cobalt Area Properties

The Issuer's Cobalt Area Properties comprise 11 small non-contiguous claim blocks which are not part of the Greater Cobalt Project's immediate (2017) exploration plans. These properties have been acquired as part of a longer-term acquisition strategy in the Cobalt camp.

The exploration histories of the Cobalt Area Properties will not be presented in this report as they are not considered material as of the Effective Date.

6.4 Significant Historic Mineral Resource and Mineral Reserve Estimates

There are no significant historical Mineral Resource and Mineral Reserve estimates applicable to Greater Cobalt Project Properties and mineral occurrences.

6.5 Historic Mineral Production

6.5.1 Silver Centre Property – Keeley Frontier Claim Group – Keeley and Frontier Mines Historic Production

The Keeley Mine of Keeley Silver Mines Ltd produced intermittently from 1908 to 1942 with most of the production occurring between 1921 and 1931. Total reported production was 12,154,353 oz Ag (378,043 kg) and 1,617,684 lbs (73,377 kg) Co (Table 11).

The Frontier Mine was operated by Mining Corporation of Canada Ltd from 1921 to 1943 and produced 6,695,415 oz (208,251 kg) Ag and 1,683,769 lb (763,746 kg) Co and 12,158 lb (5,515 kg) Ni (Table 11).

Keeley Frontier Mines Ltd/Canadian Keeley Mines Ltd operated the combined Keeley and Frontier mines during the 1963–1965 period and produced 347,645 oz (10,812 kg) Ag, 9,003 lb (4,083 kg) Co and 14,358 lb (6,512 kg) Ni (Table 11). The 1963–1965 production was primarily from the Keeley Mine and included reprocessed tailings.

Table 11: Keeley and Frontier Mine production (1908 to 1965)

Year	Silver (oz)	Silver (kg)	Cobalt (lb)	Cobalt (kg)	Nickel (lb)	Nickel (kg)	Copper (lb)	Copper (kg)
Frontier								
1921	47,227	1,469						
1922	508,958	15,830	31,529	14,301				
1923	1,300,323	40,445	143,545	65,111				
1924	466,047	14,496	54,687	24,806				
1925	1,158,854	36,044	253,191	114,846				
1926	1,104,597	34,357	80,582	36,551				
1927	902,591	28,074	88,980	40,361				
1928	395,692	12,307	117,418	53,260				
1929	14,295	445	7,162	3,249				
1930	404,903	12,594	292,351	132,608				
1931	320,302	9,963	550,773	249,827				
1932	22,144	689	6,517	2,956				
1935	14,000	435	2,000	907				
1936	7,306	227	10,253	4,651				
1937	8,368	260	3,804	1,725				
1938	2,097	65	5,235	2,375	3,157	1,432		
1939	5,278	164	15,881	7,204	7,954	3,608		
1940	4,327	135	1,470	667	1,047	475		
1941	4,233	132	7,910	3,588				
1942	3,007	94	7,516	3,409				
1943	866	27	2,965	1,345				
Subtotal	6,695,415	208,251	1,683,769	763,746	12,158	5,515		
Keeley								
1908	13,124	408	24,800	11,249				
1909	11,213	349	236	107				
1914	3,524	110						
1918	39,199	1,219	2,410	1,093				
1919	4,586	143	3,160	1,433				
1920	8,253	257	9,897	4,489				
1921	281,659	8,761	16,167	7,333				
1922	775,349	24,116	167,062	75,778				
1923	1,655,323	51,486	175,689	79,691				
1924	1,903,793	59,215	231,005	104,782				
1925	1,446,679	44,997	167,020	75,759				
1926	1,705,531	53,048	210,764	95,601				
1927	1,153,024	35,863	99,402	45,088				
1928	690,168	21,467	99,841	45,287				
1929	837,331	26,044	119,766	54,325				
1930	1,351,121	42,025	91,700	41,594				
1931	265,458	8,257	196,089	88,945				
1935	2,412	75						
1942	6,606	205	2,776	1,259	736	334		
Subtotal	12,154,353	378,043	1,592,748*	722,459	736	334		

Year	Silver (oz)	Silver (kg)	Cobalt (lb)	Cobalt (kg)	Nickel (lb)	Nickel (kg)	Copper (lb)	Copper (kg)
Keeley-Frontier								
1963	136,274	4,239	9,003	4,084	14,322	6,496	10,292	4,668
1964	93,609	2,912			26	12		
1965	117,762	3,663						
Subtotal	347,645	10,813	9,003	4,084	14,348	6,508	10,292	4,668
TOTAL (1908 to 1965)	19,197,413	597,107	3,285,520*	1,490,289	27,242	12,357		

*McIlwaine's (1970) 1908–1942 Keeley Mine cobalt production total was reported at 1,617,784 lb Co but the column actually totals 1,592,748 lb Co. The reason for the error is unknown, the Author has utilised the latter total in the Keeley subtotal and corrected the 1908–1965 total production from the Keeley and Frontier Mines in Table 11.

Source: McIlwaine, 1970

Actual production is probably higher than recorded in Table 11 because under the Delora Smelter contract, the smelter accepted ore for either its silver content or its cobalt content. For example, in 1930 and 1931 when the silver price was too low for profitable mining, both mines shipped cobalt ore with considerable silver content but were only credited for the cobalt content (Hammerstrom *et al.*, 1981). Similarly, cobalt production shipped from the Frontier Mine under Mining Corporation contract with Delora was credited to its main operation in Cobalt proper, not the Frontier Mine (Hammerstrom *et al.*, 1981). Credits were not readily given for minor elements present; Ni, Bi, As, Sb etc. (Harron, 2011)

To the end of 1965, South Lorrain Township (Silver Centre) had produced a total of 23,338,906 oz of silver with 82% of this coming from the Keeley and Frontier Mines, and over 50% from the Keeley Mine itself (McIlwaine, 1970).

6.5.2 Silver Centre Property – BMC Claim Group – Bellellen Mine Historic Production

Sergiades (1968) reported total production of 1,182,772 g (38,027 oz) Ag; 12,930 kg (28,481 lb) Co and 6,085 kg (13,404 lb) Ni from the Bellellen Mine between 1910 and 1943 (intermittent).

7 Geological Setting and Mineralisation

7.1 Regional Geology

The following summary is largely taken from Andrews *et al.* (1986), Smyk and Watkinson, (1990), Born and Hitch (1990), Guindon *et al.* (2016), and others.

The Cobalt/Silver Centre area is underlain by Precambrian rocks of the Superior and Southern provinces. Outliers of Paleozoic strata are exposed immediately to the north in the Haileybury area and further to the north between New Liskeard and Englehart.

Archean Keewatin rocks are the oldest rocks in the Cobalt/Silver Centre area and form the southernmost portion of the Western Abitibi sub-province of the Superior Province. These rocks include predominantly massive and pillowed intermediate to mafic metavolcanic flows with intercalated pyroclastics and metasedimentary rocks, including cherty and sulphidic interflow sediments; felsic metavolcanic rocks are relatively rare. The Archean rocks were folded and intruded by mafic to ultramafic dikes and granite stocks and batholiths (Table 12).

The eroded Archean surface is unconformably overlain by relatively flat lying Paleoproterozoic sedimentary rocks of the Huronian Supergroup which forms the mildly deformed Cobalt Embayment of the Southern Province. The Supergroup comprises four individual shelf type sedimentary cycles. Each cycle consists of a lower sequence of conglomerate of probable glacial origin succeeded by mudstone, siltstone and coarse arenite; some chemical sediments are associated with the uppermost cycle (Cobalt Group). Southwest of Sudbury the Huronian Supergroup attains a thickness of 12 km and thins northward across the Cobalt Embayment due to wedging out of lower cycles, a thinning of clastic units and erosion within the sequence (Harron, 2008). At the northeast edge of the Cobalt Embayment in the Cobalt area (Figure 9), the Huronian Supergroup rocks comprise only the Cobalt Group (Gowganda and Lorrain Formations) and are commonly found filling interpreted paleo-valleys or troughs in the Archean basement (Table 12).

Early Proterozoic-age Nipissing Diabase, a suite of tholeiitic gabbroic intrusive rocks and differentiates, intrude both the Archean basement and the Huronian Supergroup sediments. The Nipissing Diabase are the most abundant and widespread igneous rocks intruding the Huronian sediments and occur as dykes, and sills up to several hundred metres thick uniformly distributed across the Cobalt Embayment. In the Cobalt area, the Nipissing Diabase is interpreted as a thick undulating sheet intruding the Cobalt Group sediments at or immediately above the Archean unconformity. Minor Middle Proterozoic diabase dikes intrude all the rocks (Table 12).

The grade of regional metamorphism in the area ranges from subgreenschist facies in the Huronian sedimentary rocks to greenschist facies in the Archean metavolcanic rocks (Born and Hitch, 1990). Contact metamorphism of sedimentary rocks of the Gowganda and Lorrain Formations occurred during the emplacement of Nipissing Diabase at around 2219 Ma, including chlorite-spotted alteration and feldspar clotting. Mineral assemblages in Nipissing Diabase rocks generally reflect greenschist metamorphism which probably occurred during the Penokean Orogeny at around 1900 Ma.

The Lake Temiskaming Structural Zone (graben) trends north-northwest from the Grenville Front and extends across the Cobalt Embayment well beyond the Cobalt/Kirkland Lake area. The axial portion of the graben is filled with flat lying Ordovician and Silurian sedimentary rocks that rest unconformably upon both Archean and Proterozoic terranes. Faulting affects these Paleozoic rocks.

Cretaceous to Jurassic age kimberlite intrusions occur within and proximal to the Lake Temiskaming Graben. Recent exploration indicates that some of the (20 or more) kimberlite intrusions are diamondiferous (Harron, 2008). Sage (1996) notes that kimberlites of the Cobalt-New Liskeard area are often spatially associated with northwest-trending Lake Temiskaming structures and oblique cross structures.

