

Cree Mineral Exploration Board  
ANNUAL REPORT 2017-2018  
&  
WORK PLAN 2018-2019

Submitted to:  
MINISTÈRE DE L'ÉNERGIE ET DES RESSOURCES NATURELLES, QUEBEC  
(QUEBEC MINISTRY OF ENERGY AND NATURAL RESOURCES)  
And  
CREE NATION GOVERNMENT, QUEBEC

Youcef Larbi,  
Marlene MacKinnon,  
Reggie Mark  
Wemindji 2019

CREE MINERAL EXPLORATION BOARD

Directors:

Reggie Mark, President

Andy Baribeau

Sam Bosum

Mark Wadden

Robert Giguère

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## 1. INTRODUCTION

The Cree Mineral Exploration Board (the CMEB, the Board) was formed pursuant to Chapter 5 of the Agreement entitled *Agreement concerning a New Relationship between le Gouvernement du Québec and the Crees of Quebec* (the Agreement). Its functions are aimed at developing and enhancing mineral exploration in Eeyou Istchee (the Cree Territory). To achieve this, it will benefit from a minimum annual budget of \$300,000 per year provided by the Quebec Ministry of Energy and Natural Resources (MENR).

The CMEB head office was opened in Wemindji in March 2003 and a sub-office was opened in Mistissini in 2005. The activities of the CMEB are oriented towards mineral resource exploration in Eeyou Istchee in a context of sustainable economic development.

The executives and directors of the CMEB are submitting this yearly activity report describing the CMEB and detailing its activities and projects for the fiscal year April 2016 to March 2017. This report is prepared in accordance with Section 7 of the *Agreement concerning Mineral Resources Development in the James Bay Cree Territory*, and in accordance with section 6.4 of the Quebec Mineral Exploration Assistance Program (QMEAP) framework provided as per Schedule 1 of the Agreement. The report includes the following areas of activity: awareness and promotion, training, job opportunities and assistance, prospecting, autonomous prospectors and developing entrepreneurship.

## 2. BACKGROUND

Chapter 5 of the Agreement entitled *Agreement concerning a New Relationship between le Gouvernement du Québec and the Crees of Quebec* concerns mining. In particular, referring to Section 5.3:

*Quebec will promote and facilitate the participation of the James Bay Crees in mineral exploration activities in the Territory. In particular, Quebec and the Crees will set up before April 1st, 2002 a Mineral Exploration Board which will be largely composed of Cree representatives but with some representation by Quebec.*

The Cree Mineral Exploration Board was duly set up in accordance with that section of the Agreement. The remainder of Section 5.3 specifies the purpose of the Board and the financial terms:

*This Board benefits as of the 2001-02 Financial Year from the available regular program funding of Quebec for such purposes presently set at three hundred thousand dollars (\$300,000) per Financial Year. The main purposes of this Mineral Exploration Board will be to:*

- a) Assist the Crees in accessing mineral exploration opportunities;*
- b) Facilitate the development of mineral exploration activities by Cree Enterprises;*
- c) Facilitate and encourage the access by the Crees and Cree Enterprises to regular Quebec program funding and other encouragements for mineral exploration activities;*
- d) Act as an entry mechanism for offers of services by Crees and Cree Enterprises in the field of mineral exploration.*

On March 22nd 2002, the Cree Nation Government (CNG) (at that time the Cree Regional Authority), the Quebec Government and the Cree Mineral Exploration Board signed an additional and specific Agreement entitled *Agreement concerning Mineral Resources Development in the James Bay Region*. Section 6 of the Agreement on Mineral Resources Development states the obligations of the CNG as, (among others), to:

*Cover CMEB administrative expenses from its operating budget may include among others rent and office expenses, accounting and audit fees, the transportation and travel expenses of CNG representatives for meetings of the board of directors of the CMEB.*

### 3. THE MISSION OF THE BOARD

Shortly after the Board became operational in the fall of 2002, a five year work plan was developed and adopted by the Board. This was the plan submitted to the MENR for the 2002-03 funding of the CMEB. Activities of the Board address the following five programs:

#### Awareness and Promotion

The CMEB works with local schools to develop a program with the students based on Eeyou Istchee geology. This can be expanded in the future to include other schools under the jurisdiction of the Cree School Board. We also work with other Cree organizations involved in the various fields of the mining industry to raise awareness and promotion, and to inform people about mining activities in Cree Territory. It is also the intention of the Board to attend economic development related conferences and seminars at the Cree level to enhance awareness and promotion of the industry.

#### Training and Job Assistance

The Board works very closely with Cree Human Resources Development (CHRD) - Territorial Programs sector to examine various ways of approaching training and job assistance to benefit the Cree population in general. It is our understanding that the MENR will be involved in assisting us in approaching the different mining companies in the territory about possible job opportunities for Crees. The Board will also be working with the local entities embarking on training programs in the mining sector.

#### Assistance to Prospectors

The geologists of the Board provide technical assistance whenever required by a Cree prospector. The Chief Geologist will also be developing basic prospectors training packages at the local levels to increase the number of prospectors active in the territory. It is the objective of the Board to make this assistance a priority for the future activities of licensed Cree prospectors.

#### Project Development and Entrepreneur's Assistance

Due to the volume of financial requests from this sector, the Board developed a system whereby requests and submissions have to be received by a particular date to be considered for funding. The other sector of interest is that of joint ventures between Crees and non-Crees on exploration projects. The CMEB will continue funding similar viable projects.

### Geosciences Expertise and Technical Assistance

The Board continues to maintain its database on mineral exploration activities in Eeyou Istchee. This information is available when required by Cree entities and individuals. We also want to be in a position to respond technically to any environmental concerns that may arise as a result of a particular project.

#### **4. ACTIVITIES OF THE BOARD 2017-2018**

The activities summarized in this section include:

1. Meetings and resolutions;
2. 2016-2017 work plan (Reminder);
3. Awareness and promotion;
4. Training and job assistance;
5. Field projects with training;
6. Prospector assistance;
7. Project development and entrepreneur assistance;
8. New projects;
9. Geosciences;
10. Collaborations;
11. Public services and interventions.

#### 4.1 MEETINGS AND RESOLUTIONS 2017-2018

The following resolutions were adopted by the executives and directors during CMEB meetings held from April 2017 to March 2018.

DATE	RESOLUTION	SUBJECT
<p>June 7, 2017</p> <p>By telephone conference.</p>	<p>1718-01</p>	<p>On a motion duly made by Mark Wadden and seconded by Robert Giguère it was resolved that the meeting adopts Resolution 1718-01:</p> <p>the Board of Directors has reviewed the following documents entitled: «<i>Native Exploration Services, Prospecting joint venture, Opemiska Project, NTS 32G15, May 8th, 2017</i>» (hereinafter referred to as the: «Proposal»);</p> <p>the Proposal is admissible for funding in accordance with the provisions of Sub-section 5.4 of the 2016-2019 Agreement on Mineral Resources Development in the Eeyou Istchee - James Bay Territory (hereinafter referred to as the: «Agreement»);</p> <p>the total amount of the Proposal is \$50,000 and the partner of the Joint Venture is assuming 50% of related expenses, accordingly the Proponent's share of the proposal consist in an amount of \$25,000 and in accordance with the provisions of Section 5.4 of the Agreement, the maximum amount admissible for funding consists into 75% of the proponent's share, which consist in the amount of \$18,750;</p> <p>Mr. Sam Bosum has filed in the record of the Corporation a continuing declaration of interest with respect to the Proponent and accordingly, abstained himself from voting and participating into the deliberation of the present Resolution.</p> <p>The Board of Directors hereby approves the Proposal for the maximum amount of EIGHTEEN THOUSAND SEVEN HUNDRED AND FIFTY DOLLARS (\$18,750);</p> <p>the Corporation shall enter into a funding agreement with Mr. Sam Bosum (Natives Exploration Services);</p> <p>The President, the Corporate Secretary and the Chief Geologist be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>

1718-02	<p>On a motion duly made by Mark Wadden and seconded by Robert Giguère it was resolved that the meeting adopts Resolution 1718-02:</p> <p>the Board of Directors has reviewed the following documents entitled: «<i>Nimsken Corporation, 2017 Exploration Program Targets 32G07-A,B,C and 32G15 A and B, May 22nd, 2017</i>» (hereinafter referred to as the: «Proposal»);</p> <p>the Proposal is admissible for funding in accordance with the provisions of Sub-section 5.4 of the 2016-2019 Agreement on Mineral Resources Development in the Eeyou Istchee - James Bay Territory (hereinafter referred to as the: «Agreement»);</p> <p>the total amount of the Proposal is \$50,000 and in accordance with the provisions of Section 5.4 of the Agreement, the maximum amount admissible for funding consists into 75% of admissible expenditures, which consist in the amount of \$37,500;</p> <p>the Proposal is being carried out on Category 1 Lands of Oujé-Bougoumou and a written authorization from the Cree Nation of Oujé-Bougoumou shall be required in this regard;</p> <p>Mr. Sam Bosum has filed in the record of the Corporation a continuing declaration of interest with respect to the Proponent and accordingly, abstained himself from voting and participating into the deliberation of the present Resolution.</p> <p>The Board of Directors hereby approves the Proposal for the maximum amount of THIRTY-SEVEN THOUSAND AND FIVE HUNDRED DOLLARS (\$37,500);</p> <p>a written authorization from the Cree Nation of Oujé-Bougoumou to carry out the mineral exploration activities contemplated in the Proposal on Oujé-Bougoumou's Category 1 Lands shall be filed in the Corporation's records;</p> <p>the Corporation shall enter into a funding agreement with Nimsken Corporation;</p> <p>the President, the Corporate Secretary and the Chief Geologist be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>
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1718-03	<p>On a motion duly made by Reggie Mark seconded by Sam Bosum, it was resolved that the meeting adopts Resolution 1718-03:</p> <p>the Board of Directors has reviewed the following document: « <i>Individual Prospector Dennis Moar, Apimichiskutasich Lake Project, dated May 30th, 2017</i>» (Hereafter referred to as the «Proposal»);</p> <p>the Proposal is admissible for funding in accordance with the provisions of Sub-section 5.3 of the 2016-2019 Agreement on Mineral Resources Development in Eeyou Itstchee-James Bay Territory.</p> <p>The Board of Directors hereby approves the Proposal for a maximum amount EIGHT THOUSAND AND SEVEN HUNDRED DOLLARS (\$8,700);</p> <p>the Corporation shall enter into a funding agreement with Mr. Dennis Moar for the carrying out of the Proposal, which shall provide for direct payment of suppliers;</p> <p>the President, the Corporate Secretary and the Chief Geologist be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>										
1718-04	<p>On a motion duly made by Robert Giguère seconded by Reggie Mark, it was resolved that the meeting adopts Resolution 1718-04:</p> <p>the Directors have reviewed the following documents entitled: « <i>Mapping Category 1 land Waswanipi, Ouje-Bougoumou - Mistissini Field Mineral exploration Prospectors upgrading course, May 2017</i>», and « <i>JSB, Quotation for Safety-Security course</i>» dated May 23rd, 2017, (hereinafter collectively referred to as the «Proposal»), which is summarized in the following table:</p> <table data-bbox="558 1367 1256 1528"> <tr> <td>CMEB Summer 2017 Initiation to Prospection Program</td> <td></td> </tr> <tr> <td>Waswanipi &amp; Ouje-Bougoumou</td> <td>\$107,920</td> </tr> <tr> <td>Mistissini</td> <td>\$78,960</td> </tr> <tr> <td>Safety-Security course</td> <td>\$5,280</td> </tr> <tr> <td>Total</td> <td>\$192,160</td> </tr> </table>	CMEB Summer 2017 Initiation to Prospection Program		Waswanipi & Ouje-Bougoumou	\$107,920	Mistissini	\$78,960	Safety-Security course	\$5,280	Total	\$192,160
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Total	\$192,160										
1718-05	<p>On a motion duly made by Sam Bosum seconded by Reggie Mark, it was resolved that the meeting adopts Resolution 1718-05:</p> <p>the Board of Directors hereby approves the minutes of the Board meetings held on March 23rd, 2017.</p>										

	1718-06	<p>On a motion duly made by Mark Wadden and seconded by Robert Giguère, it was resolved that the meeting adopts Resolution 1718-06:</p> <p>the Board of Directors has adopted Resolution 1213-34 approving the Funding agreement 2013-03 for Sam Bosum as individual prospector;</p> <p>the Corporation’s books show that an amount of \$7,160.52 was overpaid for the Funding Agreement 2013-03; (hereafter referred to as: «Overpayment»)</p> <p>the Overpayment is the result of payments mixed up with two other funding agreements with the same proponent, namely Funding Agreements 2012-04 and 2014-10;</p> <p>the Board of Directors has adopted Resolution 1617-26 cancelling the following surplus and as shown in the following table if all three agreements were combined there is still a surplus of \$1,253:</p> <table data-bbox="558 869 1218 1060"> <thead> <tr> <th>Funding Agreement</th> <th>Amount of surplus cancelled</th> </tr> </thead> <tbody> <tr> <td>2012-02</td> <td>\$2,473</td> </tr> <tr> <td>2014-10</td> <td>\$5,940</td> </tr> <tr> <td>Subtotal</td> <td>\$8,413</td> </tr> <tr> <td>2013-03 Overpayment</td> <td>-\$7,160</td> </tr> <tr> <td>Total surplus</td> <td>\$1,253</td> </tr> </tbody> </table>	Funding Agreement	Amount of surplus cancelled	2012-02	\$2,473	2014-10	\$5,940	Subtotal	\$8,413	2013-03 Overpayment	-\$7,160	Total surplus	\$1,253
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Total surplus	\$1,253													
<p>July 24, 2017</p> <p>By telephone conference.</p>	1718-07	<p>On a motion duly made by Mark Wadden and seconded by Sam R. Bosum it was resolved that the meeting adopts Resolution 1718-07:</p> <p>the Board of Directors has reviewed the following document: «Cree Mineral Exploration Board, draft Financial Statements, March 31, 2017» (hereafter referred to as: «Audited Financial Statements 2016-2017»).</p> <p>The Board of Directors hereby approves the Audited Financial Statements 2016-2017;</p> <p>the President, Mr. Reggie Mark and Mr. Mark Wadden be and are hereby authorized to sign the Audited Financial Statements 2016-2017 on behalf of the Corporation.</p>												

1718-08	<p>On a motion duly made by Sam Bosum and seconded by Mark Wadden it was resolved that the meeting adopts Resolution 1718-08:</p> <p>the Board of Directors has approved by a resolution dated May 30th, 2003 the By-Law #5 which provides for the following: The Board of Directors is authorized to use the funds of the Corporation to purchase stock in other companies and otherwise dispose of same;</p> <p>the Corporation has acquired since 2003 stocks of public companies listed on the stock markets which are either active in the mineral exploration field or operating a mining facility within Eeyou Istchee;</p> <p>the Corporation holds an investment account at the RBC Dominion Securities;</p> <p>the Corporation's portfolio held at RBC has substantially growth over the years;</p> <p>the Corporation's investor status has a positive influence on relationships, communications and credibility that the Corporation may have with mining and exploration companies active in Eeyou Istchee and that the Corporation should adopt a policy on investment in mining and junior exploration companies listed on the stock market;</p> <p>the Board of Directors has reviewed the following document entitled: « Draft Policy on Investment in Mining and Junior Exploration Corporations, dated July 6th, 2017», hereafter referred to as the «CMEB Mineral Investment Policy».</p> <p>The Board of Directors hereby adopts the CMEB Mineral Investment Policy.</p>
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	11718-09	<p>On a motion duly made by Mark Wadden and seconded by Reggie Mark, it was resolved that the meeting adopts Resolution 1718-09:</p> <p>the Board of Directors has reviewed the following documents: «Corporate Presentation, Tarku Resources, June 2017», «Investor Fact Sheet, Tarku Resources, June 2017» and «Tarku Resources LTD, Financing Term Sheet; June 20, 2017» hereinafter collectively referred as: «Tarku Investment»;</p> <p>the Board of Directors has adopted Resolution 1718-08 approving the CMEB Mineral Investment Policy;</p> <p>Tarku Investment complies with the terms of the CMEB Mineral Investment Policy and is recommended by the Chief Geologist.</p> <p>The Board of directors hereby approves the Tarku investment for the purchase of 833,300 shares at a price of FORTY NINE THOUSAND AND NINETY-EIGHT DOLLARS (\$49,998);</p> <p>the President and the Corporate Secretary be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>
<p>November 22, 2017</p> <p>In Quebec City.</p>	1718-10	<p>On a motion duly made by Reggie Mark seconded by Andy Baribeau, it was resolved that the meeting adopts Resolution 1718-10:</p> <p>the Board of Directors hereby approves the minutes of the Board meetings held on June 7th and July 24th, 2017.</p>

1718-11	<p>On a motion duly made by Andy Baribeau and seconded by Reggie Mark it was resolved that the meeting adopts Resolution 1718-11:</p> <p>the Board of Directors has reviewed the following document entitled: «Native Exploration Services, Mina Gold DDH Project NTS 32G11, November 9th, 2017» (hereinafter referred to as the: «Proposal»);</p> <p>the Proposal is admissible for funding in accordance with the provisions of Sub-section 5.4 of the 2016-2019 Agreement on Mineral Resources Development in the Eeyou Istchee - James Bay Territory (hereinafter referred to as the: «Agreement»);</p> <p>the total amount of the Proposal is \$30,000 and in accordance with the provisions of Section 5.4 of the Agreement, the maximum amount admissible for funding consists into 75% of admissible expenditures, which consist in the amount of \$22,500;</p> <p>Mr. Sam Bosum has filed in the record of the Corporation a continuing declaration of interest with respect to the Proponent and accordingly, abstained himself from voting and participating into the deliberation of the present Resolution.</p> <p>The Board of Directors hereby approves the Proposal for the maximum amount of TWENTY TWO THOUSAND FIVE HUNDRED DOLLARS (\$22,500);</p> <p>the Corporation shall enter into a funding agreement with Mr. Sam Bosum (Natives Exploration Services);</p> <p>the President, the Corporate Secretary and the Chief Geologist be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>
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1718-12	<p>On a motion duly made by Mark Wadden and seconded by Reggie Mark it was resolved that the meeting adopts Resolution 1718-12:</p> <p>the Board of Directors has reviewed the following documents entitled: «Nimsken Corporation, Rush Lake DDH Project NTS 32G15, November 10th, 2017» (hereinafter referred to as the: «Proposal»);</p> <p>the Proposal is admissible for funding in accordance with the provisions of Sub-section 5.4 of the 2016-2019 Agreement on Mineral Resources Development in the Eeyou Istchee - James Bay Territory (hereinafter referred to as the: «Agreement»);</p> <p>the total amount of the Proposal is \$30,000 and in accordance with the provisions of Section 5.4 of the Agreement, the maximum amount admissible for funding consists into 75% of admissible expenditures, which consist in the amount of \$22,500;</p> <p>the Proposal will be carried out on Category 1 Lands of Oujé-Bougoumou and a Resolution from the Cree Nation of Oujé-Bougoumou shall be required in accordance with the terms of section 5.1.10 a) of the James Bay and Northern Québec Agreement;</p> <p>Mr. Sam Bosum has filed in the record of the Corporation a continuing declaration of interest with respect to the Proponent and accordingly, abstained himself from voting and participating into the deliberation of the present Resolution.</p> <p>The Board of Directors hereby approves the Proposal for the maximum amount of TWENTY TWO THOUSAND FIVE HUNDRED DOLLARS (\$22,500);</p> <p>a Resolution from the Cree Nation of Oujé-Bougoumou to carry out the mineral exploration activities contemplated in the Proposal on Oujé-Bougoumou's Category 1 Lands shall be included as a Schedule to the Agreement to be executed with Nimsken Corporation;</p> <p>the Corporation shall enter into a funding agreement with Nimsken Corporation;</p> <p>the President, the Corporate Secretary and the Chief Geologist be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>
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1718-14	<p>On a motion duly made by Andy Baribeau seconded by Sam Bosum, it was resolved that the meeting adopts Resolution 1718-14:</p> <p>the Chief Geologist / Director General shall have the authority to approve expenditures for the benefit of the Corporation up to the maximum amount of TEN THOUSAND DOLLARS (\$10,000);</p> <p>the Chief Geologist / Director General be and is hereby authorized to do all thing deemed necessary to give effect to the present resolution.</p>
1718-15	<p>On a motion duly made by Andy Baribeau seconded by Reggie Mark, it was resolved that the meeting adopts Resolution 1718-15:</p> <p>the Board of Directors has reviewed the following document: «Individual Prospector Larry Desgagné, Molly Final Phase, dated November 16th, 2017» (Hereafter referred to as the «Proposal»);</p> <p>the Proposal is admissible for funding in accordance with the provisions of Sub-section 5.3 of the 2016-2019 Agreement on Mineral Resources Development in Eeyou Istchee-James Bay Territory.</p> <p>The Board of Directors hereby approves the Proposal for a maximum amount NINE THOUSAND NINE HUNDRED AND TWENTY DOLLARS (\$9,920);</p> <p>the Corporation shall enter into a funding agreement with Mr. Larry Desgagné for the carrying out of the Proposal, which shall provide for direct payment of suppliers;</p> <p>the President, the Corporate Secretary and the Chief Geologist be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>
1718-16	<p>On a motion duly made by Sam Bosum and seconded by Reggie Mark, it was resolved that the meeting adopts Resolution 1718-16:</p> <p>the Board of Directors has reviewed the following document: « Proposal for the Funding the Cree Mineral Exploration Board, Financial Year 2018-2019, submitted to the Cree Nation Government, dated November 22nd, 2017» (Hereafter: «Proposal»).</p> <p>The Board of Directors hereby approves the Proposal and its submission to the Cree Nation Government;</p> <p>the President and the Corporate Secretary be and are hereby authorized to do all things deemed necessary to give effect to the present resolution.</p>

	1718-17	<p>On a motion duly made by Andy Baribeau and seconded by Sam Bosum, it was resolved that the meeting adopts Resolution 1718-17:</p> <p>the Board of directors has reviewed the following document: « CMEB AMENDED GENERAL BY-LAW NO. 4, dated November 22nd, 2017».</p> <p>The Board of Directors hereby approves the CMEB AMENDED GENERAL BY-LAW NO. 4;</p> <p>the Corporate Secretary be and is hereby authorized to do all things deemed necessary to give effect to the present resolution.</p>
	1718-18	<p>On a motion duly made by Andy Baribeau and seconded by Sam Bosum, it was resolved that the meeting adopts Resolution 1718-18:</p> <p>the Board of Directors has reviewed the following document entitled: «DRAFT Service Agreement Between the Cree Nation of Wemindji and the Cree Mineral Exploration Board, dated November 14, 2017» (hereafter referred to as the: «Service Agreement»).</p> <p>The Board of directors hereby approves the Service Agreement;</p> <p>the President be and is hereby authorized to sign the Service Agreement on behalf of the Corporation.</p>
<p>November 30, 2017</p> <p>By telephone conference.</p>	1718-20	<p>On a motion duly made by Sam Bosum and seconded by Mark Wadden, it was unanimously resolved that the meeting adopts Resolution 1718-20:</p> <p>the Board of Directors has reviewed the letter of demand addressed to Add-Imprints dated July 5th, 2017;</p> <p>the Board of Directors has reviewed the letter from Mr. Yves Massicotte from the small claim court division of the Quebec Court dated December 14th, 2017, which requires from the Corporation to mandate Mr. Youcef Larbi to represent the Corporation for the court case # 500-32-703873-176.</p> <p>The Board of Directors hereby mandates Mr. Youcef Larbi, to represent the Corporation in the small claim court case bearing number #500-32-703873-176;</p> <p>Mr. Youcef Larbi be and is authorized to do all things deemed necessary to give effect to the present resolution.</p> <p>the Corporate Secretary, Me Guy Morin, be and is hereby authorized to provide a certified copy of the present resolution to the Quebec Court small claim division.</p>

