



## WILLIAM PROJET (1362)

### Summary

The William Property is situated 7 km southwest of the town of Chibougamau. It contains two zinc-copper-silver showings that were discovered through drilling and mapping work. The mineralization is likely of volcanogenic origin and is found in felsic volcanic rocks that are known to host the Scott Lake deposit and the former Lemoine mine.

The Millkirk showing area represents the most prospective area on the property. It contains felsic volcanic rocks overprinted by extensive hydrothermal alteration. Several occurrences of fracture-hosted zinc and copper mineralization have been observed. From a more regional perspective, the Millkirk showing and the massive sulphide lenses of the Scott Lake deposit are hosted in the same volcanic sequence – the Scott member.

The project is at the stage of exploratory drilling. A proposed work program is available.



Two  
zinc-copper-silver  
showings



7 km southwest  
of the town  
of Chibougamau



Millkirk (R-6-1)  
3.9 % Zn and 0.5 % Cu  
over 0.5 m



At the stage  
of exploratory  
drilling

### ABOUT US • • •

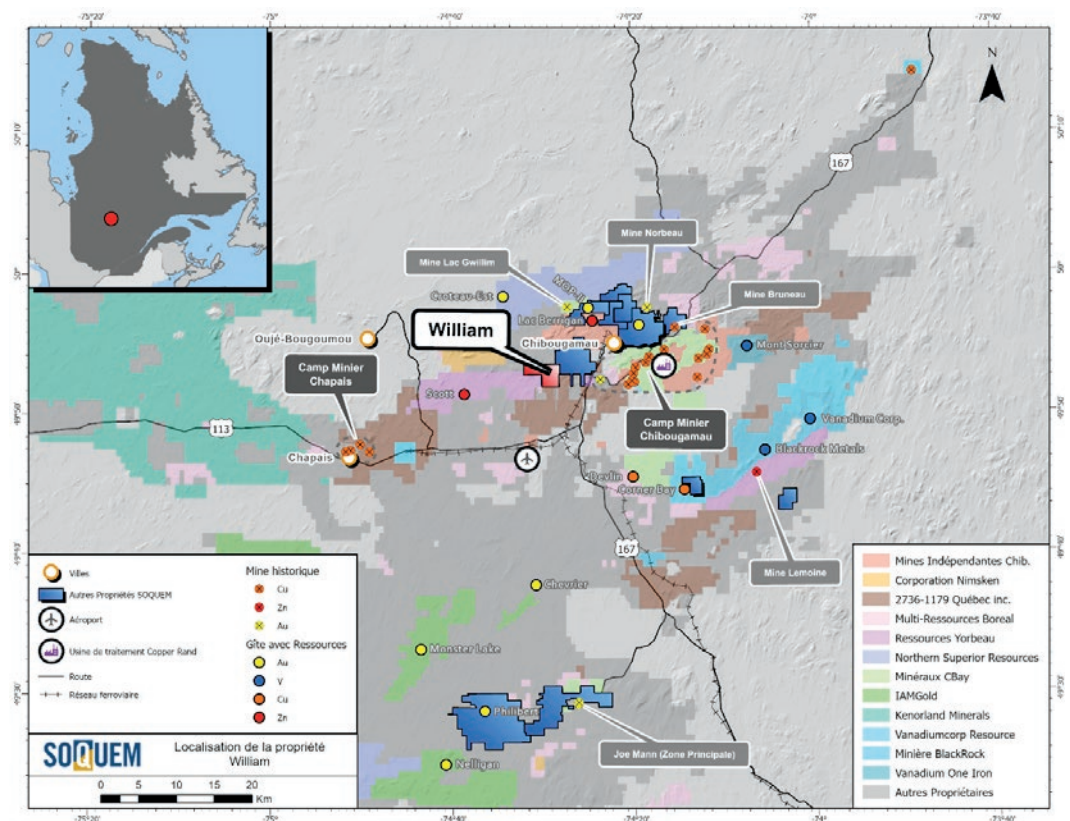
SOQUEM, a subsidiary of Investissement Québec, is dedicated to promoting the exploration, discovery and development of mining properties in Quebec.

SOQUEM also contributes to maintaining strong local economies. A proud partner and ambassador for the development of Quebec's mineral wealth, SOQUEM relies on innovation, research and strategic minerals to be well-positioned for the future.

