

**NI 43-101 TECHNICAL REPORT  
on the  
LAC CHAVIGNY PROJECT,  
ABITIBI, QUÉBEC**

**For**

**CULLINAN METALS CORP.**

Prepared by:  
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OGQ Membership Number 2129

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Effective Date: 13<sup>th</sup> May 2021

# CERTIFICATE OF QUALIFIED PERSON

I, Francis R Newton P. Geo, OGQ # 2129, certify that;

1. I reside at 1518 Jasmine Crescent, Oakville, Ontario L6H 3H3 and I am a geologist practitioner for Minroc Management Limited, office address 2857 Sherwood Heights Unit 2, Oakville Ontario L6J 7J9.
2. This certificate applies to the technical report entitled "NI 43-101 Technical Report on the Lac Chavigny Project, Abitibi, Québec" dated 13<sup>th</sup> May 2021
3. I am a graduate of Laurentian University, Sudbury, Ontario, Canada with a Bachelor of Science (Geology; 2014) and I have practiced my profession continually since that time. This practice has included:
  - property evaluation, review and target generation;
  - NI43-101 Technical Report writing;
  - designing and implementing exploration programs.
  - This experience has included several early stage gold and base metal projects in the Abitibi region of Québec.
4. I am a member of the Ordre des Géologues du Québec (OGQ), Membership Number 2129, and the Association of Professional Geoscientists of Ontario (APGO), Membership Number 2885.
5. I am a "Qualified Person" for the purposes of NI 43-101.
6. I have read NI 43-101 as well as all sections of this Report, verify that this Report was prepared in compliance with the Instrument, and am responsible for all sections of this Report.
7. I have not visited the Lac Chavigny Property.
8. I am independent, as described in Section 1.5 of NI 43-101, of the Lac Chavigny Property, Cullinan Resources Corp. and Dorval Exploration, I have had no prior involvement with the Lac Chavigny Property prior to the preparation of this Report.
9. As of the date of this certificate, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make this Technical Report not misleading.

Effective Date: 13<sup>th</sup> May 2021

*Francis R Newton (sealed)*

Francis R Newton, BSc P. Geo

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## Certificate of Qualification

I, Martin Demers P.Geo (ogq#770), is capable to certify that:

1. I am registered under the name Modelor enr. and my place of business is located at 69 rue Pierre, Val d'Or, J9P 4L8.
2. I graduated from Université du Québec à Montréal in 1996 with a degree in geology.
3. I am member in good standing of the Ordre des géologues du Québec (ogq) with the licence #770, and of the Engineers Geoscientist New-Brunswick with the licence number L5980.
4. My relevant experience was built by fulfilling different positions with Aurizon Mines and Hecla Mining from 1997 to 2015. I am leading a consulting business focusing on field geology, geophysics data processing and mineral potential evaluation since 2016.
5. I am involved in professional training in geophysics and data processing at Université du Québec en Abitibi-Témiscamingue (UQAT), Institut de recherche en mines et environnement (IRME), since 2016.
6. I have reviewed all sections the Technical Report: "NI-43-101 Technical Report on the Lac Chavigny Project, Abitibi, Québec for Cullinan Metals Corp.". I am responsible for section 12.1, having visited the Lac Savigny property March 27<sup>th</sup> 2021.
7. I am independent of the issuer in accordance with section 1.5 of National Instrument 43-101 respecting standards of disclosure for mineral projects ("NI 43-101"); I am neither registered nor as Issuer employee, shareholder, or beneficiary of any commercial transactions in relation to the issuers.
8. I have read the definition of "qualified person" set out in NI 43-101, and certify that by reason of my education, affiliation with a professional association, professional training, past relevant experience, I fulfill the requirement to be a "qualified person" for the purposes of NI 43-101.
9. As of May 5, 2021, to the best of my knowledge, information and belief, the Technical Report contained all the scientific and technical information that is required to be disclosed to make the report not misleading.

*"Martin Demers"* (sealed)

Martin Demers P.Geo (ogq #770)

May 14<sup>th</sup> 2021



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*Note: All UTM's are in NAD83 zone 17U. All northings are against true/geodetic north.  
Costs are in Canadian Dollars unless otherwise specified*

## **1.0 SUMMARY**

### **1.1 General**

Minroc Management Limited (Minroc) has been retained by Cullinan Resources Corp. (Cullinan) to complete a National Instrument 43-101 Technical Report (NI 43-101) pertaining to the Lac Chavigny Property (the Property). The purpose of this report is to disclose all material technical information pertaining to the Lac Chavigny Property, in accordance with section 4.2 of NI 43-101. The report is to be used in support of raising capital to advance the exploration and development of the Project.

The Lac Chavigny Property is situated in the Abitibi region of Québec, 50 km northeast of Rouyn-Noranda, and 7 km west of the small town of Taschereau. The Property consists of fourteen (14) "CDC" Claims registered to Dorval Exploration Inc, with a combined area of 756.99 Ha.

Cullinan Metals Corp. is a corporation existing under the laws of British Columbia and is headquartered at 2200-885 West Georgia St, Vancouver, British Columbia, Canada. Through a sale agreement dated 28<sup>th</sup> February, 2021, Cullinan has the option to acquire a 100% interest in the Lac Chavigny Property from the present claim holder, Dorval Exploration Inc.

Under the terms of the agreement, Cullinan can acquire a 100% interest by paying Dorval a \$25,000 deposit within five days upon signing of the agreement: a further \$25,000 and 200,000 shares on the Effective Date, and further transfers of \$100,000 and 500,000 shares eighteen months after the Effective Date. Cullinan must also spend two tranches of \$75,000 and \$200,000 on exploration or other expenditure on the Lac Chavigny Property within 18 and 28 months of the Effective Date, respectively. Dorval will retain an NSR royalty of 1% on future production from the Property. Cullinan has the option to purchase half of this royalty for \$1,000,000 at any time (Romano & Ferguson, 2021).

The Property can be accessed using gravel roads and trails off of paved provincial and municipal roads which run a few hundred metres outside the boundary on the north and south sides of the Property. The Property lies within NTS sheet 32D10. The collar of the most notable historic drillhole on the Property, "PC-88-4" is located at 663,763mE, 5,389,557mN, UTM NAD83 zone 17U.

The Property overlies the southern portion of the Abitibi subprovince of the Canadian Shield and is chiefly underlain by northwest-striking sequences of mafic to felsic metavolcanics of the Figuery and Hunter Mine Groups, bisected by the Macamic Fault, a regional-scale deformation zone which manifests on the Property as a band of deformation and chlorite, carbonate and sericite alteration several hundred metres wide.

The Property is at an early stage of exploration. Most historic exploration on the Property was completed by Exploration Orbite in the 1980s-1990s and included a variety of reconnaissance geophysical and geochemical surveys, surface mapping and six drillholes. The Property hosts gold mineralization, known from intervals from two historic drillholes,

reported as 1.069 g/t Au over 0.3 m, and 1.47 g/t Au over 1.5 m. Elevated Cu values are known from surface sampling.

There are no current mineral Resources or Reserves on the Project as defined in the Definition Standards on Mineral Resources and Mineral Reserves published by the Canadian Institute of Mines, Minerals and Petroleum (CIM) or any equivalent international code.

While the Property is relatively unexplored, the authors believe that it has the potential to host both gold and base metals type mineralization.

## **1.2 Recommendations**

The authors recommend a two-phase exploration program, presented in this Report. The first phase consists of a property-wide heliborne magnetic and resistivity survey, and an interpretation of these results alongside a review of historic data. This is to be followed by a ground exploration program, with a property-wide reconnaissance coverage and more targeted sampling in key areas guided by the relative wealth of historic data, including the Macamic deformation corridor and the granodiorite body in the northwest of the Property. Phase 2 exploration targets will be fine-tuned based on the results of Phase 1.

## **2.0 INTRODUCTION**

Minroc Management Ltd (Minroc) has been retained by Cullinan Metals Corp. (Cullinan) to complete a National Instrument 43-101 Technical Report (NI 43-101) pertaining to the Lac Chavigny Property (the Property). The purpose of this report is to disclose all material technical information pertaining to the Lac Chavigny Property, in accordance with section 4.2 of NI 43-101. The report is to be used in support of raising capital to advance the exploration and development of the Project.

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Under the terms of the agreement, Cullinan can acquire a 100% interest by paying Dorval a \$25,000 deposit within five days upon signing of the agreement; a further \$25,000 and 200,000 shares on the Effective Date, and further transfers of \$100,000 and 500,000 shares eighteen months after the Effective Date. Cullinan must also spend two tranches of \$75,000 and \$200,000 on exploration or other expenditure on the Lac Chavigny Property within 18



and 28 months of the Effective Date, respectively. Dorval will retain an NSR royalty of 1% on future production from the Property. Cullinan has the option to purchase half of this royalty for \$1,000,000 at any time (Romano & Ferguson, 2021).

The Property was visited by Martin Demers, P.Geo and Brian Newton, P.Geo, of Minroc Management, on the 27<sup>th</sup> March 2021. The Property can be accessed year-round using bush roads and trails which connect the Property with the regional road network. Paved municipal roads lie 100 m from the southern property boundary and there is a provincial highway 300 m from the northern boundary. The Property lies within NTS sheet 32D10. The collar of the most notable historic drillhole on the Property, "PC-88-4" is located at 663,763mE, 5,389,557mN, UTM NAD83 zone 17U.

The Property overlies the southern portion of the Abitibi subprovince of the Canadian Shield and is chiefly underlain by northwest-striking sequences of mafic to felsic metavolcanics of the Figuery and Hunter Mine Groups, bisected by the Macamic Fault, a regional-scale deformation zone which manifests on the Property as a band of deformation and chlorite, carbonate and sericite alteration several hundred metres wide.

The Property is at an early stage of exploration. Most historic exploration on the Property was completed by Exploration Orbite in the 1980s-1990s and included a variety of reconnaissance geophysical and geochemical surveys, surface mapping and six drillholes. The Property hosts gold mineralization, known from intervals from two historic drillholes, reported as 1.069 g/t Au over 0.3 m, and 1.47 g/t Au over 1.5 m. Elevated Cu values are known from surface sampling.

While the Property is relatively unexplored, the authors believe that it has the potential to host both gold and base metals type mineralization.

The Property is an early-stage exploration property. There are no current mineral Resources or Reserves on the Project as defined in the Definition Standards on Mineral Resources and Mineral Reserves published by the Canadian Institute of Mines, Minerals and Petroleum (CIM) or any equivalent international code.

## **2.1 Notes on Issuer**

Cullinan Metals Corp. is a corporation existing under the laws of British Columbia and is headquartered at 2200-885 West Georgia St, Vancouver, British Columbia, Canada. Through a sale agreement dated 28<sup>th</sup> February, 2021, Cullinan has the option to acquire a 100% interest in the Lac Chavigny Property from the present claim holder, Dorval Exploration Inc.

Under the terms of the agreement, Cullinan can acquire a 100% interest by paying Dorval a \$25,000 deposit within five days upon signing of the agreement; a further \$25,000 and 200,000 shares on the Effective Date, and further transfers of \$100,000 and 500,000 shares eighteen months after the Effective Date. Cullinan must also spend two tranches of \$75,000 and \$200,000 on exploration or other expenditure on the Lac Chavigny Property within 18 and 28 months of the Effective Date, respectively. Dorval will retain an NSR royalty of 1% on

future production from the Property. Cullinan has the option to purchase half of this royalty for \$1,000,000 at any time (Romano & Ferguson, 2021).

## 2.2 Terms of Reference

The following list presents the terms of reference used in this report.

**Table 1 Terms of Reference**

<b>Abbreviation or term</b>	<b>Definition</b>
°	Degrees (angle)
°C	Degrees Celsius (temperature)
<b>Ag</b>	Silver (chemical symbol)
<b>Au</b>	Gold (chemical symbol)
<b>CDC</b>	Claim Designé sur Carte (Québec mining claim type)
<b>CIM</b>	Canadian institute of Mining, Minerals and Petroleum
<b>CN</b>	Canadian National (rail operator)
<b>Cu</b>	Copper (chemical symbol)
<b>DDH</b>	Diamond Drillhole
<b>EM</b>	Electromagnetic (geophysical conductivity survey)
<b>g/t</b>	Grams per tonne (concentration)
<b>Ga</b>	Billion years (Giga-annum, age)
<b>GESTIM</b>	Gestion des titres miniers (Québec claim staking online portal)
<b>Ha</b>	Hectare (area)
<b>IP</b>	Induced Polarization (geophysical survey technique)
<b>JORC</b>	Joint Ore Reserves Committee (Australian mineral resource reporting code)
<b>JV</b>	Joint Venture
<b>kg</b>	Kilogram (weight)
<b>km</b>	Kilometre (distance)
<b>km<sup>2</sup></b>	Square kilometre (area)
<b>Kt</b>	Kilotonne (thousand tonnes, weight)
<b>m</b>	Metre (distance)
<b>MERN</b>	Ministere d'Environnement et Ressources Naturelles (Québec ministry)
<b>mm</b>	Millimetre (distance)
<b>NI 43-101</b>	National Instrument 43-101 (Canadian mineral resource reporting code)
<b>NSR</b>	Net Smelter Return (type of royalty)
<b>NSV</b>	No Significant Values
<b>Oz</b>	Ounce (weight)
<b>P. Geo</b>	Professional Geoscientist (as accredited in Canada)

<b>Pb</b>	Lead (chemical symbol)
<b>po</b>	Pyrrhotite (iron sulphide mineral)
<b>py</b>	Pyrite (iron sulphide mineral)
<b>QA/QC</b>	Quality Assurance and Quality Control
<b>SEDAR</b>	System for Electronic Document Analysis and Retrieval (Canadian securities document filing system)
<b>SIGEOM</b>	Système d'information géominière (Québec online geoscience and exploration data repository)
<b>t</b>	Tonne (weight)
<b>UTM</b>	Universal Transverse Mercator (coordinate reference system)
<b>VLF</b>	Very Low Frequency (electromagnetic survey method)
<b>VMS</b>	Volcanogenic Massive Sulphide (base metal deposit type)
<b>Zn</b>	Zinc (chemical symbol)

### **2.3 Sources of Information**

This report was written based upon documents and data, both public and private, provided by the Issuer, as well as publicly available reports and data accessed via SEDAR, SIGEOM and GESTIM, as listed in the References. The authors have reviewed all data provided by the Issuer and believe that it is sufficiently accurate for the purposes of this Technical Report.