<p>March 6, 2018 In Toronto.</p>	<p>1718-21</p>	<p>On a motion duly made by Sam Bosum seconded by Mark Wadden, it was resolved that the meeting adopts Resolution 1718-21:</p> <p>the Board of Directors has reviewed the following document: « Individual Prospector Jonas Sheshamush Whapmagoostui Trapline GW-01 Phase II, February 27, 2018» (Hereafter referred to as the «Proposal»);</p> <p>the Proposal is admissible for funding in accordance with the provisions of Sub-section 5.3 of the 2016-2019 Agreement on Mineral Resources Development in Eeyou Istchee-James Bay Territory.</p> <p>The Board of Directors hereby approves the Proposal for a maximum amount FIFTEEN THOUSAND DOLLARS (\$15,000);</p> <p>the Corporation shall enter into a funding agreement with Mr. Jonas Sheshamush for the carrying out of the Proposal, which shall provide for direct payment of suppliers;</p> <p>the President, the Corporate Secretary and the Chief Geologist/ Director General be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>
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1718-22	<p>On a motion duly made by Andy Baribeau and seconded by Reggie Mark it was resolved that the meeting adopts Resolution 1718-22;</p> <p>the Board of Directors has reviewed the following documents entitled: «Nimsken Corporation Inc., 2018 Exploration Program Electromagnetic and magnetic surveys in NTS 32G15, January 10, 2018» (hereinafter referred to as the: «Proposal»)</p> <p>the Proposal is admissible for funding in accordance with the provisions of Sub-section 5.4 of the 2016-2019 Agreement on Mineral Resources Development in the Eeyou Istchee - James Bay Territory (hereinafter referred to as the: «Agreement»);</p> <p>the total amount of the Proposal is \$49,960 and in accordance with the provisions of Section 5.4 of the Agreement, the maximum amount admissible for funding consists into 75% of admissible expenditures, which consist in the amount of \$37,470;</p> <p>Mr. Sam Bosum has filed in the record of the Corporation a continuing declaration of interest with respect to the Proponent and accordingly, abstained himself from voting and participating into the deliberation of the present Resolution.</p> <p>The Board of Directors hereby approves the Proposal for the maximum amount of THIRTY-SEVEN THOUSAND FOUR HUNDRED AND SEVENTY DOLLARS (\$37,470);</p> <p>the Corporation shall enter into a funding agreement with Nimsken Corporation;</p> <p>the President, the Corporate Secretary and the Chief Geologist/ Director General be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>
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	1718-23	<p>On a motion duly made by Andy Baribeau and seconded by Reggie Mark it was resolved that the meeting adopts Resolution 1718-23:</p> <p>the Directors have reviewed the following documents entitled: « CMEB, Prospectors learning Program 2018» (hereinafter referred to as the «Proposal»;</p> <p>the Proposal is admissible for funding in accordance with the provisions of Sub-section 5.2 of the 2016-2019 Agreement on Mineral Resources Development in Eeyou Istchee-James Bay Territory executed between the Corporation, the Cree Nation Government and the Québec Ministry of Natural Resources.</p> <p>The Proposal be hereby approved for a maximum amount of ONE HUNDRED THIRTY SIX THOUSAND AND NINE HUNDRED DOLLARS (\$136,900);</p> <p>the President, the Corporate Secretary and the Chief Geologist/ Director General be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>
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1718-24	<p>On a motion duly made by Mark Wadden and seconded by Reggie Mark, it was resolved that the meeting adopts Resolution 1718-24:</p> <p>Section 5.1.10 a) of the James Bay and Northern Agreement provides for the following:</p> <p style="padding-left: 40px;">In Category I lands, Québec remains the owner of the mineral and sub-surface rights [...].</p> <p style="padding-left: 40px;">However, no minerals or other sub-surface rights can be obtained, extracted, mined or exercised from or with respect to all Category I lands without the consent of the particular community with rights over such lands and only upon payment of compensation agreed upon, for the use of rights over such lands.</p> <p style="padding-left: 40px;">Any future exploration or exploitation of minerals within Category I lands, [...], shall only be permitted with the consent of the Cree community holding the rights to the lands affected. Moreover, specific authorization from Québec according to conditions specified in Québec mining laws and regulations, shall be required before any mining rights may be acquired.</p> <p>The Board of Directors adopts the following policy:</p> <p><b>POLICY CONCERNING THE APPROVAL OF EXPLORATION'S PROPOSAL LOCATED ON CATEGORY 1 LANDS OF EYYOU ISTCHEE</b></p> <p>Only mineral exploration proposals submitted by entities that are fully owned by a Cree Nation (via among others their development corporation) that are supported by a Council resolution of the concerned Cree Nation consenting and authorizing exploration works on their Category 1 lands may be considered for approval by CMEB's Board of Directors.</p> <p>The President, the Corporate Secretary and the Chief Geologist/ Director General be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p> <p>The following directive was issued: Directive to the Corporate Secretary to include the policy approved by Resolution 1718-24 Exploration on Category 1 Land into the CMEB'S Manual of Policies.</p>
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1718-25	<p>On a motion duly made by Andy Baribeau and seconded by Sam Bosum, it was resolved that the Board of Directors 1718-25:</p> <p>The Board of Directors hereby approves the minutes of the Board meetings held on November 22nd, 30th, 2017 and January 29th, 2018.</p> <p><b>PUBLIC JUNIOR EXPLORATION COMPANY</b> The following document was tabled:</p> <p>Background on the setting up of a Cree Public Junior Exploration Company, Memorandum from Guy Morin, dated February 21, 2018;</p> <p>It was mentioned that there are specific provisions in the MENR-CNG-CMEB 2016-2019 agreement (section 5.5), which allows the CMEB to fund a proposal up to \$100,000. Andy Baribeau also mentioned that funding could also be available from CNG's Department of Commerce and Industry and a venture with the SDBJ could also be looked into. It was also pointed out that funding could also be available from the Société du Plan Nord.</p> <p>It was also mentioned that the CMEB as a not for profit organization would not be directly involved in the setting up of such public company, however the CMEB could play a role for the kick start of this initiative by bringing together the key players who could potentially make such initiative a reality.</p> <p>The following directive was issued: Directive to the President, Chief Geologist/Director General and Corporate Secretary to draft an action plan for the creation of a Cree controlled junior exploration company and to report on this issue at the up-coming Board meeting.</p>
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1718-26	<p>On a motion duly made by Reggie Mark and seconded by Sam Bosum, it was resolved that the meeting adopts Resolution 1718-26:</p> <p>the Board of Directors has reviewed the following document entitled: «CMEB Manual of Policies and Guidelines, dated March 3, 2018» (Hereafter referred to as: «Manual of Policies»);</p> <p>the Manual includes the two following working conditions that have not been approved yet (Hereafter referred to as: «Working Conditions»):</p> <p><b>ANNUAL FEES OF PROFESSIONAL ASSOCIATION</b> The annual membership fees of the «Ordre des Géologues du Québec» of the Chief Geologist / Director General shall be assumed by the CMEB.</p> <p><b>LODGING OF THE CHIEF GEOLOGIST/DIRECTOR GENERAL</b> The lodging fees of the Wemindji's housing unit occupied by the Chief Geologist / Director General shall be assumed by the CMEB.</p> <p>The Board of Directors hereby approves the Manual of Policies and the Working Conditions;</p> <p>the Board of Directors hereby ratifies of the Working Conditions since their respective initial implementation;</p> <p>the President, the Corporate Secretary and the Chief Geologist/ Director General be and are hereby authorized to do all things deemed necessary to give effect to the present Resolution.</p>
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#### **4.2 WORK PLAN 2017-2018 (REMINDER)**

Since The beginning of CMEB activities on 2003, the mining industry is on an increasing trend. This last year we observed a major decreasing in investment and exploration projects. CMEB has to face the new mining situation in Eeyou Istchee. The priority is the application of the five programs of the Cree Mineral Exploration Board as submitted to the Cree Nation Government (formerly the Cree Regional Authority) and the Quebec Ministry of Energy and Natural resources (MENR). This includes the creation of low cost projects usually handled by prospectors, the preparation of training programs and the creation of job opportunities within the exploration companies and mines in Eeyou Istchee; to keep informing the communities about mining activities on their traplines on regular basis; establishing communication and networking between the tallyman and the local authority and the mining industry, and helping Cree prospectors and companies develop exploration projects. *The CMEB will participate in improving the environmental aspect related to mining impacts and encourage environmentally safe mining activities; and will actively participate in the Plan Nord planning. The Crees want to develop mining in the context of Eeyou Istchee sustainable development; this has to be done appropriately to protect the environment and wildlife (former Grand Chief Matthew Coon Come, Quebec Exploration Conference). On the same subject, the CMEB's president Reggie Mark insists on the sustainable character of the CMEB. The board members believe that we have to keep undertaking the best practices to succeed in Exploration projects realization. We are improving our communication tools and insisting on consulting at the very beginning of exploration. The process will benefit all parties concerned and a mutual understanding will lead to sustainable development.*

#### **Programs Development**

- The CMEB has as objective to train a number of prospectors in each community. These trainees will be the go-to people for the community in terms of “what happens in mining exploration in the territories and in other places”. After Chisasibi, Wemindji, Waskaganish, Mistissini, Whapmagoostui, Eastmain, Nemaska, Washaw-Sibi and Waswanipi and finally Ouje-Bougoumou. We will conduct a new type of training in the summer 2017. We will upgrade the prospectors’ knowledge and guide the Tallyman-Prospectors on the field.
- As follow up to our prospectors program, CMEB will organize two weeks training update with our graduate trainees this summer 2017, in three communities.

- Workshop (**Mining 101**) for entrepreneurs in mining industry. This program helps Crees seeking opportunities in the mining industry learn about running private companies in mining services and establishing agreements.
- Continue collaborating with the CTA in Recognizing Metal Mineralization training for tallymen and trappers. The CTA is the most important CMEB partner.
- Continue collaborating with MENR in exchanging data and **visiting** the MENR mapping camps with the CMEB trainees. This improves the students' knowledge considerably. Many thanks to the Ministère de l'Énergie et des Ressources naturelles.
- Training in Mineral Resources and Environment built in **collaboration** with the CHRD, NISKAMOON, CSB, SDBJ and TJCM. This is a technical level training program and the trainees are full time students or are on student summer jobs. The program in environmental sciences started in 2011 with the collaboration of the CMEB, NISKAMOON, the CSB and le CÉGEP de St-Félicien.
- Two days open doors to keep prospectors up-to-date on new technology. This workshop will keep our prospectors in touch with the mining activities and with the new techniques and/or equipment. We offer this activity in all communities.
- Continue producing new Category 1 land geo-touristic maps.
- Improve the youth page on the CMEB website (CMEB.org) with educational materiel and interactive activities.

### **New Training Mineral Exploration Project**

New grassroots exploration, GIS and mapping training projects: the CMEB will carry out two projects in July 2016. The first one will be in the area of Waskaganish and Washaw Sibi, and the other one in the area of Mistissini. The projects are in preparation and are aimed at various commodities. The domain selection is based on the needs of the Crees and job opportunities in Eeyou Istchee. The field work is based on technical preparation and on data from previous geological compilation and from several known targets.

New prospecting project is in preparation with the team of CMEB trained junior prospectors from Waskaganish, Washaw Sibi and Mistissini with the collaboration of Sam Bosum, and Jim MacLeod, pioneer prospectors in the Chibougamau area.

### Accompanying an undergraduate student in Geology

CMEB is proud to be the mentor and the geo-scientific support for university and CEGEP Cree students at in Geology Program. CMEB will support them to attend Quebec Mine and the Cree mining Conference in the purpose to develop their knowledge and their own experiences. They will have a direct support from the CMEB's staff.

### Activities

- Encourage Cree and non-Cree companies to start new exploration projects.
- Organize several geology and Earth sciences activities for the Cree schools during the year visiting mines and mineral museums, and preparing la SEMAINE MINIÈRE event in April 2017 in schools in different communities.
- Encourage Cree prospectors and help them find new projects.
- Help new Cree prospectors build prospecting projects.
- Finalize and update the ongoing Cree prospector and Cree company projects.
- Geological report and update geological maps in Eeyou Istchee, summer 2017.
- Mining activities report in Eeyou Istchee produced in November 2017.
- Continue to improve the CMEB website; create a web page to interest youth in mining and the environment before November 2017.
- Participate and be a partner in different promotion and information events. The CMEB is a faithful collaborator of Quebec Mine and “la Semaine Minière”, of the Canadian Aboriginal Mining Association, le Comité de Promotion du Nord and Subcommittee on exploration, le Congrès de l'exploration minière du Québec, and of Cree Mining Conference (as major member and promoter).
- Build the first public Cree exploration company by the Crees for the Crees. This Company will be listed on the stock market.
- CMEB continues working on the Cree Mining Exploration Table with the Cree Government and The Government of Quebec.

- For the 9<sup>th</sup> year CMEB is animating the Rock competition which is a success. This last year 2017 we had 7 participants from all over Eeyou Istchee. We are expecting the same number of participant and may be more.
- The CMEB continues to award academic scholarships to secondary 5 students graduating from CSB schools in Sciences and Math. We believe that a cheque of 400\$ and a Trophy mentioning their success give a great motivation to the student to choose the sciences for their futur.

### **Awareness and Geosciences**

- Visits of information in the communities with the collaboration of the Cree School Board schools and participating in the internal events, and meeting the trappers and tallymen in partnership with the CTA.
- Participate in science fairs in the communities and continue presentations in schools.
- Update the guideline book for exploration companies already published on the CMEB website.
- Promote the CMEB via MENR, Cree Government, CTA, Comité de Promotion du Nord and the Secrétariat Autochtones.
- Promote Earth Sciences in class and in the field for youth in primary and secondary grades in April and May.
- Promoting Geology, mining and exploration in local Science and Career Fairs, the Canadian Aboriginal Mining Association, Exploration Québec, PDAC and Cree mining conference.
- Development of the website for the news related to the Earth Sciences.
- Compile scientific data taken during the summer mapping projects and mining data such as potential prospecting targets and agreements between the industry and the Crees.
- Develop a link to the CMEB website on the Cree entities, the MENR and the AEMQ websites.
- CMEB continually maintains and updates a database on mining and staking activities by companies and prospectors in Eeyou Istchee. This information will be published and

updated on the CMEB website to ensure that tallymen and companies are well informed.

### **Conclusion**

In this Work Plan, we attempt to provide the Board recommendations for pursuing its objectives with regards to Training, Job Assistance and Prospecting projects. It may be useful to recall those objectives, as set forth in the CMEB Work Plan for 2011-2014, adopted at its 5<sup>th</sup> meeting, on May 15<sup>th</sup> 2011,

*Training and Job assistance shall aim at a) promoting, initiating or supporting training programs and activities to increase the skills of native individuals in mineral exploration, and b) providing assistance to job development and placement, including monitoring and on-the-job training programs. The desired impact is, in the short term, to train individuals to the level of accessing the immediate job market in exploration, and in the mid-term, to provide ways to lead to higher education and more advanced skills in mineral or natural resources management.*

*These tasks include:*

- the development of new or the support of existing training initiative in collaboration with Emploi-Québec or other organization certified in the field*
- establishing working relationships with organization capable of certifying the value of the training programs, especially MENR, and the Ordre des Géologues du Québec*
- promote and support as much as possible training program which may lead to higher education, in collaboration with the Cree School Board, Cree Human Resources Development department, various Colleges, or the MELS*
- ensure the collaboration and the consultation of the industry on the design of training programs*
- assess and disseminate information about job offers and attempt to forecast job demands in collaboration with the industry; set up appropriate instances and committees for that purpose.*

### **Recommendations**

**For Training and Job Creation:**

- It is imperative that more people be trained for the various job opportunities to be had from mineral exploration on Cree territory. Business partnerships with mining companies will be an important reality in the close future which is linked to the Plan Nord. The forward progress of exploration projects, especially in the Opinaca Reservoir, the Otish Mountains areas and along the Trans-Taiga road, will create job opportunities for members of all Cree communities.
- Consolidate and develop prospecting, blasting and drilling courses with interested, motivated and educated young women and men;
- Encourage training in the environmental sciences;
- Organize with Cégeps and universities a program concerning mineral resources and the environment for technicians and Bachelor degrees in mineral resources and the Earth sciences.

Because of their isolation, communication with and between the communities is difficult. We have to establish a regional information network find new trainees, new prospectors and post-secondary students in all communities willing to study the Earth sciences away from home. *The fibre-optic telecommunications recently installed between the communities will improve communication, facilitate training and increase the flow of information in our mineral resources domain.*

#### For Promotion:

The Cree Mineral Exploration Board continues to successfully promote Cree land mineral resources and raises awareness in Cree communities via schools and presentations in the communities. The CMEB helps prospectors develop their expertise. Concerning the new prospectors training program; the CMEB effectively delivers this program whenever needed. With reference to awareness, it is important to inform communities and Cree organizations about mining realities and avoid false expectations. Mining companies also benefit from any information concerning the needs in the Cree Territory for environmental protection, employment, and economic development.

#### Finally:

It is recommended that the Cree Mineral Exploration Board:

- Develops joint ventures with mining companies on advanced projects to share exploration costs;

- Each member of Cree Mineral Exploration board will promote the services of CMEB to the Crees. The Crees need to know more about the CMEB. This will facilitate the access to all the information about mining and its related jobs in Eeyou Istchee.
- Emphasizes grassroots exploration projects from the standpoint of offering more material for exploration and exploitation, and bring new companies to Eeyou Istchee;
- Develops partnerships with the MENR resident geologists to generate new projects;
- With reference to the Autonomous Prospectors Program - the CMEB is working closely with the prospectors in the development of their exploration projects by supplying knowledge in geology and business and report-writing services;
- Continues to work with the Cree School Board students and promote the Earth sciences;
- Continues to inform Cree organizations and the mining companies about the activities of the CMEB;
- Advises the communities in mining investment and be part of this big activity in Eeyou Istchee;
- Maintains the North-South mining network;
- Generates new detailed geological data in Eeyou Istchee: the CMEB collaborates with Quebec Government in mapping uncharted Cree territory. This increases the mineral potential value and improves the geological database of the territory and of northern Quebec. In addition, the CMEB collaborates with quaternary expertise organizations, such as the Université du Québec en Abitibi-Témiscamingue. This allows access to data on both glacial movement and mineral dispersion. The Board will study all comprehensive proposals within the parameters of this recommendation.

### **4.3 AWARENESS AND PROMOTION**

#### *Conferences and promotional events*

The representatives of the CMEB took part in several promotional events such as conferences and workshops. During these mining events, the CMEB presented posters and various informa-

tion related to mining exploration in Eeyou Istchee, more particularly at the mining week in April 2017 and 2017 CSB Career Fairs.

The CMEB conducted mineral identification activities with the Voyageur Memorial School in Mistissini in June 2017.

As usually, the Board members will take part in the annual conference of the “Canadian Aboriginal Mineral Association” (CAMA). This conference was an excellent opportunity to exchange information on mining activities and mineral exploration with other First Nations from across Canada.

At the Québec Exploration conference, organized by the MENR in November 2017, the CMEB distributed pamphlets explaining the programs and the objectives of the Corporation at its kiosk. One of the highlights of this Conference was the high interest of participants for the CMEB’s publication entitled: «Mining Activity in Eeyou Istchee Report for 2017».

The CMEB also took part in Québec’s delegation at the Prospectors and Developers Association of Canada’s conference in March 2018 in Toronto. This event remains the ideal occasion to establish business contacts and to attract investors in Eeyou Istchee.

During these mineral resources related events, many junior exploration companies active in Eeyou Istchee showed great interest in the CMEB exploration and technical training programs. These conferences were an excellent occasion to promote the mineral potential on traditional lands of Eeyou Istchee and also an opportunity to establish work links and collaboration with the industry.

The CMEB also intends to continue its advertising campaign in order to promote its programs in Cree communities by means of: Cree magazines (such as The Nation and Destination Air Creebec), various radio advertisements, as well as events which focus on sciences and careers in the Cree School Board establishments.

In order to promote interest in the mining industry in Eeyou Istchee, and inform mining companies, Cree tallymen and the public at large, the CMEB is continuing upgrading the CMEB website and a Geo-Touristic Map.

#### Media promotional activity

The CMEB is seen in wide-reaching promotional media. The MENR provides promotion and a very good visibility. Some of the communication materiel is prepared and distributed by the MENR. The CMEB website became operational on the Internet at the end of October 2005 and

its URL was sent to government agencies, mining companies and service suppliers. The CMEB plans to have its website hyperlinked to the government, the Cree Trappers Association and the Association de l'Exploration Minière du Québec website pages.

The CMEB is visible in the communities and all of Eeyou Istchee by publishing promotional information in Cree magazines and other publications (the Nation, Destination, Air Creebec, Indiana, The Prospector News, and in regional Abitibi and northern Quebec newspapers), through announcements on community radio and Eeyou TV, and at special events such as Cree science fairs and sports activities.

#### ***4.4 TRAINING AND JOB ASSISTANCE***

The Cree Mineral Exploration Board is studying a way to establish infrastructures for training in all Cree communities. The objective is to offer the same normalized provincial level training in all communities. Several training programs and requests have been conducted by the CMEB to prepare people for jobs in the mineral resources domain.

The CMEB believes that education in any field starts at an early age. The Earth sciences, including geology, mineral exploration and environmental studies, have to be included in our exploration and prospecting culture and in society in general. The CMEB participates by giving presentations in schools and at scientific activities in different communities. Furthermore, the CMEB participates in prospecting training offered by different Cree organizations in the communities. The CMEB geologists teach several courses in these training programs (general geology, environment, mineralogy and mineral exploration and prospecting techniques).

The CMEB is investigating various methods of improving its Training and Job Assistance program. To this end, the Board is examining ways of developing On-the-Job training in partnership with the Government of Quebec, universities and the industry. It is also considering ways of updating and promoting training programs developed by several Cree organizations and mining companies in Eeyou Istchee. Finally, it aims to work with the Cree Human Resources Development and the Cree School Board in training and job assistance in the mining industry. The Board has developed a professional level of training in mineral resources. The CMEB staff conducted an applied training course in the field which highlighted geology, mineral exploration and the environment. This program also has as objective to motivate the trainees to pursue studies in the mineral resources and the environment at the CÉGEP and university levels. The program includes geology, mineral prospecting and exploration, the environment and mapping. The trainees learn about rocks, minerals, and their chemical composition.

Most of the mineral prospecting and drilling trainees in the last four years were hired by exploration companies operating in Eeyou Istchee.

## **CREES HIRED TO WORK IN EXPLORATION**

Cree workers are involved in several projects in Eeyou Istchee. There are over 120 Cree workers hired in the mining industry, and other Cree workers are independent. The independent prospectors are trained and /or funded by the CMEB and prospectors are hired by mining industry via the CMEB.

### **Training of CMEB Staff**

Ms. Josephine Natawapineskum, the CMEB head office secretary in Wemindji, has been trained on SIGEOM and other computer graphics programs and continues gaining proficiency in using computer mapping programs such as Microstation and ArcGIS. The Chief Geologist Mr. Youcef Larbi took courses in mineral resources. The courses are related to conferences and congresses. Ms. Marlene MacKinnon, the Mistissini Office geologist, took the James Bay Advisory Committee on the Environment workshop training on acquisition and dissemination of environmental and social knowledge on the Eeyou Istchee James Bay territory.