## Location

The property is in the Province of Quebec, Canada, 7 km southwest of the town of Chibougamau (Figure 1). The municipality has a railway, a well-developed electrical grid and skilled workers in the mining sector. The property is also located approximately 15 km from the Copper Rand mine site, which has a copper-gold ore processing mill and a tailings pond. A motorable road and numerous forest roads on the property provide easy year-round access.

The nearest municipalities are the towns of Chibougamau and Chapais and the two Cree communities of Mistissini and Oujé-Bougoumou.



**Figure 1**  
Location map  
of the William property.





## Regional geology

The Chibougamau mining camp is located in the northeastern Abitibi Greenstone Belt of the Superior Province (Figure 2). The region, bounded to the east by the Grenville Front, is part of the polycyclic Northern Volcanic Zone linking the Matagami and Chibougamau mining camps. The Archean rocks in the Chapais–Chibougamau area belong to two groups, Roy and Opémisca, separated by an erosional unconformity. They are overlain by Proterozoic sequences that include the Chibougamau Formation (Figure 3).

The base of the first volcanic cycle consists of the Obatogamau Formation, which is divided into three members, from bottom to top: lower, middle and David. The Obatogamau Formation is overlain by the Waconichi Formation, comprising volcanoclastic rocks, exhalites, turbidites and rhyolitic to basaltic volcanics.

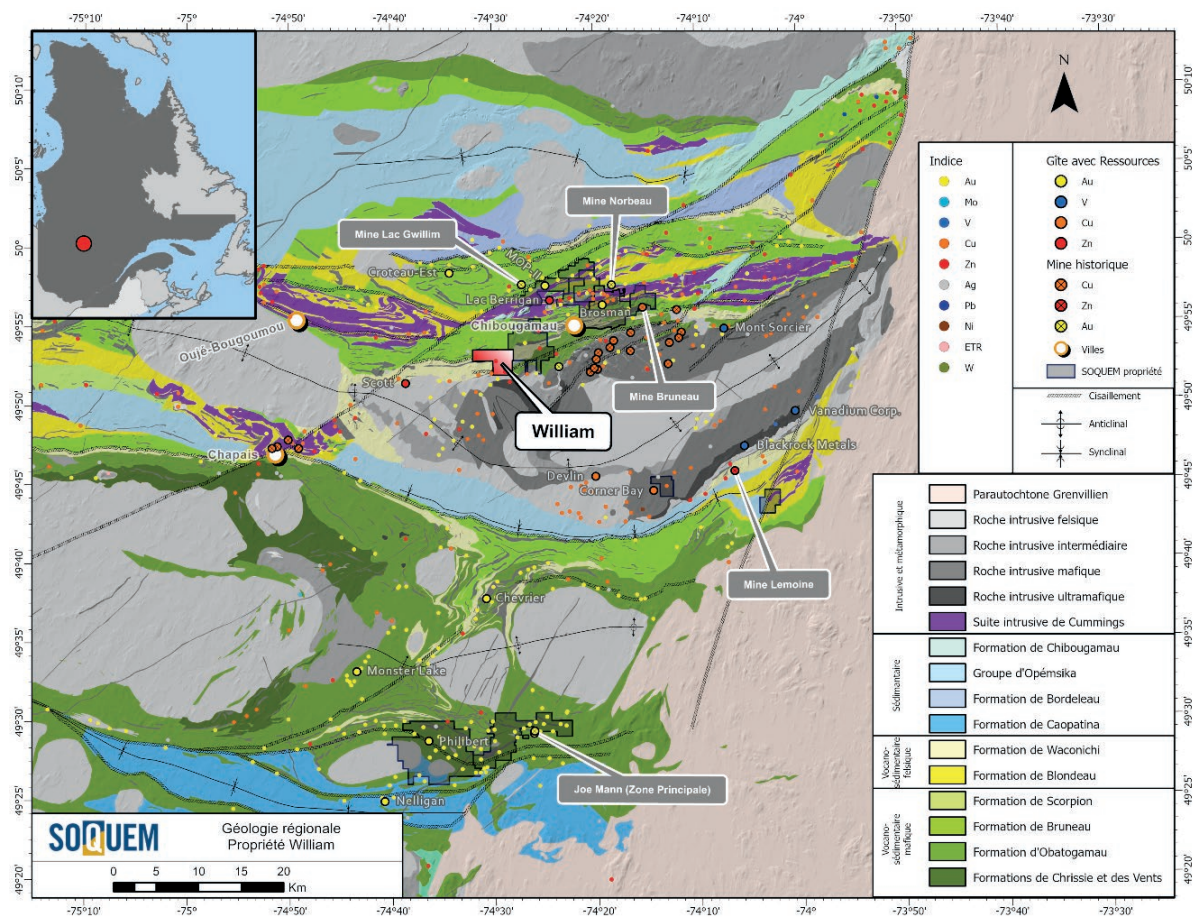
The Waconichi Formation contains six members : Allard, Scott, Queylus, de Chevrier, Andy and Lemoine (RG201503). At the regional scale, the Waconichi Formation is known for its VMS fertility.