### **2.4 Personal Inspection**

The Property was visited by Martin Demers, P.Geo, of Minroc Management, on the 27<sup>th</sup> March 2021. The Property was visited by road on both its northern and southern sides. A number of outcrops were visited. Possible historic drill pads were identified but no historic drill collars were found. No samples were taken. See Item 12.1 for more information.

## **3.0 RELIANCE ON OTHER EXPERTS**

The authors have not relied upon the opinion of non-qualified persons with regards to any geoscientific matter in the preparation of this Technical Report. The opinions expressed in this Report are those of the authors and are based upon their review of the available data as described in Item 2.3.

The authors have not investigated the ownership or otherwise legal or tax status of the mineral tenure and are not qualified to do so; with respect to information regarding ownership, permits, licenses, environmental concerns, and the option agreement between Cullinan and Dorval, as outlined in Item 4.3 of this Report, the authors have relied on the option agreement between Cullinan and Dorval, provided by Cullinan, and information presented by the Québec MERN via SIGEOM, GESTIM and in the Québec Mining Act.

## **4.0 PROPERTY DESCRIPTION AND LOCATION**

### **4.1 Area**

The Lac Chavigny Property has a total area of 756.99 Ha and forms one contiguous block.

### **4.2 Location**

The Lac Chavigny Property is situated in the Abitibi region of Québec, 50 km northeast of Rouyn-Noranda, and 7 km west of the small town of Taschereau. The Property lies within NTS sheet 32D10. The collar of the most notable historic drillhole on the Property, "PC-88-4" is located at 663,763mE, 5,389,557mN, UTM NAD83 zone 17U.

### 4.3 Description of Mineral Tenure

The Property consists of fourteen (14) “CDC” Claims registered to Dorval Exploration Inc, with a combined area of 756.99 Ha. Through a sale agreement dated February 28<sup>th</sup>, 2021, Cullinan Metals Corp has the option to acquire a 100% interest in the Lac Chavigny Property from the present claim holder, Dorval Exploration Inc. This is dependent upon Cullinan paying Dorval a \$25,000 deposit on signing of the agreement; a further \$25,000 and 200,000 shares on the Effective Date, and a further transfer of \$100,000 and 500,000 shares 18 months following the Effective Date. Cullinan must also spend two tranches of \$75,000 and \$500,000 on exploration or other expenditure on the Lac Chavigny Property within 18 and 28 months of the Effective Date, respectively. Dorval will retain a gross over-riding royalty of 1% on future production from the Property (Romano and Ferguson, 2021).

Note: The effective date of this Report falls within the period of COVID-19 precautionary and assistance measures enacted by the Government of Québec. The Expiry Date and Work Required figures presented here may be subject to change based upon the “Suspension of the Due Period for Mining Exploration Rights in Québec”, as announced on the 9<sup>th</sup> April 2020 (Government of Québec website, URL <https://mern.gouv.qc.ca/covid-19-suspension-periode-validite-droits-miniers-2020-04-09/> ).

**Table 2 Claim Details**

Claim	Date Staked	Date Due	Area Ha	Work Req'd	Holder	Notes
2532023	2019-02-26	2022-02-25	56.91	\$1200	Dorval Exploration Inc.	
2532024	2019-02-26	2022-02-25	56.91	\$1200	Dorval Exploration Inc.	Location of DDH PC-88-4 and PC1-94-12
2532025	2019-02-26	2022-02-25	32.16	\$1200	Dorval Exploration Inc.	
2532026	2019-02-26	2022-02-25	56.9	\$1200	Dorval Exploration Inc.	
2532027	2019-02-26	2022-02-25	56.9	\$1200	Dorval Exploration Inc.	
2532028	2019-02-26	2022-02-25	56.9	\$1200	Dorval Exploration Inc.	
2532029	2019-02-26	2022-02-25	56.9	\$1200	Dorval Exploration Inc.	
2532030	2019-02-26	2022-02-25	56.9	\$1200	Dorval Exploration Inc.	Location of surface Cu occurrence
2532031	2019-02-26	2022-02-25	42.06	\$1200	Dorval Exploration Inc.	
2532032	2019-02-26	2022-02-25	56.89	\$1200	Dorval Exploration Inc.	
2532033	2019-02-26	2022-02-25	56.89	\$1200	Dorval Exploration Inc.	
2532034	2019-02-26	2022-02-25	56.89	\$1200	Dorval Exploration Inc.	
2532035	2019-02-26	2022-02-25	56.89	\$1200	Dorval Exploration Inc.	
2532036	2019-02-26	2022-02-25	56.89	\$1200	Dorval Exploration Inc.	

#### **4.4 Nature of Issuer's Title**

In Québec, Mineral Claims confer upon the holder the exclusive right to explore for all mineral substances excluding petroleum, gas, brine, and surficial deposits such as sand, gravel and clay. A Mineral Claim does not confer any surface rights save for access for the purpose of exploration in accordance with the Québec Mining Act.

A Mining Lease must first be acquired prior to the commencement of mining. Application for a Mining Lease must be accompanied by a feasibility study, a rehabilitation and restoration plan, detailed parcel surveys, and prior assessment of the proposed project according to the Environment Quality Act, submitted to the MERN.

Mineral Claims endure for two years and can be renewed following the filing of reports of exploration work meeting the required value for assessment credits or making an in-lieu payment of twice the required assessment credit value.

Information regarding expiration date and required exploration expenditure are provided in Table 2 in Item 4.3, subject to the note regarding recent COVID-19 legislation also provided above.

For further information, the reader is directed to review the Québec Mining Act, available on the MERN website, [mern.gouv.gc.ca](http://mern.gouv.gc.ca)

#### **4.5 Royalties**

As stated under Item 2.1, Dorval will retain an NSR royalty of 1% on future production from the Property. Cullinan has the option to purchase half of this royalty for \$1,000,000 at any time (Romano & Ferguson, 2021).

Aside from the NSR royalty mentioned above, to the best of the authors' knowledge, there are no other royalties, back-in rights, payments, or other agreements or encumbrances which would affect the Issuer's title upon the Property or ability to perform work upon it.

#### **4.6 Environmental liabilities**

To the best of the authors' knowledge, there are no environmental liabilities which would affect the Issuer's title upon the Property or ability to perform work upon it.

#### **4.7 Permits Required**

The authors believe that the most invasive near-term exploration on the Property would involve diamond drilling or trenching. Either activity may require the cutting of trees for access routes, drill pads or trenching areas. A permit from the MERN is required prior to beginning this work.

#### **4.8 Other Factors**

The Property lies within an agreement area between the province and the Pikogan First Nation of Amos, Québec (agreement 44320). It is recommended that Cullinan communicate any significant exploration plans with the Pikogan Nation particularly vis a vis impacts to hunting and other traditional activities.

The southwestern Property boundary, and the trail which provides access to the southern part of the Property, both lie close to a municipal cemetery. This does not impinge on exploration in any of the key areas of the Property. The Authors advise that Cullinan try to minimize disturbance in the areas adjacent to the cemetery.

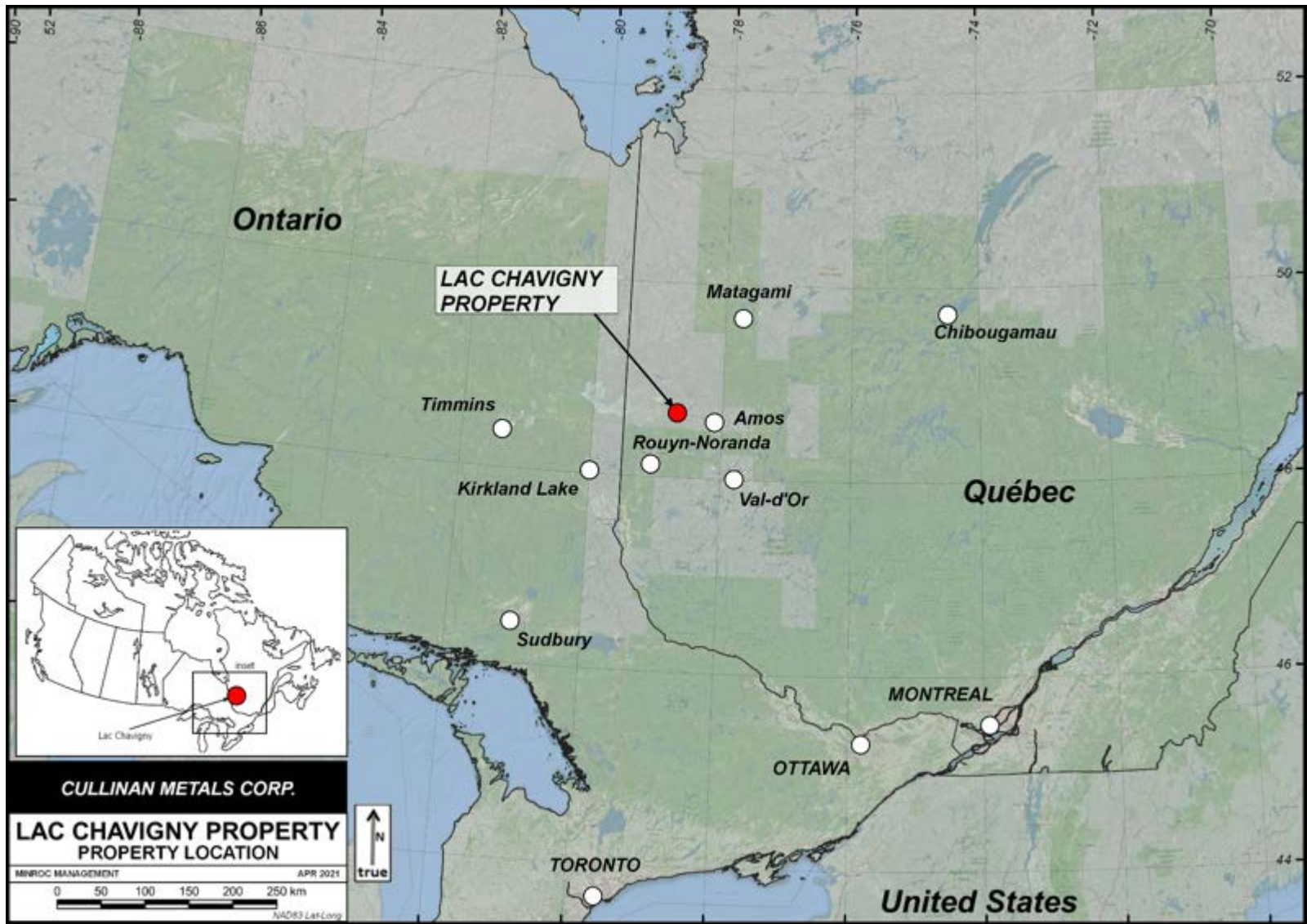


Figure 1 Property Location



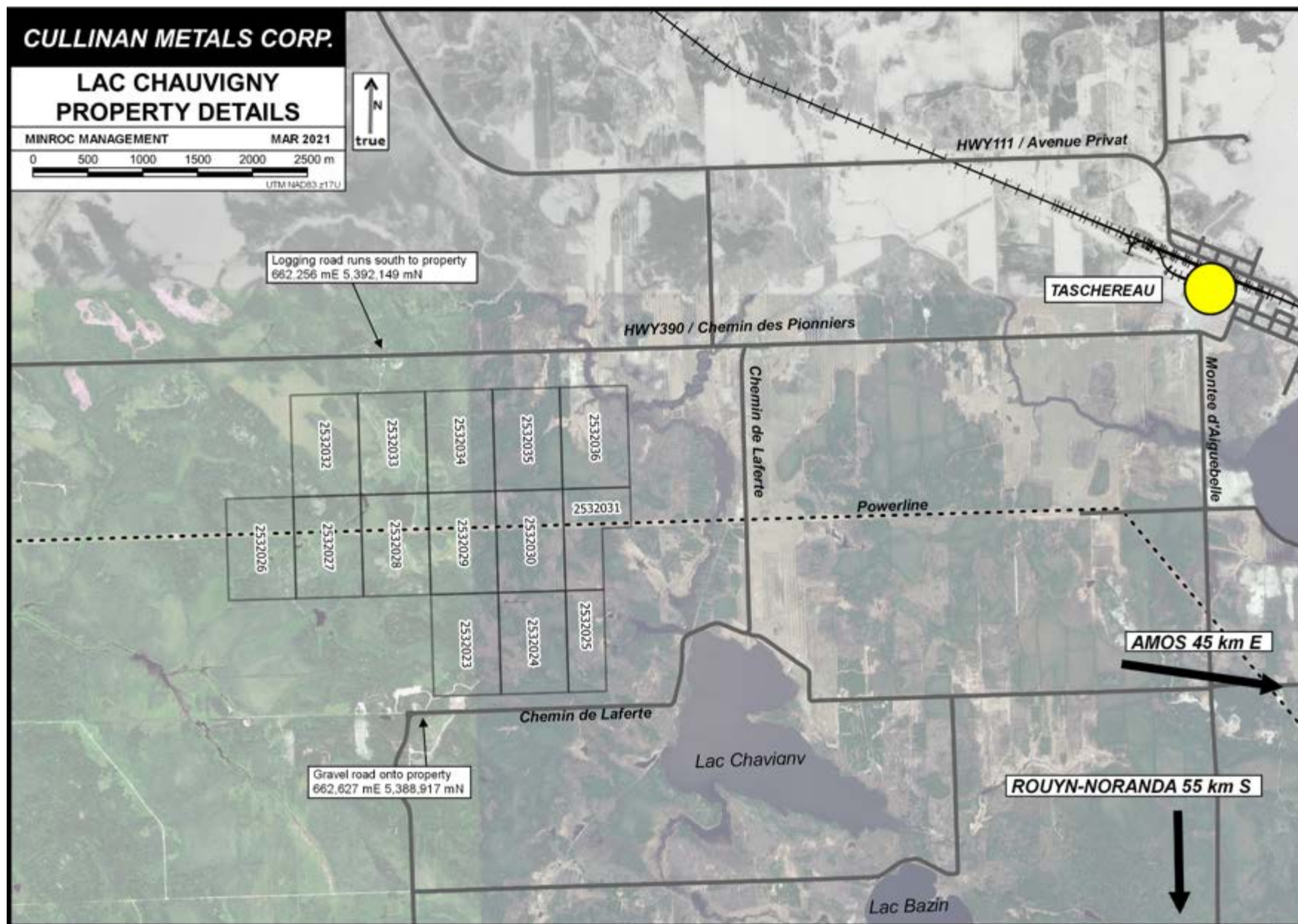


Figure 2 Property Detail and Access

## **5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE & PHYSIOGRAPHY**

### **5.1 *Topography, Elevation and Vegetation***

The Lac Chavigny Property terrain is hummocky with numerous creeks, small ponds and wetland areas, typical of the Canadian Shield. There are several areas of outcrop along a ridge in the northwest of the property. Elevation does not vary more than 10 metres across the property, with an average of about 320 m above sea level. Vegetation consists of thick stands of spruce and fir, with smaller growth in the west of the property where there has been recent forestry activity. A small area (about 15 Ha) in the northeast corner of the Property is covered by agricultural land use.