## ***4.5 CMEB TRAINING - PROSPECTING AND MAPPING - 2017***

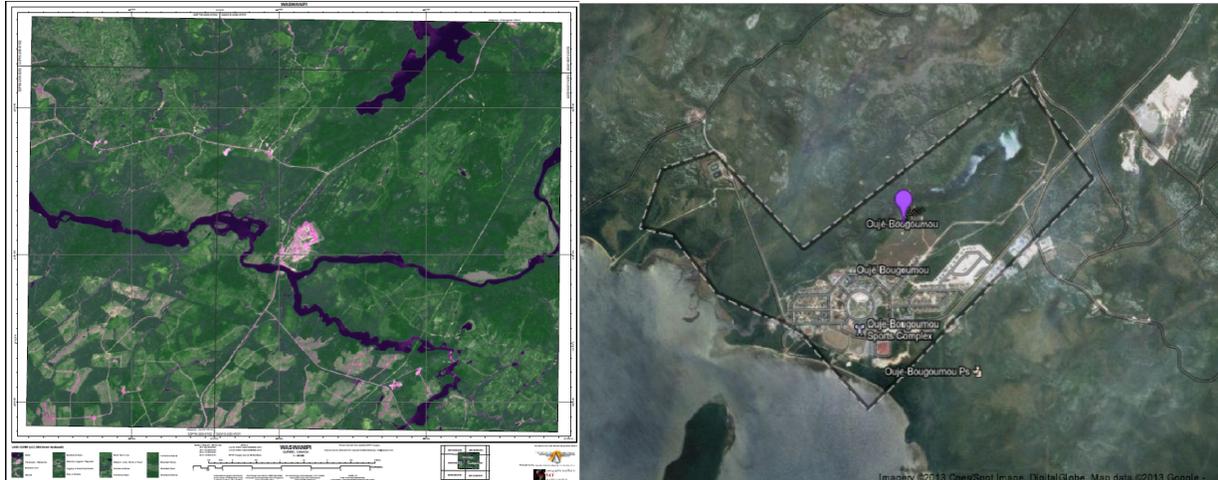
### **4.5.1 Ouje-Bougoumou and Waswanipi Training 2017**

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#### **PROSPECTING UPGRADING COURSE**

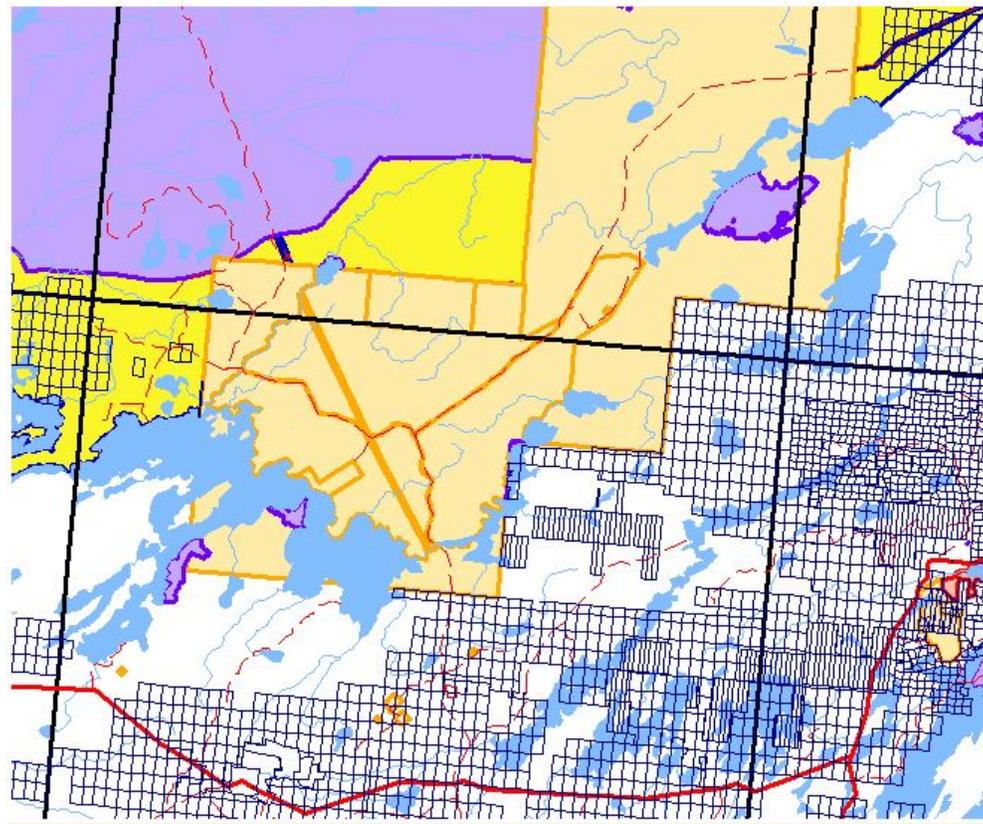
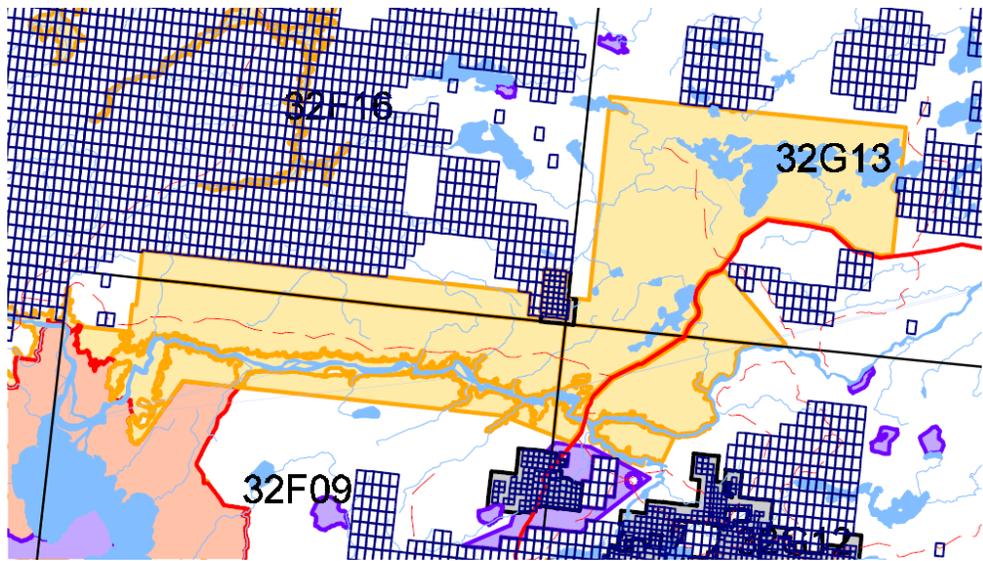
### **Introduction**

The Cree Mineral Exploration Board prospecting course program is for new mineral resources trainees and for people who want to upgrade their knowledge in the mineral exploration.



We prepared training projects with groups of about 10 youth Crees for mineral exploration & mapping knowledge, in the community of Cree Nation of Waswanipi and the community of Cree Nation of Ouje-Bougoumou to explore part of the map SNRC (32G13-12 & 32F09-16) and the map SNRC (32G15). We mapped and prospected the area which is known to be crossed by Abitibi greenstone belts and a high level magnetism. All the Logistic is done by the Wemindji office.

The objectives of the field camps is to initiate the trainees to mineral resources of Eeyou Ist-chee and how to explore in a real-life scenario, and explore the area for new target where the student themselves can stake the area for future mineral prospecting. The trainees receive an assistant geologist kit: backpack, hand lens, compass, magnet, hammer, chisel and safety goggles...etc. All trainees with a positive working attitude will be offered job opportunities with mining companies and will be subscribe at the CEGEP of Chibougamau for a technic in Geology. They can also act as an independent technician offering their services as Specialist in mineral prospecting. All trainees will receive a prospector certificate which permit staking claims and working for companies.



## The topics

1- Rock and mineral identification; 2- Environment exploring strategy;  
3- Mapping techniques, 4- prospecting strategy, 5- Use of Geophysical survey;  
6- Orienteering with topographic maps; 7- planning of traverses; 8- Trenching of interesting outcrops; 9- Channel sampling; and 10- (rock, soil and stream) sampling.

Mineral resources training camp is for 2 weeks on the field, including 2 days in a classroom. Trucks and four-wheelers been used as the means of transportation the field targets.

## Trainees

### Waswanipi

Amanda Coon, Dale Moore, Joshua Ottereyes, Ronnie Trapper, Terry Ottereyes, Norman Grant and Judy Rose Trapper.

### Ouje-Bougoumou

Jayden Shecapio-Blacksmith, Redfern Allan St-Pierre Icebound, Darcy Ryan Bosum, Bendon Shecapio-Blacksmith, Joseph Mianscum, Brandon Bosum and George Mark.

## TRAINING SCHEDULE FOR EACH COMMUNITY

Events	Practice or Field exercise
The Group meets in Waswanipi 1 day	Icebreaking, communication and planning
1 day	Metallic and Non-metallic mineral identification Bitmap
1 day	Rock identification, Mineralization
First day field	Map, compass and navigation in forest;
1 day	Geology
1 day	Geophysics technics
1 weeks	Mapping, prospecting, data elaboration
student evaluation	Prospecting methods

### Post Training

1 day meeting to explore Gestim and Sigeom, and posting for funds.

### Regional Geology

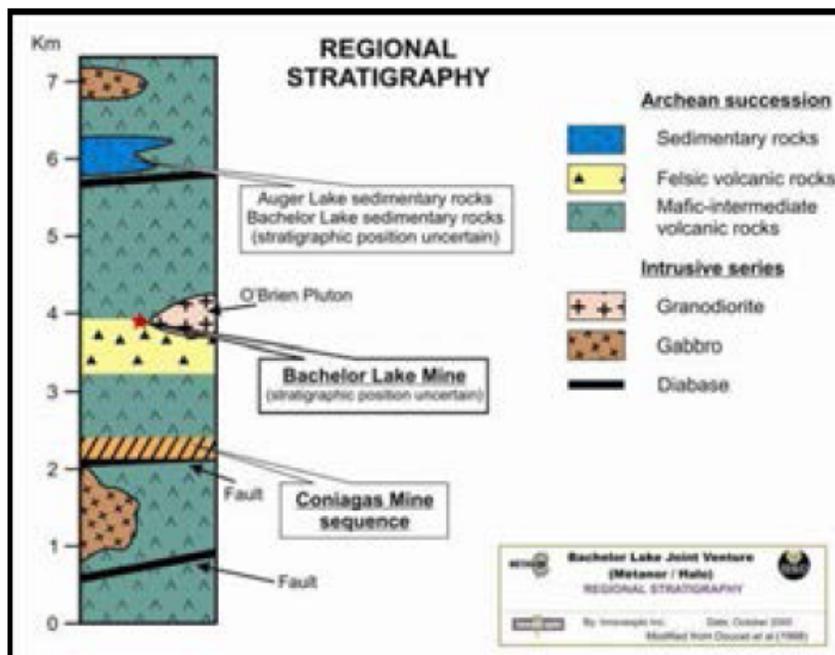
Waswanipi and Ouje-Bougoumou areas are located within the Northern Volcanic Zone (NVZ) of the Abitibi sub-province, Superior province (Chown et al., 1992). It is situated near the western limit of the Chibougamau-Chapais greenstone belt. The mafic to felsic volcanic and volcanoclastic rocks found are part of the basal mafic-dominated sequence referred to as the Volcanic Cycle I (Mueller et al., 1989). The Volcanic Cycle I formed between 2,730 and 2,720 MY (Mortensen, 1993), and is composed of massive, pillowed and brecciated, tholeiitic basalt flows with local felsic and sedimentary units. The Northern Volcanic Zone of the Abitibi sub-province is interpreted as a diffuse arc passing laterally into a back-arc environment with numerous felsic and mafic-felsic edifices (Chown et al., 1992) and intra-arc sedimentary basins (Mueller et al., 1996).

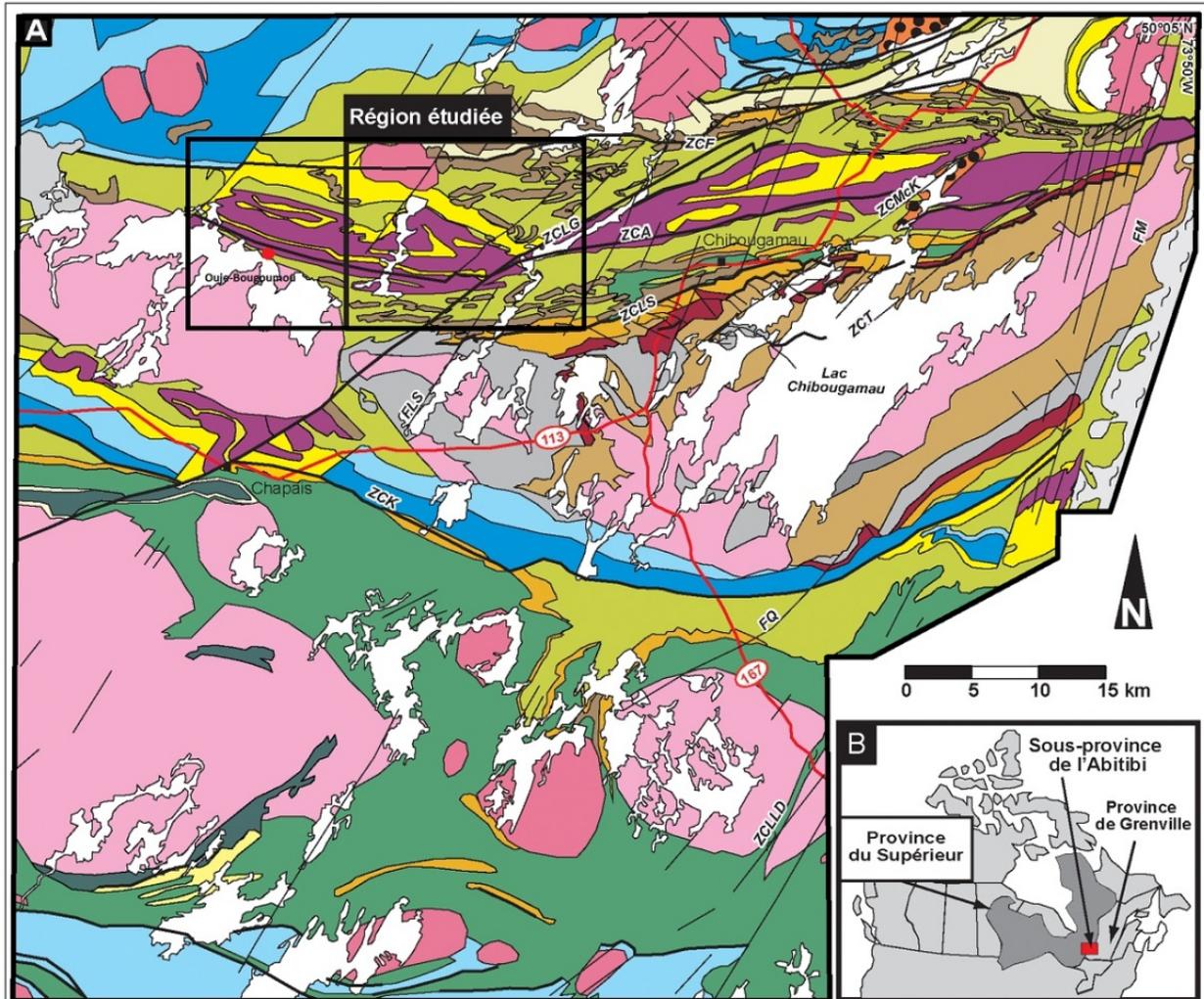
This part of Category one of Waswanipi lies along a local northeast trend which is deviated from the general east-west pattern of the Abitibi sub-province due to significant synvolcanic pluton emplacement and the influence of the major northeast-trending Wedding-Lamarck fault (Doucet et al., 1998). In this general trend we observe several mines such as Agnico-Eagle's Telbel Mine, Golden Hope's Estrades deposit and other deposits in Douay Township. Other deposits in this area include the Lac Shortt Gold Mine, the Joe Mann Gold Mine, the Zn-Pb-Ag massive sulphide Coniagas Mine and the Cu-Zn massive sulphide deposit of the Gonzague-Langlois Mine (Grevet).

### Geological knowledge

The portion of the Archean craton in these areas belongs to the Caopatina-Desmaraisville greenstone belt. It consists of a thick supracrustal sequence intersected by intrusive complexes to the north-eastern, north-western and southern areas. The idealized stratigraphic column is divided into two lithostratigraphic units from older to younger; the Obatogamau and the Ruisseau Dalime Formations (Larouche, 1994).

(Modified from Doucet *et al.*, 1998)





**LÉGENDE**

<b>ARCHÉEN</b>	Groupe de Roy	Premier cycle		Formation de Bordelieu (métasédiment volcanogène)	Proterozoïque		PROVINCE DE GRENVILLE
				Formation de Blondeau (métasédiment volcanogène, roche volcanoclastique felsique, rhyolite, basalte)			Formation de Chibougamau (conglomérat, grès, mudrock, dolomie)
		Second cycle		Formation de Gilman (roche volcanique mafique, roche volcanoclastique intermédiaire à felsique, gabbro)			Pluton syn- à post-tectonique
				Formation de Waconichi (roche volcanoclastique intermédiaire à felsique, rhyolite, intrusion felsique à quartz et feldspath)			Pluton synvolcanique
				Formation d'Obatogama (roche volcanique mafique, gabbro)			Filon-couche gabbroïque
				Formation de Chrissie / Membre des Vents			Complexe de de Cummings (filons-couches mafiques à ultramafiques)
				Roche volcanique felsique			Complexe du lac Doré
				Roche volcanique mafique			Zone granophyrique
				Roche volcanique mafique			Zone litée (pyroxénite, magnétite, gabbro)
				Roche volcanique mafique			Zone anorthositique
				Roche volcanique mafique			Zone pyroxénitique

**Zones de cisaillement :** ZCF, Faribault; ZCG, Gwillim; ZCLA, lac Antoinette; ZCLS, lac Sauvage; ZCMcK, McKenzie; ZCT, Taché; ZCK, Kapunapotagen; ZCLD, La Dauversière. Failles : FLS, lac Scott; FM, Mistassini.

The supracrustal rocks are mainly mafic tholeiitic metavolcanic rocks of the Obatogamau Formation. This formation formed in a succession of volcanic episodes comprising massive and pillow basalts and brecciated lavas that are often plagioclase phenocrysts-bearing (Cloutier, 1996). The Ruisseau Dalime Formation is composed of turbidites and conglomerates, felsic to intermediate volcanics both pyroclastic and sedimentary, and iron formations (Cloutier, 1996). Several Archean and Proterozoic plutons intrude the volcano-sedimentary rocks. The Archean intrusions are mainly granitoid, the late ones, Boyvinet and Lac Bachelor plutons for example, are syenitic (Cloutier, 1996). The anorthosite complex of the Opawica River and the gabbroic complex of the Chutes de l'Esturgeon are among the minor Archean intrusions. The latter has a thickness of at least 1350 m and comprises differentiated stratiform intrusions including pyroxenite or peridotite at the base that gradually grade into quartz gabbro towards the top of the sequence (Lamothe, 1983). The Proterozoic intrusions are basically trending East-north-east, West-south-west trending gabbro-diorite dykes (Cloutier, 1996). In addition, four carbonatite intrusions have been identified in the Desmaraisville area (Moorhead, 2003).

The Archean rocks of the Abitibi Sub-Province were affected by the Kenorean orogeny between 2660 and 2680 Ma (Thorpe et al., 1984). During this orogeny, the rocks within the study area were folded and metamorphosed to regional greenschists facies and to hornfels facies at the contact aureole with the plutons. Many faults oriented North-east and South-west formed as a result of the regional deformation (Sharma et Lamothe, 1982; Sharma et Lamothe, 1981).

### **Local Geology**

Waswanipi as well as Ouje-Bougoumou is underlain by Archean volcanic rocks of the Obatogamau Formation in a poorly known and poorly explored area of the Abitibi greenstone belt (Doucet et al., 1998). The Obatogamau Formation includes mafic, intermediate and felsic flows and synvolcanic intrusive equivalents which are the host for the volcanogenic massive sulphide occurrences (e.g. Coniagas). A local composite stratigraphic section shows a typical complex volcano-sedimentary assemblage.

The mapped Category One of Waswanipi shows a large type of rocks variations. This is dominated by the mafic volcanic rocks intruded generally with pink Granite and pegmatite as an intrusion or dykes or veins.

### **Mineralisation**

- The area of Waswanipi mineralisation is known, because it is included in Abitibi metal rich greenstone belt. It's a great opportunity to study some examples of mineral de-

posits. A lot of target and mines are defined in this area specifically in the greenstone belt of Abitibi. The mineralisation is usually found in the mafic volcanic and sedimentary rocks and consists of (Au, Ag and Cu). It is also an interesting area to find Rare Earth Elements and Rare Metals (Li, Nb, Be, W...) in Pegmatite and differentiated Granite.

-

### Performed Work

The course begins class where we prepared the field work. Geological and geophysical data have been compiled and interpreted. The compilation and documentation consultation are used in order to prepare prospecting work on a project. The resulted maps show several targets to explore.





The area prospected is the basic field work material of the team. All the targets are defined basing on the geological data known and the geophysical data interpretation. For those reasons several prospecting technique are used to determine the eventual targets.

The trainees learn how to identify minerals by their physical properties; recognize the related mineralization. They also learn about geological features in the field and how to collect samples for essays.

The student used the GPS, compass and map to locate the samples and themselves in the bush. They also practice the method for sample without contamination and see how chipping rock sample for assaying.



Finally, it was very important for the trainees to know how mining titles are taking and how to carry out basic line-grid, which is done and some applications were done.

The team proceeds to several traverses on the target. Each traverse is done by a team of two trainees at least where mineralization sampling and geological data are completed with the objective to characterize the area in geologic and economic terms.

The base camp is located close to Chapais town. The teams travel to the field each morning 6/7 days from town using the CMEB Pickup, four wheelers and on walk.

### **Geophysics Techniques**

We invited an experimented Cree prospector who took a day to teach us and apply geophysical technique on our field subject. This prospector is Mr. Sam Bosum. Geophysical prospecting methods are based on the study of physical fields (gravitational, magnetic, electrical, thermal elastic vibration, radiation, and nuclear radiation). Measurements of the parameters of these fields are made on the surface of the earth (land and water), in the air, and underground (in wells and shafts). The information obtained is used to determine the location of geological structures, ore bodies, and so forth and their fundamental characteristics. This allows the selection of the most proper guidelines for expensive drilling and mining operations, this increasing their efficiency.



Geophysical prospecting methods utilize both natural and artificially created physical fields. The resolution, that is, the ability to distinguish specifically the sought-for features of the environment, is significantly higher, as a rule, for artificial field methods. The facilities for research by natural field methods are relatively inexpensive and transportable and yield uniform, readily comparable results for vast territories. In view of this, geophysical prospecting methods utilize natural fields (for example, in magnetic prospecting) primarily in the reconnaissance stage and artificial physical fields mainly for more detailed work, such as seismic surveying. A series of geophysical prospecting methods is employed in most cases, because each physical field provides specific characteristics for only one aspect of the geological objective. (For example, magnetic prospecting yields data only on the magnetic properties of rock.)

All geophysical prospecting methods are based on the use of physic-mathematical principles for the development of theory; high-precision instruments with electronic, radio-engineering, precision-mechanical, and optical components for field measurements; and elements of computer technology, including modern electronic computers, for processing the results.

With Mr. Bosum we worked on Geophysical prospecting methods. They are undergoing rapid development and successfully solving the problems of mineral prospecting, exploration, and

surveying, particularly in regions covered with layers of soft sediments, at great depths, and under the floors of seas and oceans.

### **Instrumental geophysical survey techniques for prospector**

Beep Mat, Proton Precession Magnetometers, Signal Resistivity Meters, Resistivity Meters, DDR 3 Resistivity Meters.

### **Prospectors First Aid training**

The trainees received First Aid training adapted to prospectors in 3 days program:

- First Aid training in isolated regions.
- Resuscitation Training Cardio Respiratory.
- Practicing on mannequins.
- Practicing scenarios that could happen in the field.

This training helps the first responder to be more reactive and prepared to manage a victim of cardiac problems, anaphylactic shock, traumatic injuries and general first aid needs. At the end of this course, participants should be able to:

- Initiate an emergency response;
- Perform CPR on adults, child and baby;
- Use an automated external defibrillator (AED);
- Provide basic first aid;
- Secure a victim on a backboard.

### **Conclusion and recommendations**

The trainees acquired the basic knowledge to work for mining and exploration companies. Regarding the intensive exploration activity in Eeyou Istchee, all these trainees are going to have opportunities to work for exploration or environmental companies. Please note that the trainees were 15 girls and boys which increase the budget for this year training program.

The geological and mineralization data are presented below and will be compiled for interpretation. The studied area is very well known in terms of economic geology. It's still of course many ores to be discovered. The location of Waswanipi Category 1 area is certainly one of the most interesting fields for exploration for new target.

#### 4.5.2 2017 MISTISSINI PROSPECTING COURSE

##### PURPOSE OF THE PROJECT

This project has as objective the training of Cree youth in prospecting techniques and categorizing outcrops on Mistissini Category 1 Land.

##### LAND STATUS, LOCATION AND ACCESS

The 2017 MISTISSINI PROSPECTING COURSE lies entirely in Mistissini Category 1 Lands. The project lies within in Category 1 Land now accessible from the village of Mistissini via a new bridge completed early July 2014. The project area was accessed on foot. Vehicles were used for field trips to the Icon Mine site, the Mistissini Fault site and the Perch River Copper site.