The second cycle consists of the Bruneau Formation overlain by the Blondeau Formation.

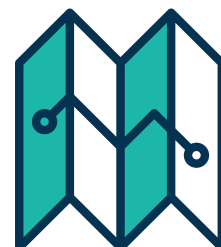
The rocks of the first volcanic cycle were intruded by the synvolcanic Lac Doré Intrusive Suite, whereas those of the second cycle were intruded by the Cummings sills. The anorthositic Lac Doré Intrusive Suite is found on the southern and northern flanks of the Chibougamau Anticline, the core of which is occupied by the Chibougamau Pluton. The Cummings sills are mainly on the northern flank of the anticline.

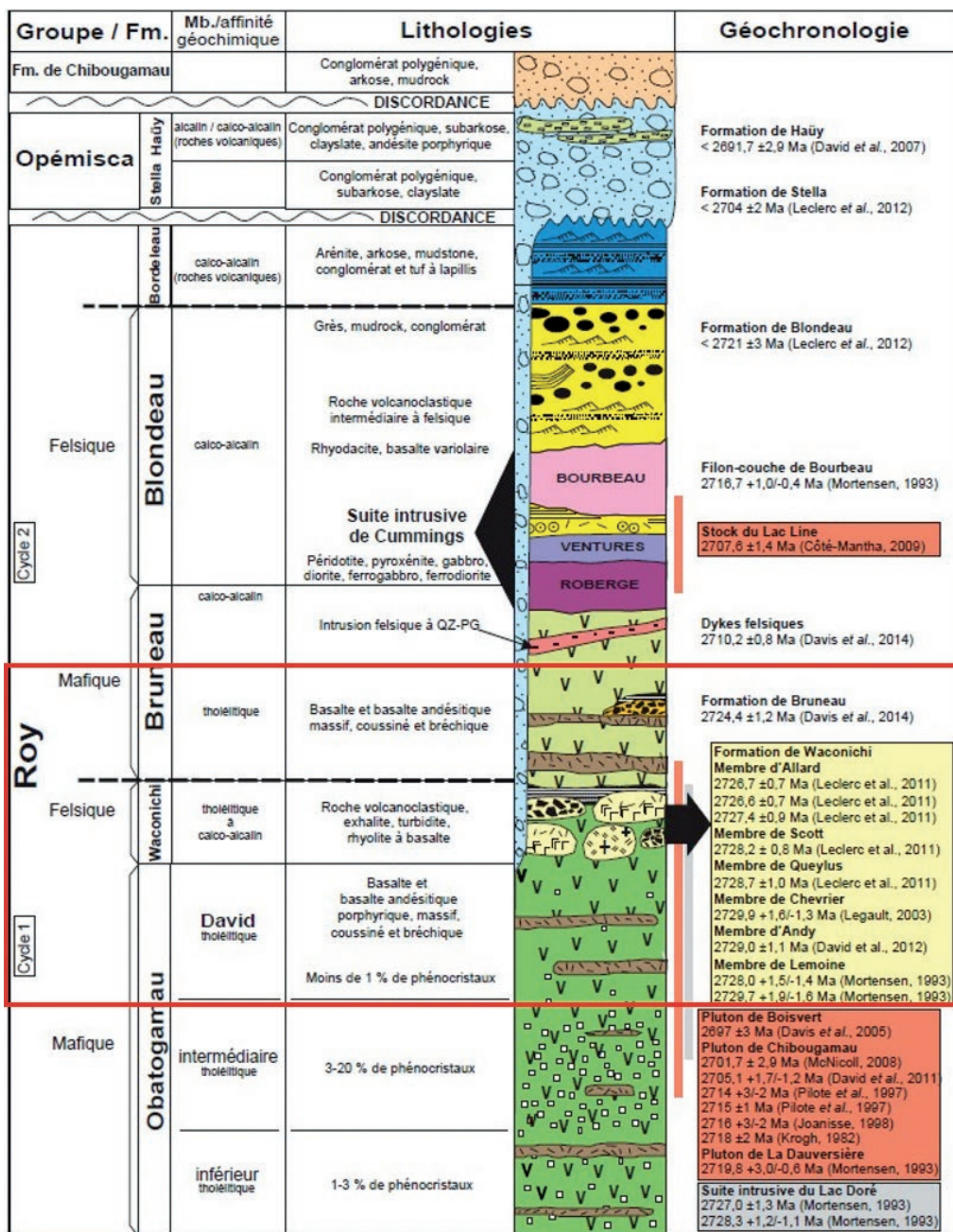






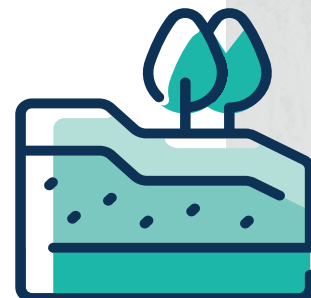
**Figure 2**  
Map of regional geology.





**Figure 3**

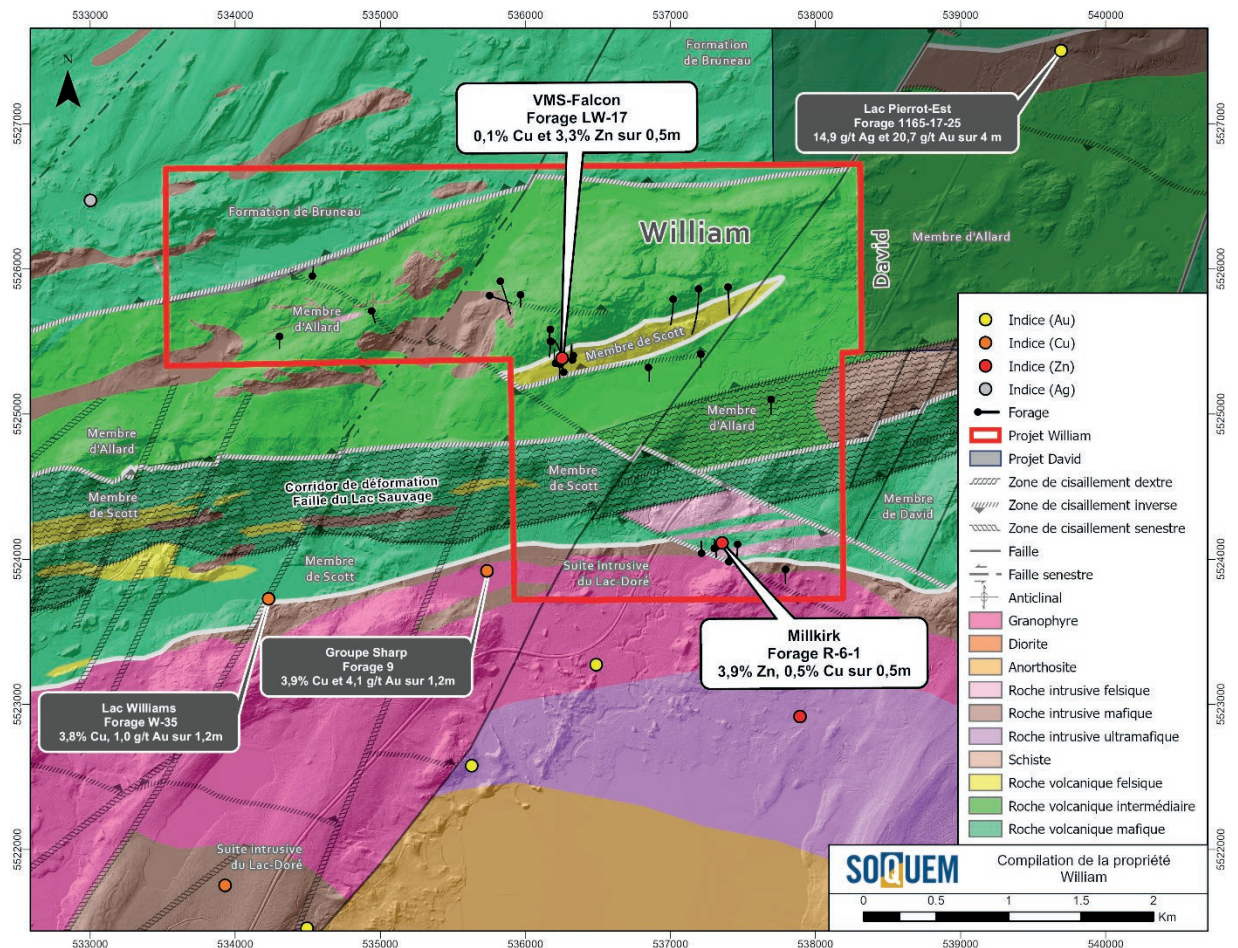
Stratigraphic column of the Chibougamau region with red outline showing the position of the property (taken from Leclerc et al. 2017)