The Property is drained by a number of small streams which flow either into the Rivière Lois to the south, or the Rivière Bellefeuille to the north. Both rivers flow northwestwards into Lac Macamic, one of the largest regional lakes, which itself drains into James Bay via Lake Abitibi.

Drillhole data suggests an overburden thickness in the order of 2-10m. Drillholes are focused along the Macamic Fault trend where there is occasional outcrop and overburden is thinner. Overburden is likely to be thicker in the northeastern and southwestern parts of the Property.

### **5.2 *Accessibility***

The nearest paved roads are paved provincial highway 390 (Chemin des Pionniers) and the paved local road Chemin de Laferté which run east-west, a few hundred metres to the north and south of the Property respectively. Both roads connect to the nearest settlement of Taschereau and provide access to Highways 111 and 101, which provide access to the larger towns of Amos and Rouyn-Noranda (about 50 km east and south, respectively). These towns in turn can be accessed by road from the rest of Canada. Rouyn-Noranda possesses a regional airport which can be reached by air from Montréal, Québec City and elsewhere.

A forestry road runs into the north of the property from Highway 390, while a number of gravel tracks and trails run into the south of the property from the Chemin de Laferté. A powerline corridor runs east-west through the centre of the property; the forestry road crosses this corridor and this can be used to gain access to much of the remainder of the property by ATV.

### **5.3 *Proximity to Infrastructure***

Taschereau is an agricultural community of about 1,000 population, and is home to a number of small contractors, as are the other small nearby towns of Macamic and La Sarre which lie within 20 km of the property. The major regional towns of Amos (population ~20,000), Rouyn-Noranda (population ~40,000) and, further afield, Val-d'Or (population ~30,000) are all home to active mines or significant exploration projects. The local economies, businesses and workforces of all three towns have a significant focus on mining and exploration. Local businesses and workers are accustomed to exploration projects.

A CN rail line runs through Taschereau, about 4 km from the Property in the northeast. This line links La Sarre in the northwest to the Montreal-Québec corridor in the south of the province and provides links to Val-d'Or and Rouyn-Noranda via Senneterre (Transports Québec 2020).

Water for exploration purposes (e.g. drilling) is readily available from creeks on the Property in the summer months and possibly in the winter. Electrical power could be acquired from the Hydro-Québec power transmission line which runs across the property.

The Property is at too early a stage of exploration and development to discuss suitability for mills, tailings facilities, etc. The Property is likely to be sufficiently large to accommodate mining infrastructure. The tenure must be upgraded to a Mining Lease prior to any mining operations.

#### **5.4 Climate**

The Property has a humid continental climate close to subarctic (Köppen Dfb/Dfc). Average daily temperatures are -18.2° C in January, 16.9° C in July and an annual average of 0.7° C. Snowfall peaks in December with an average of 55 cm and a per annum snowfall of 246.5 cm. Annual total precipitation is 889.8 mm with the most rainfall in September.

Given the relative ease of access to the Property, the climate is unlikely to pose significant limits on exploration aside from winter trail maintenance. The brief freeze and thaw periods at the start and end of winter may be best avoided.

## **6.0 HISTORY**

### **6.1 Prior Ownership**

The Lac Chavigny Property was map-staked in 2019 by Dorval Exploration Inc. The land was previously unstaked for a number of years. In the mid 2010s, part of the current Property formed part of a large claim group following the Macamic Fault, held by Lakeside Minerals Inc. Exploration Orbite held a similarly sized land package in the 1980s and 90s which included most of the current Property.

### **6.2 Discussion of Work**

#### **6.2.1 Early Exploration**

Regional-scale academic surveys commenced in the early 20<sup>th</sup> century with an eye towards economic geology. Exploration in the region gathered pace in the 1920s with the discovery of the Lyndhurst copper deposit (about 15 km southwest of Lac Chavigny), which was mined briefly in the 1950s. A 1948 report by the regional geologist (Robinson 1948) documents the earliest well recorded exploration activity on the Pinnacle Gold Mines property. This property covered an area larger than the current Property and was staked following the discovery of a gold mineralization in the Macamic Fault by Trojan Gold Mines, east of Lac Bazin (about 5 km

southeast of the current Property). Pinnacle completed ten DDH totalling 4,474 ft in 1945. The two DDH within the present Property (here designated PGM-7 and PGM-8) did not encounter mineralization. Later authors place these two DDH in the south of the current Property but the precise location does not seem to be known. Several other Pinnacle DDH, beyond the current Property, encountered modest gold mineralization, including PGM-6 which gave \$5.25 over 0.5 ft (appx. 5.19 g/t Au over 0.15 m; Pinnacle 1945), about 200m SE of the current Property, and PGM-1203 which gave "\$4.20 across 2½ ft" (appx. 3.5 g/t Au over 0.75 m) beneath Lac Chavigny, about 900m SE of the current Property (Robinson 1948). Disseminated chalcopyrite was noted in the PGM-6 interval. The PGM-6 interval is presented as 4.11 g/t Au over 0.76 m in Pelletier (1988). This DDH interval is listed as the "Lac Chavigny-Ouest" gold occurrence in SIGEOM.

Robinson mentions that in 1948 the Pinnacle property is already inactive, and that the 1945 exploration program had been poorly documented. There are some discrepancies between descriptions of the same drillholes in the two documents (Pinnacle 1945, Robinson 1948). It appears that from this time until the 1980s little if any exploration activity occurred within the present Property.

The Québec Department of Natural Resources completed a geologic map of Privat Township in 1974 (Eakins 1974). In the Property region this shows the approximate locations of the Pinnacle drillholes as well as a few strands of outcrop amongst what is generally a low-lying marshy terrain.

#### *6.2.2 Exploration from the 1980s onwards*

A large property spanning the township was acquired by Exploration Orbite in 1984 which they referred to as the Privat project. This encompassed most of the present Property (excluding the northeastern area underlain by Bellefeuille intrusives) as well as other gold occurrences in the township along almost 30 km of strike of the Macamic Fault. Several generations of work were completed across the property from 1984 to 1994 including magnetic, resistivity and IP surveys, soil surveys, several phases of geologic mapping, and numerous drill programs. As their projects progressed Orbite came to focus on the area east of Lac Bazin. Several exploration programs were dedicated entirely to this area and are not presented in Table 3. However, two holes from Orbite's 1988 drill program were within the Lac Chavigny property, PC-88-3 and PC-88-4. These were drilled to follow up on a soil sample which returned 203 ppm Cu from atop the Macamic Fault, in the south-centre of the present Property. No assays are presented in the original drill logs (as shown in Pelletier 1988) although later Orbite reports (e.g. Pelletier 1994) state that a narrow gold-mineralized interval was encountered by PC-88-4, of 1470 ppb Au over 1.5 m, hosted by quartz-chlorite-tourmaline veining within mudstones. Trace chalcopyrite is mentioned by Pelletier in this DDH interval.

Cameco had an Option on the Orbite property in 1990-1992 (Pelletier 1992). Orbite's focus returned to the Lac Chavigny area in the 1990s with an IP survey, surface mapping and sampling, and two DDH on the current Lac Chavigny property. Sampling of outcrops close to the PC-88-4 collar did not yield any notable gold values although modestly elevated Cu was returned (up to 164ppm Cu; see Figure 4).

Other surface work by Orbite in this same program returned an elevated Cu value of 7904 ppm Cu from schistose andesites (sample 317325), as well as the discovery of the "Tousim-9101" gold occurrence, outside of (about 400m NW of) the current Property. Here, sheared granodiorite yielded grab sample values up to 10.2 g/t Au (sample 317333; Simoneau 1991). As with elsewhere in the area, gold mineralization is associated with chalcopyrite. Drilling follow-up returned, amongst others, a value of 4.33 g/t Au over 0.7 m in DDH PBI-91-4; (Pelletier 1992). This drillhole is difficult to accurately locate due to the quality of available maps, but both the collar and the mineralized interval may be a short distance (within 100 metres) within the Property.

Two drillholes from the Tousim program (PBI-94-09 and 94-11) were entirely within the Lac Chavigny property. No notable assay values were returned, though neither hole were sampled in detail. The log for PBI-94-11 mentions quartz veining and chalcopyrite over a 40 m interval within granodiorite, but this interval was not sampled (Pelletier 1994; see Figure 5).

While no notable gold values were returned from surface sampling within the Property, Orbite maps suggest that surface sampling was minimal with no samples taken from several large outcrop areas.

Orbite's 1994 program followed up on the Tousim-9101 area and several targets within the present Property. One DDH (PCI-94-12) was drilled 500 m northwest of PC-88-4 along strike of the same volcanic sequence. One narrow gold interval was returned of 1069 ppb Au over 0.3 m, alongside other narrow intervals of elevated Au (293 ppb over 0.97 m, 174 ppb over 0.67 m); all on contacts of metre-scale pyritic granodiorite dykes hosted within the sheared mafic volcanics of the Macamic Fault. Two DDH were drilled to test IP anomalies in the approximate area of the surface Cu occurrence (PCI-94-13 and 19). These encountered a mix of intermediate-felsic volcanics, greywacke type sediments and porphyry sills. Tuffaceous horizons within the volcanics were silicified and carried lenses and beds of mixed sulphides (pyrite-pyrrhotite). Gold values were low but elevated (up to 178 ppb Au in PCI-94-13); sulphidic zones were assayed for Cu, Zn and Ag though few elevated values were reported (Pelletier 1994).

Exploration Boreale acquired parts of the Orbite property in the 1990s. Boreale completed two drillholes on the west shore of Lac Chavigny in an attempt to replicate Pinnacle DDH PGM-6. No notable gold values were returned. This work was outside the current Property but was within 500 m of the southeast boundary (Tremblay 1998). A third drillhole tested an Orbite IP target in the northeast of the current Property (PR-98-03). This hole encountered gabbro sills interfingering with slivers of volcanics and sediments, representing the edge of the Bellefeuille gabbro complex.

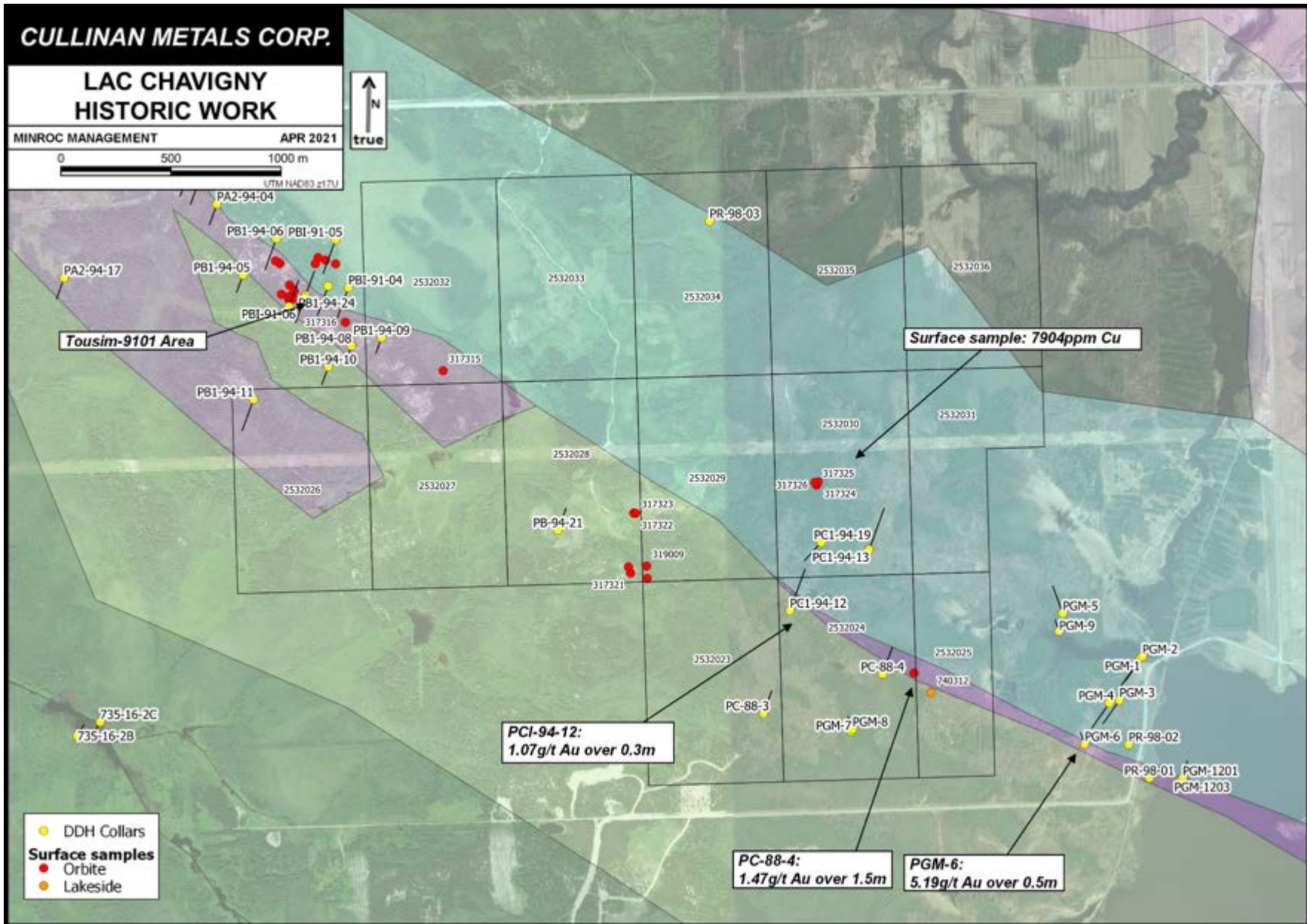
Lakeside Minerals Corp rebuilt much of the former Orbite claim group in the 2000s and completed a review of historic exploration data and completed a reconnaissance prospecting program in 2011. One grab sample of mafic volcanics was taken from the current Lac Chavigny property (close to the PC-88-4 collar); no notable values were returned. Lakeside appear to have dropped the claims in the Lac Chavigny area following this and focused on the Lac Bazin area.