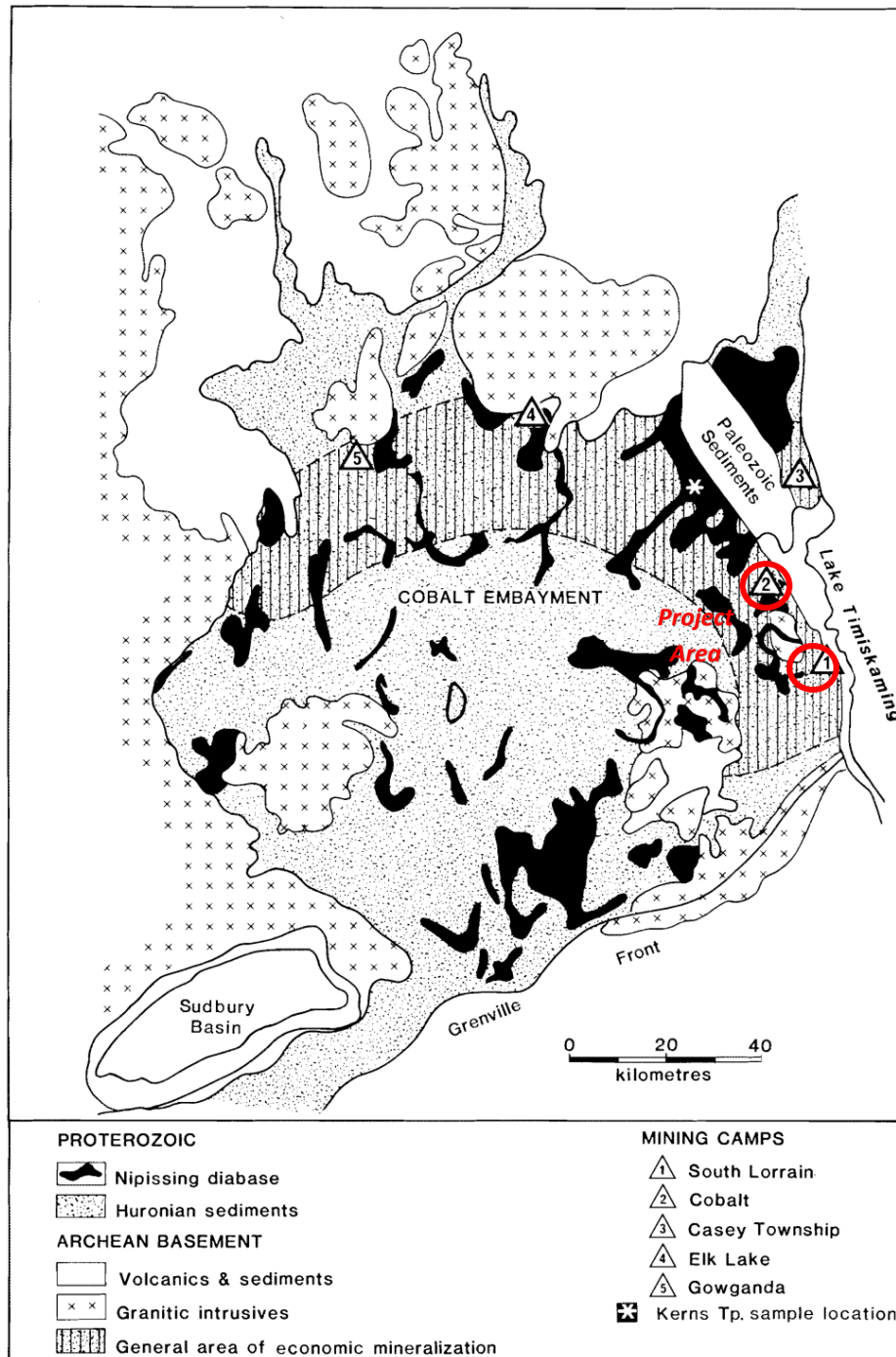


Figure 9: Simplified geology of the Cobalt Embayment

Source: Andrews *et al.*, 1986

Table 12: Lithologic units in the Cobalt region

PHANEROZOIC**CENOZOIC****QUATERNARY****PLEISTOCENE AND RECENT***Sand, gravel, clay and swamp deposits***UNCONFORMITY****PRECAMBRIAN****MIDDLE PROTEROZOIC****Lamprophyre Dikes and Diatreme Breccia***Lamprophyre dikes, Lake Temagami-type diatreme breccia***Olivine Diabase Dikes (Sudbury Swarm)***Fine-grained (chilled), coarse-grained and plagioclase porphyritic olivine diabase***INTRUSIVE CONTACT****EARLY PROTEROZOIC****Mafic Intrusive Rocks****Nipissing Diabase***Gabbro, hypersthene gabbro, quartz gabbro, leucogabbro, varied textured gabbro, granophyre, sheared and/or hydrothermally altered gabbro***INTRUSIVE CONTACT****HURONIAN SUPERGROUP****Cobalt Group****Lorrain Formation***Arkose, shaly mudstone quartzite, contact metamorphic rocks***CONFORMABLE CONTACT****Gowganda Formation****Firstbrook Member***Siltstone, mudstone, arenite; contact metamorphic rocks; tectonically brecciated sediments***CONFORMABLE CONTACT****Coleman Member***Basal (regolithic) conglomerate; clast-supported, massive conglomerate; matrix-supported conglomerate; pebbly wacke and lesser arenite; shaly mudstone; sheared and tectonically brecciated sediments***UNCONFORMITY****ARCHEAN****Felsic to Intermediate Plutonic Rocks***Mafic diorite and minor quartz diorite; tonalite; granodiorite; granite***INTRUSIVE CONTACT****Metavolcanic Rocks****Intermediate to Felsic Metavolcanic Rocks***Dacite; rhyolite; lapilli-stone tuffs and pyroclastic flows***Mafic to Intermediate Metavolcanic Rocks***Amphibolite; basalt; pillowed basalt; plagioclase-phyric basalt; variolitic basalt; andesite; minor sedimentary and/or pyroclastic debris flows*

Source: Born and Hitch, 1990

7.2 Property Geology

7.2.1 Silver Centre Property Geology

The oldest rocks on the Property are folded, faulted, and steeply dipping metamorphosed Archean (Keewatin) intermediate to mafic pillowed flows, tuffs, and agglomerates. Numerous early (Haileyburian) biotite lamprophyre and hornblende lamprophyre intrude the Archean volcanics (McIlwaine, 1970). McIlwaine (1970) noted that the Keeley No. 16 vein follows a biotite lamprophyre dike for most of its length and other veins have been found in a similar environment; the opinion has been expressed that the lamprophyre dikes take a part in localising the silver-cobalt veins of the Silver Centre area (Kent, 1965).

A small granodiorite body intrudes the Archean age volcanic rocks near Beaver Lake.

A major erosional unconformity resulted in the development of basins and highlands on the surface of Archean metavolcanics and intrusives. In the Property area, Huronian-age Gowganda Formation, Coleman Member sediments were deposited in the basins and remain relatively undeformed. The beds are generally close to flat-lying, except in the areas of faults where they dip steeply (McIlwaine, 1970). The vertical thickness of the Coleman Member is interpreted to be between 55 m and 240 m in the vicinity of the Property based on historic drill logs (McIlwaine, 1970). McIlwaine (1970) suggests that the variation in thicknesses represents irregular basement topography on which the Coleman Formation was deposited, with the suggestion of a local trough trending east-northeast subparallel to the flanks of the diabase domes. South of the dome, McIlwaine (1970) estimated that the Coleman Formation might reach a maximum thickness of approximately 300 m based on bedding attitudes and topography. The rocks of the Coleman Member are a heterogeneous mixture of greywacke and quartzose siltstone, arkose, argillite, and conglomerate. Conglomerate pebbles, cobbles, and rare boulders are generally pink granitic rocks with minor white granite, “greenstone”, and diabase. They are generally sub-angular to sub-rounded and range up to 15–20 cm in diameter.

The Nipissing Diabase intrudes the Archean volcanics and the Huronian sediments and is approximately 277 m (910 ft) thick in the Keeley-Frontier Mine area. McIlwaine (1970) considers the Nipissing Diabase in South Lorrain Township to be a single sheet, with numerous rolls, both major and minor. On the east side of the Property, the diabase is in the form of a dome, with the central part removed by erosion. The axis of the dome strikes north-northeast. This axis is subparallel to the margin of the interpreted basin of deposition of the Cobalt Group sedimentary rocks. The south flank of the dome which lies southeast of the Property dips steeply southeast, and on the northwest and wider flank, contours of the top of the diabase, based on historical underground workings and diamond drilling, indicate an anticlinal limb dipping to the west across the property. The average dip of the sill is 15° to 34°, but Kent (1965, p- 4) states that there is evidence of a marked flattening to about 8° on claim T46400 and that there is possibly a major downthrow farther west. The north contact of the northwest flank dips to the south and thus forms a minor basin within the dome. A second diabase dome with an erosional window through its core exposing underlying Archean metavolcanics is present in the northwest part of the property suggesting a diabase basin structure lies between the two domes (Figure 10). The diabase is typical a fine- to medium-grained, fresh to slightly altered rock.

Numerous faults are present in the area with several periods of deformation postulated: the earliest faults are pre-ore, and most of this set strike north – as supported by McIlwaine’s (1970) observation that lamprophyre dykes are contained within the same north trending structures as the Woods and Watson Veins; there are possibly two ages of northwest-trending faults, pre- and post-olivine diabase intrusion; and

finally, a minor north-easterly trending set of faults, for which the evidence indicates that these are the youngest Precambrian faults in the area (McIlwaine, 1970).

Based on the Lake Temiskaming Fault, and several northwest-striking faults in the Cobalt area being post-Silurian in age it is suggested that some of the faults in South Lorrain Township are also post-Silurian and probably branches of the Lake Temiskaming Fault (McIlwaine, 1970).

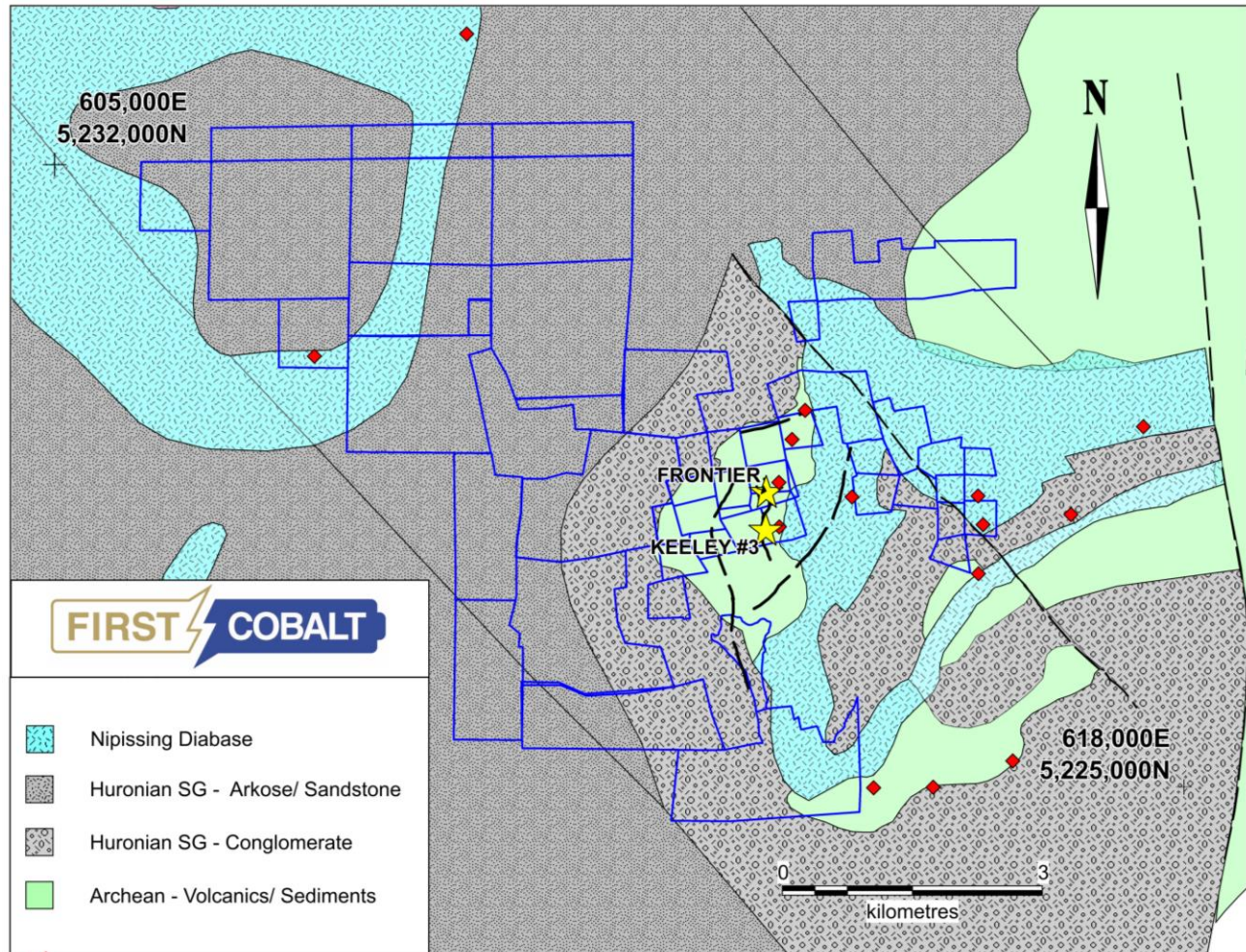


Figure 10: Silver Centre Property Geology

7.2.2 Geology of the Cobalt Area Properties

The Issuer's Cobalt Area Properties comprise 11 small non-contiguous claim blocks which are not part of the Greater Cobalt Project's immediate (2017) exploration plans. These properties have been acquired as part of a longer-term acquisition strategy in the Cobalt camp.