## Property Geology

The property is situated on the northern flank of the Chibougamau Anticline (Figure 2). The majority of the lithologies observed on the property are intermediate to mafic volcanic rocks belonging to the David, Scott and Allard members of the Roy Group. Felsic volcanic rocks are observed in the Scott and Allard members. The southern end of the property is underlain by the lithologies of the Lac Doré Intrusive Suite. The stratigraphy strikes 075 °N with a dip to the south and tops to the north. In the southern part of the property, a major deformation corridor, the Lac Sauvage Fault, cuts through the Scott and David members from east to west. Late NNE-trending faults show apparent sinistral displacement (Figure 4).



**Figure 4**  
Geology map  
of the William property.



1

## Compilation and targeting

+

2

## Regional data acquisition

- Secondary environment
- Airborne/helicopter geophysics

+

3

## Basic Exploration

- Cartography/prospection
- Stripping
- Geophysics
- Drilling

+

+

4

## Advanced Exploration

- Definition drilling
- Metallurgical test
- Resources estimate

+

5

## Development

- Conversion drilling
- Preliminary economic assessment
- Bulk sampling
- Prefeasibility study
- Feasibility study

+

+

6

## Construction and setting

+

7

## Operation

+

8

## Restoration



## Mineralization, showings and target deposit types

On the William Property, the target is Zn-Cu-Ag±Au volcanogenic massive sulphide (VMS) mineralization in volcanic rocks.

In the centre of the property, the VMS-Falcon showing is characterized by a massive sulphide horizon carrying pyrrhotite, pyrite, sphalerite, galena and chalcopyrite, concordant with stratigraphy. This horizon, presumably of exhalative origin, is hosted in a porphyritic and fragmentary felsic unit belonging to the Allard member. The massive sulphide horizon intersected near the surface in hole LW-17 corresponds to an electromagnetic anomaly detected by a DEEPEM survey.

In the southern part of the property, the Millkirk showing corresponds to a Zn-Cu-Ag intersection in hole R-6-1. This mineralization is fracture-hosted, just like three other Zn and Cu occurrences found in the area in a drill hole, a trench and a grab sample.

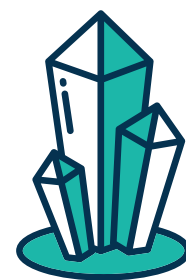
Table 1 presents the best results from these areas of interest.

Showing	Sample type	Grade	Length (m)
VMS-Falcon	Hole LW-17	0.1 % Cu and 3.3 % Zn	0.5
Millkirk	Hole R-6-1	3.9 % Zn, 0.5 % Cu	0.5
	Hole LW-31	2.4 % Zn	0.61
	Trench TR-97-07	0.3 % Zn	1
	Grab sample from trench TR-97-03	1.7 % Cu	–