**Table 3 Partial List of Historic Work at the Lac Chavigny Property**

<b>Company</b>	<b>Year</b>	<b>Work Completed</b>	<b>Details</b>	<b>Ref 1</b>	<b>SIGEOM</b>
<b>Pinnacle Gold Mines</b>	1945	DDH	Five DDH logs	Pinnacle Gold Mines 1945	GM 00058
<b>Pinnacle Gold Mines</b>	1948	DDH	Eight DDH logs	Robinson 1948	GM 13265
<b>QC DNR</b>	1974	Geologic mapping	Privat Township mapping	Eakins 1974	DP 222
<b>SOQUEM</b>	1983	Mag, EM, IP surveys	Covers northern part of present Property	Hubert 1984	GM 40943
<b>Orbite</b>	1985	Mag, EM survey	Covers much of current Property	Turcotte 1985	GM 42536
<b>Orbite</b>	1986	Soil survey	Modest Cu anomaly (203 ppm)	Pelletier 1986	GM 45701
<b>Orbite</b>	1988	DDH	8 DDH totalling 280 m. Two (PC-88-3 and 4) within current Property, to test Cu soil anomaly	Pelletier 1988	GM 48130
<b>Orbite</b>	1990	Geologic mapping	Prospecting program across large property; some detailed work on current Property near PC-88-4 collar	Simoneau 1990	GM 50306
<b>Orbite</b>	1991	Geologic mapping, DDH	Mostly outside current Property. Some overlap in NW close to Tousim-9101 Au occurrence	Simoneau 1991, Pelletier 1992	GM 51706, GM 51708
<b>Orbite</b>	1994	IP survey, DDH, geologic mapping	IP covers much of current Property. Six DDH on property (two cross boundary)	Pelletier 1994	GM 53098
<b>Boréale</b>	1998	DDH	One DDH (132 m) in NE of Property	Tremblay 1988	GM 56159
<b>Lakeside Minerals</b>	2011	Reconnaissance prospecting, historic data review	One grab sample taken of mafic volcanics on current Property. NSV	Mai 2011	GM 66144

**Table 4 Historic Drillholes on the Lac Chavigny Property**

Company	Year	DDH	Dip °	Az °	Length m	Details	Ref	SIGEOM
Pinnacle GM	1945	PGM-7	-45	340	76.2	NSV	Robinson 1948, Pinnacle Gold Mines 1945	GM 00058, GM 13265
Pinnacle GM	1945	PGM-8	-45	340	76.8	NSV	Robinson 1948, Pinnacle Gold Mines 1945	GM 00058, GM 13265
Orbite	1988	PC-88-3	-45	20	152.4	NSV	Pelletier 1988	GM 48130
Orbite	1988	PC-88-4	-45	20	186.5	1.47g/t Au over 1.5m	Pelletier 1988	GM 48130
Orbite	1994	PBI-94-09	-45	198	106.1	NSV	Pelletier 1994	GM 53098
Orbite	1994	PBI-94-11	-45	200	212.8	NSV	Pelletier 1994	GM 53098
Orbite	1994	PCI-94-12	-45	200	292.24	1.07g/t Au over 0.3m	Pelletier 1994	GM 53098
Orbite	1994	PCI-94-13	-45	20	276.15	NSV	Pelletier 1994	GM 53098
Orbite	1994	PCI-94-19	-45	222	157.28	NSV	Pelletier 1994	GM 53098
Orbite	1994	PB-94-21	-45	20	148.1	NSV	Pelletier 1994	GM 53098
Boréale	1998	PR-98-03	-50	47	132	NSV	Tremblay 1998	GM 56159



**Figure 3 Work History at Lac Chavigny.** Orbite mapping and geophysical programs (listed in Table 3) covered most of the Property discounting the northeast area (appx. Claims 2532035-6) which are almost unexplored.



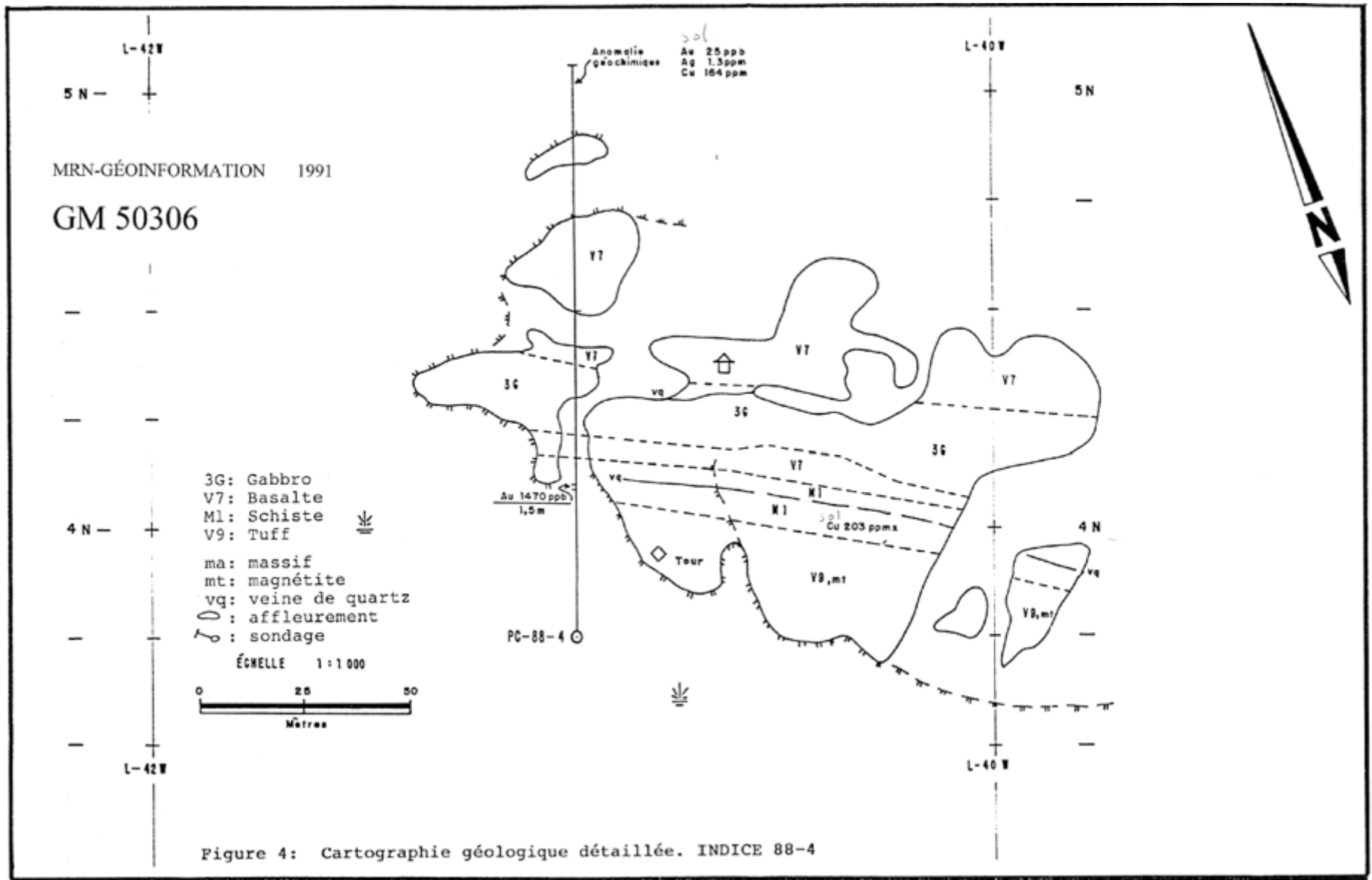
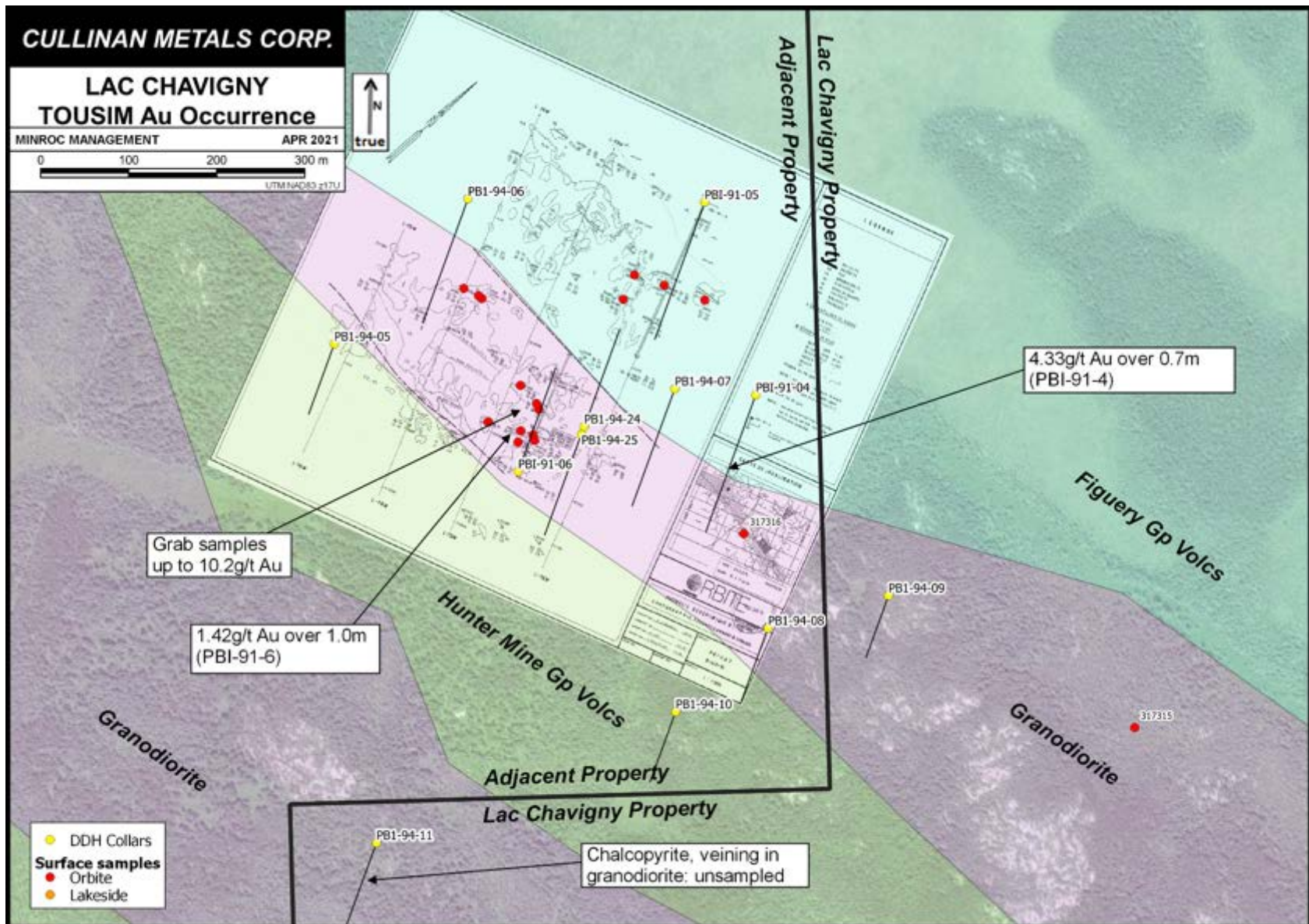


Figure 4 Orbite Explorations map of PC-88-4 gold occurrence (from Simoneau 1990), located in Claim 2532024 in the south of the Property.



**Figure 5 Area of the Tousim-9101 Au Occurrence**, showing Au mineralization outside the Lac Chavigny Property. The key granodiorite unit continues onto the Lac Chavigny Property where in one instance it hosts known but unsampled chalcopyrite. Historic work map for Tousim area from Pelletier (1992)

### **6.3 Resources, Reserves and Production**

The Lac Chavigny Property is at a “grassroots” stage of exploration. There are no current mineral Resources or Reserves on the Project as defined in the Definition Standards on Mineral Resources and Mineral Reserves published by the Canadian Institute of Mines, Minerals and Petroleum (CIM) or any equivalent international code, nor has there been any past production from the Property.

## **7.0 GEOLOGICAL SETTING AND MINERALIZATION**

### **7.1 Regional and Local Geology**

The Lac Chavigny Property lies within the southern portion of the Abitibi subprovince, part of the Superior Province, itself a major component of the Canadian Shield. The Abitibi Subprovince consists, broadly, of belts of late Archean-age mafic to felsic volcanics and sedimentary units, into which are intruded volumetrically significant granitoid bodies. Mafic and ultramafic intrusives, and chemical sediments (iron formations) are also common. These “greenstone belts”, generally oriented east-west with subvertical dip, are separated by crustal-scale deformation zones. The Abitibi subprovince is divided into Northern and Southern Volcanic Zones by the Destor-Porcupine deformation zone. The volcano-sedimentary belts in the Abitibi subprovince are generally metamorphosed to Greenschist metamorphic facies save for in the vicinity of larger intrusive bodies, where amphibolite grades are reached.

The Lac Chavigny Property lies within the Northern Volcanic Zone. The Macamic Fault, a regional-scale deformation zone, dips subvertically and strikes northwesterly through the property area. This structure has both brittle and ductile relationships with its adjacent units depending on rheology; the deformation corridor itself can be several kilometres wide (Labbé 1994). The Macamic Fault separates the Figuery Group (northeast) from the Hunter Mine Group (southwest). Both groups consist of mafic-intermediate volcanic sequences and gabbro sills. The northwest-striking volcanic package is sandwiched between granodioritic batholiths: the Poularies and Colombourg granodiorites to the southwest, and the Taschereau, Launay and Guyenne monzonites and tonalites to the northeast (the latter of which underlie the Taschereau area).

The Hunter Mine Group is folded along a ~60° axis to form the Lac Abitibi anticline. All of the aforementioned units and structures are crossed and slightly offset by a number of small, younger faults with a 60° strike, as well as Proterozoic diabase dykes with a similar attitude.

About 10 km south of the Property, the Macamic Fault is truncated by the Lyndhurst Fault, an east-west deformation zone.