The detailed geology of the Cobalt Area Properties will not be presented in this report as they are not considered material as of the Effective Date.

7.3 Significant Mineralised Zones on the Cobalt Project

7.3.1 Silver Centre Property

The native silver-cobalt arsenide veins in the South Lorrain township area typically contain native silver, cobaltite, lollingite, niccolite, breithauptite, smaltite and calcite (Mayer and Pearson, 1989). Mineralogically, the veins are similar to those in the main Cobalt camp; however, their structural and stratigraphic setting is different. Whereas more than 90% of the silver produced in the main Cobalt camp came from veins in the Huronian Cobalt Group sediments adjacent to (underlying) the lower diabase sill contact, productive veins in the South Lorrain township area were predominantly in Archean metavolcanic rocks adjacent to (overlying) the upper contact of the diabase sill. Only limited production, approximately 300,000–400,000 oz., came from veins in Archean rocks below the diabase in the Keeley mine (Mayer and Pearson, 1989; Figure 11). While many workers suggest that the Archean rocks below the diabase in the Silver Centre Camp are less prospective than those above the upper diabase contact, this may be more apparent than real given the historic lack of significant exploration beneath the diabase in the camp. No significant silver-bearing veins have yet been found in Cobalt Group sediments in the South Lorrain township area. Mayer and Pearson (1989) speculate that this may be because to the east, Huronian sediments are adjacent to (underlie) the historically less favourable lower contact of the Nipissing Diabase at Silver Centre, while to the west the Huronian sediments are too high, +/- 250 m (800 ft) above the diabase and are outside the “productive horizon” above the diabase sill.

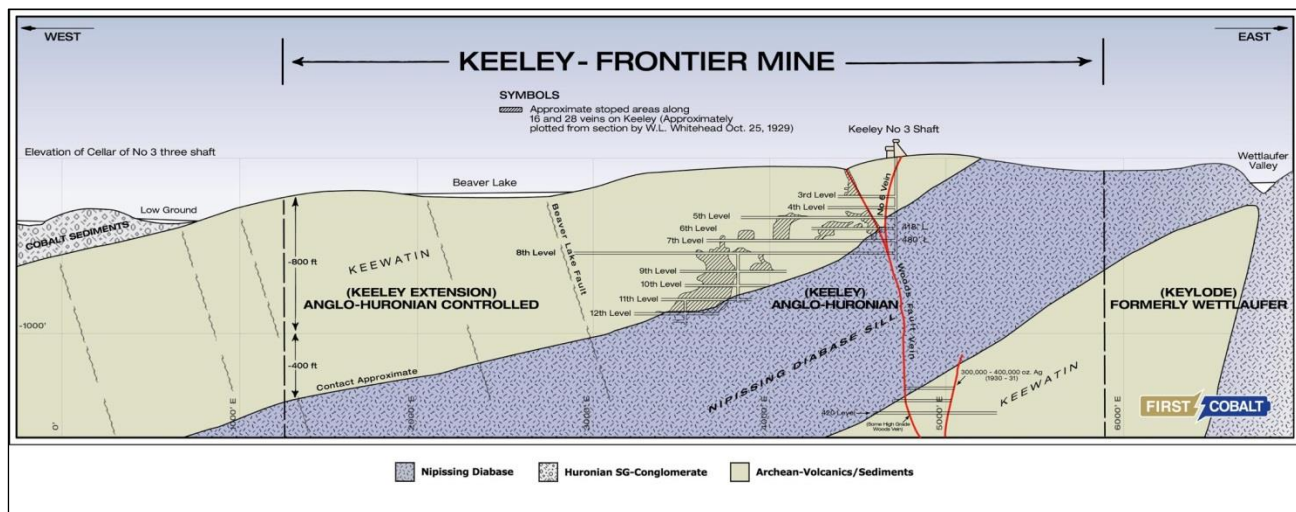


Figure 11: Section through the Keeley-Frontier Mine showing spatial relationship of mineralisation and the Nipissing Diabase/Archean metavolcanic contact

Keeley Frontier Mines

The Keeley and Frontier Mines were developed on the most significant and productive veins in the Silver Centre camp on the northwest flank of the South Lorrain diabase dome. The Keeley and Frontier Mines comprise both north-south and east-west vein systems. The productive parts of these veins occur within about 120 m (400 ft) of the Nipissing Diabase/Keewatin contact with the richest veins being those that continued into the diabase. Within this favourable area along and above the upper contact the most important factors controlling development are as follows (McIlwaine, 1970):

1. The intersection of two or more veins;



2. The intersection of veins with unmineralised faults or with flat faults;
3. A flexure or “roll” in a vein caused by an abrupt change in strike and/or dip; and
4. The intensity of fracturing in the vicinity of faults.

Factors 1 and 2 are most useful for regional exploration. Once a vein structure has been located, however, the latter two criteria are more important.

Ore shoots tend to be controlled by a marked variation in attitudes (“rolls”) in fault-vein structures and to a limited extent by hornblende lamprophyre dykes which appear to locally control ore deposition (McIlwaine, 1970). Ore shoots ranged from 3 m to 30 m in length, 15 cm to 1 m wide; one shoot measured 31 m by 10.7 m and up to 1.02 m wide (Harron, 2011).

Historically, the most important veins on the property were the Woods and Watson which strike north-south and the No. 26, No. 20 and No. 16 veins and to a lesser extent the No. 28 vein, all of which strike approximately east-west (Figure 12; Mayer and Pearson, 1989).

The Woods Vein was the most productive vein and was mined for a strike length of 670 m (2,200 ft). It accounted for about 70% of total production in both mines. This fault structure strikes north and dips 55° to 69°E and contained several very high-grade silver-bearing ore shoots, two of which are as follows (Knight, 1922; Mayer and Pearson, 1989):

1. 300 ft level on the Crompton Mine (now part of Frontier). This shoot was 31 m (102 ft) long, having an average height of 10.7 m (35 ft), produced 900,000 oz Ag to the end of 1923. Assuming a 1.5 m (5 ft) mining width and a tonnage factor of 12 cu. ft/ton, this would represent about 1,490 tons grading 604 oz Ag/ton (Mayer and Pearson, 1989).
2. “N” shoot on the 7th level of the Keeley Mine (Figure 3). This shoot was 60 m (198 ft) long and had an average assay of 370 oz/ton Ag across a 48 cm (19 in) average vein width, or 117 oz/ton Ag over a 1.5 m (5 ft) mining width (Mayer and Pearson, 1989).

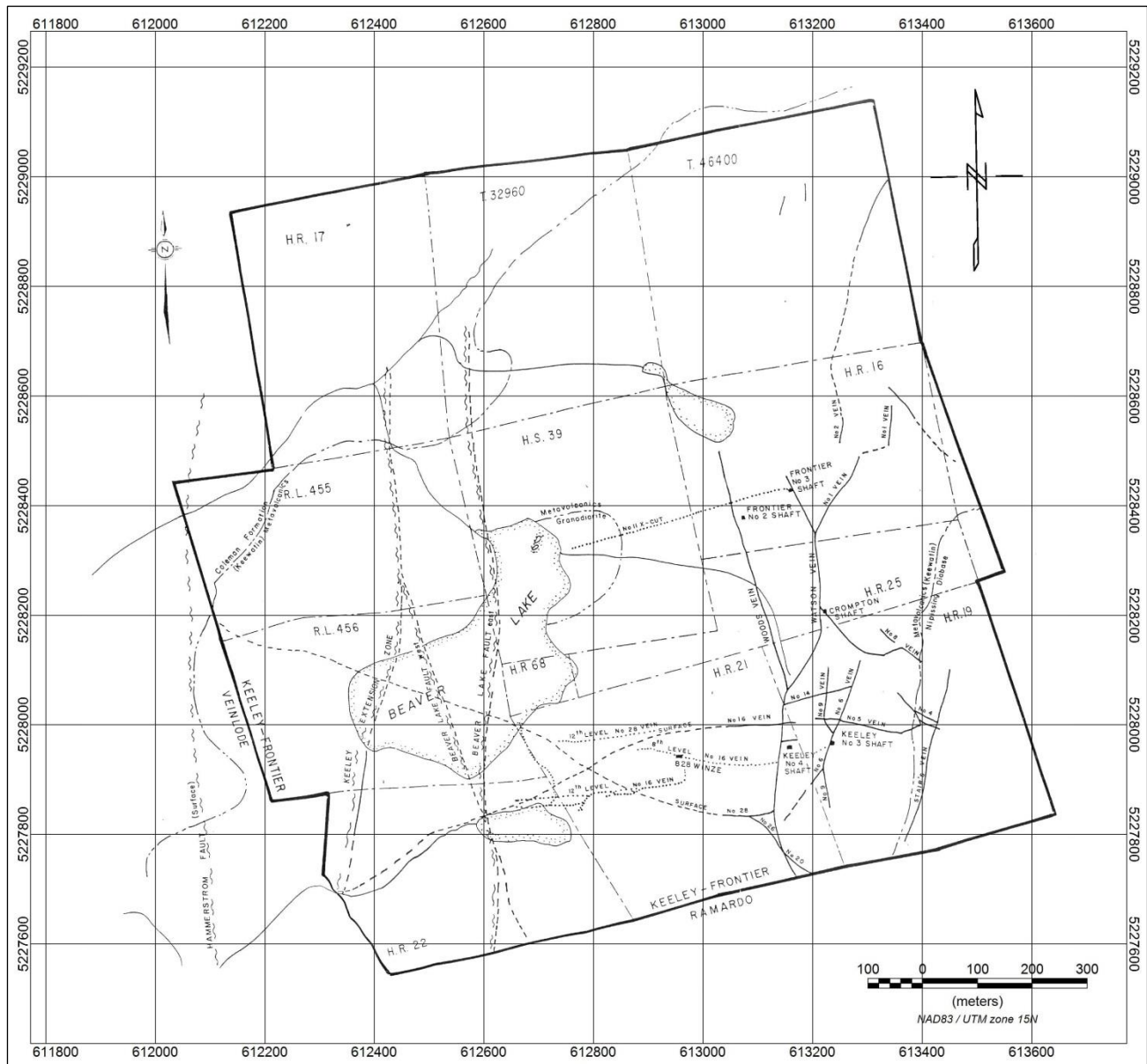


Figure 12: Silver Centre Property – Keeley-Frontier patent claim geology and vein distribution

Source: Mayer and Pearson, 1989

Figure 13 is a longitudinal section of the Woods Vein showing underground development in both the Keeley and Frontier mines. Planimeter measurements by Mayer and Pearson (1989) of the stopes on the original mine section indicate that about 150,000 tons of ore was mined assuming a 1.5 m (5 ft) average mining width and a tonnage factor of 12 cu.ft/ton. According to W. Hammerstrom, who was the mine geologist during much of the production period, total production from the Woods Vein was about 6,000,000 oz Ag in the "N" shoot; about 3,000,000 oz Ag from the "D" orebody in the No. 3 Keeley shaft area; and 4,000,000 oz Ag from the Frontier Mine portion of the vein (Mayer and Pearson, 1989). Total production from the Woods Vein was therefore about 13,000,000 oz Ag from 150,000 tons of ore for an average mining grade of 87 oz/ton Ag (Mayer and Pearson, 1989).