**Table 1**

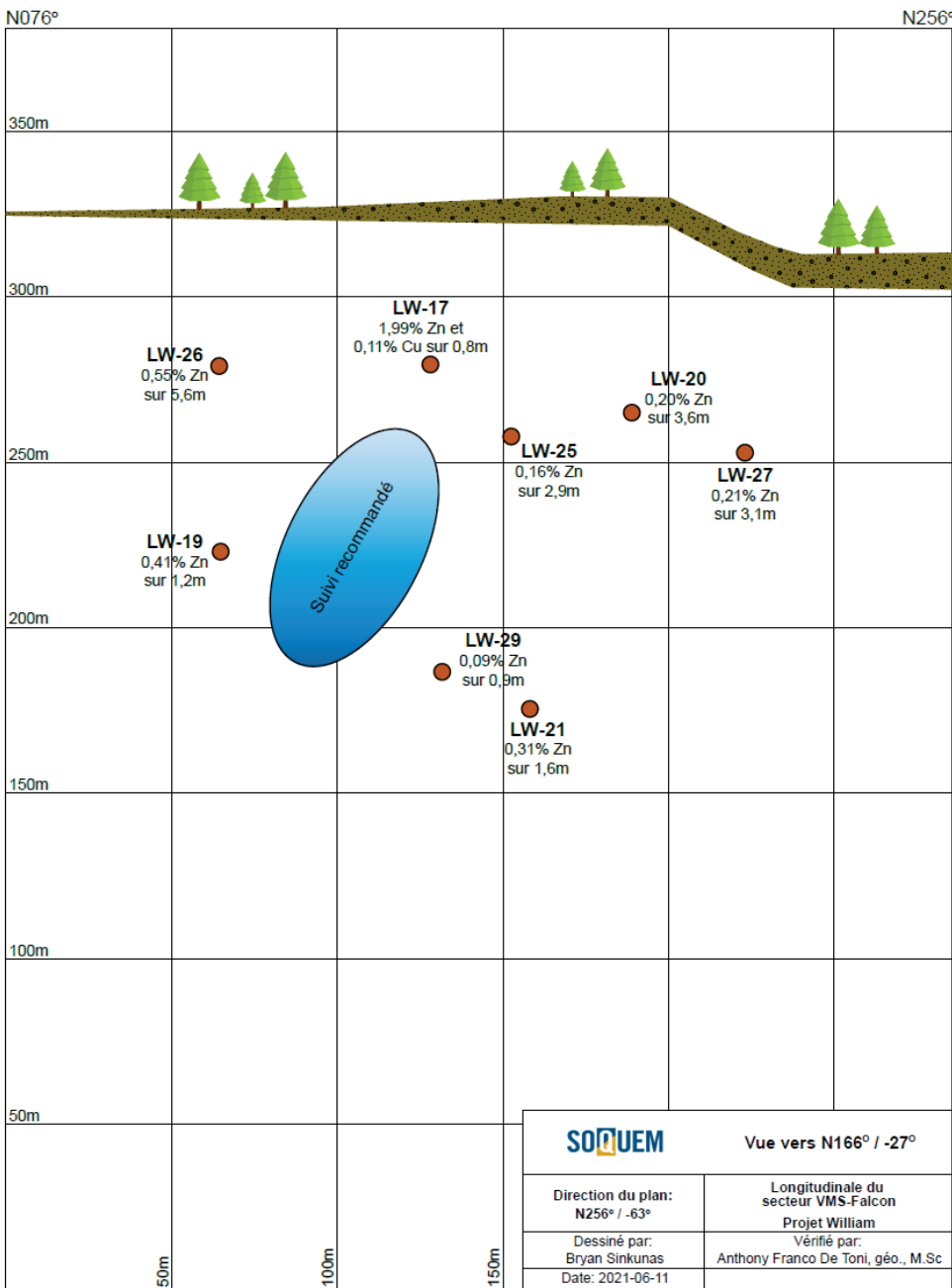
Best results from the VMS-Falcon and Millkirk areas

SOQUEM's assessment indicates that the Millkirk area has the best potential on the property. Recent mapping has confirmed the presence of felsic volcanic rocks belonging to the Scott Member that were subjected to widespread and intense chlorite alteration. The hypothesis is sulphide remobilization along fractures from a deep volcanogenic massive sulphide lens. This area has several characteristics similar to those observed at the Scott deposit 12 km to the west.





The VMS-Falcon area is also of interest due to intersections of massive sulphide horizons carrying significant Zn, Cu, Pb and Ag grades in several historical drill holes. As seen in the longitudinal section (Figure 5), the depth extensions have not been tested by drilling.



**Figure 5**  
Longitudinal section of the VMS-Falcon area.



## Historical resources and economic geology of the area

### Lac Scott deposit

The Lac Scott project, adjacent to the William Property, contains several massive sulphide zones in volcanic rocks. These zones are roughly 11 km from the property. The table below presents the most recent mineral resource estimate for the Lac Scott project :

Scott deposit	Tonnage (Mt)	Cu grade (%)	Zn grade (%)	Au grade (g/t)	Ag grade (g/t)
Indicated resources	3.57	0.95	4.17	0.22	37.2
Inferred resources	14.28	0.78	3.49	0.22	22.3

**Tableau 2**

Technical report on the mineral resource estimate for the Scott Lake project, Northwestern Quebec, Canada, 28-03-2017

To date, nine mineralized zones composed of Zn-Cu stringers or massive sulphides have been identified in the western part of the Scott Lake Property. These mineralized bodies are hosted in the volcanic sequence of the Scott Member. Mineralization is spatially associated with felsic volcanics, namely the Scott and Tony rhyolites. Except for the Selco-Scott lens, the massive sulphide lenses occur at depths between 200 and 1,000 m. The volcanic rocks are overprinted by strong and extensive hydrothermal alteration.