### **7.2 Property Geology**

The exact details of the Lac Chavigny Property geology are limited by the paucity of drilling and the lack of outcrop in large areas of the property, but the broad picture can be described as follows:

The Macamic deformation zone traverses through the south-centre of the Property with an azimuth of about 120°. It is marked by a sharp change in magnetic gradient in provincial airborne magnetic data. In drill core it is visible as a “banded schist” (see PC-88-3 log) with ankerite, chlorite and sericite alteration (Pelletier 1988). To the northeast of the Macamic deformation zone lie Figuery Group basalt-andesite flows and andesite-dacite volcanoclastics which are rarely exposed within the Property.

A sill of peridotite is shown within the Figuery Group in SIGEOM data underneath Lac Chavigny; magnetic data and a drillhole intercept in PC-88-4 appear to show that this unit strikes onto the Property although it is not exposed on surface.

About 70 Ha in the northeast corner of the Property is underlain by a gabbro body called the Bellefeuille pluton; this is in the Rivière Bellefeuille valley and there is no exposure on the Property.

The Hunter Mine Group, to the southwest of the Macamic fault, is well exposed in places and consists of basaltic to andesitic flows and dacite-rhyolite tuffs and breccias, with minor mudstones, greywackes and intercalated metre-scale veins and sills of feldspar porphyry. A late offsetting fault runs at about 60° through the northern part of the Property. This fault is marked by a topographic low and a seasonal pond. On the northwest side of this fault, the Hunter Mine Group hosts a granodiorite body which is bounded by the Macamic Fault on its northeast flank, and extends into the Hunter Mine Group about 1km. It is this body which hosts the “Tousim-9101” gold occurrence beyond the property boundary.

### **7.3 Mineralization**

The known gold mineralization on the property (see Table 5) appears typical of that found in the region, with a close association with deformation, quartz veining, competency contrasts, sulphide mineralization and chlorite and sericite alteration. Most gold occurrences close to the Macamic Fault appear to show a particularly strong association with chalcopyrite. Drillhole intervals tend to be narrow, absent a notable “halo” of lower-grade assays. This may suggest a significant coarse gold component to the mineralization although this has not reliably been noted in the area, except perhaps at Soleil Levant (Pelletier 1992). At the same location it is noted that gold values do not strongly correlate with the presence of pyrite.

Little information is available regarding the elevated copper value from Orbite sample 317325; this may represent an orogenic style of mineralization controlled by deformation or may represent primary, volcanogenic mineralization within the Figuery Group volcanics. Sulphide mineralization comparable to the latter was seen in nearby drillholes (Pelletier 1994) but these did not replicate the mineralization and may not have encountered the same structure. Pelletier (1992) notes that the surface occurrence lies close to IP and conductivity anomalies.

The true thicknesses, lateral extent or grade continuity of the mineralized structures on the Lac Chavigny property are not known. Insufficient exploration has taken place to adequately determine the characteristics of any mineralized zones.

**Table 5 Known Mineralization on the Lac Chavigny Property**

<b>DDH/ sample</b>	<b>Au g/t</b>	<b>Cu ppm</b>	<b>Width m</b>	<b>Host</b>	<b>Ref 1</b>	<b>SIGEOM</b>
<b>PBI-94-12</b>	1.069		0.3	Contact of sheared, sericitised volcanics and granite dyke	Pelletier 1994	GM 53098
<b>PC-88-4</b>	1.47		1.5	qz-chl-tour-cpy veins in mudstone	Simoneau 1990	GM 50306
<b>317325</b>		7904		Schisted int volcs	Simoneau 1991	GM 51706

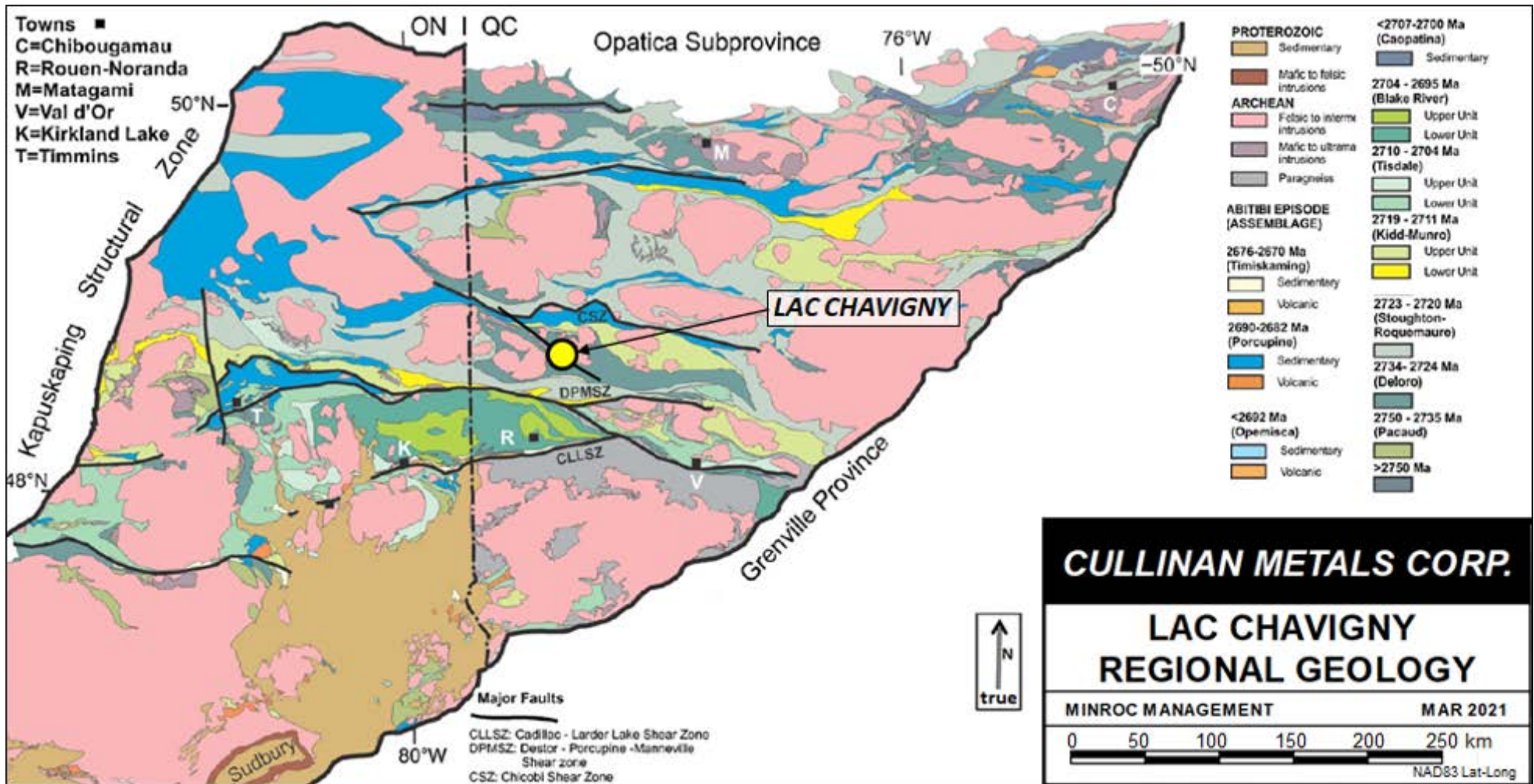


Figure 6 Regional Geology of the Lac Chavigny Property, showing location of the property within the Abitibi Subprovince. Based on Thurston et al (2008)

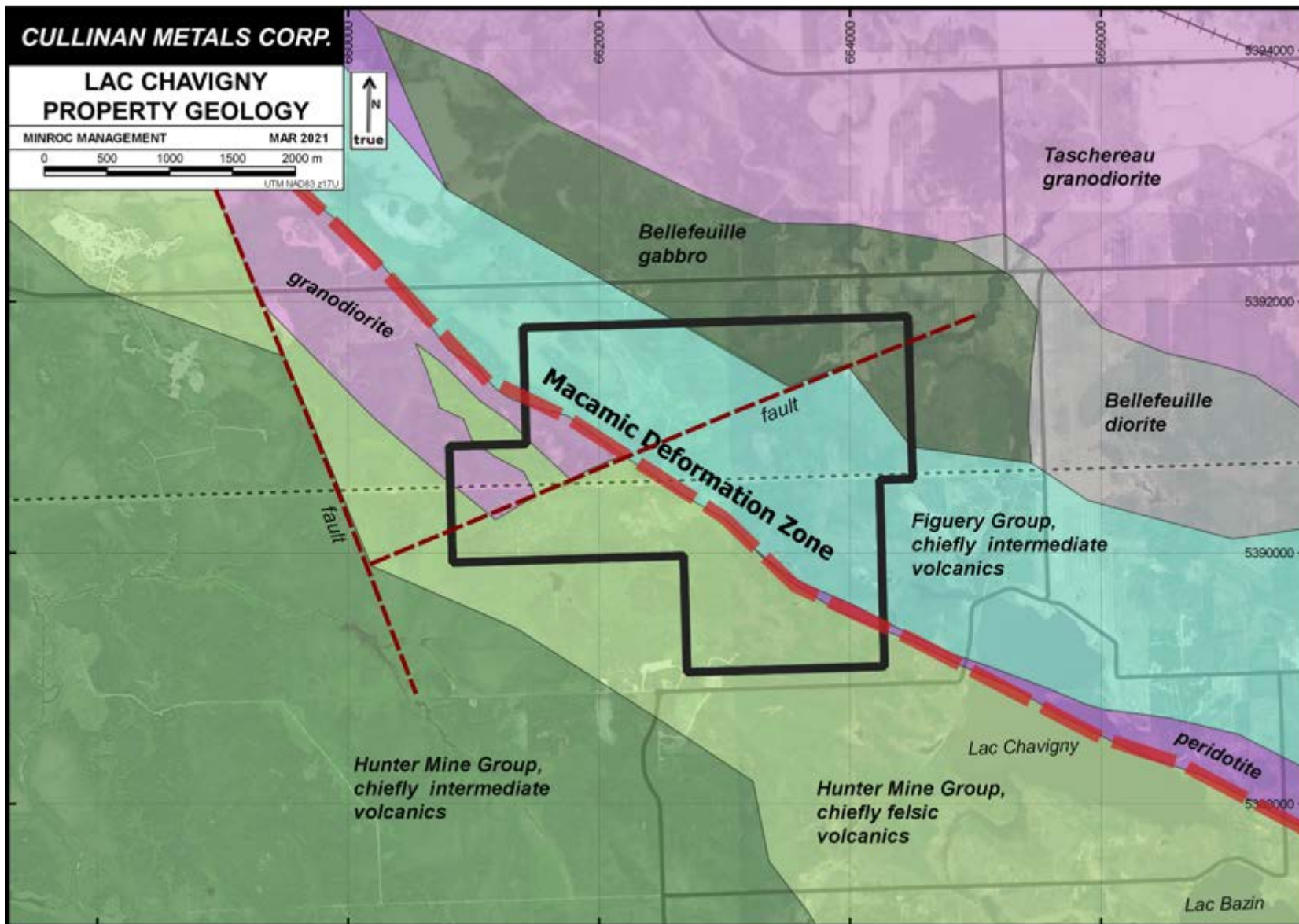


Figure 7 Lac Chavigny Property Geology. Based on Eakins 1974, Pelletier 1986, Simoneau 1991

## **8.0 DEPOSIT TYPES**

The Lac Chavigny Property has the potential to host orogenic gold and base metal (VMS) mineralization:

### **8.1 Orogenic Gold**

Orogenic gold, or greenstone-hosted gold deposits generally consist of a system of auriferous quartz-carbonate veins, which have a strong spatial association with crustal-scale shear zones with mixed brittle-ductile expression. Further, there is commonly an association with second-order fault structures, porphyritic intermediate intrusives and, less commonly, iron formations. Orogenic gold deposits are particularly common in Archean-age greenstone belts. The shear zone is generally theorized to act as a pathway for hydrothermal fluids. These fluids are then emplaced as veins in dilated portions of ductile-deformed units, in brecciated portions of more brittle units, and/or on the contacts of units which may act as chemical traps, such as iron formations. Orogenic gold deposits can have highly complex geometries due to continued tectonic activity on the shear zone after the emplacement of the mineralized veins.

In the Abitibi, gold mineralization frequently manifests as a mix of native and refractory gold, associated with sulphides, most commonly pyrite, chalcopyrite and arsenopyrite. Commonly associated alteration minerals include chlorite, sericite and carbonates.

The Abitibi belt is home to many world-class orogenic gold deposits including Macassa at Kirkland Lake, Ontario; Dome and Hollinger at Timmins, Ontario and Sigma-Lamaque at Val-d'Or, Québec.

### **8.2 Volcanogenic Massive Sulphide (VMS)**

VMS deposits typically consist of semi massive to massive lenses of sulphide, constrained by stratigraphy and spatially associated with vein stockworks and distinctive alteration patterns, including zones of carbonate, silica, sericite and potassic alteration. VMS deposits are widely understood to be formed by hydrothermal activity in marine environments with extensional tectonic settings and are frequently found in Archean "greenstone" terranes hosted by felsic strata within wider mafic-felsic volcanic cycles. Major sulphides present include pyrite, pyrrhotite, sphalerite and galena in the lenses, and chalcopyrite is typically present within the stockwork "pipe" or "feeder zone". These types of deposits are significant economic sources of zinc, lead, silver and copper.

Significant examples of VMS deposits from the Abitibi belt are found at Rouyn-Noranda and Matagami, Québec. "Gold-rich VMS" deposits form a distinct subclass, an example being Agnico-Eagle's LaRonde in Cadillac, Québec. Nearby examples include the former Hunter and Lyndhurst copper mines, both within 25 km of the Property.