NTS: 32I/05 COORDINATES: Longitude: 73° 53' 01"W; Latitude: 50° 25' 22"N  
Zone 18U: Easting 579279; Northing 5586058

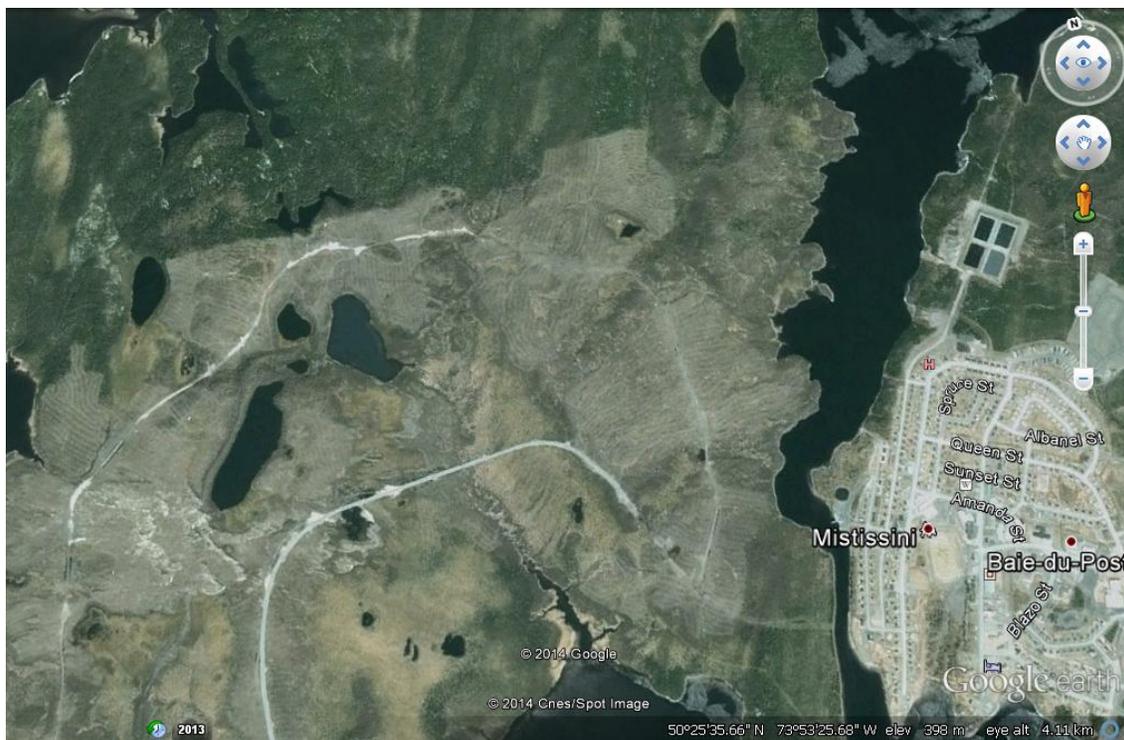


FIG. 1: Location of project area: forestry roads west of the village.

## **PROJECT OBJECTIVES**

The 2017 MISTISSINI PROSPECTING COURSE will:

- Train ten Cree youths (the trainees, students) in prospecting glacial terrain;
- Train the students in prospecting techniques;
- Identify, locate and map boulders and outcrops.

## **THE TRAINEES**

Ten Cree youths participated in the training.



**PHOTO 1: Trainees prospecting for kimberlite indicator minerals.**

## **DURATION**

The duration of the course was 4 weeks. It started July 4, 2017 and ended July 28, 2017.

## **TRAINING OBJECTIVES**

At the end of the course, the students were able to:

- Read a map;
- Learn the basics of mineral prospecting techniques (geophysics, line cutting, sampling)
- Plot information on a map;
- Navigate with a GPS and a compass;
- Precisely locate features (waypoints) with a GPS;
- Learn the basics of Quaternary geology
- Recognize geomorphological features in the field;
- Identify geological features in the field;
- Identify rocks and minerals;
- Identify mineralization in the field;
- Sample soil, outcrops and boulders.

## **COURSE OUTLINE AND SCHEDULE**

### **COURSE CONTENT**

#### **Introduction**

*Understand the work of prospecting, its challenges, its difficulties, its risks and its purposes.*

- Geology, what is it? Importance of prospecting, role of the prospectors and their working methods

#### **General geology**

*Understand the Earth, its form and composition.*

- Earth history
- Earth composition

#### **Minerals identification**

*Identify the main minerals encountered in the province of Quebec.*

- Metallic-minerals identification
- Non-metallic minerals identification

#### **Rock identification**

*Know the three main types of rocks and be able to recognize them in the field and differentiating between boulders and the outcrops.*

- Metamorphic rocks
- Sedimentary rocks
- Igneous rocks

### **Rock textures and Structure**

*Know common forms, arrangements and internal structures of rocks.*

- Faults, folds
- Veins, dykes, sills
- Pegmatitic, aplitic textures

### **Geology**

*Be aware of the geology of Quebec and Eeyou Istchee from the point of view of geological provinces, stratigraphic units, structural features and surface forms.*

- General geology
- James Bay geology

### **Mineralization**

*Know the different mineralization types and processes: To be able to choose a prospecting site and to point out interesting prospecting target by knowing which type of mineralization to encounter.*

- Mineralization identification
- Mineralization type

### **Map and compass**

*Use topographic maps, a compass and a GPS in the field.*

- Topographical maps
- Air photos
- Compass
- Using topographic map and compass
- Using Global positioning system (GPS)

## Prospecting techniques

*Know various prospecting methods including direct and indirect prospecting methods and carry out documentation consultation and prospecting target evaluation.*

- Basic methods for prospecting  
Geophysics, Line cutting and Sampling (rocks, soil and stream sediment)
- Mapping of showings
- Identification of outcrops
- Boulder tracing

## COURSE OUTLINE AND SCHEDULE

### Week 1: In class and field theory and practical

- Identification of rocks and minerals
- Identifying outcrops, erratic boulders and mineralization
- Regional and local geology: Historical and Quaternary
- Geomorphology and landforms

### Week 2 - 4: Field theory and practical

- Map reading and plotting
- Using the GPS and compass
- Plotting information on a map and entering waypoints in a GPS
- Identifying geological and geomorphological features in the field
- Line cutting and geophysics
- Sampling for assays

## STUDENT EVALUATION

➤ Minerals	: 20%
➤ Rocks	: 20%
➤ Basic geology	: 20%
➤ Map and compass use	: 20%
➤ Prospecting	: <u>20%</u>
	100%

All fifteen students completed the course.

## **GEOLOGY OF THE PROJECT AREA**

The 2017 training Project area is located on the Mistassini Sedimentary Basin in the Duquet Township. The southern part of the Basin is approximately 70 km northeast of the town of Chibougamau and includes the former Icon Copper Mine and the Perch River copper deposit. The Icon Mine was economically mined from 1967 to 1975 and produced a total of 2,346,337 tons, grading 3.07 % Cu. The Perch River copper deposit contains 50,000 tons, grading 2.51 % Cu (Troop and Darcy, 1973).

The important mineralization in the Mistassini Basin is directly related to folding, fault movements and brecciation adjacent to the Grenville Front. As a result of applying this hypothesis and using it as an exploration tool, the discovery of the stratigraphically higher Perch River copper deposit was made (Flanagan, 1975).

Aphebian (1.6-2.4 Ga) sedimentary rocks lie unconformably on the deformed Archean basement in the Chibougamau area and for several hundred kilometres northeast along the Grenville Front. These rocks include a wide variety of lithologies, which in turn enclose a number of syngenetic and epigenetic mineral showings and deposits (Chown, 1984).

## **REGIONAL GEOLOGY**

On a regional scale, three distinct rock assemblages are present in the Mistassini Lake area. From west to east, these assemblages consist of the Superior Structural Province rock assemblages, the Mistassini Group of sedimentary rocks and the Grenville Structural Province rock assemblage. These are overlain by Quaternary glacial deposits.

The Mistassini Sedimentary Basin is entirely located within a sequence of Proterozoic sedimentary rocks known as the Mistassini Group which rest unconformably on the Archean Superior Province basement and are separated from the Grenville rocks to the east by the Mistassini Fault.

## **ARCHEAN ROCKS**

The lithologic units of the Superior Province in the Mistassini Lake area consist of syenite and monzonite, grey and pink granites and diorites, biotite gneiss and migmatite, amphibolite and felsic metavolcanics, these rocks are Early Proterozoic (Archean) in age and were subjected to periods of deformation and intrusion followed by long periods of erosion.

The Waconichi Formation, the lowest unit within the Roy Group, underlies the area between the Waconichi and Mistassini faults. These rocks are dark green amphibolites derived from pillowed basalts, basaltic flows and felsic pyroclastic rocks. Metamorphic grade of the amphibolite increases towards the Mistassini Fault. A few small bodies of metagabbro are found wi-

thin the Waconichi Formation (DiLabio, 1981). A large area north of Waconichi Lake and west of Mistassini Lake is underlain by quartzofeldspathic granitic gneiss with biotite, hornblende and garnet as the dominant accessory minerals. These rocks are thought to have been last metamorphosed during the Kenoran Orogeny (2550 Ma), (DiLabio, 1981).

According to DiLabio (1981), most of the metamorphic rocks of the Grenville Province present in this area are lithologically indistinguishable from the gneissic rocks of the Superior Province. The metamorphic rocks of the Grenville Province strike north-northeast. The metavolcanic rocks and gneisses of the Superior Province generally strike east-northeast.

### *Basal Regolith*

A discontinuous regolith separates the sedimentary rocks of the Mistassini Group from the underlying Archean rocks. The regolith consists of pebble-sized fragments of angular, exfoliated in situ weathered gneiss cemented by dolomite and silica (Chown and Caty, 1983). This rock unit was located, sampled and assayed in the 2009-2010 prospecting courses.

The surface of the Superior granites and gneisses were deeply weathered throughout long periods of erosion. The loosened blocks of the bedrock were subjected to intense alteration during which feldspars were altered to masses of clay minerals (notably illite and kaolinite) and dark mafic minerals were likewise almost totally altered. Later, dolomite was precipitated in a shallow sea setting and infiltrated into fractures and fissures and forming the matrix to the regolith. Lithification of the isolated blocks and the interstitial cementing material gives an appearance of a basal conglomerate but it is actually a unit formed in place from the disintegration of the uppermost bedrock - or a "basal regolith" (Chown and Caty, 1983). Subsequent deposition formed bedded layers above the basement contact and regolith.

The regolith is found nearly everywhere at the interface of the Archean rocks and the overlying dolomites. Its thickness is variable but in places it has been observed to be as much as 30 metres (Chown and Caty, 1983).

## PROTEROZOIC ROCKS

### *Chibougamau Formation*

The clastic rocks of the Chibougamau Formation unconformably overlie the Archean rocks around the eastern shores of Waconichi Lake. This formation is dominated by arkoses and conglomerates. The arkoses are intercalated with laminated slaty argillites with dropstones in the lower portion of the succession. These rocks were then metamorphosed to lower greenschist facies in the Early Archean.

Because no dolomite clasts have been found in the Chibougamau Formation around Lac Waconichi, this formation is believed to be older than the adjacent Mistassini Group (DiLabio, 1981).

The rocks of the Chibougamau Formation form an asymmetric, canoe-shaped synform on the northwest side of the Waconichi Fault (DiLabio, 1981).

### *Mistassini Group*

The Mistassini Group of sedimentary rocks occupies an area 160 km long and 30 to 40 km wide within which lie lakes Mistassini and Albanel. The rocks are carbonate dominated and marine in origin. The dolomites and other sedimentary rocks form an elliptically shaped, northeast elongated gently-dipping basin, lying on older basement rocks of generally granitic composition. There has been little deformation of the strata since they were deposited 2.2 Ga ago, except along the eastern margin of the basin. Here, the Mistassini beds are in faulted contact with gneisses of the Grenville Province, and have been subjected to varying degrees of folding and faulting as a result of movements associated with the Grenville Front (Flanagan, 1975). The original size of the basin is believed to have been much greater, with a northeast trending shoreline. Kourassi (1978) suggests the basin deepened toward the southeast.

The Mistassini Group of rocks were deposited approximately 2.2 Ga ago under predominantly shallow water marine conditions. This group consists mainly of arenaceous dolomites, black shales and minor iron formations. The total thickness of the sedimentary column has been estimated at 1650 to 2000 metres (Flanagan, 1975).

The stratigraphy of the Mistassini Group was first described by Bergeron (1957). Since then, modifications and detailed descriptions have been provided by Deland and Sater (1967) and Chown and Caty (1973). The group consists of a thick sequence of five formations. These are, from base to top: Papaskwasati, Cheno, Lower Albanel, Upper Albanel and Temiscamie formations (Table 1).

The sequence of shallow to deeper marine carbonates and shales are overlain by clastic shales and quartzites and iron formations suggesting periodic transgression and regression of the sea in the area.

As described by Chown and Caty (1973), the Papaskwasati Formation is a basal clastic unit up to 490 m thick, found only around the northeast end of Lac Mistassini. The dominant rock types are pale green to greyish white arkose, subarkose and conglomeratic arkose. The Cheno Formation is also restricted to the northeast end of Mistassini Lake. Its lower member consists of sandstone similar to that of the Papaskwasati Formation, but with a dark grey to black matrix caused by fine sericite, chlorite, iron oxides and graphite. The upper member consists of black sandy dolomite and black sandstone.

Chown and Caty (1973) subdivided the Lower Albanel Formation into six members which can be traced along the length of the Mistassini Basin.

- Member A is the lowest member of the Lower Albanel Formation and is a thin (25 to 50 m) grey arenaceous dolomite containing a stromatolite mat at the base and discontinuous reefs and fragments of stromatolites at higher levels. Intraformational breccias are also present.
- Member B is a laminated argillaceous grey dolomite intercalated with five graphitic argillite beds (shale horizons) numbered from the lowest as G-1 to G-5. The G-1 shale horizon hosts the Icon copper deposit and the G-5 horizon contains the Perch River copper deposit. The G-5 horizon is from 25 to 30 metres thick while the four lower horizons are from 1 to 5 metres thick. These five shale horizons contain abundant laminations and nodules of syngenetic pyrite and marcasite.
- Member C is a thick (200 to 300 metres) grey laminated argillaceous dolomite. The lower limit of this unit contains some thin graphitic beds and represents a change in depositional environment. The upper limit is characterized by more massive intraformational breccia incorporating blocks of Member D cherty and brecciated dolomite.
- Member D (70 to 130 metres thick) is made up of grey dolomite with collapse and slump breccias. This Member is characterized by intraformational breccias and black chert lenses. Two types of brecciation have been recognized. One type consists of brecciated zones up to 30 metres thick which appears to be a collapse breccia possibly caused by solution in an above-ground environment. The second type of brecciation involves distinct beds of dolomite with small blocks scattered through a thickness of only 1 to 2 metres. This type appears to be indicative of slumping on a sloping surface that underwent gravity-induced movement due to structural disturbance. The uppermost beds in this unit are characterized by thin seams of black chert interstratified with grey dolomite and thicker beds and veinlets of chert. Mineralization consists of coarse grained galena, sphalerite and carbonate between interclasts and in fractures in the breccia. The black hydrocarbon pyrobitumen is found as globules or as a film along bedding planes.
- Member E is characterized by rusty-weathering laminated grey dolomites and is from 90 to 130 metres thick.

- Member F (50 to 150 metres thick) changes from grey argillaceous laminated dolomite at the base to pink-weathering white massive dolomite at the top and in this way is transitional between the Lower and Upper Albanel formations.

The rocks of the Upper Albanel Formation are mainly pink and buff hard and dense massive dolomites. These rocks cap a prominent cuesta between Lac Albanel and Lac Mistassini (DiLabio, 1981).

The uppermost unit of the Mistassini Group is the Temiscamie Formation, which extends for 50 km along the east side of Lac Albanel. It overlies the Upper Albanel Formation disconformably and has been divided into three members: a lower unit comprising 10 metres of basal quartzite overlain by 15 metres of black ferruginous slate, a middle iron formation unit 200 metres thick, and an upper black slate member with chert and pyrite. The iron formation comprises mainly sideritic cherts with extensive beds rich in magnetite and some hematite (Flanagan, 1975).

The rocks of the Mistassini Group strike northeast and gently dip towards the southeast. Joints in the dolomitic outcrops are in conjugate sets and strike 010° and 090°. The joints are at right angles to the bedding planes. The attitude of the beds changes abruptly near the Mistassini Fault. The strike of the beds is still northeast, but the dip is now steeply north-westward. The rocks form a gently north-plunging syncline with a north-northeast striking axis (Deland and Sater, 1967).

### THE GRENVILLE FRONT

The Grenville Front is about 4000 km long, running from the Labrador coast southwest to Lake Huron, then continuing under later sedimentary cover at least as far as Mississippi. It separates medium- to high-grade metamorphic rocks of the Grenville Province from generally less metamorphosed pre-Grenville terrain. Radioactive age determinations suggest that the Grenville gneisses crystallized from 1.5 to 1.7 Ga ago and that a later, lower temperature thermal event affected the Grenville rocks about 950 Ma ago. Paleomagnetic data indicate that before 1.3 Ga ago the Grenville tectonic plate was located several thousand miles east-southeast of the pre-Grenville plate, and that the two became locked together about 1.1 Ga ago. According to Flanagan (1975), seismic and gravity studies indicate that the Grenville Front is a late strike-slip juncture that formed after thrusting in this area. This explains many observed features of the Grenville Front, including the lack of large linear belts of basic intrusives, the zones of cataclasis and mylonitization developed after the main metamorphic episode, and it also explains how generally older, sometimes unmetamorphosed rocks to the north have been brought into close contact with more highly metamorphosed Grenville terrain. It could also

explain how the border zone of re-metamorphosed pre-Grenville rocks south of the Front swing westward as if rotated clockwise (Flanagan, 1975).

Recent studies have subdivided the Grenville Orogeny into several zones with the Grenville Front being in the western frontal thrust of a major zone of easterly dipping, craton-directed thrusting that is situated along the western margin of the Grenville Orogeny. Seismic profiles (GLIMPCE and COCORP) indicate that the Grenville Front Tectonic Zone increased the thickness of the crust to more than 60 to 70 km by north-west directed thrusting around 1.0 Ga. The widespread thrusting in the orogeny can be expected to have given rise to a thickened crust, which responded by exhumation, erosion, and exposure of widespread mid-crustal gneisses and granulites (Windley, 1995).

The Mistassini Fault is an east-dipping thrust fault (DiLabio, 1981) that has been interpreted by Laurin, quoted in DiLabio (1981), as the position of the Grenville Front in this region. The Waconichi Fault is the north-eastward extension of the Gwillim Lake Fault. Many minor faults in the Mistassini Basin are parallel or en echelon to the Mistassini Fault.

#### METHODOLOGY

Theory was taught in class during the first week. Introduction to prospecting techniques were also taught in class and the practical aspects of the techniques were taught and practiced in the field. Students practiced the proper sampling protocol. Points of interest and/or sampled were marked as waypoints in Garmin hand-held GPS instruments. Samples for assay were bagged in plastic sample bags sealed with masking tape and labeled PC2016-##. Field data were recorded in notebooks.

GPS data were uploaded to the MapSource software on the CMEB computer.

#### PROJECT AREA GEOLOGY

The project area lies entirely in the Member D unit of the Lower Albabel Formation. Outcrops were grey, cherty and brecciated dolomite. Prospecting in the study area is relatively easy due to deforestation by fire in 2006. Outcrops and boulders are easier to locate.

Study of the rocks identifies the brecciation as resulting from slumping on a sloping surface that underwent a gravity-induced movement due to structural disturbance.

Overburden consists of humus, glacial moraine and sand. Vegetation is post fire regeneration of poplar, birch and alder with young spruce and fir.

## CONCLUSION AND RECOMMENDATIONS

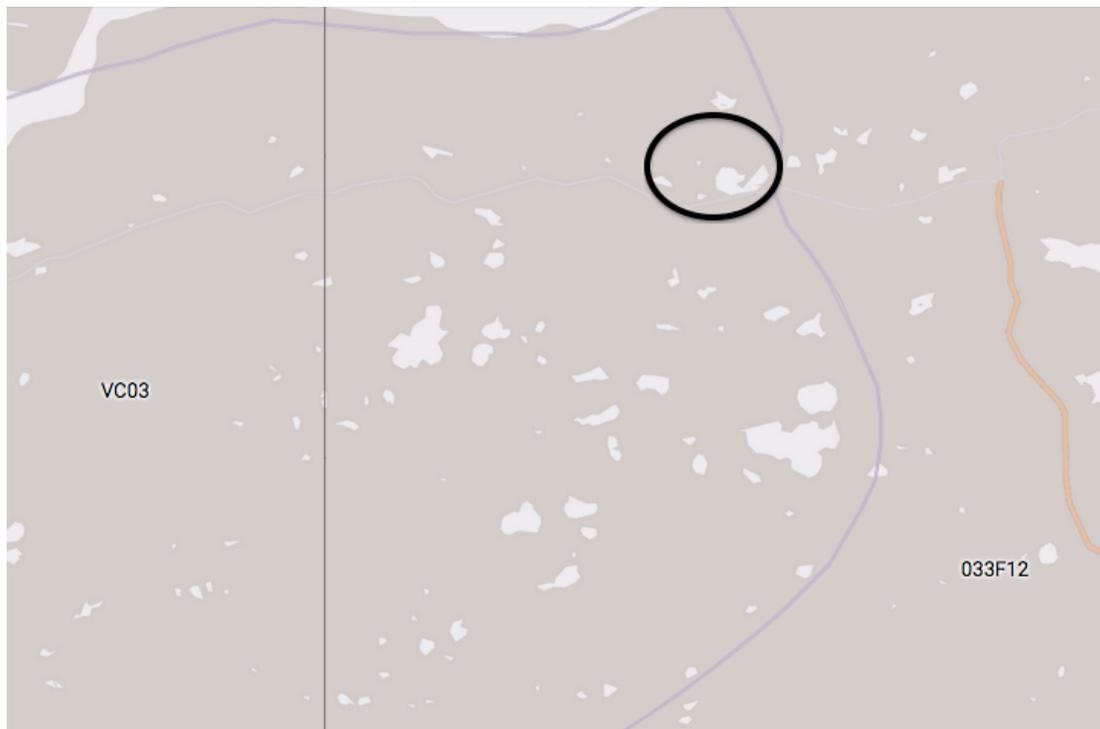
Locating sulphide mineralization increases our knowledge of the potential for mineralization in Mistissini Category 1 land. Due to the anomalous zinc, it is recommended that the 2018 prospecting course team continues the study of this area west and south towards the Copper Boulder project area (2009-2010)

## **PROSPECTORS PROJECTS**

The CMEB offered financial and technical support to a prospector on the following nine projects.

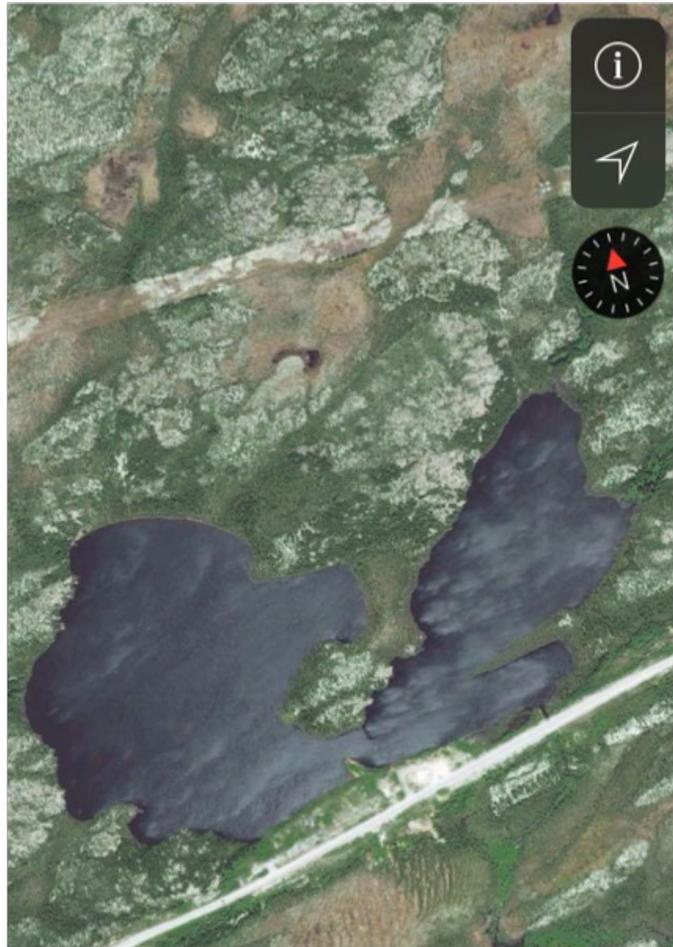
### **APIMICHISKUTASICH LAKE PROJECT 2017-08 Prospectors Dennis Moar**

#### Location



Location and Accessibility map

The project is located in Chisasibi Category 3 land, 60 km north of Radisson and about 100 km north of the LG2 reservoir. This area is accessible by car (4X4).