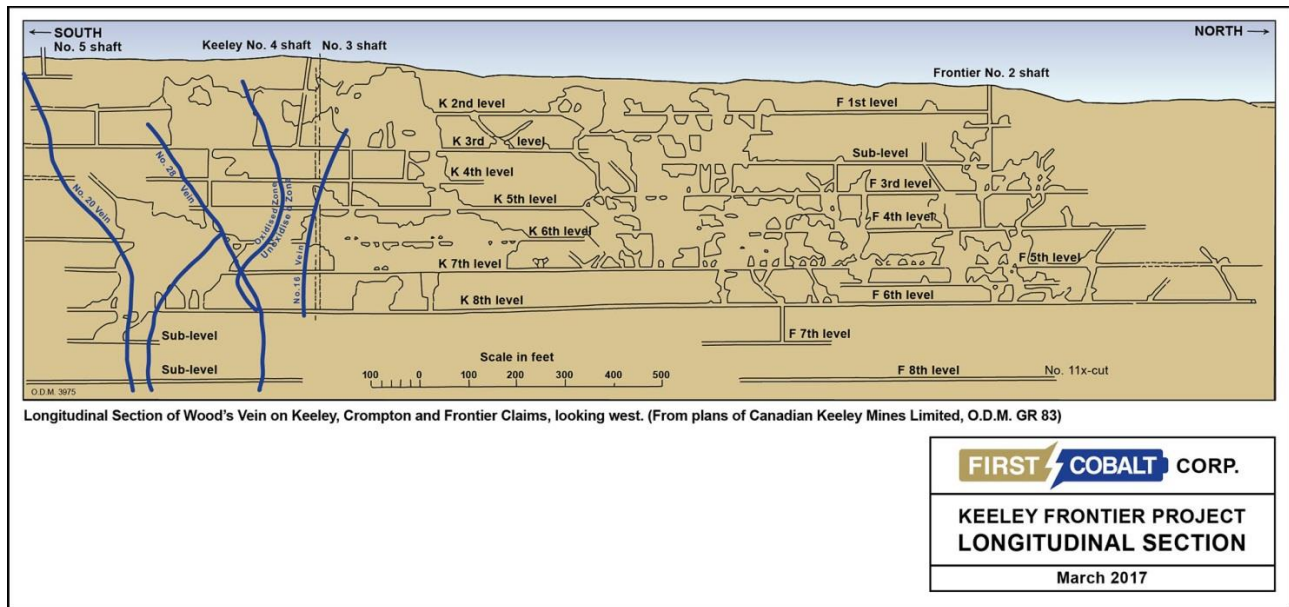


Figure 13: Longitudinal section Keeley-Frontier mine workings on the Woods vein looking west

An unusual feature of the Woods Vein is the presence of significant secondary (i.e. supergene) enrichment due to preserved pre-glacial weathering which extends to a depth of 146 m (McIlwaine, 1970), particularly in the “N” shoot. The vein is altered to soft, brownish-red hematite-rich rock. Wallrock adjacent to the vein, particularly Nipissing Diabase, is strongly kaolinized (Mayer and Pearson, 1989). The vein is vuggy and silver is in leaf, wire, ruby and spongy forms, smaltite is both massive and vuggy in grape-like form (McIlwaine, 1970).

The Watson Vein is a branch of the Woods Vein and intersects the No. 1 vein to the north (Figure 12). About 80 m (260 ft) south of the No. 1 vein junction, the Watson Vein was reported by Knight (1922) to contain a shoot 9.1 m (30 ft) long and 6.7 m (22 ft) high with a maximum width of 58 cm (23 in), which produced 125,000 oz Ag. According to W. Hammerstrom, total production from the Watson vein was about 3,000,000 oz Ag and production from the No. 1 vein was about 100,000 oz Ag (Mayer and Pearson, 1989).

The No. 26 and No. 20 veins are branches of the Woods Vein to the west and east, respectively, which occur near the junction of the Woods and 28 veins. These veins are probably the same structure and although they have limited strike length, they extend from surface to about the Keeley No. 10 level. The richest area in the mine, the “N” shoot, was at the intersection of the No. 26 and No. 20 veins with the Woods Vein near the Nipissing Diabase/Archean metavolcanic contact (Figure 12 and Figure 13; Mayer and Pearson, 1989).

The No. 26 vein contained a very high-grade shoot 22.6 m (74 ft) long which had an average assay of 2,600 oz Ag across a 38 cm (15 in) average width, which is equivalent to 650 oz Ag/ton over a 1.5 m (5 ft) mining width. According to company reports, not less than 250,000 oz of silver was removed from 22.6 m (74 ft) of drifting muck on this vein before any stoping was carried out (Mayer and Pearson, 1989). The No. 20 vein was also mined; however, no production and grade data are available.

The No. 16 vein varies in width from 1.3 cm (0.5 in) to 61 cm (2 ft), averaging about 13 cm (5 in) and is associated with a 2.1 m (7 ft) wide biotite lamprophyre dyke for most of its length. The vein strikes east-west, dips 65°S in the volcanic rocks but steepens to near vertical in the underlying Nipissing Diabase. On the sixth level of the Keeley Mine immediately west of the Woods Vein, a rich shoot in the 16 Vein, 9.1 m

(30 ft) long and 7.6 m (25 ft) high, produced 150,000 oz Ag (Knight, 1922); 480 oz Ag/ton over a 1.5 m (5 ft) mining width (Mayer and Pearson, 1989).

The No. 28 vein, in the area mined, strikes east-west, dips 50–60°N, and intersects the No. 16 vein at about 122–152 m (400–500 ft) below surface. Typically, the No. 28 vein is marked by a wide, up to 2.1 m (7 ft) gouge zone. Combined production from the No. 16 and No. 28 veins, was estimated by Hammerstrom to be about 3,000,000 oz, of which the No. 16 accounted for about 70% (Mayer and Pearson, 1989). Planimeter measurements of old stope plans, using the same assumptions as for the Woods Vein, gives an estimated tonnage of 33,000 tons with an average grade of 91 oz Ag/ton (Mayer and Pearson, 1989).

Very little data is available on the grades and distribution of cobalt in the veins previously mined on the Keeley-Frontier property. The production records, however, indicate that the cobalt content was appreciable at about 0.2 lb. Co for every ounce of Ag produced (Mayer and Pearson, 1989). Assuming that the Woods Vein accounted for 70% of cobalt production, this would give about 1,048,000 kg (2,310,000 lb) Co from 136,078 t (150,000 tons) of feed for an average grade of about 0.8% Co (Mayer and Pearson, 1989). The actual mine grade was probably higher because of the unreported cobalt content in silver concentrates shipped to the Delora smelter (Mayer and Pearson, 1989).

Bellellen Mine

At the Bellellen Mine, a 91 m long north-trending calcite vein up to 38 cm wide occurs in steeply dipping Keewatin volcanics that strike north. Underground workings on the vein extended to a depth of 104 m below surface. The volcanics are intruded by the west side of a domed Nipissing quartz diabase sheet up to 300 m thick that dips about 40° west beneath the mine workings. The veins are mineralised with chloanthite (the diarsenide of nickel) as well as native silver and smaltite (cobalt iron nickel arsenide). On the first level (28 m below surface) the calcite vein was reported to be 15–18 cm wide and the mineralisation in the vein a maximum of 15 cm wide. The mineralisation is characterised by high nickel content. Reported grades were: 1,259 oz/ton Ag from 24 tons mined in 1910–1911 and 43 oz/ton Ag, 159 lb/ton Co, and 275 lb/ton Ni from 35 tons mined in 1916. The 12.27 tons shipped in 1943? ran 9.25% Co and 11.55% Ni (McIlwaine, 1970). Total production (intermittent from 1910 to 1943) was: 1,182,772 g (38,027 oz) Ag; 12,930 kg (28,481 lb) Co and 6,085 kg (13,404 lb) (Guindon *et al.*, 2016).

8 Deposit Types

The exploration target at the Greater Cobalt Project is arsenide Ag-Co vein deposits of which the historic Cobalt Camp and satellite Silver Centre Camp are the type locality. The arsenide Ag-Co vein deposit type is also referred to as the Five-Element (Ni-Co-As-Ag-Bi) Vein (FEV) deposit type (Kissin, 1993). The following descriptions of the arsenide silver-cobalt vein deposit model (Sections 8.1 and 8.2) are extracted and modified from Ruzicka and Thorpe (1996).

8.1 Physical Model – Arsenide Ag-Co Vein Deposits

Arsenide silver-cobalt vein deposits are localised in areas affected by basinal subsidence and rifting and are spatially related to regional fault systems and closely associated with intrusions of mafic rocks. The arsenide Ag-Co vein deposits in the Cobalt Camp are associated with Aphebian conglomerate, quartzite, and greywacke rocks of the Cobalt Group (Coleman Member of the Gowganda Formation), as well as with major sill-like bodies of Nipissing Diabase and with Archean mafic and intermediate lavas and intercalated pyroclastic and sedimentary rocks (Figure 14).

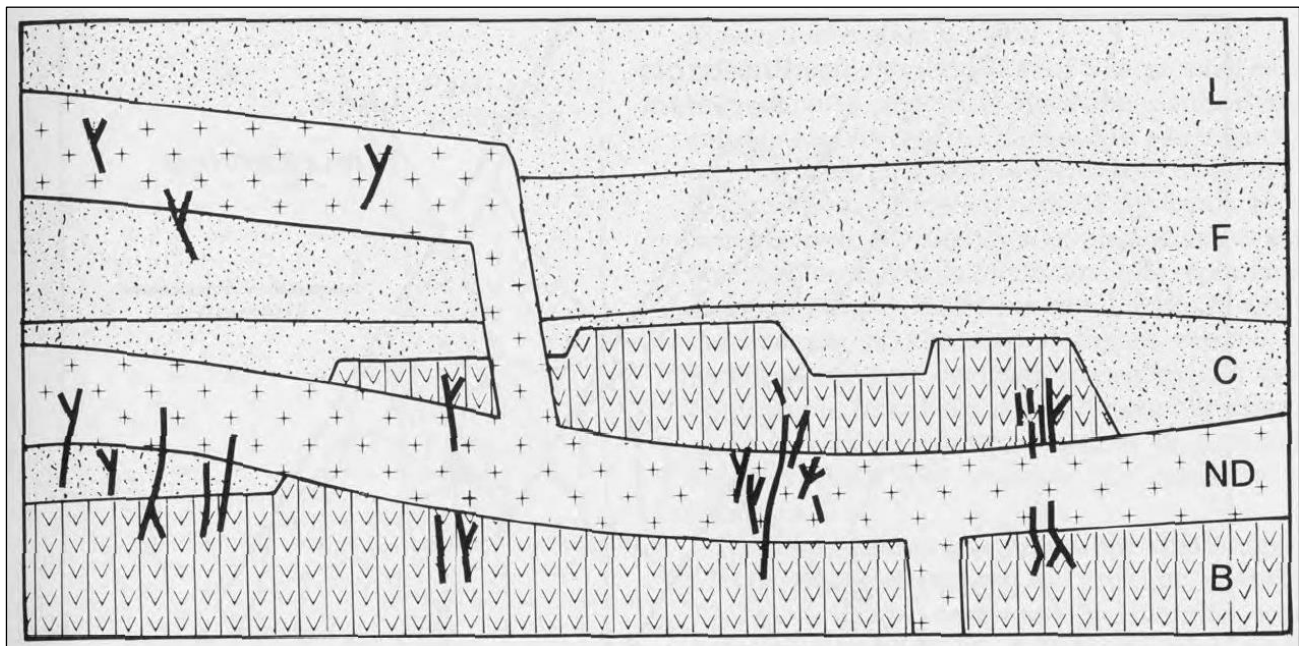


Figure 14: Simplified geological schematic section showing relationship between major lithological units and distribution of arsenide silver-cobalt vein systems (black lines)

Note: Huronian sediments include the Lorrain Formation (L), and the Gowganda Formation's Firstbrook Member (F) and Coleman Member (C). Archean basement rock (B) are steeply dipping metavolcanic sequences. All units are intruded by Nipissing diabase (ND).