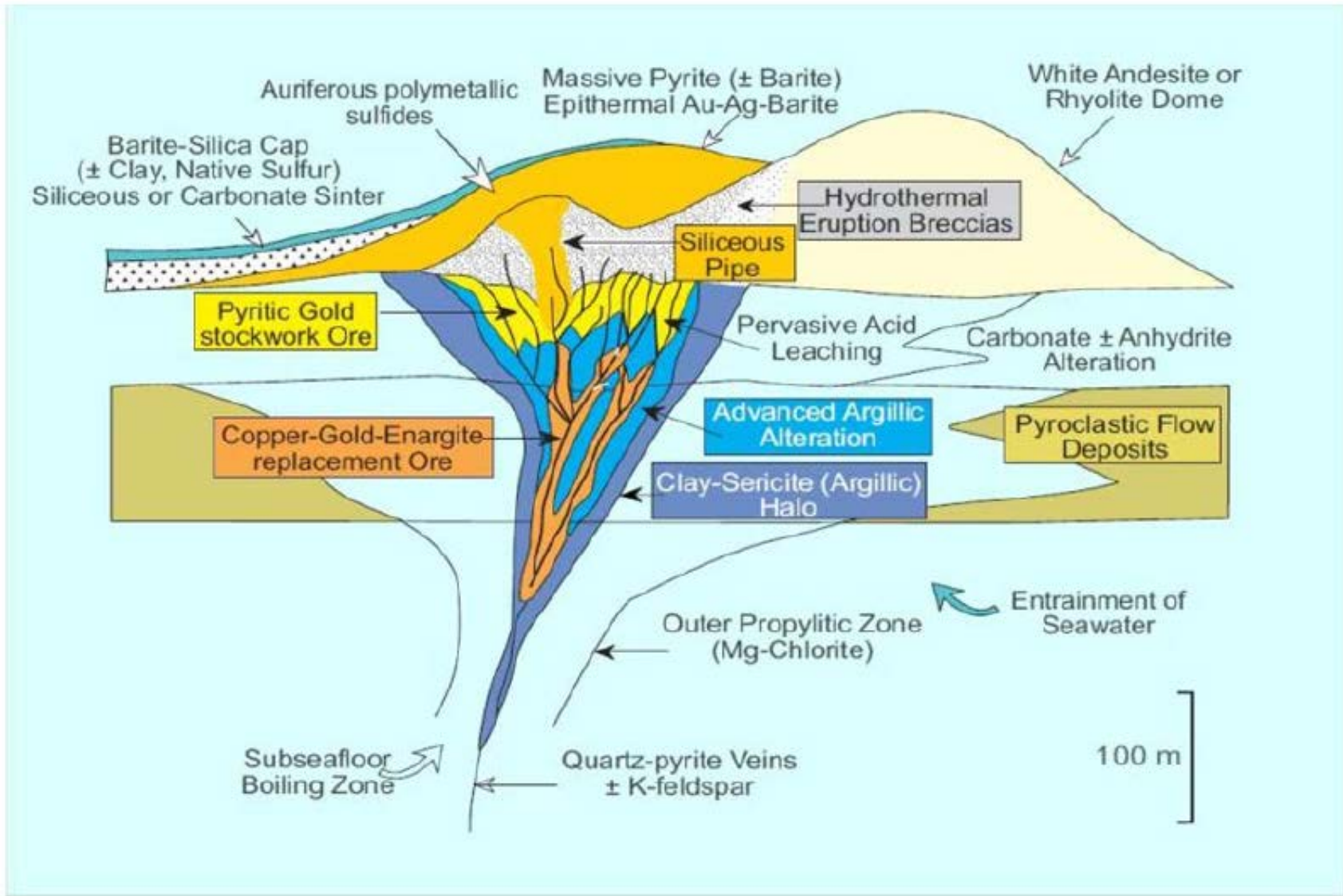


Figure 8 Generalized Diagram of a VMS Deposit, Showing Ore Zones and Alteration Halos, from Hannington et al, 1999.

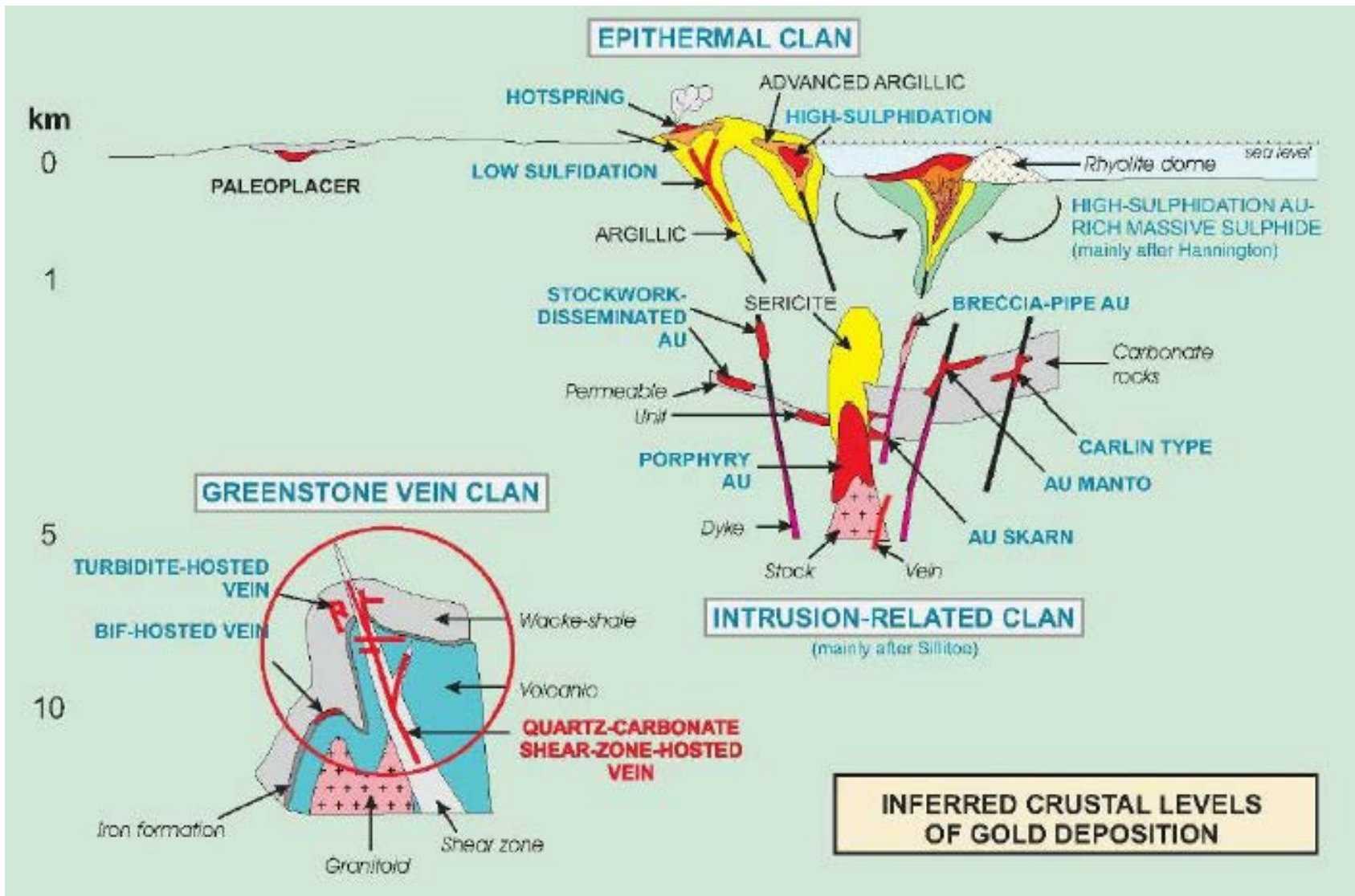


Figure 9 Styles of Lode Gold Deposits, Including the Orogenic “Greenstone” Type, from Dube et al 2001

## **9.0 EXPLORATION**

### **9.1 *Rationale, Personnel and Logistics***

An initial IP survey on the Lac Chavigny property was carried out between October 31<sup>st</sup> and November 8<sup>th</sup> 2020 on behalf of Dorval by Exploration Facilitation Unlimited Inc. (EFU), an exploration contractor based in London Ontario.

The survey utilized a GDD Tx III transmitter and GDD GRx8 receiver, both manufactured by GDD Instrumentation of Québec City, Québec. The survey was completed along seven lines with 100 m spacing and a north-south orientation in the southeast and central parts of the Property, totalling 5.9 line km. The original intent was to cover the entire Property, but unfavourable ground conditions were encountered due to the onset of winter, highly variable overburden and the presence of significant areas of wetland. In effect, the survey covers the area within a few hundred metres of the PC-88-4 drillhole.

The survey utilized a pole-dipole array, with eight dipole separations and an electrode spacing of 25 m. The transmitter produces a squarewave current, in this case set at a 0.25 Hz frequency. The voltage in the two-second “on” and “off” phases of the current was recorded at each of the electrodes by the GRx8 receiver, repeatedly in 80ms time increments.

Chargeability and apparent resistivity datasets, averaged over each of the twenty 80 ms survey windows, were obtained from the survey. These were presented and interpreted by Jean Hubert, P.Eng, independent consulting geophysicist. Hubert drafted resistivity and chargeability surface plots and pseudosections (Hubert 2021).

### **9.2 *Results and Interpretation***

The available data shows a broad trend of elevated chargeability and resistivity, roughly aligning with the inferred trend of the Macamic Fault and with a surface width of about 150 m. Lines 1400 and 1600 stretch the furthest north (i.e. deepest into the Figuery Group volcanics) and reveal another structure with elevated chargeability and considerably higher resistivity, with a relatively sharp contact. This lines up with IP and resistivity trends from Orbite’s work (Simoneau 1991) and may represent the horizon of intermediate-felsic volcanics within the Figuery Group with disseminated sulphides, as seen by two 1994 DDH. Two zones of higher chargeability appear to outline the strike of the Macamic Fault – one across four survey lines starting just east of the PC-88-4 collar, and another showing up on a single line (1100) midway between the PC-88-4 and PCI-94-12 collars. The survey was not completed on the adjacent lines on either side; the extent of this anomaly is not known.

Hubert picked twelve chargeability anomalies from the data, though he comments that seven of these appear to correspond to known areas of outcrop or historic stripping/trenching and are likely to be controlled by overburden contrasts.

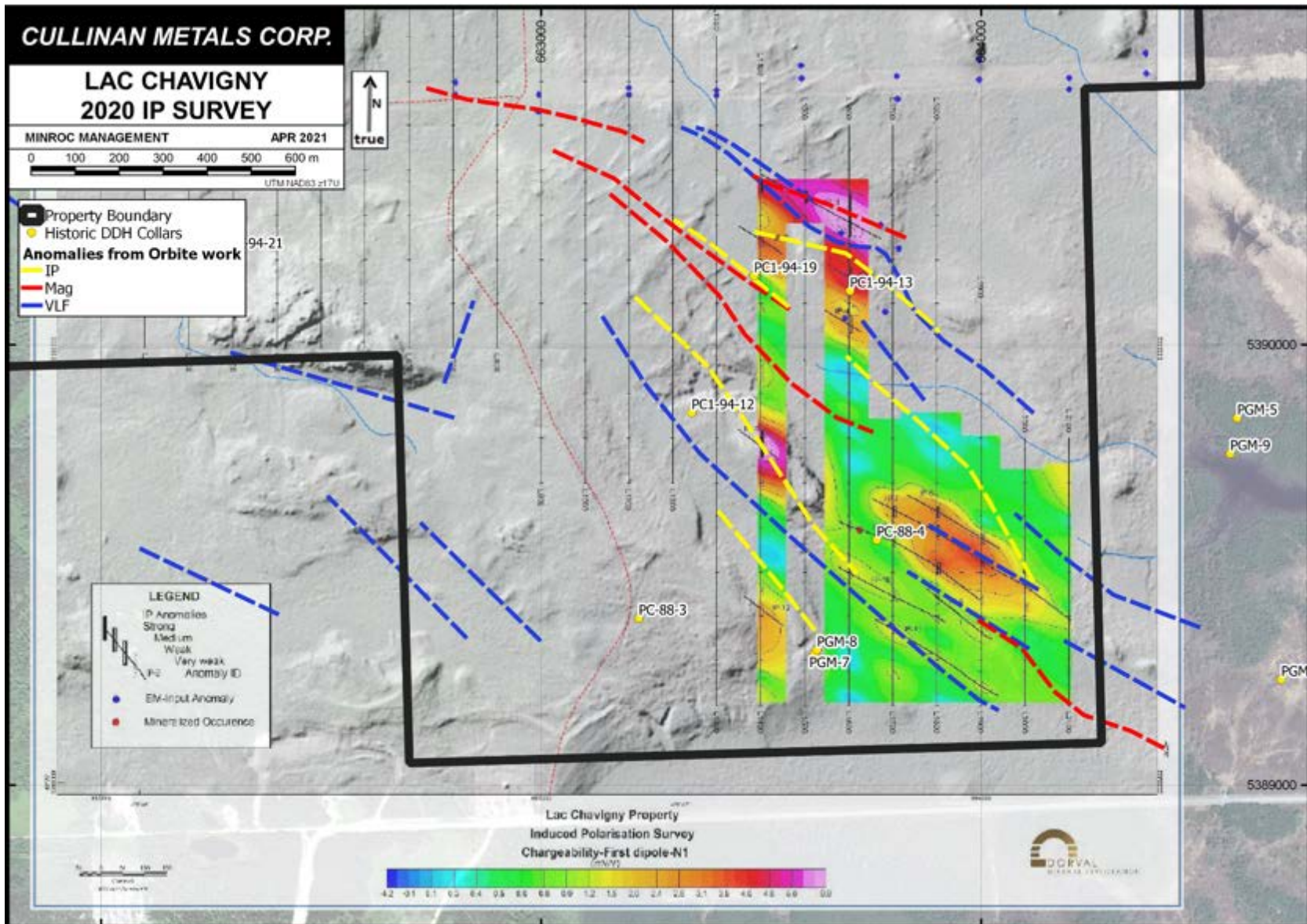


Figure 10 2020 IP survey, coverage and results. Data from Hubert (2021). Historic geophysical anomalies from Simoneau (1990, 1991)

## **10.0 DRILLING**

No drilling has taken place on the Lac Chavigny Property since 1994. Historic drillholes within and near the Property are tabulated in Section 6.2.

## **11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY**

No geochemical samples were taken from rock or soil material during the recent Dorval/EFU exploration program nor the Minroc site visit.

Exploration Orbite assayed their soil, surface and most DDH samples at Chimitec Ltee, an assay laboratory in Val-d'Or which was later acquired by ALS Chemex, a major geochemical laboratory. Assay methodologies are not presented, but for gold can be assumed to be fire assay.

The Authors could not locate assay certificates for the Orbite 1988 drill program (Pelletier 1988), and the assays from said program are not discussed in that report nor presented in the original drill logs. It appears that the report was filed prior to receipt of the assay results. Relevant to the property, this affects drillholes PC-88-3 and PC-88-4. Later Orbite reports (e.g. Simoneau 1990, Pelletier 1994) discuss the results and present a mineralized interval in DDH PC-88-4. This drillhole interval therefore cannot be traced back to the original assay certificates. This does not necessarily imply that the results described in later Orbite reports are unreliable, as the assays may simply not have been appended to any filed report. This is not an issue with DDH PCI-94-12, where the gold-mineralized assay is presented in the log and can be seen in the assay certificate.