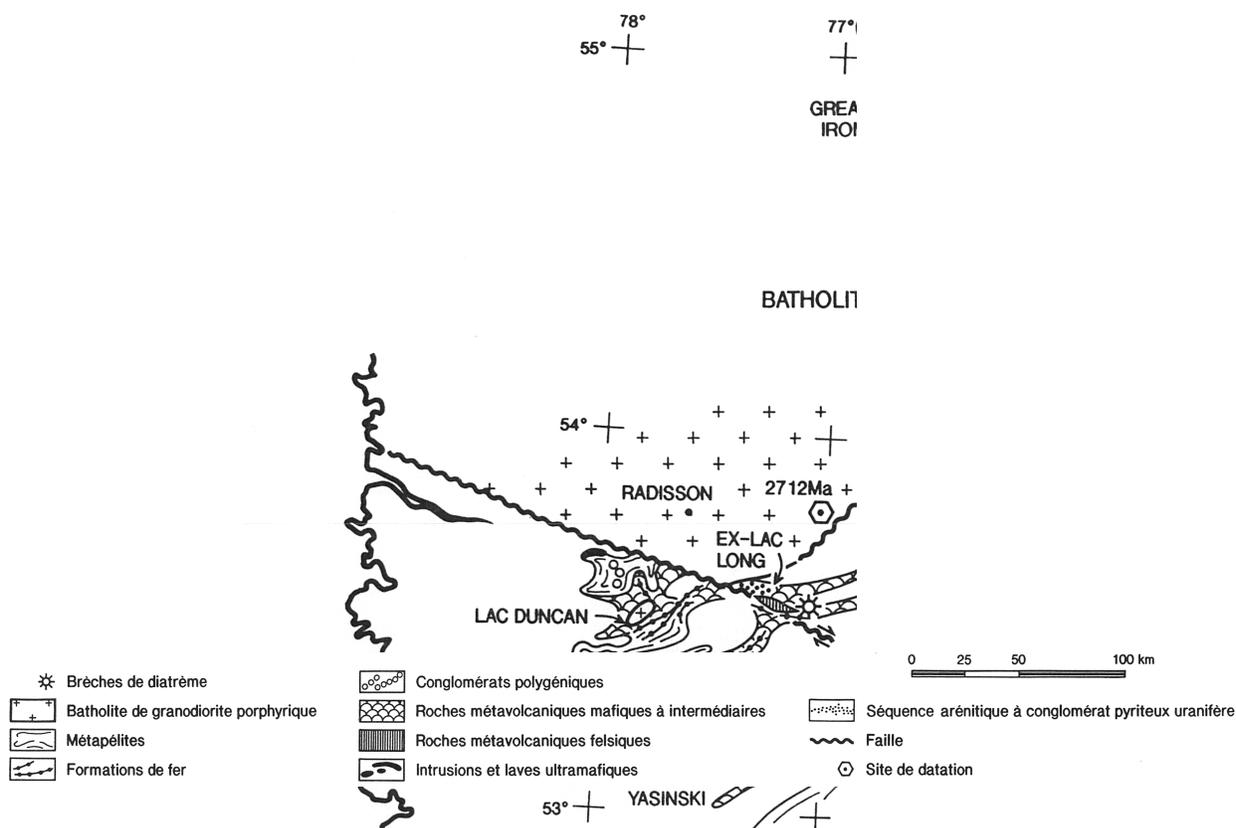


The area explored by Moar is located in 33F14, in the heart of the Bienville Domain which is part of the Minto sub-province. This domain intrudes both of the Minto and LaGrande sub-provinces.



base metal deposits, and REE-Rare metals. It is composed of Archean rocks belonging to the north part of the Superior Province. The latest is divided to four subprovince (Card and Ciesielski, 1986): From the south to the north LaGrande volcano-plutonic Subprovince, Bienville plutonic subprovince, the Ashuanipi gneissic subprovince and the Minto deformed plutonic Subprovince. These rocks have an age ranging between 2.7 Ga and 3.2 Ga.

**Local Geology**



Geological map of the prospected area

The bedrock is generally composed of Tonalite. In many places the Tonalite is covered by sedimentary rocks sequences, These latest have usually a great potential for gold

and basic metals deposits. On the top of the sedimentary rocks, some felsic and mafic volcanics has been mapped. These piles of sediments and volcanics are intruded by ultramafic plutonic rocks. The stratigraphy is well observed in the area of lake Guyer located between LG3 and LG4. The geological description of this area is well documented in Sharma, 1978.

This area has an amazing characteristic related to the conglomerate deposit in placer system. This model is excellent for gold and uranium deposit. It is also amazing to find on the field some rocks related to ultramafic rocks. All these lithologies are intruded by magnetic granodioritic and some time dioritic rocks. The area is within a corridor of faults and cracking system NW-SE and another system NE-SW (Skulski et al., 1984).

### ***Mineralization***

A quick view on the mineralization of the project area can be

1. Granites rare metals and REE rich
2. Stratiform Complex Cu, Ni, Au, Zn, Pd and Pt.
3. Conglomerate Placers Au, U.
4. Banded Iron Formation in Paragneiss and Diatexites

Granitoids are abundant in this area. some of them are very leucocyte and contain Rare Earth Elements and Rare metal like Li, Mo, F, Be.

Many gold targets as found in Menarik Lake area could be correlated to the prospected area even the conglomerate sequences of Apple. The Menarik complex shows also Ni Pd, Pt and Cu deposit related to the ultramafic rock, the same we find in the protected area. It is also known as found in Yasinsky area the existence of stratiform base metals deposits Cu-Zn-Pb and Au-Ag » the same deposit could be found in the prospected area because the latest is in the same deformation corridor as Yasinsky Lake.

SAMPLE	Ba	Co	Cr	Cu	Mn	Ni	Pb	Ti	V
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm
MOAR1	20	3	12	1	164	5	4	0,11	14
MOAR2	260	6	16	1	248	9	2	0,12	20
MOAR3	20	1	6	6	75	1	4	0,03	4
MOAR4	30	4	15	1	175	7	3	0,13	19
MOAR5	30	4	14	1	186	7	3	0,13	20
MOAR6	40	5	16	2	197	7	2	0,14	20
MOAR7	2430	4	13	1	183	7	2	0,09	18
MOAR8	3330	5	15	1	201	7	3	0,09	21
MOAR9	30		8	5	88	1	4	0,04	5
MOAR10	70	33	41	14	346	29	6	0,32	176
MOAR11	190	31	63	18	365	43		0,44	226
MOAR12	100	33	41	19	404	31	4	0,25	204
MOAR13	170	33	65	22	301	40	3	0,46	220
MOAR14	100	33	41	19	415	31	2	0,28	207
MOAR15	120	39	49	26	458	37	4	0,39	205

**APIMICHISKUTASICH LAKE** area is also not far from the Duncan Lake Iron Deposit. This huge Fe mineralization is considered as large volume which can be found in our project. The geology similar as the Duncan Lake one, suggest the presence of another deposit of Iron.

### ***Assays Result***

The assay is not conclusive. The data we had do not show any minerals potentiel. However, we can insiste on certains anomalies Such as Barium which usually related to Gold deposit, and

## **APIMICHISKUTASICH LAKE project daily report:**

Day 1 - Mobilization by vehicle 4X4 all the material been derived in.

Camp installation, preparing the work material and planning.

Day 2 & 3 & 4 & 5- Exploring and Sampling the Eastern part of the site.

ATV trip beepmat and sampling mineralization in granites

Day 6 & 7 - Exploring and Sampling the Western site.

Day 8 & 9- Going back to western site with the beep beepmat

Day 10 - Demobilization by plane all the material been derived out.

Day 1 - Logistic day including bring in equipment and set up the camp

Day 2 - Sampling: Moar-1 at 53 70,25 77 85,12 and Moar-2 at 53 70,24 77 85,08

Day 3 & 4 - Drove around with ATV's for visual investigation

Day 5- Sampling: Moar-3 at 53 69,96 77 85,25

Day 6 - Sampling: Moar-4 at 53 69,71 77 85,40

Day 7 & 8 - Drove with ATV's for visual investigation

Day 9 - Sampling: Moar-5 at 53 69,53 77 85,20, Moar-6 at 53 69,51 77 85,19 and Moar-7 at 53 69,50 77 85,11

Day 10 - Sampling: Moar-8 at 53 69,69 77 84,36 and Moar-9 at 53 69,72 77 84,27

Day 11 & 12 - Drove with ATV for investigation in the southern part of the lake

Day 13 - Samples on the north part of the lake

Moar-10 at 53 72,36 77 84,58, Moar-11 at 53 72,38 77 84,39 and Moar-12 at 53 72,50 77 84,45

Day 14 - Sampling: Moar-13 at 53 72,90 77 84,07, Moar-14 at 53 72,95 77 83,87 and Moar-15 at 53 72,93 77 83,68

## **Results and discussion**

On the field, it is very hard to find a little mineralization in such enormous volume of granitoids We observed few altered (Rust) within numerous veins of quartz. The lithology consists tonalite, some squeezed on basaltic, amphibolitic rocks. We reported intrusions of granites (sometimes pegmatitic) and centimetric vein of quartz.

The geology of the area suggests that the mineralization capacity is very high. The basaltic rocks can host Au and Cu deposits and the granite can contain REE and Rare metals as Lithium. These rocks have been sampled and sent to essays. The obtained data are very consistent with what we saw on the field. there is no interesting values in terms of mineralisation.

### **Conclusion & Recommendation**

**The Geology of the area seems very interesting to explore for base metals and gold but the project does not shows an economic potential.** The area is very little prospected for minerals. Because of the field data and the rocks quality, we believe that more has to be known and studied in this area before going back for prospecting.

We recommend to the prospector to prospect in different the area where there is more information and field data. We recommend to the board of CMEB to encourage Dennis he is a young prospector to continue developing his knowledge and his experience in the mineral prospecting by doing new projects in new area located in Eeyou Istchee.

### **Molly Project Larry Desgagné, AGR2017-02**

The prospected area is located 138 km north of Mistissini, in the both part of the NTS 32G10 surveys and studies were produced for the MERN since 1952, the data from this area shows geologically a lot of interests. The lithological assemblages and the local structure are promising. There is a large space for new discoveries.

### **Regional geology**

The Chibougamau property is located in the east part of Superior Province, which itself lies at the heart of the Canadian Shield. Superior Province extends from Manitoba to Quebec, and is mainly made up of Archean rocks. The general metamorphism is at

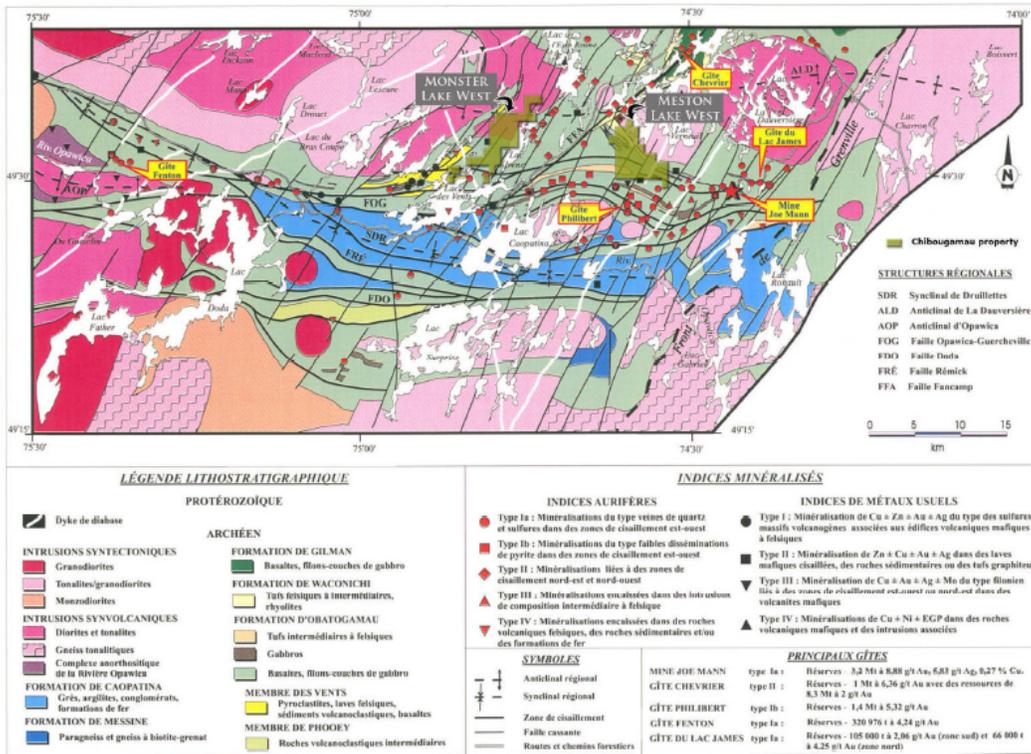


32610 Moly 2017  
X=FORNAGES

R16-2017813  
C22-2017813  
R17-2017815  
C22-2017815

the greenschist facies, except in the vicinity of intrusive bodies, where it can go to the amphibolite to granulite facies. In Quebec, the eastern extremity of Superior Province has been classified into the following sub-provinces, from south to north: Pontiac, Abitibi, Opatica, Nemiscau, Opinaca, La Grande, Ashuanipi, Bienville and Minto.

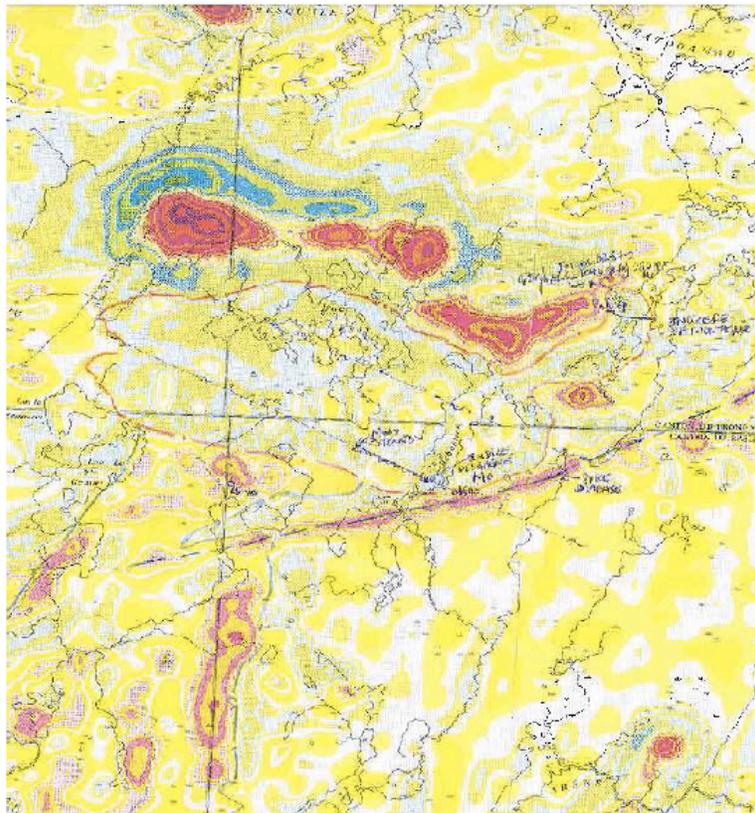
According to Card and Ciesielski (1986), the Claims of Moly Extension is located in the Abitibi sub-province. All the rocks of the region are part of the Superior Province and Archean in age, with the exception of the Proterozoic diabase dykes. The Caopatina



MAZORRO RESOURCES INC. GENIUS PROPERTIES LTD

**LOCAL GEOLOGY**  
Chibougamau Property

Sources: MM 99-33  
FIGURE 9



Segment is characterized by only one volcanosedimentary cycle. The Obatogamau Formation at the base of the stratigraphic sequence is interpreted as a vast submarine plain of tholeiitic basalt showing several mafic-felsic volcanic centres, represented by the Phooey and Des Vents members.

The best known, the Des Vents member, is made of five felsic units, alternating with basaltic lavas and witnessing the construction of a submarine edifice, its probable emergence and its destruction.

The Obatogamau Formation is covered by the sedimentary rocks of the Caopatina Formation, which form an elongated basin located at the heart of a large regional syncline (the Druillettes Syncline), bordered by E-W longitudinal faults.

The Muscocho Syncline in the NE part of the region represents the southern limit of the Chibougamau Segment and includes, from the base to the top, the Obatogamau, Waconichi and Gilman formations. At the western edge of the region, the Obatogamau Formation is intruded by the anorthositic Opawica River Complex. The volcanosedimentary pile is cut by felsic intrusives pre-to syntectonic in age and by NNE diabase dykes.

Regional metamorphism varies from the NW toward SE, going from greenschist to amphibolite facies. Metamorphism is also at the amphibolite facies at the boundary of syntectonic plutons and close to the Grenville Front.

The Caopatina Segment forms a large regional syncline, the Druillettes Syncline, limited to the north by the La Dauversière Anticline and to the south by the line of the Hébert Anticline. Rocks of the area have been subjected to a first deformation phase, which produced large N-S open folds without schistosity, followed by a main deformation phase associated with a N-S shortening responsible for the formation of a large regional folding of the main E-W schistosity, the regional metamorphism and the main longitudinal faults.

Four families of faults have been recognized in the area: the old longitudinal EW and SE faults, the NE faults that deform the regional schistosity and the NNE faults probably associated with the Grenville orogeny.

## **Local Geology**

The claims lie in the Obatogamau Formation 32G10. The lithology is dominated by intermediate to mafic volcanics and tuffs, intruded by gabbroic sills. This rock package is bounded to the NE by the Lac Verneuil intrusive a tonalitic to granodioritic intrusion.

There is also mafic to intermediate volcanics intruded by gabbro sills and with minor sediments locally graphitic.

## **Known Mineralization**

There is no well-defined mineralized zone with estimated resources on the property. However, weakly anomalous Cu values have been reported, along with gold values of more than 1 g/t, as follows:

-1.2 g/t over 1.0 m in a cherty tuff;

-1.26 g/t Au over 1.5 m and 1.31 g/t over 1.4 m in an altered gabbro just outside the property, close to the SE border.

The molydenite showing exhibits a shear zone which contains sericite, chlorite, muscovite, pyrite and molydenite of 1.0 to 2.5 metres wide. The zone surrounds a fine-grained, sugary whitish quartz showing concentrations of disseminated and stringers of millimetric grained size molydenite. Laboratory certificates indicate historical values from rock and saw samplings grading up to 7, 95 % Mo along a length of 30 cm. These data were done by Fieldex Exploration Inc.

## **Prospector Work**

### ***Daily Report***

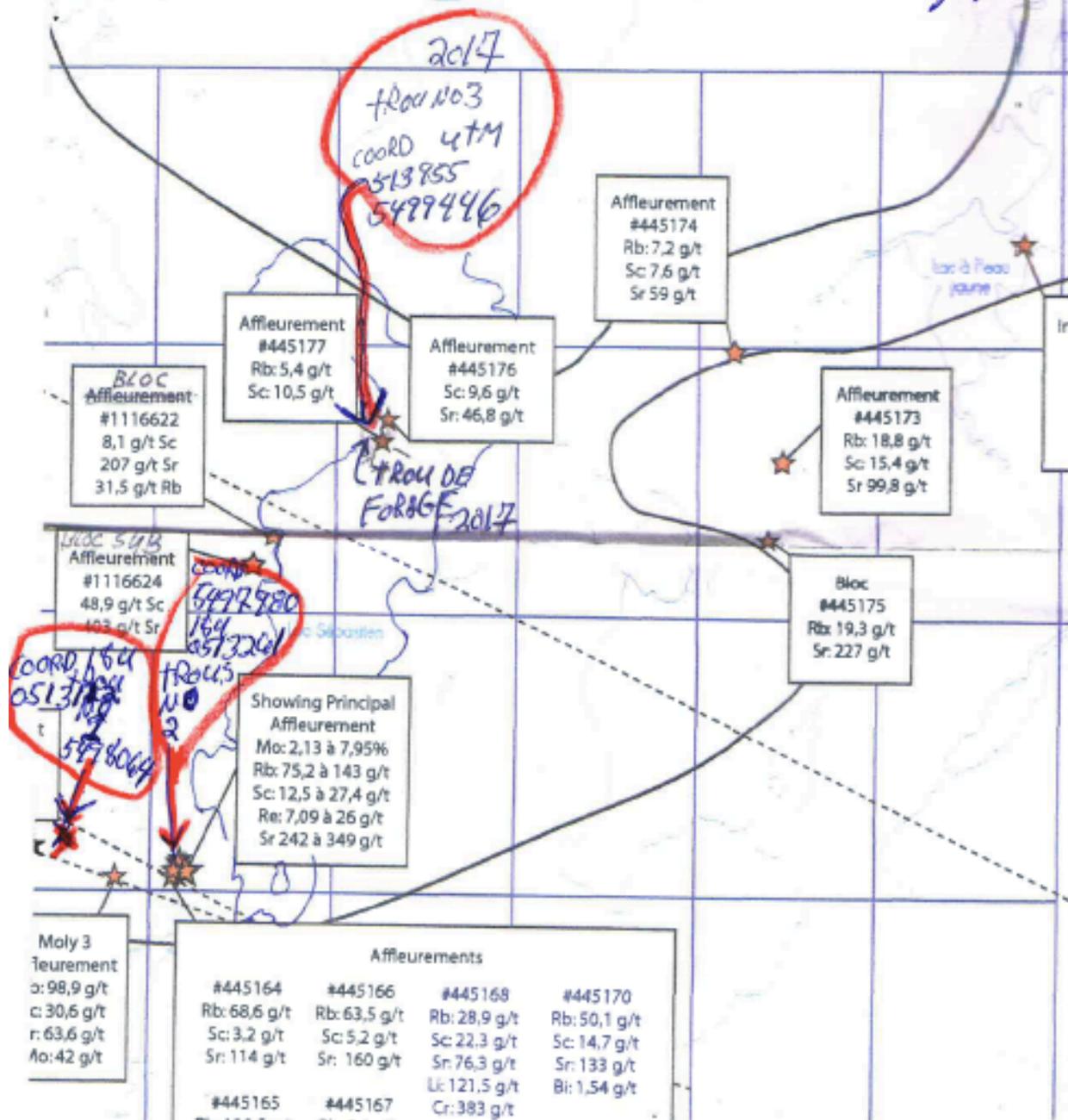
18 and 19 May 2017

2 days logistics and organisation with the drilling company SPECTRA, preparation of the exploration data file and permits from the forestry department. Hired the wood cutter Mister Desrosier to open the path for the machinery.

20 May 2017: 1 day Walked along the new path for prospecting and sampling.

# MOLY DRILLING PROJECT 2017

DE LARRY DESSAIGNÉ



21 May 2017: 1 day prospecting and sampling in the area to be drilled.

9 June 2017: Cutting and preparing the area to be drilled, take some information such as the GPS coordinates for the holes.