### Lemoine Mine

Between 1975 and 1983, the Lemoine mine produced 757,585 t of ore at 9.52 % Zn, 4.18 % Cu, 4.56 g/t Au and 82.26 g/t Ag. The deposit is situated on the southern flank of the Chibougamau Anticline, hosted in felsic to intermediate volcanic rocks of the Lemoine Member. The Lemoine Member belongs to the Roy Group and is the equivalent of the Scott Member on the northern flank. Mineralization occurs as a single massive sulphide lens of exhalative origin, 1 to 9 m thick, hosted in crystal tuff. Mineralization consists of sphalerite, chalcopyrite, pyrite and pyrrhotite with gold and silver. Alteration near the mineralized lens is of low intensity and characterized by the presence of carbonates and chlorite.





## Targets and summary of proposed work

Follow-up work is recommended on the Millkirk and VMS-Falcon showings.

In the Millkirk area, the most promising of the two, drilling should reach greater depths to test the hypothesis of remobilization from a deep sulphide deposit. The geological information gained from this work should be combined with recent surface data to guide exploration for new massive sulphide lenses. Three holes spaced 75 m apart are recommended to intersect the rhyolite at a depth of 200 m.

In the VMS-Falcon area, drilling should be conducted between holes LW-29 and LW-19 and below hole LW-17 to test for an extension of the mineralized zone and thickening of the massive sulphide horizon. In addition, three holes spaced 50 m apart should be drilled below holes LW-29 and LW-19 on the longitudinal section.

A total of approximately 1,600 m drilled in 7 holes should be possible for a first exploration program. A borehole Pulse-EM survey should be performed in each hole to locate potential conductors.

## Other recommended work

- Perform a new high-resolution drone-borne magnetic survey in the southern portion of the property ;
- Conduct new borehole electromagnetic surveys ;
- Review historical drill core and collect samples for whole-rock analyses ;
- Improve the understanding of the surface geology in the Millkirk area.





## Claim status

Number of mining titles : **26**

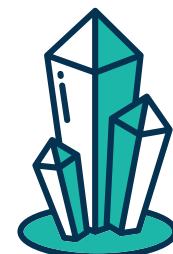
Total amount required : **\$ 53,550**

Some work will need to be performed by November 2022 for one mining title and by August 2023 for all the other mining titles.

The property is free of any charge, royalty, hypothec, fee, security or other right.

[The mining title map is provided in Appendix 2.](#)

[A detailed legal history is available on request.](#)



## Other documents and information available from SOQUEM

SOQUEM's Geotic database :

- 27 drill holes totalling 4,371 m ;
- 491 m samples for analysis ;
- 540 amples for metal assays ;
- 10 lithogeochemical samples from 3 drill holes.

Outcrop descriptions (93) and grab sample geochemistry (103 analyses).

Geophysical interpretation report by INTER Géophysique.

ArcGIS data compilation.

[All fact sheet figures are presented in Appendix 3.](#)





# EXPLORE NEW POSSIBILITIES, DISCOVER THE WORLD OF TOMORROW



## CONTACT AND INFORMATION

Tony Brisson, CEO

### Head office

1740, chemin Sullivan  
Suite 2000  
Val-d'Or (Québec) J9P 7H1



[soquem.qc.ca](http://soquem.qc.ca)



[soquem.abitibi@soquem.qc.ca](mailto:soquem.abitibi@soquem.qc.ca)