No information regarding QA/QC is presented in any of the Orbite assessment files at the field stage. Chimitec statements describing their internal QA/QC procedures are appended to some of the assay certificates, including the testing of duplicates at least once per ten to forty samples, the use of a variety of blanks and standards, and a total QA/QC sample load of 15-20% out of each sample workorder. The certificates themselves document routine duplicate and triplicate Au fire assay, and the use of laboratory blanks and standards (in-house standards called AU100 and AU500 as well as Cu standards).

In the authors' opinion it is reasonable to assume that the sample preparation and security procedures at the field level, and the assay procedures at the laboratory level, were adequate, and the dataset is sufficiently reliable for the purposes of this Technical Report.

## **12.0 DATA VERIFICATION**

### **12.1 Site Visit**

The Property was visited by Martin Demers, P. Geo on the 27<sup>th</sup> March 2021. Reasonable access to the Property was confirmed. The northern half of the Property was visited via Highway 390 and a forestry road. This could be driven to the approximate centre of the

Property, where it intersects a powerline corridor which provides greater access. An outcrop of carbonatized, foliated intermediate volcanics of about 30 x 30 m dimensions was found on the powerline, corresponding to one shown on Orbite maps (Simoneau 1991). No samples were taken.

The southern part of the Property was accessed from the Chemin de Laferté. A gravel road here links with ATV trails, which appear to follow historic drill roads and/or an Orbite gridline (L46W from Simoneau, 1991). The area around the PCI-94-12 collar was visited although no collar or physical evidence of drilling was noted. No outcrops were identified in this vicinity.

## **12.2 Data Review**

The authors have reviewed the assay and technical data from the historic and 2021 exploration programs, such that is available from Dorval and publicly via SIGEOM and SEDAR. This included reviewing original drill logs and assay certificates, and cross-referencing documents, maps and plots from different programs and adjacent properties for agreement and to assess geospatial accuracy.

A discussion of historic assays is presented in Section 11.

It proved difficult to accurately locate the Pinnacle Gold Mines DDH; the Authors could not identify any surface plans which were contemporary to the drill program. This is not considered to be a major issue since the Pinnacle DDH are few in number on the Property and no significant mineralization or other findings of note were reported in them.

Geophysical anomalies from regional government data, Orbite ground surveys and the Dorval IP survey are generally aligned and in agreement.

Based on this review the authors are of the opinion that, while these historic programs pre-date modern reporting standards such as NI 43-101, these programs were nevertheless undertaken according to standards which were considered reasonable at the time of each program.

It is the authors' opinion that the data pertaining to the Lac Chavigny Property is sufficiently reliable for the purposes of this Technical Report and for the purposes of planning further exploration on this early-stage Property.

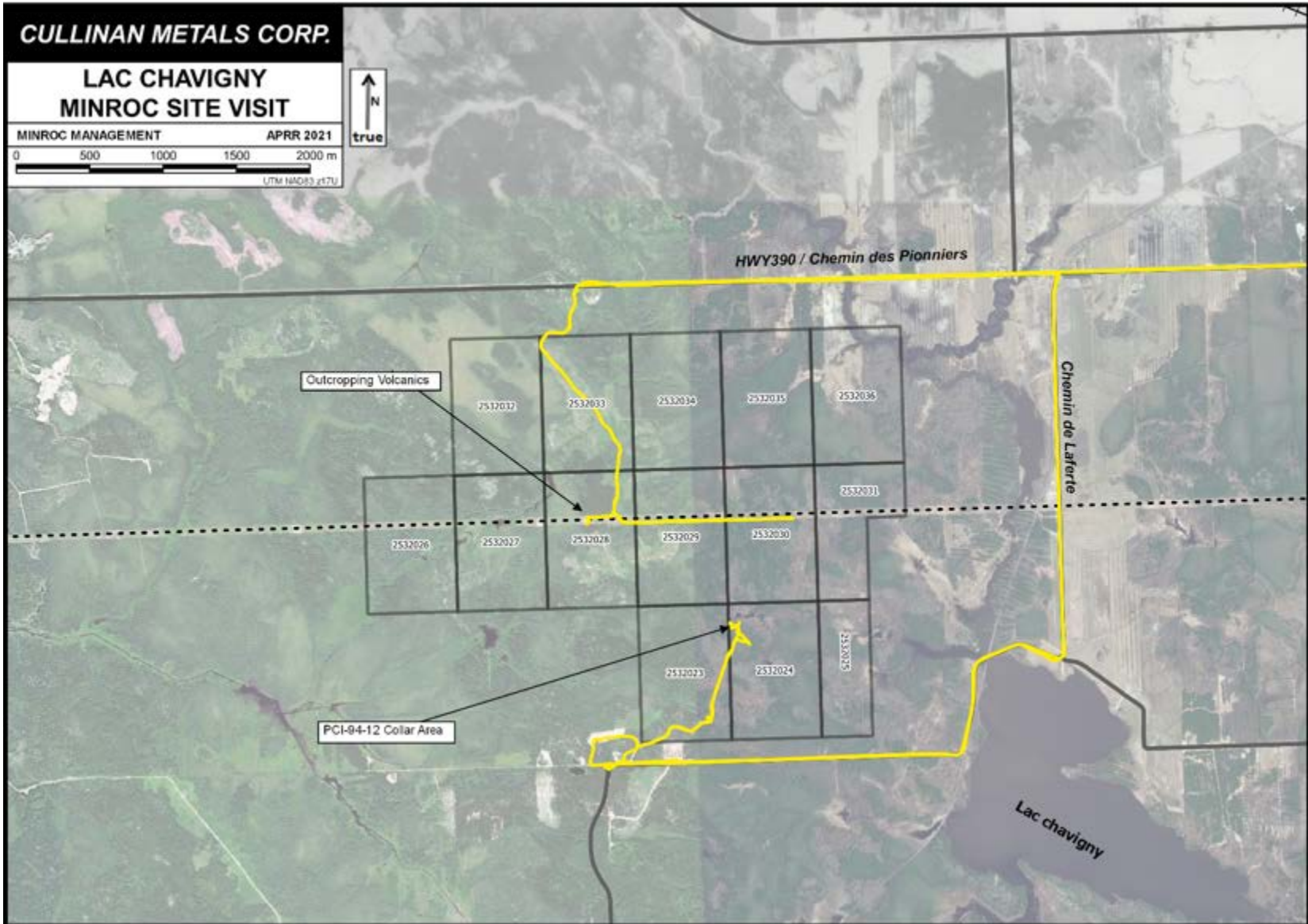


Figure 11 Minroc Site Visit. Yellow lines show travel routes, recorded by handheld GPS.

### **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

This section is not applicable to this Technical Report.

### **14.0 MINERAL RESOURCE ESTIMATES**

This section is not applicable to this Technical Report.

### **15.0 MINERAL RESERVE ESTIMATES**

This section is not applicable to this Technical Report.

### **16.0 MINING METHODS**

This section is not applicable to this Technical Report.

### **17.0 RECOVERY METHODS**

This section is not applicable to this Technical Report.

### **18.0 PROJECT INFRASTRUCTURE**

This section is not applicable to this Technical Report.

### **19.0 MARKET STUDIES AND CONTRACTS**

This section is not applicable to this Technical Report.

### **20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

This section is not applicable to this Technical Report.

### **21.0 CAPITAL AND OPERATING COSTS**

This section is not applicable to this Technical Report.

### **22.0 ECONOMIC ANALYSES**

This section is not applicable to this Technical Report.



## **23.0 ADJACENT PROPERTIES**

A number of nearby claim groups cover gold occurrences, many of which lie in at least a spatial association with the Macamic deformation zone. These occurrences are, while better-explored than Lac Chavigny, still at relatively early stages of exploration. There are no notable base metals occurrences in close proximity to the Lac Chavigny property.

Note: the authors are not in a position to verify any of the information given in this section regarding any adjacent properties. Information regarding adjacent properties is not necessarily indicative of the mineralization which is or may be present within the Lac Chavigny Property.

### **23.1 Tousim-9101: Marc Lefebvre**

The Tousim-9101 mineralized zone was formerly part of the same Orbite property as much of Lac Chavigny, and was discovered as part of the Orbite work. The gold mineralization is hosted by pyrite disseminations in sheared granodiorite, adjacent to the Macamic Fault. Surface samples taken by Exploration Orbite returned assays up to 10.2 g/t Au (Simoneau 1991). Drillhole follow-up returned assay intervals including 4.33 g/t Au over 0.7 m (PBI-91-4; Pelletier 1992 & 1994). This particular interval is within approximately 100 m of the Lac Chavigny property boundary.

### **23.2 Launay Gold Corp**

This large claim group envelops much of the Lac Chavigny property. To the immediate east, it covers the PGM-6 drillhole which gave 5.19 g/t Au over 0.15 m (Pinnacle 1945; see Section 6.2). This mineralization was hosted by quartz veins in “siliceous greenstone” carrying pyrite and chalcopyrite. A few drillholes were completed in this area by Orbite and other operators, with no notable results.

About 5 km southeast of Lac Chavigny lie the Lac Bazin gold prospects. This area was the focus of Orbite’s later exploration efforts and was referred to by Orbite and others as the “Trojan area” based on the original discoverers. Gold mineralization here was discovered in the 1940s, where pyritic quartz-carbonate stockworks are emplaced within aplites and tuffs within the Macamic deformation corridor. Mineralization is present discontinuously over about 2.5 km of strike. About eighty drillholes were completed in this area in total, from the 1940s to 2012. Gold In the “Lac Bazin-Est” area, historic drillhole intervals include 27 g/t Au over 4.6 m and 12.8 g/t Au over 1.5 m, while at “Lac Genest-Ouest”, drillhole results have included 15 g/t Au over 1.4 m (Mai 2011). Recent drilling noted the presence of tourmaline within the mineralized quartz-carbonate vein sets (Kuuskman & Hart 2014), similarly to at PC-88-4 on Lac Chavigny.

### **23.3 Genevieve Gauthier – Soleil Levant**

This single claim, surrounded by Launay Gold ground, covers the Rising Sun gold occurrence. This, again, is known mostly from Orbite DDH which gave intervals including 5.1 g/t Au over 1.6 m (DDH PI-87-10). Surface sampling and stripping by Orbite at this location (which they termed the “87-10” showing) returned surface grab sample values up to 20.5 g/t Au (Simoneau 1991), hosted by sulphide disseminations in aplite dykes hosted by Figuery basalts. This occurrence is more removed from the Macamic Fault than the other occurrences in the region and appears to lie on the far side of the peridotite sill with respect to the Macamic Fault.

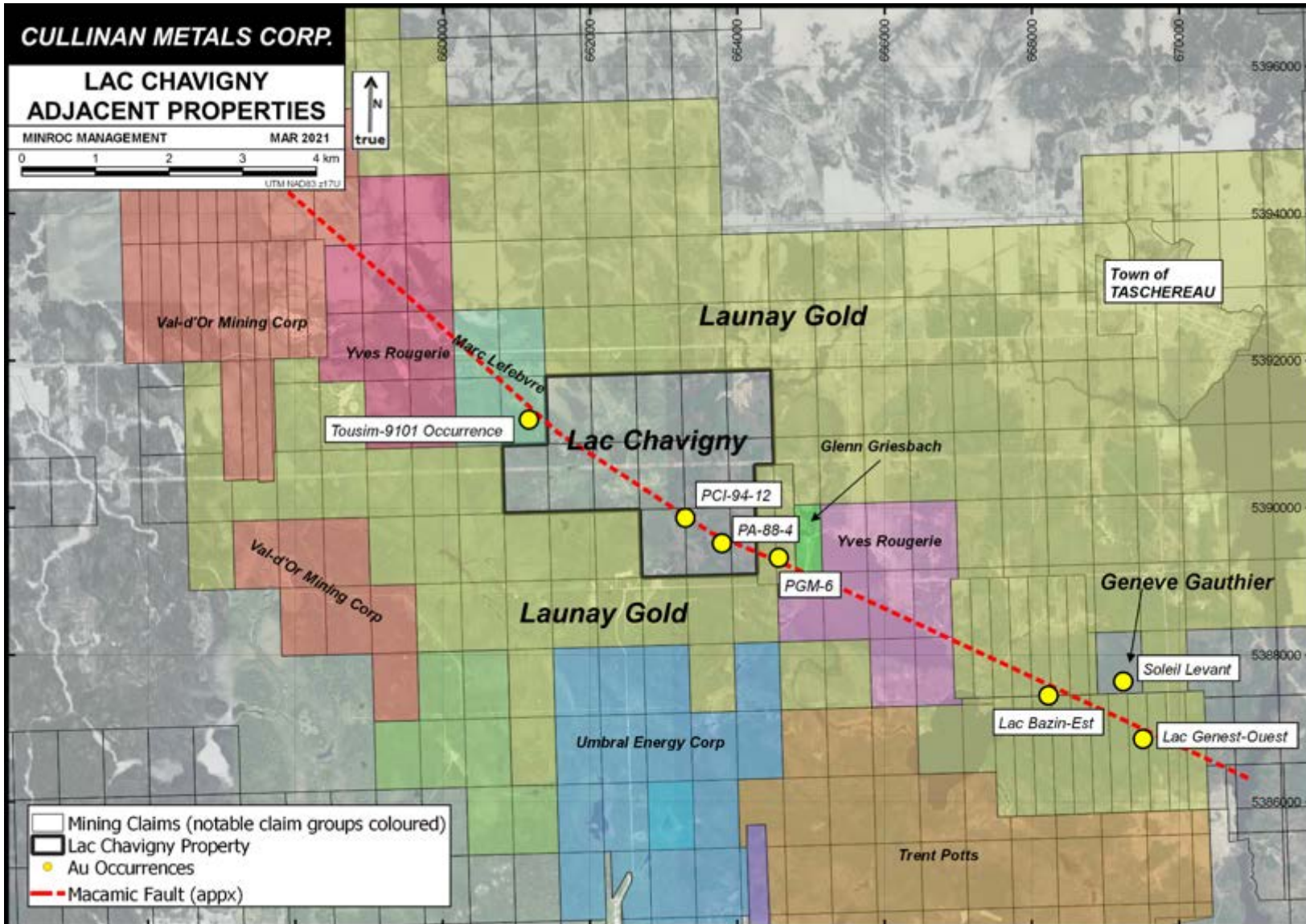


Figure 12 Adjacent Properties

## **24.0 OTHER RELEVANT DATA AND INFORMATION**

To the authors' knowledge, all relevant information has been included in the other sections of this report.