13 June 2017: Following the drill and opening the road by cutting other trees.

## Drilling

Numéro trou:		Moly-Hole 3 / 2017						
De	À				No échant.	De	À	m
		18,60-18,90 : Série de veinules de quartz centimétriques, feldspath K, Py (1%) diss. Cubique, 1 mm; 90 deg. Ac			S729243	18,60	18,90	0,30
		21,63-21,80 : Veine de feldspath K, plissé, 0-20 deg. AC, Py (Tr)			S729244	21,50	21,95	0,45
		25,23-25,29: Veinule de quartz, feldspath K, tourmaline; Py(tr)			S729245	25,15	25,35	0,30
					S729246	28,00	28,20	0,20
					S729247	28,20	28,40	0,20
		28,75-28,85: Veine de quartz, feldspath K; Py (tr)			S729248	28,70	29,20	0,50
		30,60-30,67: Présence de veinules de quartz, feldspath K			S729249	30,50	30,85	0,35
		31,85-31,95 : section fortement altérée en épidote (couleur vert pomme); Py (tr); Cpy (Trace)			S729250	31,80	32,20	0,40
					R145094	32,30	32,60	0,30
					R145098	33,70	34,30	0,60
					R145099	36,18	36,40	0,22
		38,60- 38,75: section fortement altérée en épidote (vert pomme); présence de veinules de quartz, Py (tr)			R145100	38,50	39,40	0,90
					R145100-C	41,70	42,00	0,30
		42,75-42,90: section fortement altérée en épidote (vert pomme); présence de fines veinules de quartz, Py (tr)			R145100-D	42,70	43,00	0,30
	45,00	Fin du trou						
		N. B. - Le sondage suggère qu'il est possiblement situé en périphérie d'un système porphyrique Cu-Mo (Au?) important, défini par la présence d'une altération potassique associée à un réseau de veinules-veines de quartz.						

Numéro trou:		Moly-Hole 3 / 2017				No échant.	De	A	m
De	à								
0,0	4,70	Mort-terrain							
4,70	45,00	<b>Diorite fracturée-cisaillée</b>							
		Gris vert foncé homogène							
		Occasionnellement légèrement magnétique							
		Grains fins, moins d'un mm							
		Py (Trace) , moins de 1 mm, disséminée							
		Sections fortement chortisées, avec occasionnellement séricite et épidote							
		Présence de fines fractures ("Hairline") hémalisées, avec cpy (tr) - 0-20 deg. AC							
		La roche est très fracturée et cisaillée par endroits rendant difficile l'observation des contacts. Certains sections ont une apparence microporphyrrique pouvant suggérer que des enclaves de laves mafiques peuvent être incluses dans l'unité dioritique.							
		On note la présence d'un rubanement-cisaillement de 0-25 deg. AC montrant clairement que le forage a été fait "down dip" par rapport à une zone de cisaillement possible.							
		Présence d'une série de veinules-veines de quartz blanc laiteux, feldspath K, Py (tr-2 %) moins d'un mm disséminé; 80-90 deg. Ac							
		6,90-6,92 : Veinule de quartz, feldspath K (altération potassique brun orange); Cpy (tr), Py (1-2 % diss. cubique)							
		Contacts à 80 deg. Ac							
		7,23-7,42 : Veine de quartz, feldspath K, Py (tr), 80 deg. AC				S729233	7,20	7,46	0,26
		7,66-7,86 : Section de couleur gris pâle, séricitisée; cisaillée 0 deg. AC; Veinules de quartz, 3-4 mm, 60 deg. Ac							
		8,84-8,85 : Veinule de quartz, feldspath K (couleur rose saumon), Py (5 %) - fins agrégats 3-4 mm				S729234	8,80	9,00	0,20
		9,74-9,77 : Veinule de quartz, Feldspath K, Py (3%) diss. Mo?: 90 deg. AC				S729235	9,80	9,94	0,34
		11,85-13,50: Série de veinules de quartz, Feldspath K, Py (Tr-1%) diss.				S729236	11,40	12,00	0,60
						S729237	12,00	12,75	0,75
						S729238	12,75	13,50	0,75
		14,70-14,80: Veinule de quartz blanc laiteux, Feldspath K; présence de Py (tr), contacts 85 deg. AC				S729239	14,70	15,34	0,64
		15,13-15,15; 15,19-15,24: Veinules de quartz rosé							
		15,87: veinule (1 mm), 70 deg. Ac; Cpy (2%)							
		16,01-16,05 : Veinule de quartz, feldspath K, Tourmaline?, Py (tr), 80 deg. AC				S729240	15,34	16,19	0,85
		16,20-16,76: section d'aspect microporphyrrique, Lave?: 0 deg. Ac-rubanement				S729242	16,49	16,79	0,30
		16,90: 17,20: Série de veinules centimétriques de quartz, feldspath K, Py (tr)-1mm; 90 deg. AC				S729241	16,90	17,20	0,30

## Assay

One sample has been analyzed to validate the know information on the Molybdenum concentration. Unfortunately, the new data did not bring any additional information.

## Metallogeny

SAMPLE	Ag	Ba	Ca	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Ni	P	S	Ti	V	Zn
	ppm	ppm	%	ppm	ppr	ppm	%	%	%	ppm	ppm	ppm	ppm	%	%	ppm	ppm
R145178	0,5	30	2,73	41	101	889	2,13	0,29	1,22	257	1	141	150	0,72	0,08	31	11

by Patrick Houle

Géologue résident MRNF Nord-du-Québec

At the request of Mr Larry Desgagné, Prospector of Chapais, I visited on 3 November 2009, prospecting and stripping of the main index Desgagné Mo (Nad 83- 513290 E, 5497972 N - NTS sheet 32 G / 10) that he has summer 2009. I visited the property again on May 14, 2010 to check spline sampling work on different outcrops. On the stripping of the main index, we note the presence of a strongly sheared (sericite schist, carbonate, chlorite, muscovite, pyrite and Mo), about 1-2.5 meters wide, oriented N115-120 ° E / 80 ° SW in an enclave of rocks mafic volcanics (basalt). We can notice along the shear, the presence of a quartz vein, 40 cm to 1 meter with disseminated Mo.





The prospector obtained values up to 7.95% Mo on 30 cm in groove in the central part of the shear and an average of 4.75% Mo over 1 meter. We see that molybdenum is filling in the interstices between fragments (porphyry breccia). On each side of the enriched portion, millimeter grains of finely disseminated Mo are observed. In the zone mineralized shear, we also note the presence of disseminated pyrite (3-5%) cubic, 2-3 mm, red-colored wine in weathered surface and chalcopyrite (trace), 1 mm. Also, anomalous values in silver, bismuth, tantalum, lithium, gallium, rhenium, scandium, strontium, thorium, zirconium, niobium and rubidium were obtained. Therefore, high values in rare metals were obtained on the main indices, confirmed by laboratory analysis. Finally, there are dykes rosy felsic, <30 cm, which cross the shear  $\pm$  perpendicularly.

On the main stripping, a few meters east of the shear, there is a quartz-tourmaline vein-veinlets stockwerk with chalcopyrite (trace) and pyrite (trace). This system

seems completely distinct from shear and could represent a gold potential to verify or be associated with a porphyry system Copperbelt. Also, dykes of pegmatitic appearance can be observed at rare elements in the same sense as shear.

In the northwestern extension of the main stripping, we observe the presence outcrops, called Moly Extension 1 and 2 (Nad 83-512333 E, 5498177 N and 512349 E; 5498188 N). This group of outcrops shows shear (shale with carbonate, chlorite, pyrite, Mo), oriented N120 ° E / 78-80 ° SO in a unit of tonalite quartz monzonite. It most likely represents the extension of shearing of the main stripping.

Also, the prospector discovered several boulders of Tonalitic composition that occasionally contains grains millimeters of disseminated Mo, pyrite (2-3%) and / or quartz-carbonate veinlets tourmaline, pyrite (1%) (Nad 83-512559 E; 5497877 N / 512445 E; 5497764 N / 513085 E; 5497931 N).

Model:

On the map of the vertical gradient calculated from the 32 G / 10 sheet (MRNF-1989), note that the Principal Desgagné Mo and Moly Extension indices are located at Inside a weak magnetic anomaly (hollow) of pseudocircular form (Potato shape) about 7 km long by 3 km wide. This anomaly would possibly correspond to a late intrusion of tonalite quartzomonzonite.

On this map, we note that the Principal Mo and Moly Extension indices are aligned along a line N115 ° E and are distant about 1 km. To the southeast, this lineament is intersected by a magnetic diabase dike dyke N70 ° E. There may be other N115-120 ° E directional liners in the sector that deserve to be investigated as shown on the map magnetic. The region of Chibougamau is known to have several porphyry type showings such as Queylus, Devlin, R2, Clark Lake, Merrill and Grandroy. The sector of the Principal Desgagné Mo Index could have some similarities with Archean vein systems to molybdenum and bismuth which were exploited in the Late Leucocratic Batholith of Pressac-Lacorne, Abitibi; the molybdenite in the Preissac pluton is mainly concentrated in dykes of albitites and quartz veins associated with pegmatites spodumene of the casing. It is therefore possible with a porphyry Mo (Cu-Au) associated with a plu-

tonic shallow (1 to 5 km) polyphase, subduction, quartz monzonite diorite, granodiorite and possibly tonalite, associated with andesitic pyroclastics and mafic to intermediate lavas found a few kilometers north-east of the Desgagné Mo index, in the Index sector of the Mountain (Py, Po, Cpy (tr)) (High mag). For the index Desgagné Mo, it seems to show an alteration of the phyllitic type.

### Mo Index evaluation

First, it is essential to further strip the main index of the same the outcrop group of Moly Extension NO, following a intense prospecting and mapping campaign. Subsequently, if the orientation of the N120 ° E regionalized mineralized shear is confirmed, it is necessary to cut a network of lines perpendicular to the shear, either N030 ° E and cover the grid with a PP survey.

Then, it is necessary to locate in the field the detected PP anomalies and subsequently, if possible, remove these anomalies. Finally, drill under the main index since the area has never been drilled.

A geochemical till survey and a survey can also be considered detailed mag to the ground to bring out other mineralized shear.

According to Jébrak and Marcoux, 2008 (Mineral Resources Geology, MRNF; 188), porphyry deposits have geochemical and geophysical signatures distinct for exploration like a magnetism and a low resistivity but a K radiometry and a high regional gravity. In a porphyry system classic, it would also be important to check if we are in the presence of the big types of hydrothermal alterations, ie: Potassic (Potassium feldspar and / or biotite, quartz), phyllitose (sericite, quartz (Mg-Na-Ca leaching), pyrite) and propylitic (albite, kaolinite, sericite, chlorite, epidote, carbonates, quartz, pyrite). It is also necessary to analyze for the rare elements due to the presence of dikes of pegmatites.

## Conclusions and Recommendations

Regarding the mineralization and the geological environment, this project is very interesting. The experience of M. Desgagné led him to take back these claims after being optioned by Fieldex Exploration Inc.

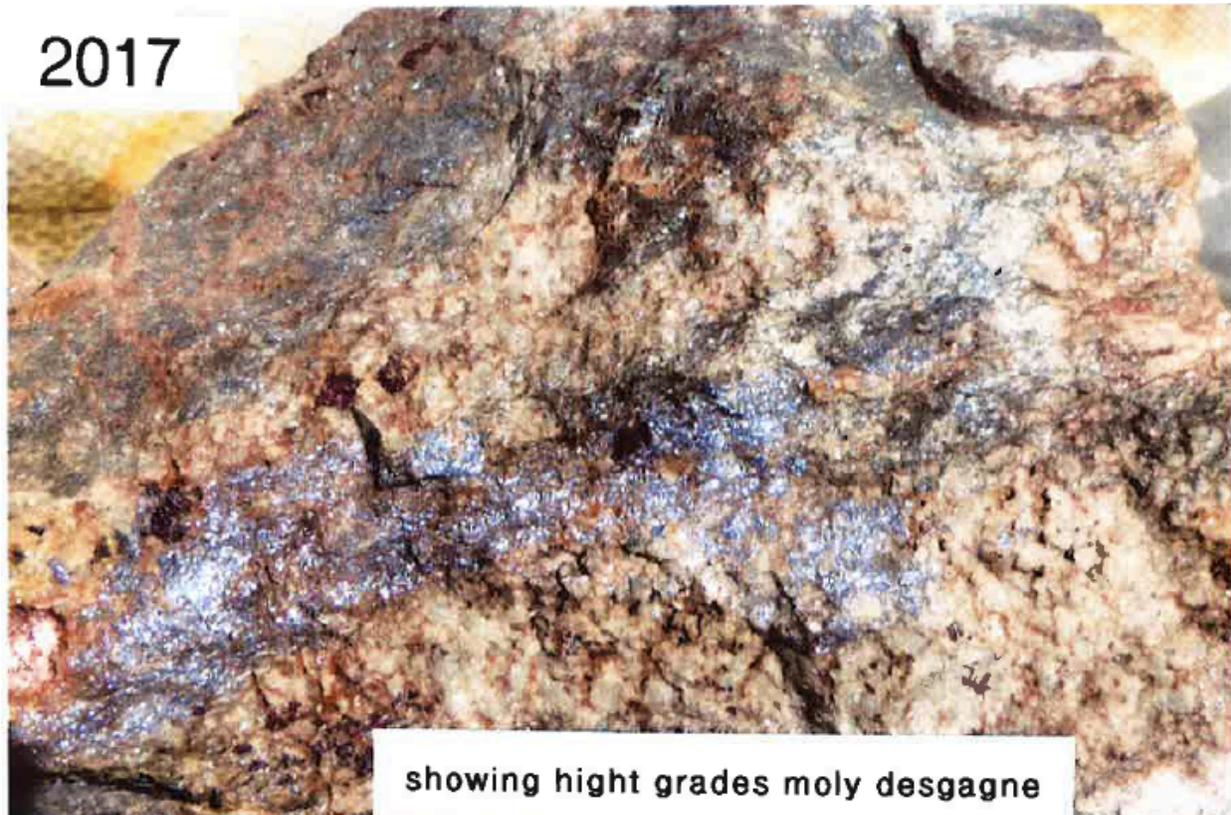
The latter company dropped the claim after quick investigation and because of the price of molybdenite which is drastically low these days. The prospector should do some grass root work to find new targets in the area. We know that this area is very rich and we know that it needs more prospecting.

### Comments:

The main index Desgagné Moly (from Céré-1967 index) was not worked historically due to the accessibility of the sector which was difficult. Today, new forest roads provide access to Lake District Sebastien, who facilitates the planning of works such as striping, drilling, etc. Already, the mineralized shear can be traced over a distance of at



least 1 km with a possible extension of another km to the northwest discovery of Mo in (LS-10 sample) and at least 700 m to the southeast (LS-40 till sample ref.).



It is clear that the kilometer mineralized shear of Mo from Lac Sébastien deserves to be explored systematically with a possible vector of enrichment to the southeast. All ingredients seem in place to confirm a pattern of Mo-rich porphyry and / or rare-element pegmatites, and might lead to exploration success quickly.

***Recommendations and Strong points :***

- Excellent accessibility of the property;
- Low-thickness non-conductive overburden;
- Main index sector Mo and rare metals never drilled;
- Presence of at least one kilometric polymetallic shear;
- Presence of several rare metals with economic values.



core hole no 3



core hole no 3 project moly 2017

# Nicobi Project Desgagné Agr 2017-01

## Location Nicobi Project

The project is located near the community of Desmaraisville and its simple access from the highway 113. Reaching the prospected site is not possible without using the forestry trails and without going through a couple of hills. All the claims staked around Yoland Lac as shown in the following figures. Some of these claims are accessible just by boat. This was not a matter for this first step of the project Nicobi.



## **General Geology**

The prospected area is part of PROVINCE OF SUPERIOR (4 to 2.5 Ga) occupies a large part of the North American continent and covers one third of Quebec. This province forms the central part of the Canadian Shield. She is known worldwide for its numerous deposits of copper, gold, zinc, nickel and silver. More recently, it has made important discoveries of diamond indices in intersecting kimberlite rocks of this province.

Moreover, it is subdivided into a dozen sub-provinces, half of which is located in Quebec. The best known is the sub-province of the Abitibi, which is the largest of the Archean volcano-sedimentary belts in the world, renowned for its deposits of copper, zinc, silver and gold.

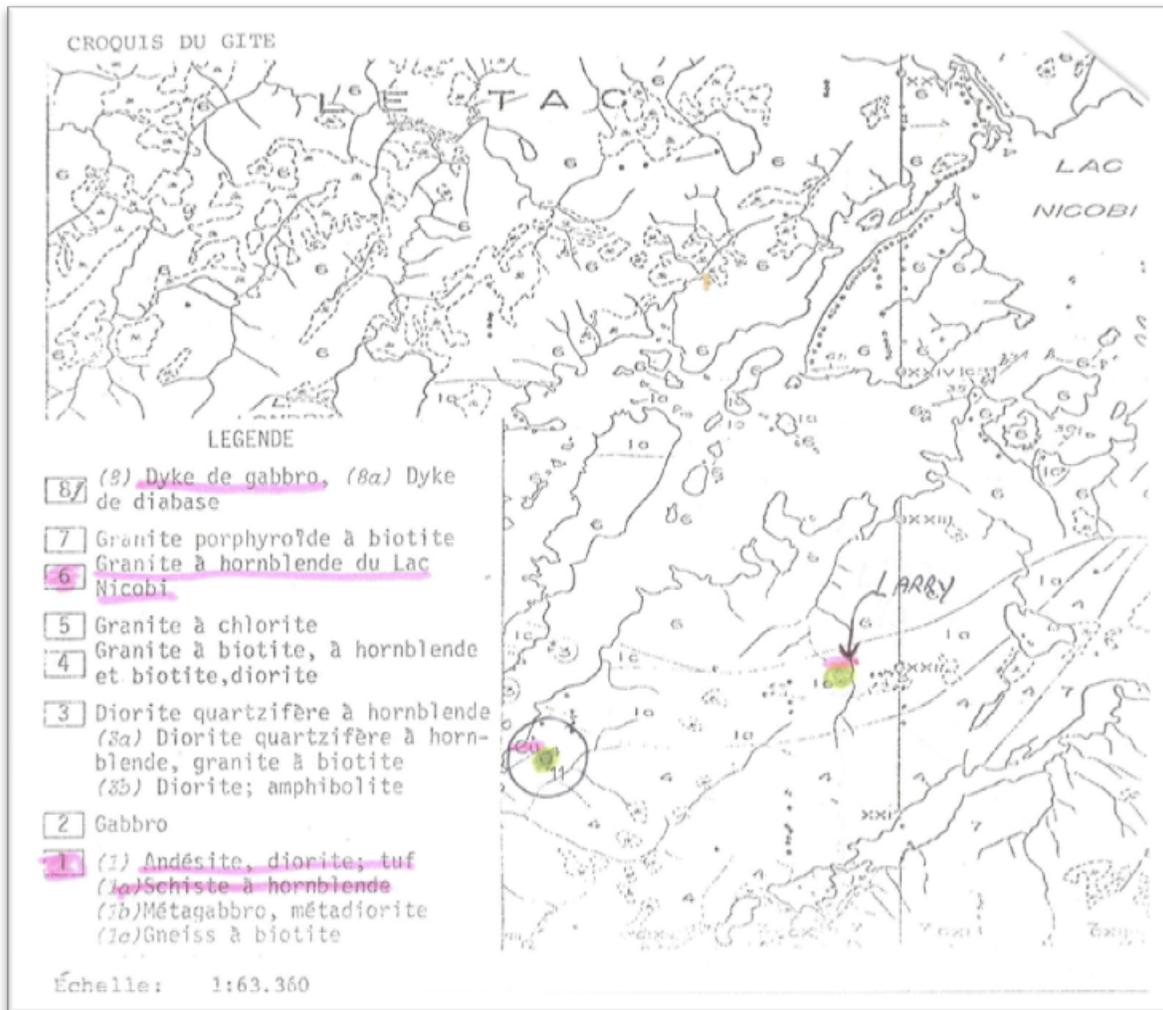
The Abitibi subprovince is the richest Archean greenstone belt. It contains 14 mining districts, where thousands of Canadians reside. These districts developed around discrete clusters of more than 80 massive sulfide deposits (VMS) and along major domain-bounding faults that are hosts to over 50 gold deposits. However, base metal reserves have considerably declined over the last 10 years. Nicobi is part of the Abitibi Greenstone Belts which are not much explored.

## **Geology of Nicobi area**

There is very little geological information on this sector even if you go to Review, there are many cards synthesis Abitibi sub-province that includes the NTS sheet 32 G/05. However, there is not a geological detail of prospected area. There may be a GIS map 91-01 (Summary Path greenstone Currie-Lesueur), which could be interesting even if it is borderline with claims of Larry.

The claims of this project are all located in the southwestern part of NTS sheet 32 G/05, just southwest of Nicobi Lake. They straddle the eastern end of a thin band of mafic volcanic rocks, about 1 km wide which is oriented east-west. These mafic volcanic rocks with phenocrysts of plagioclase are probably part of the Obatogamau

Formation, the base of the first volcanic cycle (plain) of tholeiitic affinity. We can also observe the presence of a diabase dykes trending north-east through the claims. Finally, it is possible that within this band, there are dykes of gabbro co-magmatic, copper ore. These dikes, if present, could possibly correspond to the indices of copper property (Field notes, Desgagné, Houle and Larbi. 2008).



## Daily Report

1 days-07 June:

Logistic and data preparation at Chibougamau MERN office.

2 days-19 June - 21 June:

Stripping with excavating machine along the line 18. Bring out a boulder containing visible copper and a lot of Pyrite. The Excavator broke. I and my helper kept looking for other boulder or the outcrop with the same aspect as the boulder with the Copper and the Pyrite.

2 days- 5 July - 6 July

A new Excavator belonging to a different company finish stripping project. It continued the stripping of the line 18. The stripping was concentrated around the extension of the conductors defined by geophysics. Trenches of 100 x 5feet and another 10 x 5 feet were dug. No conductor has been found during the stripping. Unfortunately no conductor close to the surface is found. They might be directed to the depth.







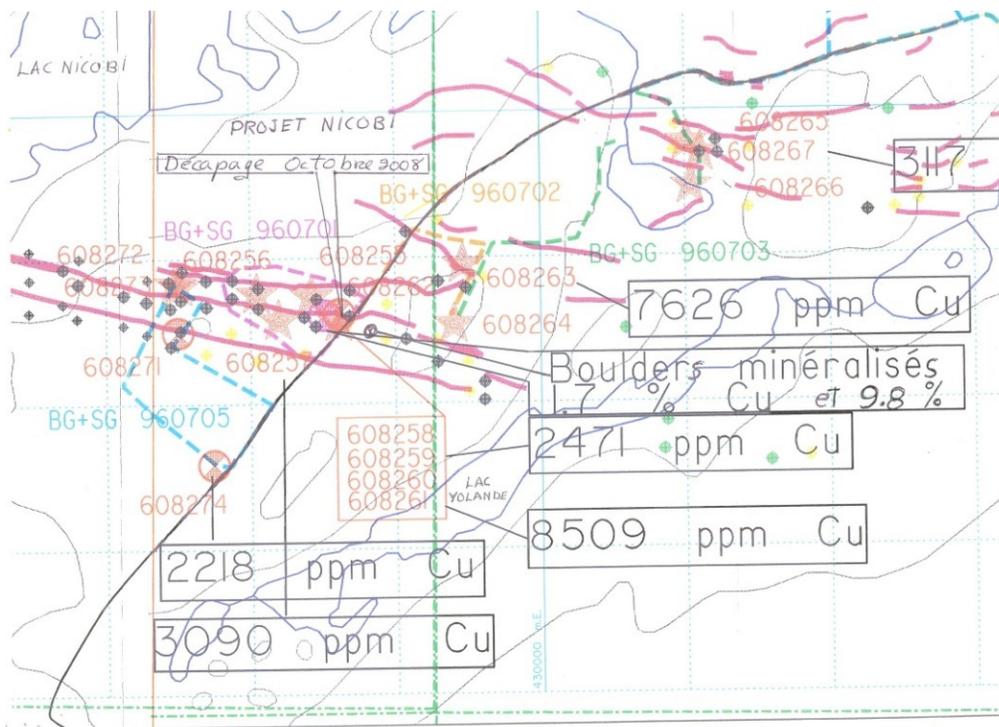
This is the showing of Nicobi and a detailed mapping of the outcrop.

## Results and discussion

This Stripping Nicobi project shows mineralized boulders where the lithology consists mostly ultramafic, volcanic rocks, gabbro and tonalites cut by centimetric vein of quartz.



projet nicobi est 2017 trancher no 1 avec blocs erratique avec du cuivre



The geology of the area suggests that the mineralization capacity is very high. The basaltic rocks and the gabbros are the host of the deposit and the granite is the energy provider to remobilize the metals in the hot water from deep earth to the surface. These rocks have been sampled and send to essays. The obtained data are very consistent and show encouraging values in Cu and Ag. Some samples have a value of that 0.2%.