Source: Andrews *et al.*, 1986a

The deposits in the Cobalt Camp contain three principal mineral assemblages: (i) a relatively minor base metal sulphide assemblage, which is confined to Archean metasedimentary and metavolcanic rocks; (ii) the arsenide Ag-Co assemblage, which occurs prevalingly at and near the contacts between the Nipissing Diabase and the sedimentary rocks of the Cobalt Group, and is present to a lesser extent along contacts

between the diabase and the Archean rocks; and (iii) a late stage sulphide assemblage, which is in part distributed along the margins of arsenide-rich veins, where these have apparently been reopened.

The age of the arsenide Ag-Co veins has been established from geological evidence and from dating of the associated diabase sheets. In the Cobalt area, the arsenide Ag-Co veins cut the Nipissing Diabase, but are displaced by post-mineralisation reverse faults, which are contemporaneous with the intrusion of the quartz diabase dykes. Therefore, the deposition of the mineralisation must have taken place after intrusion of the Nipissing Diabase sills, but before intrusion of the quartz diabase dykes, i.e. between 2.22 Ga and 1.45 Ga. The bulk of the mineralisation apparently formed shortly after intrusion of the Nipissing Diabase sheets, which took place about 2.22 Ga (Jambor, 1971a; Corfu and Andrews *et al.*, 1986a).

Distribution of the Ag-Co veins in the Cobalt Camp is controlled by the contact between the Nipissing diabase sheets and the rocks of the Cobalt Group (Gowganda Formation) and to a lesser extent the Archean metavolcanic and metasedimentary rocks. The veins occur in the diabase and in the Aphebian and Archean rocks within about 200 m of their contact with the diabase. They dip steeply, extend horizontally as much as 1,000 m and vertically as much as 120 m, and are as wide as 1.2 m. A typical deposit consists of a few short anastomosing veins of variable thickness from a few centimetres to two or three decimetres.

The metallic minerals occur in irregular high-grade lenses surrounded by aureoles of low grade material. Arsenides, sulpharsenides, and antimonides of Ni, Co, and Fe as well as native Ag, are the principal metallic constituents of the veins. The mineralised veins in the Cobalt area contain native Ag, dyscrasite, acanthite, rammelsbergite, skutterudite, arsenopyrite, gersdorffite, cobaltite, glaucodot, nickeline, breithauptite, chalcopyrite, tetrahedrite, and native Bi. Native Ag and the Co-Ni arsenides are the most abundant metallic minerals. Quartz, chlorite, calcite, and dolomite are the most common gangue minerals (Lang *et al.*, 1970; Petruk *et al.*, 1971a, b, c, d; Jambor, 1971c).

The metallic minerals occur in masses, lenses, veinlets, and disseminations with or without associated gangue minerals and in various textural forms, such as intergrowths, disseminations, dendrites, rosettes, and monocrystals. They are present in distinct mineral assemblages, such as Ni-arsenide, Ni-Co-arsenide, Co-arsenide, Co-Fe-arsenide, Fe-arsenide, sulphide, and oxide (Petruk, 1971), with the following features:

- The Ni-arsenide assemblage is localised in many cases at the periphery of major veins, but also occurs in various places in small veins.
- The nickel-cobalt arsenide assemblage occupies a transitional position between the Ni-arsenide and Co-arsenide assemblages. Much of the best Ag mineralisation is associated with this assemblage.
- The Co-arsenide assemblage occurs generally in the main parts of the veins.
- The Co-Fe-arsenide assemblage is less common than the preceding ones.
- Minerals of the Fe-arsenide assemblage tend to be concentrated at the ends of the veins. They are commonly accompanied by native Bi, galena, and marcasite.
- The sulphide assemblages typically contain chalcopyrite and tetrahedrite, although more than thirty sulphide minerals have been reported (Petruk, 1971). They occur in some of the main carbonate veins, usually in the peripheral portions of highly mineralised sections.
- Oxide minerals, hematite, magnetite, rutile, anatase, ilmenite, and wolframite, occur in the veins only in small amounts. They are typically associated with the carbonate gangue.

The host rocks of the deposits in the Cobalt Camp were affected by several phases of alteration. Intrusion of the diabase sheets was accompanied by contact metasomatic alteration of the country rocks and by deuteric alteration of the diabase itself. A specific kind of contact alteration is the spotted chloritic

alteration, which developed in the vicinity of the Nipissing Diabase prior to mineralisation. It is characterised by the occurrence of chlorite-rich spots, which are surrounded by chlorite-deficient aureoles, and affected many of the rocks intruded by the diabase.

The most prominent alteration was, however, associated with formation of the mineralised veins. Its effects depended upon the composition of the rocks involved. For instance, the alteration of diabase resulted in: (i) replacement of pyroxene by actinolite and some chlorite; (ii) retrogression of plagioclase to muscovite, epidote, and albite; and (iii) replacement of ilmenite and magnetite by leucoxene and titanate (Andrews *et al.*, 1986). The hydrothermal wall rock alteration along the mineralised veins is developed in narrow zones, typically a few centimetres wide. The most distinct alteration zones are developed in the diabase and consist of two or three layers. The first (inner) layer, immediately adjacent to the veins, contains albite, chlorite, and anatase; the second layer has calcite, epidote, and small amounts of muscovite; and the third (outer) layer comprises increased amounts of muscovite (Jambor, 1971b; Andrews *et al.*, 1986).

8.2 Genetic Model – Arsenide Ag-Co Vein Deposits

The solutions that deposited Ag-arsenide ores were initially as hot as 400°C in some cases, although wide ranges of fluid inclusion temperatures (mostly 100° to 250°C) and salinities have been recorded (Franklin *et al.*, 1986; Kerrich *et al.*, 1986; Jennings, 1987; Kissin, 1988). The fluids may have been variable mixtures of basinal brines and meteoric waters. Kissin (1988) has suggested that the deposits were formed in an environment characterised by incipient rifting of continental crust.

In the case of the arsenide Ag-Co veins in the Cobalt area, genetic models have been postulated that involve derivation of the Ag, Ni, Co, As, Sb, Bi, Cu, and Hg either from the Archean sedimentary beds, with minor contributions from certain volcanic flows (Boyle and Dass, 1971), or, more recently, from the formational brines of the Archean carbonaceous, pyritic tuffs or their clastic derivatives in the Proterozoic sedimentary sequence (Watkinson, 1986). The latter hypothesis is supported by fluid inclusion and oxygen isotopic data. Watkinson (1986) inferred from the relatively homogeneous Pb isotopic ratios (Thorpe *et al.*, 1986) that the metalliferous brines had a long residence time in the sulphide-bearing rocks, but were released into tensional fractures upon intrusion of the Nipissing Diabase sills. The sudden release of pressure caused rapid precipitation of the mineralisation in fractures at the diabase contacts (Watkinson, 1986). According to sulphur isotope studies, the mineralisation took place under temperatures between 130°C and 254°C (Goodz *et al.*, 1986). The mineralisation components, principally native Ag, As, and Co, were introduced into the fractures along with carbonate gangue by hydrothermal solutions of high pH and low Eh.

The reader is referred to Kissin (1992, 1993) for a discussion of alternative genetic models for arsenide Ag-Co deposits.

8.3 Exploration Guides – Arsenide Ag-Co Vein Deposits

Selection of exploration targets areas for arsenide-silver-cobalt vein deposits should consider:

1. The contact between the Nipissing diabase sheets and the rocks of the Cobalt Group (Gowganda Formation) and to a lesser extent the Archean metavolcanic and metasedimentary rocks. Known veins occur in the diabase and in the Aphebian and Archean rocks within about 200 m of their contact with the diabase.
2. In addition to recognition of the prospective envelope relative to the Nipissing Diabase contact, previous workers have noted that many of the significant deposits hosted by the Coleman Member sediments are at or near the contact with the basement Archean rock (Nichols, 1988). The Coleman

Member sedimentary rocks are often in “basins or troughs” developed on the Archean paleotopography proximal Nipissing diabase intrusions.

3. Based on work in the main Cobalt Camp, the occurrence of sulphide-bearing carbonaceous tuffaceous horizons (reductants) in the Archean and/or Proterozoic complexes located beneath diabase sills (Ruzicka and Thorpe, 1996). Nichols (1988) noted sulphide enrichment of the Archean interflow sediments adjacent to high grade mineralised veins. Although a relationship between the quantity of sulphides and the quantity of Ag was not established, the relative amount of Cu, Pb and Zn sulphides increased with proximity to Ag mineralisation in each interflow. Thus, as an exploration guideline, the relative amount of base metal sulphides, particularly chalcopyrite, in an interflow chert can be interpreted as an indication of proximity to a high-grade shoot. Based on historic and current work this does not seem to be an important guide in the Silver Centre area; interflow sediments in volcanic units are not reported.
4. Permeable rocks in the overlying sequence capable of yielding formational metalliferous brines (Ruzicka and Thorpe, 1996).
5. Presence of favourable structural features, which include broad dome-like arches of the base of a diabase sill and possible associated structural traps in the form of fracture systems favourable for deposition of metallic minerals from hydrothermal solutions (Ruzicka and Thorpe, 1996).
6. When targeting cobalt mineralisation, bear in mind observed metal zonation in the arsenide-Ag-Co vein deposits. Historic mining generally targeted the Ag-rich portions of the veins, Co-rich zones if present may therefore have locally been left underexplored and undeveloped if the Ag grade did not meet cut-off grade.
7. Nichols (1988) also noted the strike of Archean volcanics appears to have a definite influence on Ag mineralisation. Thus, the strike of volcanics should be determined very early in an exploration program. The remainder of the program should then test the ideal host rock environment for veins parallel or sub-parallel to the strike of the Archean basement rocks.

In the Cobalt area, past surface-based exploration has relied largely on prospecting for mineralised fractures supported by overburden stripping and pitting programs.

In addition to prospecting methods, exploration of the Cobalt Project should consider the use of the following techniques and guides to identify the features controlling arsenide Ag-Co mineralisation or the arsenide Ag-Co veins alone:

- Airborne and ground based geophysical surveys including magnetic, EM and IP methods to map lithology and structure.
- Detailed geological mapping to map prospective lithology, alteration and structure.
- Quaternary geology mapping to aid in planning and interpretation of soil and overburden geochemical surveys. Sampling of the basal till for mineral exploration and tracing of mineralised float is most easily and efficiently accomplished in areas of ground moraine and follow-up exploration should be easier than in other glacial landforms, such as hummocky moraine.
- Selective multi-element (Ni-Co-As-Ag) geochemical surveys including soils and basal till. Soil gas surveys may be useful. Contamination of the surface soils by previous mining activities may locally limit the utility of soil geochemical surveys.
- Diamond drilling testing of any geological geophysical and geochemical targets should consider the 200 m vertical prospective envelope above and below the Nipissing diabase contacts with the Cobalt sediments and the Archean metavolcanics and metasediments. Targeting should also consider the



evidence that many of the significant deposits hosted by the Coleman Member sediments are at or near the contact with the basement Archean rock.

8.4 First Cobalt's Exploration Strategy

First Cobalt's 2017 exploration program is intended to provide a better understanding of the extent of economic metals that include silver, cobalt, nickel and copper at the Keeley-Frontier deposit. Historically, only silver had been considered for mining and exploration. Cobalt, nickel, and copper rich veins were found and selectively mined and processed from stockpiles when metal prices were ideal. Therefore, annual production numbers for Co and Ni may not reflect that specific year's mining. Very little is known about the spatial distribution of the metals in relation to silver since only a few assays have been reported from within Keeley-Frontier Mine, although "Co" is recorded on historic maps where visible Co-bearing minerals occur. Drilling within the Mine is sparse and Co was not routinely assayed in the holes, so the presence of Co-Ni-Cu in the hydrothermal selvages of the veins is essentially unknown. In addition, Co-rich veins were not fully developed in mining so the true strike length and depth extent of these vein systems is open. Comparable vein-style metallic mineral deposits; epithermal, epigenetic, volcanogenic etc., demonstrate metal zoning related to chemical controls (e.g. temperature, solubility, acidity etc.). Research has not been done at an appropriate scale in the Cobalt Mining district to address this to help the exploration model.