## **25.0 INTERPRETATION AND CONCLUSIONS**

The Lac Chavigny Property is prospective for gold as well as base metal mineralization. Geographically it is well situated, within an area with a well-established mining economy, with easy access by road to much of the Property, and ample infrastructure in the vicinity. Geologically it is situated in a favourable environment atop a regional-scale deformational structure, with a known close association with several other gold occurrences in the township. The diversity of lithologies which lie adjacent to the Macamic deformation zone on the Property provide additional potential for gold mineralization which has yet to be adequately explored. Most notable, in the Authors' opinion, is the granodiorite in the northwest of the Property which provides not only a favourable environment for mineralization but also, given the presence of ample outcrop, a relatively easy target for exploration.

Historic gold assays both on and adjacent to the property appear to support the presence of a coarse gold effect. It is not clear that historic assaying would have adequately captured coarse mineralization. This is something which should be remedied in any future exploration programs.

The base metal mineral potential on the Lac Chavigny property, and in the township, has not been defined to date. Stratigraphic, volcanic-hosted sulphide mineralization does exist on the Property in the Figuery Group volcanics, as discovered by limited drilling by Orbite, though this work did not replicate Cu values from surface sampling. There remains potential for VMS-type Cu, Zn, Pb and/or Ag mineralization in this and other parts of the Property.

The Property is at a very early stage of exploration. It is relatively thinly explored, and the value of some of the historic exploration is reduced on account of incomplete data and, perhaps, inappropriate sampling techniques. Similarly, the only recent exploration effort (the EFU IP survey) was not completed and only provides partial coverage of the Property. Fortunately, there are results from gold exploration in both directions from the Property along strike which are both encouraging, more repeatable and better documented. It is on these strengths, as much as the data from within the Property, that the Authors consider the Property of interest from an exploration standpoint.

**Table 6 Risks and Opportunities to the Lac Chavigny Property**

<b>Risk</b>	<b>Potential Impact</b>	<b>Possible Mitigation</b>
<b>Poor social acceptability</b>	Difficulty in undertaking work on the Property or enhancing its value	Maintain good relationships with the Pikogan First Nation, the local community as well as local hunters, trappers and other local stakeholders
<b>Logistic Issues</b>	Difficulty in accessing part of the Property due to ground conditions	Winter conditions are likely to improve access in/across wetland areas. Concentrate exploration efforts while ground is frozen
<b>Environmental Issues</b>	Permits to complete part or all of work programs (e.g. drilling, trenching) may be denied	Minimize potential environmental impact at all stages of exploration planning and execution (e.g. area and intensity of surface disturbance)
<b>Opportunity</b>	<b>Potential Impact</b>	<b>Explanation</b>
Successful exploration results	Value of Property enhanced	Discovery of notable gold or base metals mineralization would increase the Property value
Successful exploration in region	Value of Property enhanced	Successful exploration by third parties on nearby projects may increase market interest in the Property

## 26.0 RECOMMENDATIONS

The authors recommend that Cullinan complete a two stage program to advance the Property: A Phase 1 airborne geophysical survey with interpretation, followed by a subsequent Phase 2 reconnaissance surface sampling program to test a number of targets identified in Phase 1. The exact nature of Phase 2 will depend on findings from Phase 1 but the implementation of Phase 2 will not depend on any specific outcome from Phase 1.

The authors recommend that Cullinan commence exploration with a Phase 1 program, consisting of the following (Figure 13):

- A heliborne geophysical survey consisting of magnetic and resistivity surveying. This should cover the entire Property. This should take place along ~45° gridlines, and with a line spacing of no more than 100 m, to ensure a sufficient degree of detail and a dataset appropriate to detect structures parallel to the regional strike of stratigraphy and tectonic foliation. If this survey uses a line spacing of 100 m and incorporates two tie lines (as suggested on Figure 13) then the Authors suggest an estimated survey length of about 155 line km.
- An interpretation of results from the above survey, integrated with historic and regional information. The end result of this interpretation should be a selection of targets suitable for drill-testing.

No property-scale airborne or heli-borne geophysical surveys have been completed at Lac Chavigny. Full property coverage with a modern dataset will enable geologic understanding to be improved, particularly regarding structural geology around the Tousim-9101 granodiorite, and in the areas further from the Macamic fault which are outcrop-poor and almost unexplored. Some overlap with nearby properties, particularly the Tousim-9101 area, is recommended to better allow for strike extensions to be interpreted.

This Phase 1 program will be an excellent starting point for selecting targets for the next stages of exploration as well as fine-tuning appropriate methods to explore those targets. Following Phase 1, the Authors recommend that for Phase 2 Cullinan undertake a two-week surface exploration program.

Historic geologic mapping by Orbite was comprehensive, though outcrops were inadequately sampled. This enables early-stage surface exploration to focus on a number of priority areas. Initial surface work, perhaps three or four days, should ensure total coverage of the Property to confirm Orbite mapping information and improve sampling coverage of key lithologies and structures. Following this reconnaissance sweep of the Property, the Phase 2 surface program should focus on reviewing the Macamic Fault corridor around the PC-88-4 and PCI-94-12 drillholes, the Figuery Group copper occurrence, and the portions of the Tousim-9101 granodiorite which lie on the Property. Any lithologies or structures of note should be sampled. Veining or shear structures within the granodiorite can be channel-sampled to provide greater clarity of the mineralization grades and distributions.

Any samples with known or anticipated gold mineralization should be assayed with a metallic screening method, to assess the coarse gold potential. Routine multielement sampling is also recommended to help to identify lithologies, alteration styles, and trace elements which may act as gold indicators.

**Table 7 Recommendations**

Phase	Recommendation	Item	Unit/Quantity /Rate	Cost (CAD, pre tax)
1	Airborne Geophysical Survey	Resistivity, Magnetics	155 line km	\$45,000
1	Data Acquisition, Review, Compilation, Interpretation			\$20,000
	<u>Phase 1 Total Costs*</u>			<u>\$65,000</u>
2	Ground exploration program	Geologist and helper	2 weeks	\$45,000
		Equipment rental (ATVs, diamond saw, etc)		\$5,000
		Field supplies		\$5,000
		Lab Analysis: Au screen fire assay, Multielement ICP	200 samples @ ~\$100 per sample	\$20,000
	<u>Phase 2 Total Costs*</u>			<u>\$75,000</u>

\* These costs are estimates only

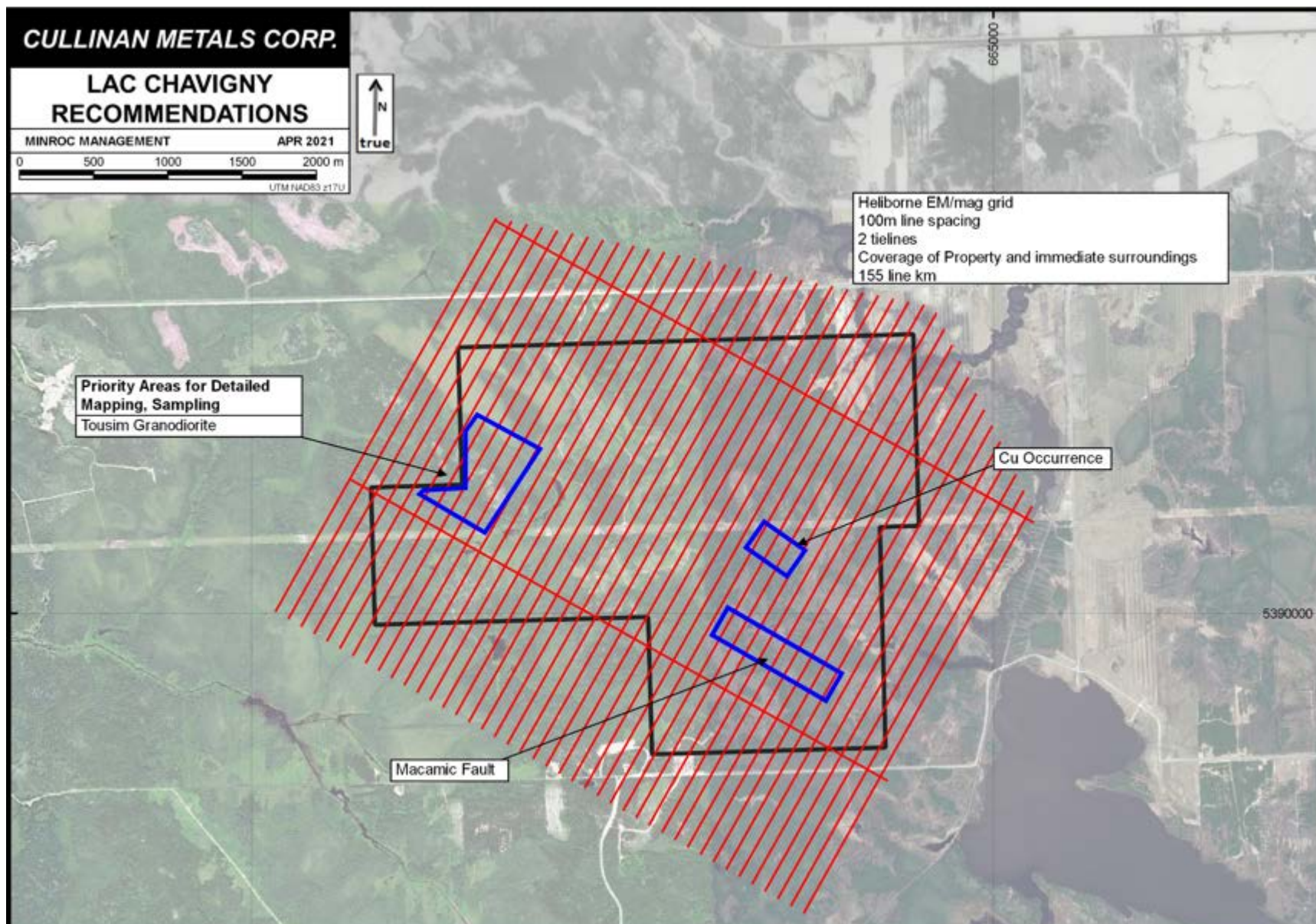


Figure 13 Map detailing the recommended Phase 1 and Phase 2 work on the Lac Chavigny Property



## 27.0 REFERENCES

- Dubé, B., O'Brien, S., and Dunning, G. R., 2001. Gold deposits in deformed terranes: examples of epithermal and quartz-carbonate shear-zone-related gold systems in the Newfoundland Appalachians and their implications for exploration. In North Atlantic Symposium, St-John's, NF, Canada. Extended abstracts volume, May 27-30, 2001. p. 31-35.
- Eakins, P R; 1974: Preliminary Report on the Geology of Privat Township, Abitibi-West County, Québec. SIGEOM DP 222
- Hannington, M. D., Barrie T. C., and Bleeker, W., 1999. The giant Kidd Creek volcanogenic massive sulfide deposit, western Abitibi Subprovince, Canada. *In* Hannington, M. D., eds., Volcanic-Associated massive Sulfide Deposits: Processes and Examples in Modern and Ancient Settings. Review in Economic Geology, vol. 8, pages 325-356
- Hubert, J-M; 1984: Rapport Geophysique, Projet Chavigny 110967. SIGEOM GM 40943
- Hubert, J-H; 2021: Report on an Induced Polarization Survey on the Lac Chavigny Property, Abitibi, for Dorval Exploration Inc.
- Kuuskmann, M; Hart, T R; 2014: 2012 Diamond Drilling, Humus and Rock Sampling, and Ground Magnetic, VLF-EM and IP Geophysics Surveys in Trojan Area. For Lakeside Minerals Inc. SIGEOM GM 68917
- Labbé, J-Y; 1994: Evolution des failles de la sous-province de l'Abitibi: exemple des discontinuités structurales de Lyndhurst et de Macamic, Québec. Université du Québec à Chicoutimi
- Mai, J-P; 2011: Preliminary Exploration Report on the Launay Property, for Lakeside Minerals Corp. SIGEOM GM 66144
- Pelletier, Y; 1986: Leve géochimique, Projet Privat-Launay. SIGEOM GM 45701
- Pelletier, Y; 1988: Campagne de forage 1988, Projet Privat-Launay. SIGEOM GM 48130
- Pelletier, Y; 1992: Orbite-Camico, Private Project, Review of Work and Expenditures from 91-2-1 to 92-01-31 and Recommendation of Program. SIGEOM GM 51708
- Pelletier, Y; 1994: Campagne d'Exploration de 1994, projet Privat. SIGEOM GM 53098
- Pinnacle Gold Mines; 1945: Diamond Drill Logs. SIGEOM GM 00058
- Robinson, W G; 1948: Report on Diamond Drilling. SIGEOM GM 13265
- Romano, J; Ferguson, M; 2021: Lac Chavigny Option Agreement. Dated 28<sup>th</sup> February 2021.
- Simoneau, P; 1990: Rapport sur la campagne de prospection et de cartographie géologique pour le projet Privat. SIGEOM GM 50306
- Simoneau, P; 1991: Cartographie, Prospection et vérification d'anomalies géochimiques de sols. SIGEOM GM 51706

Thurston, P; Ayer, J; Goutier, J; Hamilton, M A; 2008: Depositional Gaps in Abitibi Greenstone Belt Stratigraphy, a Key to Exploration for Syngenetic Mineralization. Economic Geology 103

Transports Québec, Resau Ferroviaire Québécois, dated May 2020. URL:  
[http://transports.atlas.gouv.qc.ca/PDF/Reseau\\_Ferroviaire\\_Qc\\_20200505.pdf](http://transports.atlas.gouv.qc.ca/PDF/Reseau_Ferroviaire_Qc_20200505.pdf)

Tremblay, E; 1988: Rapport de campagne de forage, avril 1998, Propriete Privat. Exploration Boreale. SIGEOM GM 56159

Turcotte, R; 1985: Leve geophysique, propriete de Exploration Orbite VSPA Inc, canton de Privat et Launay. SIGEOM GM 42536

## 28.0 APPENDICES

### 28.1 Photos



28.1.1 Martin Demers on outcrop in powerline corridor, centre of Lac Chavigny property.



*28.1.2 View of central part of the Lac Chavigny property.*