819 874-3773



## Appendix 1

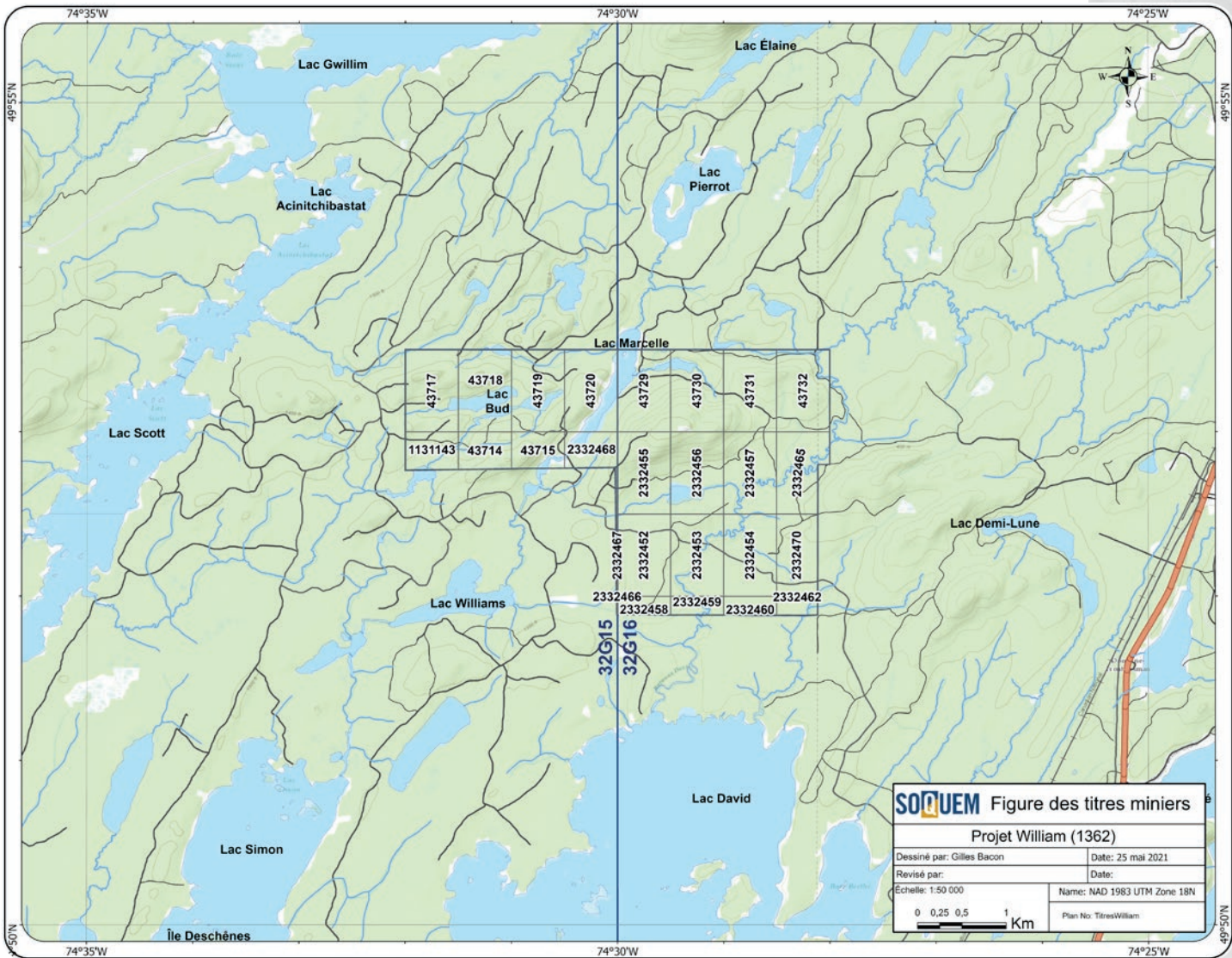
Summary of historical work.

Année(s)	Compagnie	Type de travaux	Numéros de GM
1997-2021	SOQUEM	Mapping, stripping, drilling (3 DDH) and geophysical surveys: HEM (MaxMin), IP and InfiniTEM	GM54598 ; GM54597 ; GM54850 ; GM55511 ; GM55264 ; GM56213 ; GM62337 ; GM64213 ; GM70330 ; GM70917
1978-1984	Falconbridge Copper Ltd	Drilling (32 DDH), geophysical surveys (MAG, HEM (MaxMin), IP and DEEPEM), mapping and geochemistry	GM33969 ; GM33970 ; GM34664 ; GM36180 ; GM37480 ; GM36183 ; GM37368 ; GM38984 ; GM38437 ; GM37852 ; GM38981 ; GM40052 ; GM42876 ; GM40053 ; GM40051 ; GM41229 ; GM41228
1976-1977	Selco Mining Corp. Ltd	Drilling (3 DDH) and geophysical surveys (MAG, EM, HLEM and IP)	GM31916 ; GM32253 ; GM32773 ; GM32505
1946-1976	-	Mapping, drilling (57 DDH), and MAG and EM geophysical surveys	Work conducted by several companies



Appendix 2

Mining title map.



## Appendix 3

Location map of the William property.