It has been well demonstrated throughout the Cobalt Mining district that a spatial relationship exists between silver-cobalt mineralisation and the Nipissing Diabase sills. Many historic maps from Keeley-Frontier Mine highlight a 100–200 m "productive zone" away from the contact with the Archean volcanic rocks. Kissin (1992) and Watkinson (1986) have suggested that the sills are not necessarily a heat source for the hydrothermal system, but the persistence of this relationship cannot be dismissed. The rheologic contrast of the diabase sills compared to the volcanic rocks and Proterozoic sedimentary rocks is a likely controlling factor on the development of brittle deformation in the region. The relationship of these regional deformation structures to the emplacement of the silver-cobalt veins is also unknown.

First Cobalt's initial exploration program in 2017 is directed at these unknowns. Initial field work will include mapping, prospecting, assaying, geophysics and downhole geophysics with televiwer imaging. Sampling of bedrock and existing drillholes will be done to specifically generate continuous metal values from silver-cobalt veins into the wallrock at a scale of 10's of metres. Structural mapping will also be done both at the detailed scale (1:100 scale at stripped outcrops), deposit-scale (1:1,000) and property scale (1:5,000). A preliminary drill program will also be designed to test for metal distribution near surface at Keeley-Frontier and several cobalt-rich areas which lack extensive historical development. The Company intends to gain an appreciation for the cobalt zonation within the Keeley-Frontier mine area and of the potential for disseminated mineralisation, which could be amenable for bulk mining. Details are provided in Section 9.

9 Exploration

On 3 May 2017, First Cobalt announced an exploration program designed to increase its understanding of the silver-cobalt potential of the Silver Centre Property. The proposed program is to include:

- Digital compilation of 50 years of historic Keeley-Frontier mine data to generate a 3D geological model
- Detailed and property-scale structural mapping of mineralised veins and host rocks
- Bore-hole geophysics and televiewer imaging of drillholes from the 2012 drilling campaign targeting the Beaver Lake Fault west of the former mine
- Systematic surface sampling at known prospects and occurrences throughout the property for assay analyses
- Detailed magnetic survey of the property
- 5,000 m of diamond drilling within the footprint of the Keeley-Frontier Mine testing targets from the 3D geological model
- 2,000 m of regional exploration drilling to identify new mineralised fault systems,

Although still at an early stage, work on the 2017 exploration program that has been initiated as of the effective date of this Report include:

9.1 Digital Compilation and 3D Geological Model

First Cobalt has initiated the acquisition and digital data compilation of available historic Keeley-Frontier mine data for the purpose of generating a 3D geological model of the mine and surrounding area. The preliminary 3D model, focused on mine infrastructure: shafts, drifts, stopes, and winzes, is anticipated to be completed by the end of July 2017. The Nipissing Diabase-volcanic rock contact will be modelled with the available data. This will be used to in part constrain the drillhole locations. Integration of underground drilling information will also be incorporated as well as new information from mapping and eventually the 2017 drilling results will continue to improve the 3D model.

9.2 Bore-Hole Geophysics and Televiewer Imaging

DGI Geoscience Inc. was engaged to conduct a borehole geophysics and televiewer program at the Silver Centre Property. The program, completed 2–7 June 2017, consisted of taking measures from within six drillholes completed by Canadian Silver Hunter in 2012 on the Beaver Lake Fault in an area known as the Keeley Extension. The Beaver Lake Fault was previously mined but only to a limited extent. The fault is located to the west of the main silver-cobalt ore zone of the Keeley-Frontier Mine (Figure 12).

Four of the six holes were surveyed for resistivity, natural gamma and magnetic susceptibility. Resistivity and natural gamma are measured to determine alteration of the rocks related to mineralisation. Magnetic susceptibility variations, specifically in the host mafic volcanic rocks, can be used to determine their depth extension below the Huronian sedimentary rocks providing future targets for drilling. The data from this program could allow the Company to more accurately project the depth to the volcanic unit that hosts mineralisation.

The southernmost hole from the 2012 drill program (CSH12-03), intersected an 11.3 m interval containing a composite value of 72.47 g/t Ag. Cobalt mineralisation was not specifically targeted by the 2012 program therefore some intervals were unsampled. Other short intervals of Ag-Co-Ni mineralisation were intersected



in other holes. The geophysical surveys were conducted to determine geophysical signatures for this mineralisation as well as establish the background response from the host rocks.

Optical televiewer and acoustic televiewer surveys were completed on three holes for detailed, in-situ structural information and to measure the true orientation of the lithological contacts. The televiewer information will therefore allow for a better appreciation of the structural context within the holes. Data will be integrated with the ongoing structural mapping program to predict extensions of known mineralisation and infer new areas for drill targeting.

Interpretation of the geophysical and televiewer data by DGI Geoscience and First Cobalt is ongoing as of the effective date of the Report, final synthesis is estimated to be available in September 2017 when it will be integrated with results from the field mapping program.

The program is intended to help First Cobalt improve its understanding of the controlling structures in the mineralised system(s) at the Silver Centre Property. The Woods Vein was historically the largest productive vein for Keeley and is well defined. However, other north-trending structures and east-west cross faults were not well defined. By improving the understanding of the broader structural environment, the Company anticipates it will be in a better position to predict where additional vein structures may lie.

9.3 Detailed and Property-Scale Structural Mapping

First Cobalt has initiated 1:5000 structural mapping of the Keeley Frontier patent claim area and detailed 1:1000 structural geology mapping of the immediate Keeley Frontier mines area. Historic and new stripped bedrock exposures will be mapped at 1:100 scale. Mapping, compilation and interpretation are estimated to be completed by September 2017.

9.4 Systematic Surface Sampling at Known Prospects and Occurrences

First Cobalt has engaged Canadian Exploration Services of Larder Lake, Ontario to provide equipment and personnel to conduct outcrop stripping and channel sampling at the Keeley-Frontier area. Mobilisation to site was 13 June 2017. New areas will be stripped at areas including the Bellellen prospect. Areas previously stripped by Canadian Silver Hunter including the Keeley #3 shaft, Frontier #1 shaft and Gibson Lake will be expanded as necessary.

Proposed stripping will be conducted utilizing a backhoe and exposed bedrock will be washed and cleaned utilising a high-pressure pump and firehose.

Proposed channel samples are to be collected from the stripped areas as follows:

- The channel sample interval will be laid out with spray paint on the bedrock surface approximately perpendicular to the trend of the targeted structure. Sample intervals may vary between 0.3 m and 1 m depending on lithology structure and mineralisation content. Two parallel cuts approximately 4 cm apart and each 5 cm to 7 cm deep will be made into the bedrock utilising a portable cut-off saw with a diamond blade. A water-feed will provide lubrication and cooling of the blade.
- After the saw cuts are completed, each sample interval will be removed from the channel using a hammer and chisel. Each sample will be separately bagged in a large polyethylene sample bag, a unique pre-labelled sample tag will be placed in each sample bag and the outside of the bag labelled with the same number using permanent ink marker. The bags will be closed and secured.

In addition, First Cobalt intends to conduct systematic grab and chip sampling of known prospects and occurrences within the Silver Centre Property area.



10 Drilling

First Cobalt has conducted no drilling on the Greater Cobalt Project as of the Effective Date. Historic drilling by previous operators is discussed in Section 6.

11 Sample Preparation, Analyses, and Security

As noted in Section 10, First Cobalt has initiated a surface stripping and sampling program at the Keeley Frontier claim group. Channel sample collection will be completed in August and final analytical results are expected by end of August 2017.

AGAT Laboratories Ltd (AGAT) in Mississauga, Ontario will be used as the primary analytical facility for the Keeley-Frontier program. The method being used is Sodium Peroxide Fusion followed by ICP-OES and ICP-MS finish. For QAQC, certified reference standards and blanks are inserted (interchangeably) every 20 samples. For drilling, sample duplicates by quarter cutting of core will be done every 50 samples or at the discretion of the geologist where samples are predicted to be high grade (Co, Ni, Ag, Cu). Pulp check will be conducted regularly by submitting 5% of samples to another analytical lab on a monthly basis. AGAT is a fully accredited laboratory and conforms with the requirements of CANP4E (ISO/IEC 17025:2005) and CANP1579 by the Standards Council of Canada.

Sample chain of custody will be maintained. Sample bags are to be moved from the trenches and placed in rice bags for organisation and ease of transport. Presently, First Cobalt personnel deliver the samples in rice bags directly to the AGAT analytical facility in Mississauga.

AGAT Laboratories and their employees are independent from First Cobalt. First Cobalt personnel and consultants and contractors were not involved in sample preparation and analysis.

CSA Global recommends that during any future systematic surface sampling or drill program, a robust QAQC program continue to be implemented which would include the insertion of certified reference materials and coarse blanks to independently check the laboratory for potential systematic errors, contamination and instrument drift over time. Duplicates, preparation duplicates and pulp check duplicates should also be inserted to confirm the reproducibility of results and suitability of the sampling methodology.

The following is a description of known historical sample preparation, analyses and security protocols and procedures utilised during previous sampling programs on the Property (Section 6), in particular the 2012–2014 Canadian Silver Hunter programs.

11.1 Prior to 2012

Sample preparation and analytical techniques employed by historic mines and exploration companies at the Silver Centre Property area prior to 2012 are largely unknown.

CSA Global is therefore unable to determine whether the sample preparation and analytical techniques employed by those companies were appropriate for the sample media and mineralisation type and conform to current industry standards. For this reason, it is CSA Global's opinion that historic analytical results should be viewed for historical reference only and should not be relied upon. CSA Global notes however that the historical production records of the Keeley and Frontier mines indicate that significant mineralisation was in place within and mined and processed from known structures on the Silver Centre Property utilising methods available at the time (Section 6.5.1).

11.2 Canadian Silver Hunter (2012 to 2014)

11.2.1 *Sample Security*

Samples were collected and placed into plastic bags and sealed in the field. Security of samples prior to dispatch to the analytical laboratory was maintained by limiting access of unauthorised persons. Samples were transported from the field at the end of each field day and were in the possession of Canadian Silver Hunter contractors until they were delivered to the AGAT sample preparation facility in Sudbury, Ontario. The labelled sample bags were packed in polypropylene rice bags and sealed. The assay preparation laboratory completed sample preparation operations and employed bar coding and scanning technologies that provide complete chain of custody records for every sample.

Following analysis, the laboratory pulps from the 2012 diamond drill program and 2012/2014 channel sampling programs were returned to Canadian Silver Hunter and are currently stored with archived 2012 drill core in the locked ocean shipping container at the historic Frontier mine site.

CSA Global believes the security and integrity of the samples submitted for analyses is un-compromised, given the adequate record keeping, storage locations, sample transport methods, and the analytical laboratories' chain of custody procedures.

11.2.2 *Sample Preparation and Analysis*

AGAT collected split core samples and surface channel samples from the Canadian Silver Hunter's core shack/warehouse and delivered them to its preparation lab in Sudbury, Ontario. Pulps were then sent to AGAT facilities in Mississauga, Ontario for analysis using aqua regia digestion and multielement (including Ag, Co, Ni, Bi, Sb) analysis (ICPOES finish). AGAT is a fully accredited laboratory and conforms with the requirements of CANP4E (ISO/IEC 17025:2005) and CANP1579 by the Standards Council of Canada.

AGAT and their employees are independent from Canadian Silver Hunter. Canadian Silver Hunter personnel and consultants and contractors were not involved in sample preparation and analysis.

It is CSA Global's opinion that security, sample collection, preparation and analytical procedures undertaken on the Silver Centre Property during the 2012–2014 programs are appropriate for the sample media and mineralisation type and conform to industry standards.