Description échantillon	Méthode élément unités L.D.	WEI-21	Au-AA23	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Poids reçu kg	Au ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %
R145149		1.72	0.008	2.7	0.18	21	<10	<10	<0.5	<2	0.07	<0.5	148	8	3890	26.8
R145178		Not Recvd														
S729227		0.58	<0.005													
S729228		0.49	<0.005													
S729232		0.53	<0.005													
S729351		1.09	<0.005													
S729352		0.58	<0.005													
S729353		0.82	<0.005													
S729354		1.54	<0.005													
S729355		0.65	0.018													
S729356		1.40	0.008													
S729357		1.26	<0.005													
S729358		1.13	0.077													
S729359		0.38	<0.005													
S729360		0.52	0.076													
S729361		0.52	<0.005													
S729362		1.40	0.059													
S729363		1.70	0.051													
S729367		0.23	<0.005													
S729368		0.39	<0.005													
S729369		0.30	<0.005													
R145149		<10	1	0.03	<10	0.05	108	3	<0.01	410	40	3	>10.0	<2	<1	2

The Core from the Hole 1 shows mafic to intermediate Tuff. Grey rock sometimes greenish, massive texture; some phase are gneissic banded. All intruded by tonalitic dykes and pegmatites. We observe a lot of biotite and occasionally garnets. The mineralized Zone contains 20 % Pyrrhotite massive (Po).

The second hole shows intermediate to felsic Tuff, Clear grey rocks with fine lithification. There are also those tonalitic dykes cutting the Tuffs. The latest contains Pyrrhotite (trace) in the fine fracture, specifically in the core from hole 2, we found about garnets (2-3 %),. Further in the same core there is a presence of massive Pyrrhotite.

Cores from the Hole 3 contain a felsic Tuff » the latest shows an alternating banded lithology grey pale and white. It is also cut by aplitic dykes and pegmatites pegmatite. Further in the core there is some Quartz Diorite intruded by tonalitic. The mineralization consists of 20-25 % PO, + 1-2 % Py and + 0,7 % Chalcopyrite.



### **Conclusion and recommendation**

The drilling session and assays show through the different cores that there is a great potential to be discovered, 0.07 g/t of Gold is very significant. We believe that more has to be known and studied in this area. We recommend to the prospector to continue defining more this area and the mineral potential in it. Conductors have to be more defined and others have to be found, because the ones founded are not enough to make the project optioned. And we recommend to the board of CMEB to keep encouraging Mr. Desgagné for prospecting project in Eeyou Istchee.

# PHOENIX PROJECT AGR.2017-04

Marc Bouchard

## 1. INTRODUCTION

This report mandated by GL Géoservice and Marc Bouchard describes the results of a drill program to test two massive sulphide targets on the Phoenix property. Target No-1 is a coincident Electromagnetic geophysical anomaly and a Mobile Metal Ion (MMI) geochemical anomaly. Target two was a historical drill hole (SM-488) which reported intersecting yellow and reddish brown clays with very low core recoveries. Local rumours reported that short pieces of massive sphalerite were recovered from this drill hole. The targets for drill testing were selected by both Gilbert Lamothe and Marc Bouchard. Funding for the drilling programme was provided by the prospectors however Marc Bouchard was kindly supported by the Cree Mineral Exploration Board. The drilling programme was conducted in mid-April 2017.

## 2. PROPERTY, LOCATION AND ACCESS

The Phoenix property is located within the Chapais-Chibougamau mining District, NTS map sheet 32G15, Lévy Township, Québec. It is located 2.0 kilometres southwest of the Town of Chapais. See Figure-1 and 2 below. The property consists of 21 claims for a total surface area of 1,063 hectares centered on the following coordinates UTM NAD83, Zone 18, 508000mE / 5513000mN. See Appendix-I for a complete list of claims including detail descriptions.

The Property is readily accessible via an all season gravel roads which cross the property from northwest to southeast. A number of old drill roads and all-terrain vehicle trails from the main road renders all parts of the property readily accessible. Recent lumbering activity has also facilitated access.

## 3. TOPOGRAPHY CLIMATE, AND INFRASTRUCTURE

The topography of the Phoenix property does not exceed 25 meters and is generally flat with low

swampy areas. Outcrops are rare on the property. Temperatures vary from -40° in winter to +30° Celsius during the summer.

Chapais and Chibougamau have good residential and power infrastructure and is also a source of well qualified individuals to support the mineral exploration and mining industry. Historically Chapais has produced 24 million tonnes of ore grading an average of 2.2% Copper, 1.6 g/t Gold, and 12.0 g/t Silver.

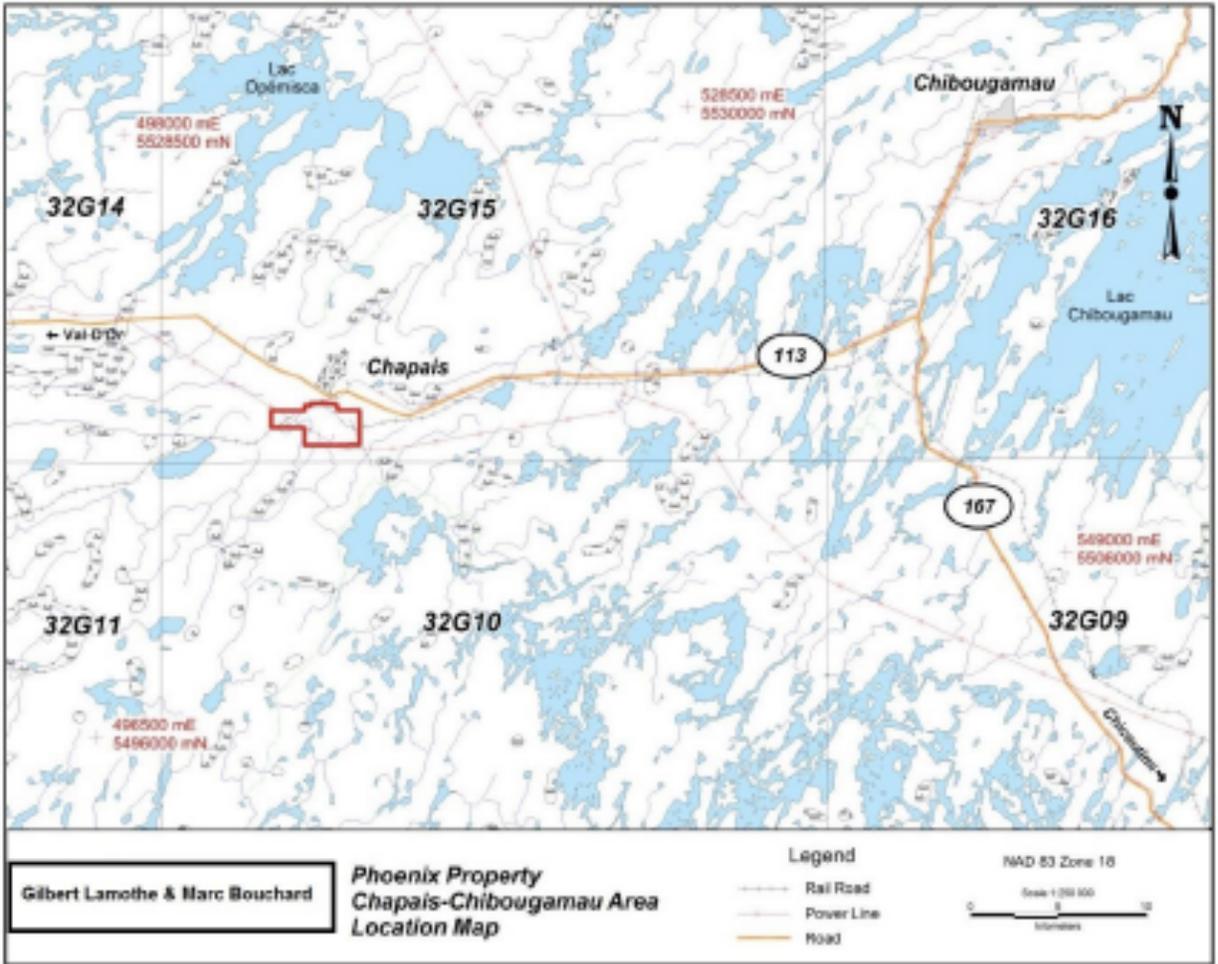


Figure 1: Property Location Map

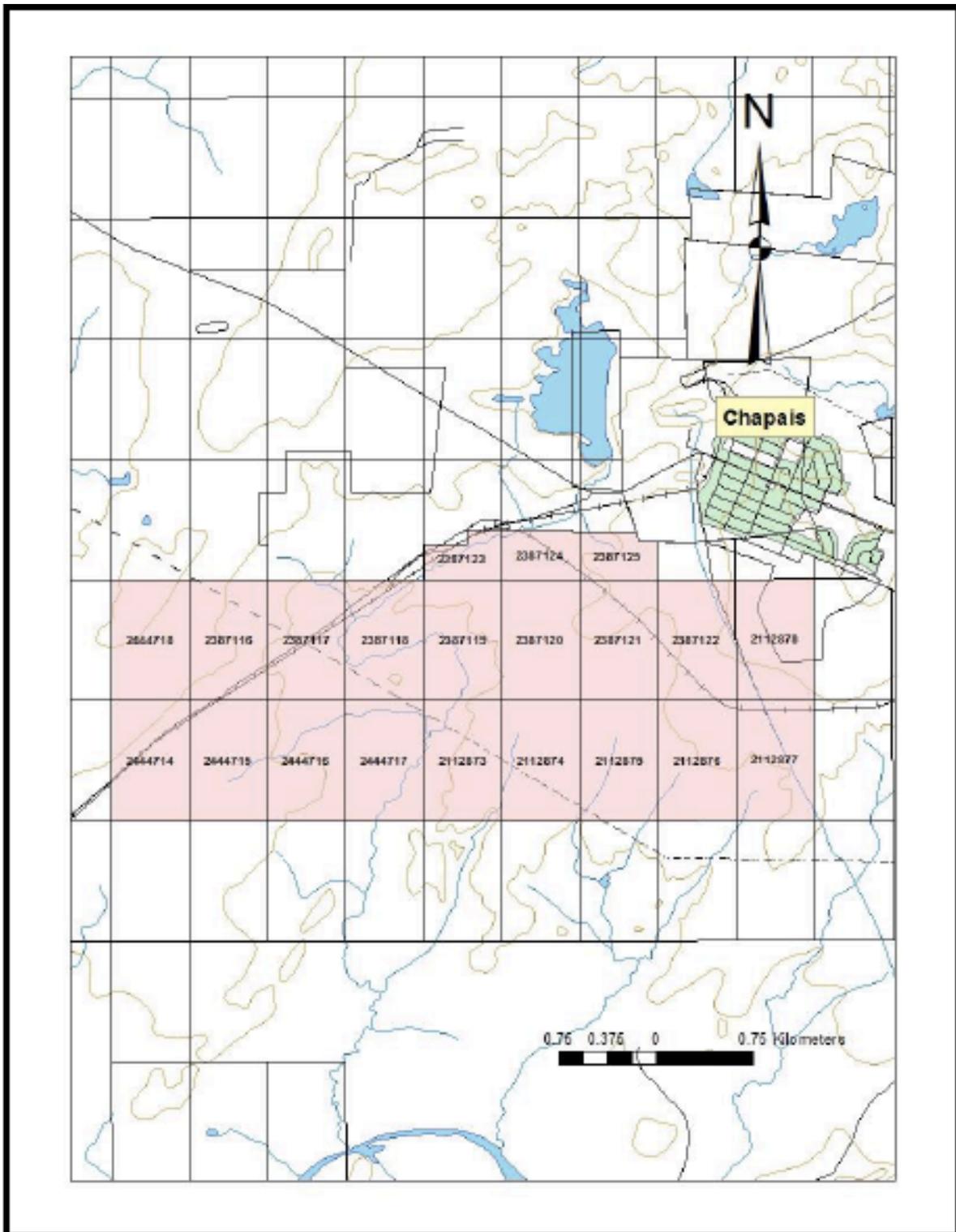


Figure 2 : Claim Disposition Map

#### 4. HISTORICAL EXPLORATION

Due to poor access to the area prior the discovery of the Opémiska Coper Mine in the early 950s

exploration in the area was limited, however after the discovery of the first mine and development that ensued exploration increased significantly in the area. After the closure of the mines in the 90`s exploration continued at a pace that followed economic cycles.

Since the 50`s several companies carried out exploration on or proximal to the property. These include:

- 1) Tomiska Copper Mines Ltd 1952, 6 drill holes
- 2) Consolidated Astoria Québec Ltd 1952, 4 drill holes
- 3) Opémiska Copper Mines Ltd 1967, 40 drill holes
- 4) Falconbridge Copper Ltd
- 5) Queenston Mining 2007, ground mag, Max-Min, VLF geophysical surveys and 3 drill holes
- 6) Queenston Mining 2008, 1 drill hole
- 7) Fancamp Exploration Ltd 2013, 4 drill holes
- 8) Sirius 2011, 3 drill holes all abandoned

#### 5. REGIONAL GEOLOGY

The Phoenix Property south of Chapais lies within the Chibougamau-Matagami greenstone belt part of the Abitibi Subprovince of the Superior Province. The volcanic and sedimentary rocks are Archean and are subdivided into two groups, the Roy Group and the Opémiska group. The Roy Group is composed of three volcanic cycles going from mafic to felsic. The Chrissie formation is the oldest dated rocks in the area followed by Obatogamau, Waconichi, Bruneau and Blondeau for the Roy Group. The Opémiska Group is dominated by sediments with minor potassium rich volcanic rocks and consists of two formations the Stella and Haüy sediments.

Several mafic and felsic intrusive complexes and pluton intrude the volcanic and sedimentary units. The more important ones include Lac Doré complex, the Chibougamau pluton, Cummings complex, Lapparent and the Opémiska pluton. The lac Doré complex is host to the majority of the Chibougamau copper-gold deposits. It consists of a large stratified / differentiated intrusion emplaced within the Waconichi-Bruneau formations. With the Chibougamau pluton a diorite-tonalite intrusive it forms the core of the Chibougamau anticline. The Cummings complex hosts the deposits in the Chapais area. The complex was emplaced within the Bruneau and Blondeau formations and consists of three differentiated mafic sills. At its base one finds the Roberge then the Ventures and at the top the Bourbeau sill. It lies in the central part of the Chibougamau and Chapais synclines. Numerous shear zones cross cut the region in several directions E-W, NE, NW, NS and NNE. These structures played a major role in the emplacement of the mineralisation. The major shear zones include Faribault, Kapunapota-gen (E-W), and Gwillim (NE). See Figure-3.

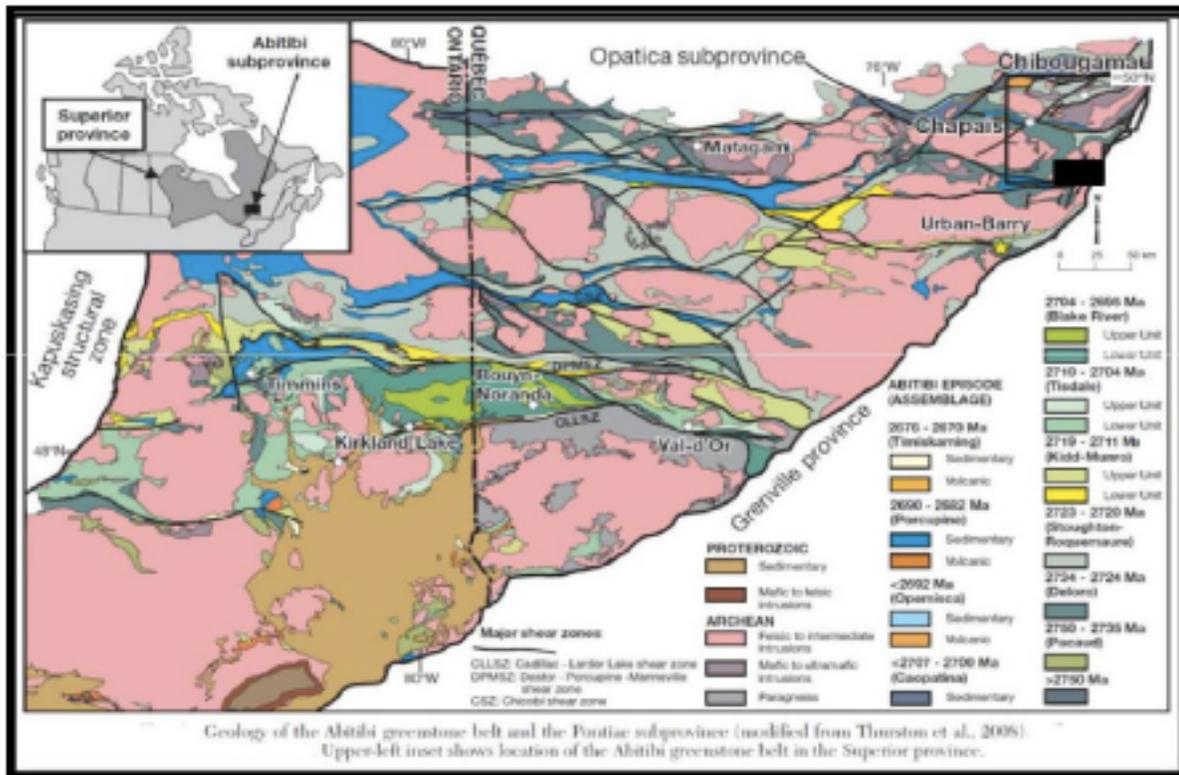


Figure 3 : Regional Geology

## 6. PROPERTY GEOLOGY

The Phoenix Property is underlain in large part by the Chrissie Formation and covers the east-west contact between the Chrissie Formation to the south and the Obatogamau Formation to the north. Within the felsic volcanoclastic units several massive pyrite and pyritic graphite units occur with local concentration of chalcopyrite and sphalerite.

The Obatogamau Formation within the northern portion of the property consists of typical Obatogamau porphyritic lava flows with massive gabbro cores. White feldspar crustals cluster to form glomerophorphic textures that can attain up to 10.0cm diameter.

The two formations are separated by a major fault at which one finds a pyritic graphite unit that is traceable with geophysical technics across the full width of the property. The graphite unit marks the top of the Chrissie formation which is in sharp contact with Obatogamau basalt. The contact has been tectonised however the contact can be established precisely in drill core even though the core is mostly rubble within the fault zone. See Figure-4

## 7. WINTER 2017 DRILLING PROGRAMME

The 2017 drill programme consisted of two holes to test two targets. The first hole PHX17-01 tested a coincident gold mobile metal ion geochemical anomaly and an induced polarization anomaly. Drill hole PHX17-02 tested a geological target where previous drilling encountered difficult drilling conditions with very poor core recoveries. The historical drill hole recovered minor yellow and red clays with a few hard pieces of core before the hole was abandoned. Local rumours reported th

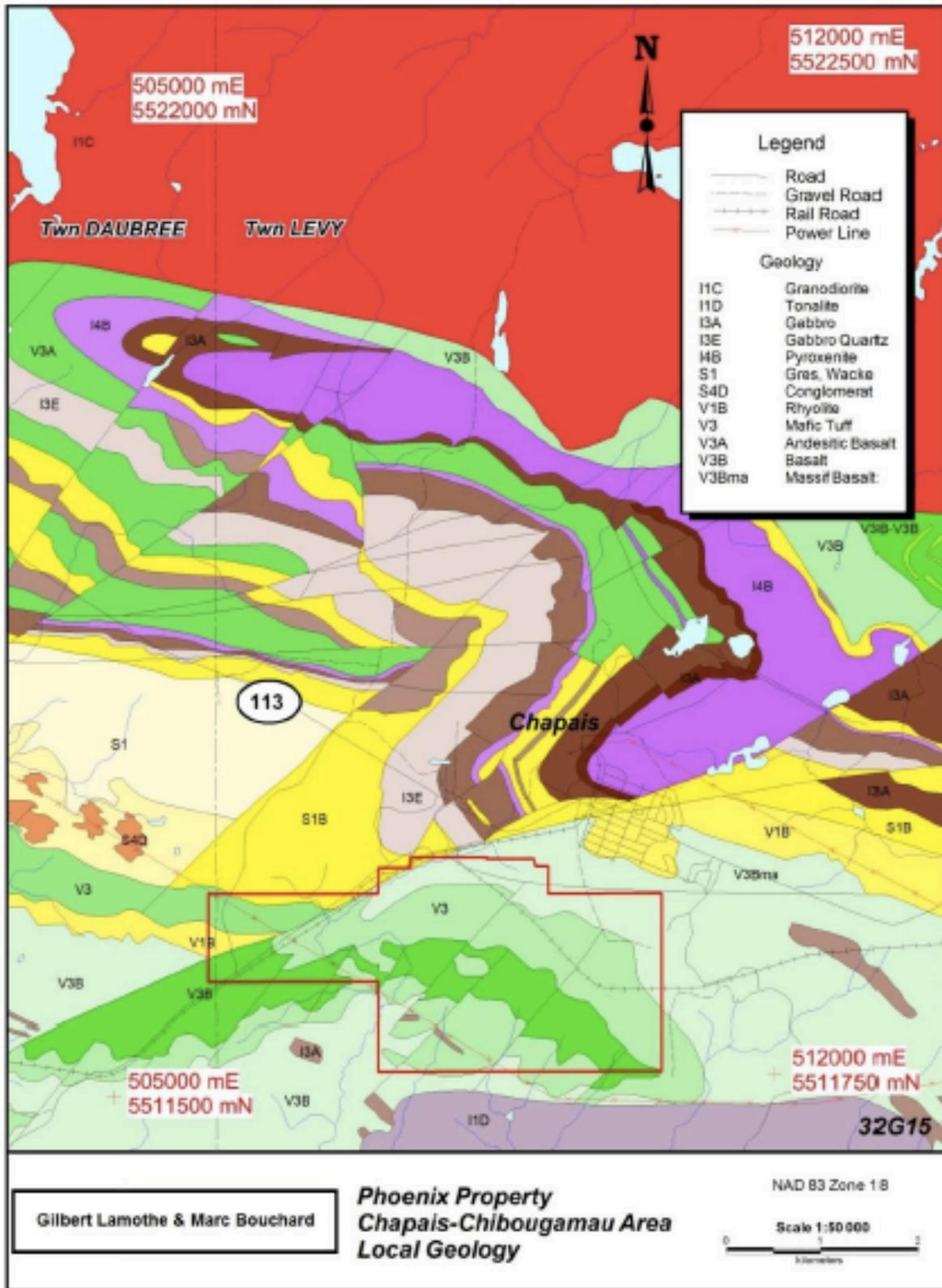


Figure 4: Property Geology

at short pieces of massive sphalerite had been recovered. See Figure-5.