11.2.3 *Quality Assurance and Quality Control*

Canadian Silver Hunter's QAQC program included the use of certified reference standards and blank samples inserted into the assay stream by the Company's personnel every 25 samples in addition to AGAT's internal QAQC programs. Samples assaying greater than 100 g/t Ag were fire assayed with a gravimetric finish. QAQC also included sending selected pulp samples for check assays at an independent lab (ALS Chemex) using both four acid (MEMS61) and aqua regia (MEMS41) digestions for multielement analysis. Selected higher grade silver and several random sample rejects were chosen for screen metallic analysis for silver only, at AGAT. A final silver number for the database was arrived at by averaging duplicate geochemical values; geochemical values were replaced by fire assay or screen metallic analyses when available. Canadian Silver Hunter indicated that screen metallic assaying is required to more accurately quantify silver values in higher grade portions of the mineralised zones due to the presence of coarse native silver.

Internal laboratory quality control samples including certified reference materials, blanks, and duplicates are inserted within each analytical run. The minimum number of quality control samples required to be inserted are based on the rack size specific to the method.

12 Data Verification

At the time of the site visit, First Cobalt was in the process of mobilising geological and geo-technical field crews to Silver Centre Property. As such, First Cobalt samples were not yet available for verification sampling at the time of the site visit and as of the Effective Date of the Report.

12.1 CSA Global 2017 Site Visit

CSA Global's representative and Author, Mr Ian Trinder, completed a one-day field visit at the Silver Centre Property on 6 June 2017 as part of CSA Global's due diligence in the preparation of this Report. Confirmation of the existence of selected historic shafts, trenches, collapsed stopes and work sites in addition to more recent areas of recent power-stripping, channel sampling and diamond drilling (2012 to 2014) was conducted by the Author.

First Cobalt's Dr Frank Santaguida, Mr Peter Campbell and Mr David Jamieson accompanied and guided the Author during the field visit, providing valuable insight into the history and current status of the Silver Centre Property and the Keeley-Frontier claim group in particular.

First Cobalt's proposed exploration objectives and activities, methodologies, QAQC procedures and security were discussed. The Property and technical observations were generally as reported in historic documents and First Cobalt's current public documents. Several verification samples were collected.

12.2 CSA Global 2017 Verification Sampling

CSA Global conducted limited verification sampling of three archived intervals from Canadian Silver Hunter diamond drillhole CSH12-03 and two mineralised structures from 2012–2014 power stripped bedrock exposures. The Author personally collected the continuous chip samples from the bedrock structures and sealed the sample bags with ladder lock ties. The Author marked the three archived half-drill core intervals for quarter-core sampling and secured the core box with a lid. The author handed possession of the bagged bedrock samples and core box to Bill Bonney of Canadian Exploration Services of Larder Lake, Ontario, an independent mineral exploration contractor. Canadian Exploration Services personnel cut the three quarter-core samples, placing one quarter of the sample into plastic sample bags and returning the remaining quarter-core to the core box for archive. The five sealed sample bags were then delivered to SGS Minerals Services at 185 Concession St., Lakefield, Ontario for analysis.

The SGS Lakefield laboratory has accreditation from the Standards Council of Canada (No. 184) conforming to requirements of CAN-P-1579 (Mineral Analysis) and CAN-P-4E (ISO/IEC 17025:2005) for methods including those requested by CSA Global (see next paragraph). Sample preparations follow industry best practices and procedures. The analytical methods used are routine.

All CSA Global verification samples submitted to SGS were prepared and analysed using SGS preparation code G-PRP89 in which the sample is weighed, dried, crushed to 75% passing 2 mm screen, a 250 g split is then taken and pulverised to 85% passing 75 microns. The pulverised material was then analysed using SGS analytical codes GO FAG313 Ag and GO FAG313 Ag. GO FAG313 Ag is a 30 g Fire assay for silver with gravimetric finish and detection limits of 10–5,000 ppm. GE ICP90A is a sodium peroxide (Na_2O_2) fusion with an ICP-OES finish. Lower detection limits are 10 ppm for the elements analysed (Co, Cu, Ni).

SGS and their employees are independent from CSA Global and First Cobalt. CSA Global and First Cobalt personnel and consultants and contractors were not involved in sample preparation and analysis.

CSA Global's verification samples are too few to permit a statistical comparison with the historic samples, however, they do provide an independent confirmation of the presence of silver, cobalt and nickel mineralisation at the Silver Centre Property. Note that CSA Global sample 16904 is 30 cm in length whereas the comparable Canadian Silver Hunter claim was 0.6 m. The start and end of the Canadian Silver Hunter 60 cm channel sample was uncertain at the time of the Author's site visit therefore only the main 30 cm mineralised structure was sampled within the 60 cm Canadian Silver Hunter interval (Table 13).

It is the opinion of CSA Global that the sample preparation and analytical procedures implemented by previous operator Canadian Silver Hunter were adequate for the exploration conducted during 2012–2014.

Table 13: CSA Global verification sample results and comparison to 2012–2014 Canadian Silver Hunter results

CSA Global sample #	Sample width (m)	Sample weight (kg)	Ag (g/t)	Co (ppm)	Cu (ppm)	Ni (ppm)	Canadian Silver Hunter sample #	Sample width (m)	Ag (g/t)	Co (ppm)	Ni (ppm)
16901	0.5	0.3339	17	240	975	116	1726076	0.5	29.6	258	101
16902	0.55	0.4837	<10	43	272	130	1726077	0.55	8.3	34.9	103
16903	0.3	0.237	31	981	1,834	129	1726078	0.3	15.5	612	103
16904	0.3	1.0244	1,253	4,118	821	476	1726632	0.6	190	1,080	220
16905	0.3	0.8589	<10	12,684	188	9,699	n/a	n/a	n/a	n/a	n/a
REP-16901			18								
REP-16903				980	1879	132					

CSA Global sample #	Occurrence	DDH from or UTM E	DDH to or UTM N	Sample description
16901	DDH CSH12-03	118.3 m	118.8 m	Logged as lamprophyre. Minor calcite veining with weak sulphides and arsenides
16902	DDH CSH12-03	118.8 m	119.35 m	Logged as lamprophyre. Rare calcite veinlet
16903	DDH CSH12-03	119.35 m	119.65 m	Logged as lamprophyre. Minor calcite veining with weak sulphides and arsenides
16904	Gibson Lake	612935	5228548	Approximately 30 cm wide sulphide bearing carbonate vein trending 145/85.
16905	Haileybury Vein	613367	5228590	Approximately 20–30 cm wide carbonate vein trending 330/80. Contains smaltite, minor erythrite.

12.3 General

The Author has reviewed available historic third party technical reports provided by First Cobalt, online MNDM historic third-party exploration assessment reports, online MNDM mineral deposit inventory (MDI) files and various OGS geological publications pertinent to the current Project areas.

First Cobalt provided CSA Global with limited historic third-party exploration reports and assay data in digital format. CSA Global completed a spot check comparison of approximately 10% of historic assay data against available digital scans/PDF files of laboratory certificates to verify accuracy and completeness. No errors were detected.



CSA Global has not independently conducted any title or other searches, but has relied upon Ontario government online mining claims databases and First Cobalt and its lawyers for information on the status of the claims, property title, agreements, and other pertinent permitting and environmental conditions (see Section 4).

It is CSA Global's and the Author's opinion that the historic information and data available to CSA Global are a reasonable and accurate representation of the Greater Cobalt Project, particularly the Silver Centre Property, and are of sufficient quality to provide the basis for the conclusions and recommendations reached in this report.

CSA Global recommends that during the ongoing and any future systematic surface sampling or drill program, a robust QAQC program continue to be implemented which would include the insertion of certified reference materials and coarse blanks to independently check the laboratory for potential systematic errors, contamination and instrument drift over time. Duplicates, preparation duplicates and pulp check duplicates should also be inserted to confirm the reproducibility of results and suitability of the sampling methodology.



13 Mineral Processing and Metallurgical Testing

As of the Effective Date of this Report, no mineral processing or metallurgical testwork have been completed by First Cobalt on the Greater Cobalt Project.



14 Mineral Resource Estimates

As of the date of this Report, First Cobalt has found no new significant mineral deposit in the Greater Cobalt Project areas and no Mineral Resources have been estimated.



15 Adjacent Properties

The Cobalt and Silver Centre areas have recently experienced an increase of staking activity and interest in the area's cobalt exploration potential both by the Issuer and third parties; however, there are currently no significant exploration or development properties in the immediate area of the Greater Cobalt Project.



16 Other Relevant Data and Information

Post Effective Date of the Report, First Cobalt and Cobalt One announced on 26 June 2017 that both parties signed a letter of intent on 23 June 2017, pursuant to which First Cobalt intends to acquire all of the issued and outstanding common shares of Cobalt One by way of a court approved scheme of arrangement

Post Effective Date of the Report, First Cobalt and CobalTech Mining Inc. (CobalTech) announced on 26 June 2017 that both parties signed a letter of intent on 23 June 2017, pursuant to which First Cobalt intends to acquire all of the issued and outstanding common shares of CobalTech by way of a court approved scheme of arrangement

No additional information or explanation is necessary to make the technical report understandable and not misleading.

17 Interpretation and Conclusions

The Greater Cobalt Project lies within the historic Cobalt mining camp and its southern satellite, the Silver Centre mining camp in the Lake Temiskaming area of Ontario. The Cobalt Camp and satellite Silver Centre Camp is the type locality of arsenide Ag-Co vein deposits which are the exploration target at the Greater Cobalt Project.

Arsenide Ag-Co vein deposits are localized in areas affected by basinal subsidence and rifting and are spatially related to regional fault systems and closely associated with intrusions of mafic rocks. The arsenide Ag-Co vein deposits in the Cobalt and Silver Centre camps are associated with Aphebian conglomerate, quartzite, and greywacke rocks of the Cobalt Group (Coleman Member of the Gowganda Formation), as well as with major sill-like bodies of Nipissing Diabase and with Archean mafic and intermediate lavas and intercalated pyroclastic and sedimentary rocks. Distribution of the Ag-Co veins in the Cobalt Camp is controlled by the contact between the Nipissing Diabase sills and the rocks of the Cobalt Group (Gowganda Formation) and to a lesser extent the Archean metavolcanic and metasedimentary rocks. Distribution of the known Ag-Co veins in the Silver Centre camps, however, is controlled by the contact between the Nipissing Diabase sills and the Archean metavolcanic and metasedimentary rocks. In both camps, the veins occur in the diabase and in the Aphebian and Archean rocks within about 200 m of their contact with the diabase.

The Keeley-Frontier patents of the Silver Centre Property had significant historic silver and cobalt production. The Keeley-Frontier Mine's combined total 1908–1965 production is recorded as 19,197,413 oz (597,107 kg) Ag, 3,285,520 lb (1,490,289 kg) Co and 27,252 lb (12,357 kg) Ni. Actual production is probably higher than recorded because under the Delora Smelter contract, the smelter accepted ore for either its silver content or its cobalt content, but not both metals (Pearson and Kerr, 1985). To the end of 1965, South Lorrain Township (Silver Centre) had produced a total of 23,338,906 oz of silver with 82% of this coming from the Keeley and Frontier Mines, and over 50% from the Keeley Mine itself (McIlwaine, 1970).

The Greater Cobalt Project claims and properties peripheral to the Silver Centre Property's Keeley-Frontier group are underlain by the rock types associated with the historic arsenide Ag-Co vein deposits elsewhere in the Cobalt and Silver Centre camps, namely Archean (Keewatin) metavolcanics and metasediments, Proterozoic (Huronian) Cobalt Group sediments and Nipissing Diabase. The relatively fewer number of arsenide Ag-Co vein occurrences in Silver Centre Property area compared to the main Cobalt Camp could be due to an unknown geological control but it may also in part reflect masking overburden cover hindering prospecting efforts and the poor accessibility of the areas during the time that the camp was most active in the first half of the 20th century.

As noted by McIlwaine (1970), with respect to the observed favourable area for high grade mineralised shoots along and above the upper Nipissing Diabase/Archean metavolcanics, the most important factors controlling development are as follows:

1. The intersection of two or more veins;
2. The intersection of veins with unmineralised faults or with flat faults;
3. A flexure or "roll" in a vein caused by an abrupt change in strike and/or dip; and
4. The intensity of fracturing in the vicinity of faults.

Factors 1 and 2 are most useful for regional exploration. Once a vein structure has been located, however, the latter two criteria are more important.



Ore shoots tend to be controlled by a marked variation in attitudes (“rolls”) in fault-vein structures and to a limited extent by hornblende lamprophyre dykes which appear to locally control ore deposition.

Previous work in both the Cobalt camp and South Lorrain district has also demonstrated that only strong major fault systems such as the Woods fault, which was been mined for a strike length of 2,200 ft, penetrate the Nipissing Diabase. Less well-defined faults and fracture zones generally do not penetrate the more competent diabase. Exploration, therefore, should focus on major fault structures, particularly where they are intersected by other veins and/or faults and are near the Nipissing Diabase/Keewatin contact.

Previous historic surface based exploration has relied largely on prospecting for mineralised fractures supported by overburden stripping and pitting programs. In addition to prospecting methods, the Issuer should consider testing and using modern geophysical and geochemical techniques to identify features controlling arsenide Ag-Co mineralisation or the arsenide Ag-Co veins themselves at the Cobalt Project.

First Cobalt’s 2017 exploration program is intended to provide a better understanding of the extent of cobalt mineralisation within the historic Keeley-Frontier Mine as well as explore known silver-cobalt prospects on the Silver Centre Property. These areas will be specifically targeted during this program. Historic exploration and development on the Silver Centre Property focused on the narrow high-grade silver-rich portions of the vein structures. Historic assays indicate cobalt-rich veins were encountered during mining but not often followed up or exploited, as silver was the focus. The Company intends to gain an appreciation for the cobalt zonation within the Keeley-Frontier mine area, the exploration potential of known and potentially new high-grade mineralised structures and of the potential for disseminated mineralisation, which could be amenable for bulk mining.

CSA Global concludes that the Greater Cobalt Project and particularly the Silver Centre Property, has potential to host arsenide Ag-Co vein deposits and exploration is warranted.

18 Recommendations

CSA Global considers the Greater Cobalt Project and its Silver Centre Property to be at an early stage of exploration and recommends a multifaceted exploration program including historical data compilation, prospecting, geological mapping, testing of modern geophysical and geochemical methods and conducting follow-up surveys and finally diamond drill testing of targets developed from the initial studies.

First Cobalt has scheduled a 2017 exploration program for the Silver Centre Property which is now in progress. Work is to include:

- Digital compilation of historic Keeley-Frontier mine data to generate a 3D geological model
- Detailed and property-scale structural mapping of mineralised veins and host rocks
- Bore-hole geophysics and televiewer imaging of drillholes from the 2012 drilling campaign targeting the Beaver Lake Fault west of the former mine
- Systematic surface sampling at known prospects and occurrences throughout the property
- Detailed magnetic survey of the property
- 5,000 m of diamond drilling within the footprint of the Keeley-Frontier Mine testing targets from the 3D geological model
- 2,000 m of regional exploration drilling to identify new mineralised fault systems.

First Cobalt has proposed a preliminary budget of \$1,000,000 for the 2017 work program as detailed in Table 14. CSA Global concurs with First Cobalt's program and budget.

Table 14: 2017 Silver Centre Property exploration program and budget (May 2017 to April 2018)

	Task	Budget (\$)
General	Project Geo (1/2 time May 2017 to April 2018)	\$60,000
	Data compilation – 3D model	\$15,000
	Property rehabilitation (July)	\$10,000
Field work	Structural mapping	\$40,000
	Outcrop wash and channel sampling	\$15,000
	Historic drillhole and dump sampling	\$15,000
	Prospecting	\$10,000
	Borehole geophysics + televiewer	\$25,000
Keeley-Frontier Mine area drilling	Minesite drilling (5,000 m)	\$400,000
	Mineralogy (GeoMet) Nov	\$5,000
	Drilling Geo	\$80,000
	Drilling Tech	\$40,000
Regional exploration	Airborne mag geophysics	\$50,000
	Mag data 3D modelling	\$20,000
	Exploration drilling (2,000 m)	\$200,000
	Borehole geophysics	\$15,000
TOTAL		\$1,000,000

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Appendix 1: Establishing Mineral Rights in Ontario

Mining Claims

In Ontario, Crown lands are available, for the purposes of mineral exploration, to a person or entity that holds a prospector's licence from the Ministry of Northern Development and Mines (MNDM). The prospector must complete the Mining Act Awareness Program (MAAP) within 60 days before applying for a licence or a licence renewal. MAAP is an online program that provides basic information on the mining sequence. It includes information on staking claims, early exploration and Aboriginal consultation requirements.

A licensed prospector must first stake a mining claim to gain the exclusive right to prospect on Crown land. The owner of a mining claim is not granted title or ownership to the land and cannot extract or sell any resources removed from the land. Claim staking is governed by O. Reg. 43/11: Claim Staking and Recording under Mining Act, R.S.O. 1990, c. M.14 and is administered through the Provincial Mining Recorder and Mining Lands offices of the MNDM.

Claims are currently staked in Ontario by ground staking or in the case of southern Ontario only, map staking. Ontario is in the process of converting to an online system of claim registration using a cell-based provincial grid which will replace ground and map staking. At conversion, ALL active, unpatented claims would be converted from their legally defined location by claim posts on the ground or by township survey to the cell-based provincial grid. Following conversion, the claims would be legally defined by their cell on the grid and coordinate location in CLAIMaps. As of the effective date of this Report, the date of this conversion is undetermined. Legislation to enable the process of conversion, the Aggregate Resources and Mining Modernization Act (Bill 39), received second reading and was referred to the Standing Committee on Justice Policy on 15 November 2016 for review. Following planned public hearings in the first quarter of 2017 the committee will then review the Bill section by section and consider amendments. MNDM will keep clients informed as implementation processes are finalized.

Ground Staking

An unpatented mining claim is a square or rectangular area of open Crown land or Crown mineral rights that a licensed prospector marks out with a series of claim posts and blazed lines. Mining claims can be staked either in a single unit or in a block consisting of several single units. In un-surveyed territory, a single unit claim is laid out to form a 16 ha (40 acre) square with boundary lines running 400 m (1,320 ft) astronomic north, south, east and west. Multiples of single units, up to a maximum of 16 units (256 ha), may be staked with only a perimeter boundary as one block claim but must be staked in a square or rectangular configuration.

Each corner of the mining claim must be marked with a post. These posts are known as corner posts. Corner posts can be constructed from a standing tree, commercial timber or a loose post. They must stand 1.2 m above ground when erected. A metal tag, known as a claim corner post tag, must be affixed to each corner post. Claim corner post tags are engraved with a unique number, known as a claim number, which identifies the mining claim. They also have a second number, which indicates which corner post the tag is to be placed on. Tags may be purchased from the Provincial Recording Office or other offices, such as the Mining Land Consultant Office, or Service Ontario. A clearly marked line, known as a claim boundary, must be made between the four corner posts. Claim boundaries are usually marked by blazing trees and cutting underbrush with an axe. Piles of loose rock, known as cairns, or stakes cut from other smaller trees, known as pickets, are acceptable if trees are not available or undesirable to cut. A line post is used in conjunction with a claim line to mark the perimeter of a mining claim. For unsurveyed areas, line posts must be erected

at every 400 m along a claim line and at locations where the boundary changes direction. A metal tag, known as a claim line post tag, must be affixed to each line post. Claim line post tags are blank when purchased and must be engraved with the claim number found on the claim corner post tags along with the distance and direction from the last corner post.

Global Positioning System (GPS) georeferencing data must be included on the application to record a mining claim staked on or after 1 November 2012. This requirement only applies to ground staked mining claims on lands that are unsurveyed. It does not apply to land surveyed into lots and concession.

Upon completion of staking, and not later than 30 days after the day on which the staking was completed, a recording application form is filed with payment to the Provincial Recording Office. Staking completion time takes priority, meaning that if two licensees file applications to record the staking of all or part of the same lands, then the applicant with the earliest completion time will have priority. Where the time limited for any proceeding or for the completion of said proceeding in an office of a mining recorder or an office of the Commissioner or an office of the Minister or Deputy Minister expires or falls upon a day on which the relevant office is closed, the time so limited extends to and the recording may be done on the day next following the day on which the relevant office was closed. All claims are liable for inspection at any time by the Ministry and may be cancelled for irregularities or fraud in the staking process. Disputes of mining claims by third parties will not be accepted after one year of the recording date or after the first unit of assessment work has been filed and approved.

The staker must notify all persons who own surface rights to any part of the land located within the claim area that their land has been staked for the purpose of mineral exploration. A surface rights holder is a person who owns rights to a piece of land which do not include the mineral rights. The staker must send proof of an attempt to notify surface rights holders to the Provincial Mining Recorder within 60 days after making the application to record the claim, in order for the mining claim to remain valid.

A mining claim remains valid as long as the claim holder properly completes and files the assessment work as required by the Mining Act and the Minister approves the assessment work. A claim holder is not required to complete any assessment work within the first year of recording a mining claim. In order to keep an unpatented mining claim current, the mining claim holder must perform \$400 worth of approved assessment work per mining claim unit, per year; immediately following the initial staking date, the claim holder has two years to file one year's worth of assessment work. No payments in lieu of work can be made. Claims are forfeited if the assessment work is not done.

A mining claim can be transferred, charged or mortgaged by the prospector without obtaining any consents. Notice of the change of owner of the mining claim or charge thereof should be filed with the MNDM at the district mining recorder's office.

Map Staking

Introduced in November 2012, map staking is only permitted in surveyed areas in Southern Ontario, provided there are no registered surface rights owners.

Map staking is the action of staking a mining claim using a map reference system, without having to physically be on the land. A map staked mining claim must have common boundaries with the section, lot or concession lines established by the original survey. It must provide a description of the claim with reference to the original survey fabric. A title search at the Land Registry Office may be required prior to map staking.

Mining Leases

A claimholder may prospect or carry out mineral exploration on the land under a mining claim. However, the land covered by these claims must be converted to leases before any development work or mining can be performed. Mining leases are issued for 21-year terms and may be renewed for further 21-year periods upon submission of an application to the MNDM within 90 days before the expiry date of the lease. Pursuant to the provisions of the Mining Act, the holder of a mining claim is entitled to a lease if it has complied with the provisions of the Act in respect of those lands. An application for a mining lease may be submitted to the MNDM at any time after the first prescribed unit of work in respect of the mining claim is performed and approved. Leases can be issued for surface and mining rights, mining rights only or surface rights only. Once issued, the lessee pays an annual rent to the province. Furthermore, prior to bringing a mine into production, the lessee must comply with all applicable federal and provincial legislation.

A mining lease cannot be transferred or mortgaged by the lessee without the prior written consent of the MNDM. The consent process generally takes between two and six weeks and requires the lessee to submit various documentation and pay a fee.

Freehold Mining Lands

A prospector interested in removing minerals from the ground may, instead of obtaining a mining lease, make an application to the Ministry of Natural Resources and Forestry (MNRF) to acquire the freehold interest in the subject lands. If the application is approved, the freehold interest is conveyed to the applicant by way of the issuance of a mining patent. A mining patent can include surface and mining rights or mining rights only.

The issuance of mining patents is much less common today than in the past, and most prospectors will obtain a mining lease in order to extract minerals. If a prospector is issued a mining patent, the mining patent vests in the patentee all of the provincial Crown's title to the subject lands and to all mines and minerals relating to such lands, unless something to the contrary is stated in the patent.

The holder of a mining patent enjoys the freehold interest in the lands that are the subject of such patent, therefore no consents are required for the patentee to transfer or mortgage those lands.



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