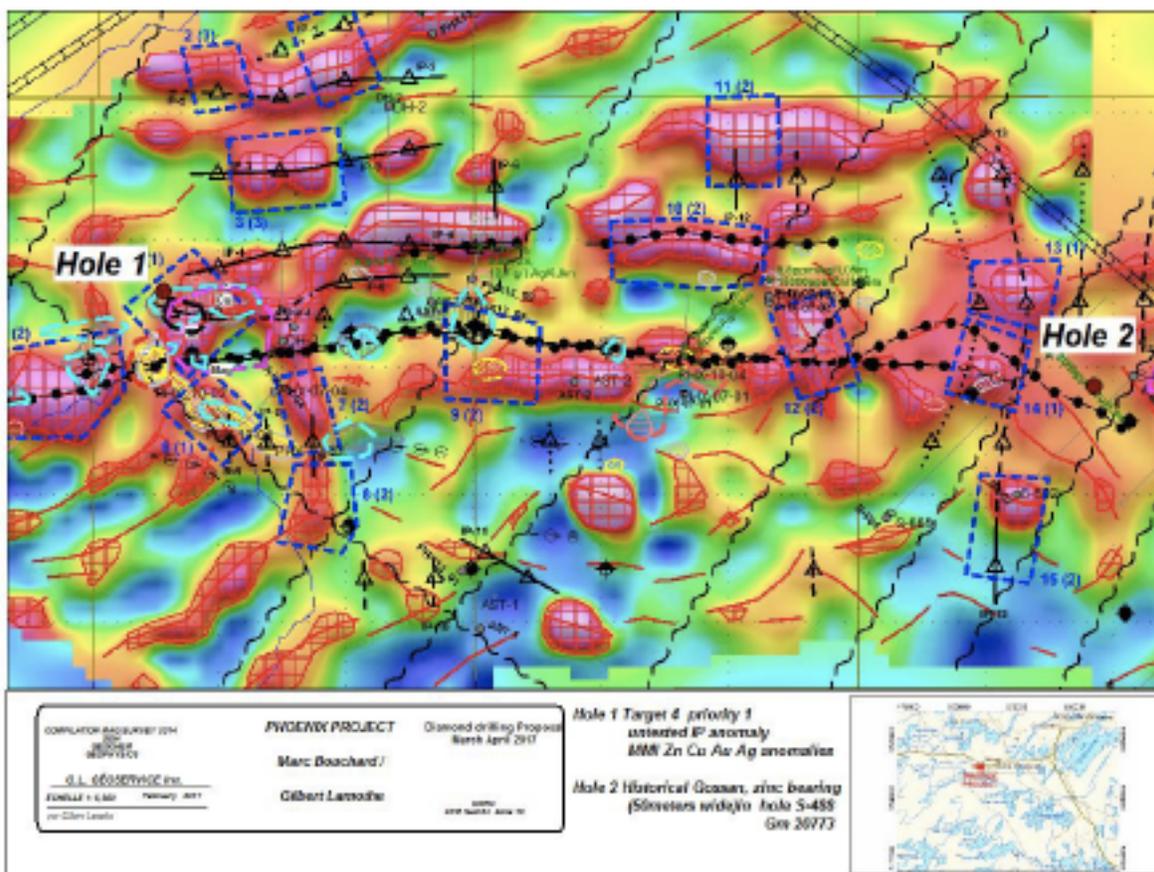


Figure 5: Geophysical and Geochemical Targets

### Target-1

Drill hole number 1 or PHX17-01 located at the west end of the property targeted a coincident electromagnetic anomaly and Mobile Metal Ion (MMI) geochemical anomaly. The electromagnetic anomaly was identified by an airborne INPUT survey which was followed-up on the ground by a detailed VLF survey. The geophysical response is continuous over the full length of the property approximately 6.0 kilometres. See Figure-5 above and Figure-6.

PHX17-01 was drilled at UTM NAD83, Zone 18, 507955mE / 5513289mN on an Azimuth of 150° and a Dip of -45°. A total of 13.65 metres of overburden was drilled before bedrock was encountered. From 13.63 to 135.50 a monotonous sequence of basalt was intersected with minor less than 1.0 metre interflow tuff horizons. See Figure-7 below. A light grey smokey quartz vein with a few specks of chalcopyrite was sampled however no results of interest were returned. See Figure-8 below. The lower contact

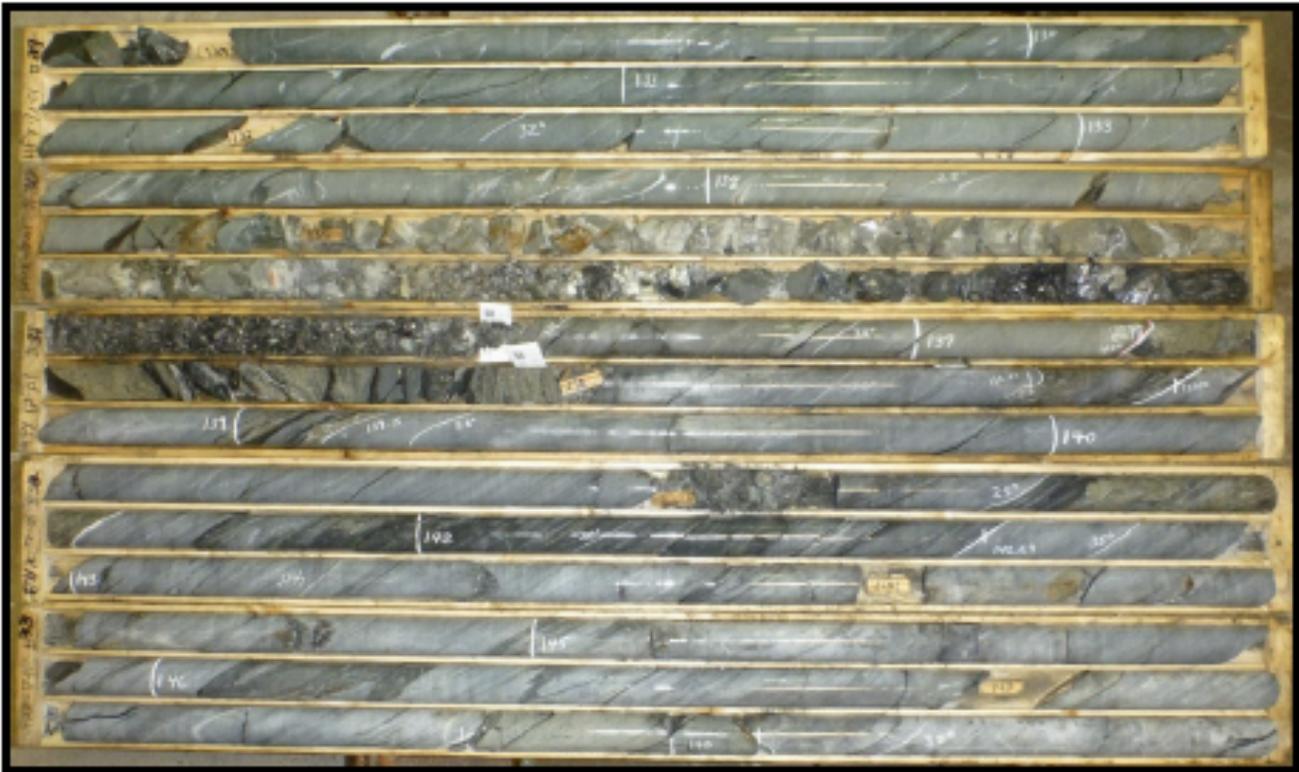


Figure 9: Contact between medium grey-green basalt above and light grey calcite with black graphitic bands

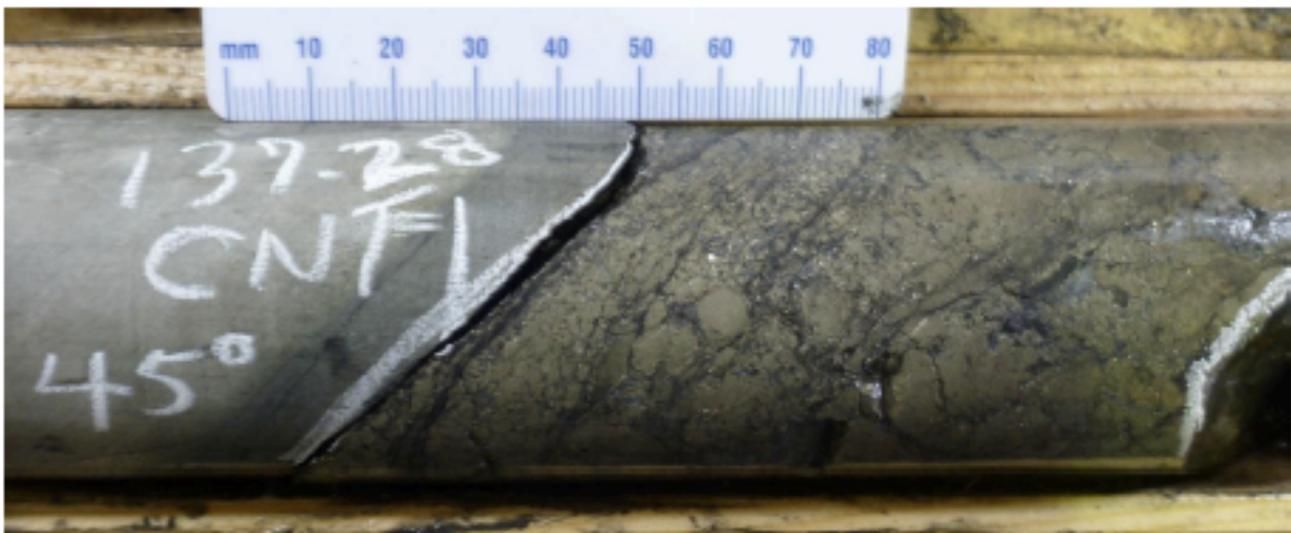


Figure 10: Contact between Argillite and massive nodular Pyrite with minor graphite

is located in a 1.5 metre tectonised zone of basalt and graphitic tuff rubble. See Figure-9 below.



Figure 11: Nodular Pyrite with concentric growth lamination

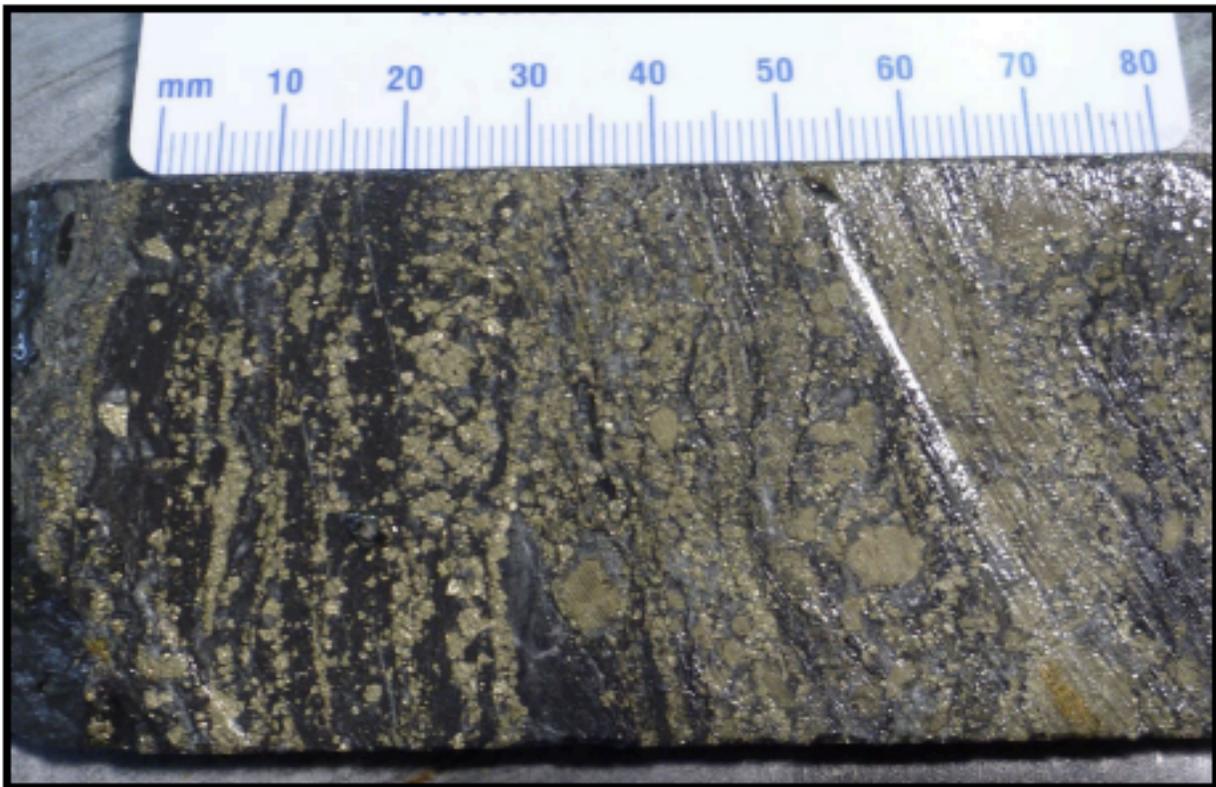


Figure 12: Semi massive sulphide unit, pyrite nodules, and laminations and disseminated pyrite grains in a black graphitic matrix

From 135.5 to end of hole at 153 metres a calcite unit is encountered with black banded graphitic tuff with massive to semi massive sulphide zones consisting of nodular

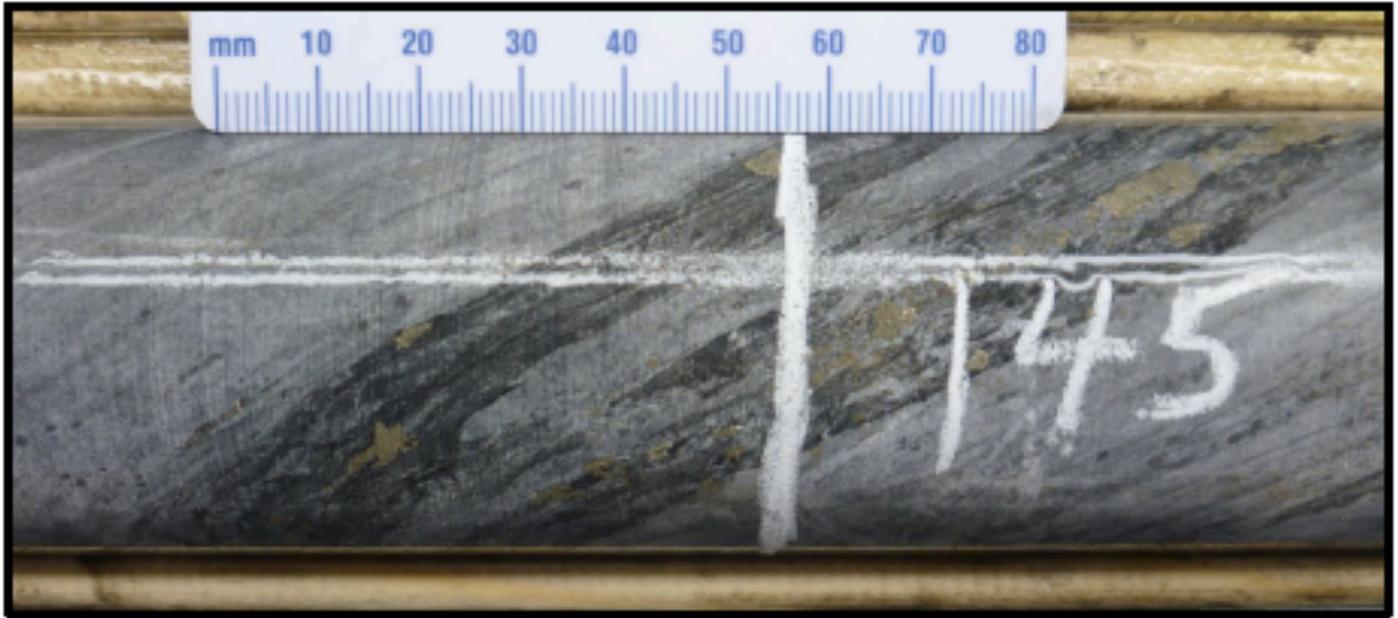


Figure 13: light grey Calcite unit with thin black pyritic graphitic bands

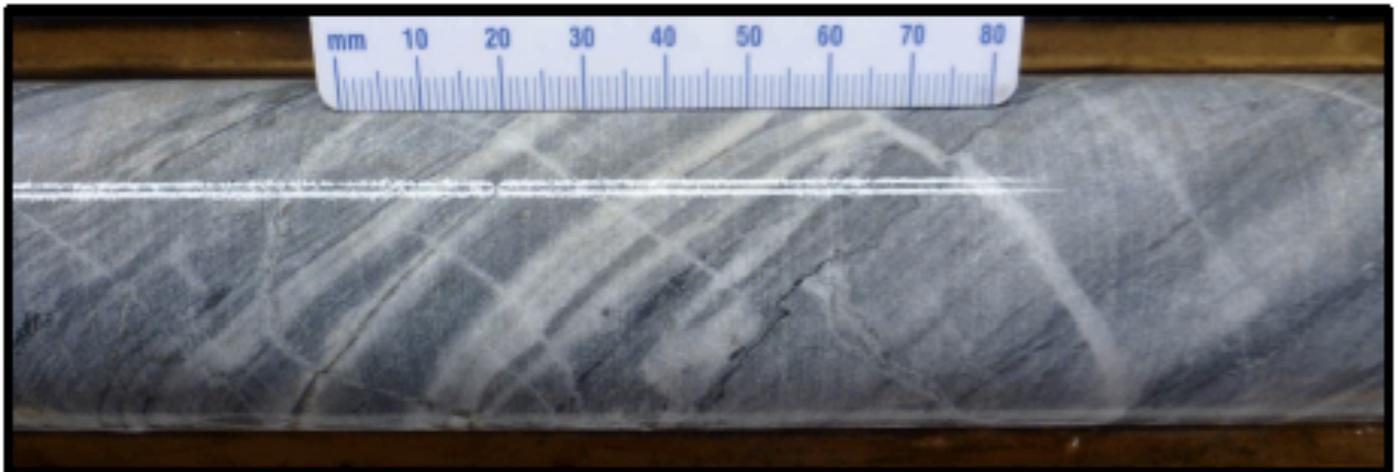


Figure 14: Laminated calcite unit, white bands pure calcite & light grey bands calcite with a fine dusting of graphite

pyrite, pyrite lamellae and disseminated pyrite grains. The largest massive sulphide unit measures 23.0cm and grades to less than 10% disseminated pyrite grains in black graphitic argillite. See Figures-10 to 13 below. The light greywhite portion of the unit reacts vigorously to 10% hydrochloric acid. The white bands are pure calcite while the grey bands appear to contain a dusting of graphite. The black graphitic units and massive Pyrite are very conductive explaining the nature of the electromagnetic anomaly. For additional information see drill log and section in Appendix-II. No further work is recommended on this geophysical target.

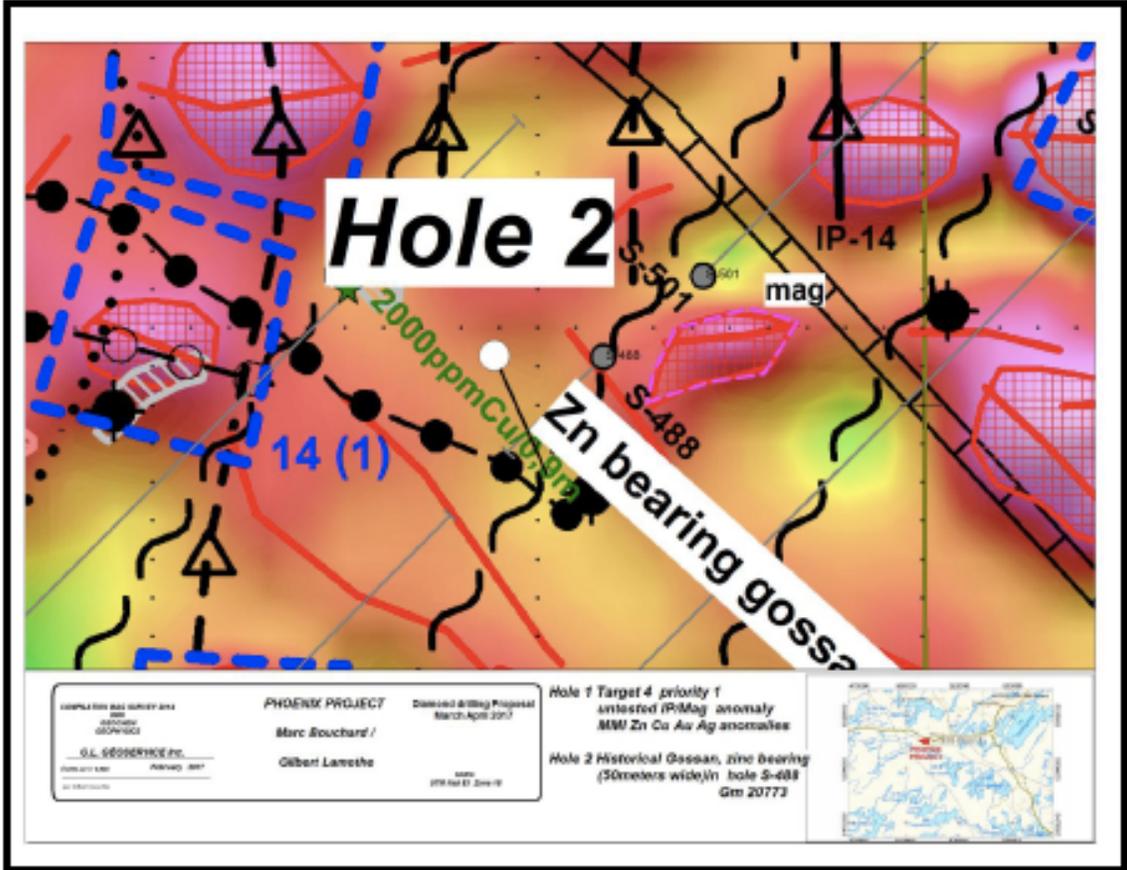


Figure 15: Target-2, Drill Hole-2 or PHX17-02

### Target-2

Drill hole number 2 or PHX17-02 located at the east end of the property targeted an area where a historical drill hole S-488 intersected yellow and red clays with rumours that short pieces of massive sphalerite had been recovered. See Figure-5 above and Figure-15 below.

To test this target PHX17-02 was drilled at UTM NAD83, Zone 18, 509376mE / 5513181mN on an Azimuth of 153° and -39° Dip. A Total of 48.0 metres of overburden was drilled where a mixture of cobbles and boulders were cored from various lithologies. From 48.0 metres to the end of the hole various coloured clays were recovered with short pieces of solid core. The solid pieces consisted of massive pyrite and hematite and minor graphitic chips. The clays varied from yellow to reddish brown to blue-grey to white. The clays appear to be the result of typical tropical type weathering which created a saprolithic clay regolith. See Figures 16 to 19 below. The clays likely represent a preserved paleo weathered surface along a major fault where the last glaciations did not erode the soft clays as they were protected in a narrow depression along the fault contact. Several historical drill holes reported similar coloured clays and poor core recoveries along this structure. Samples submitted for base metal assays did not return any results of interest. For additional information see drill log and section in Appendix-II. No further work is recommended on this target.

## 8. CONCLUSIONS AND RECOMMENDATIONS

The drilling programme was successful in explaining the nature of the targets selected for investigation however the core samples did not return any precious or base metal values of interest. No further work is recommended on these targets.

Other historical base metal showings occur on the property which should be investigated. It is recommended that all historical work should be compiled and analysed prior to carrying out field work.



Figure 17: Massive hematite core



Figure 19: Blue-Grey saprolite clay



Figure 18: Massive Pyrite core



Figure 16: Total core recovered from drill hole PHX17-02, Box-1 and 2 cobbles and boulders recovered from overburden, Box-3 to 6 saprolite clays and short pieces of solid core

#### **4.7 PROJECT DEVELOPMENT AND ENTREPRENEUR ASSISTANCE**

##### **Development of projects and assistance to entrepreneurs**

During the fiscal year 2017-2018, the CMEB entered into agreements with Cree exploration companies, prospector projects and technical training for a total amount of \$437,551 in direct subsidies. Of these agreements, the CMEB finances 50% of the eligible expenditures related to the cost of mineral exploration.

Some of these agreements also provide for a royalty of 1% if the exploration project leads to the commercial exploitation of a mining deposit. The above-mentioned agreements with Cree entrepreneurs are as follows:

- Native Exploration Services Reg'd. - Opemiska Project, NTS 32G15;
- Native Exploration Services Reg'd. - Mina Gold DDH Project;
- Nimsken Corporation Inc. - 2017 Exploration Program Targets 32G07-A, B, C and 32G15A AND B;
- Nimsken Corporation Inc. - Rush Lake DDH Project;
- Nimsken Corporation Inc. - 2018 Exploration Program Electromagnetic and magnetic surveys in NTS 32G15.

##### **Assistance to prospectors**

Newly trained Cree prospectors carried out mineral exploration projects funded by the CMEB and the majority of these prospectors benefited from the CMEB summer training program. The CMEB continues its efforts to attract Cree interest in mineral prospecting in Eeyou Istchee. Substantial work is required to motivate more Cree prospectors to submit prospecting projects. Nevertheless, the following agreements were executed by the CMEB within the framework of this program and the results are very encouraging:

- Dennis Moar - Apimichiskutasich Lake Project;
- Larry Desgagné - Molly Final Phase;
- Jonas Sheshamush - Trapline GW-01 Phase II.

#### **ALLOCATION OF THE FUNDS FROM THE GOVERNMENT OF QUÉBEC**

<b>Proponent/Project</b>	<b>Amount</b>
--------------------------	---------------

CMEB (a) Mistissini Prospecting Program and (b) Waswanipi and Ouje-Bougoumou Prospecting Program	\$192,160
Resolution 1718-01: Native Exploration Services Reg'd. - Opemiska Project, NTS 32G15	\$18,750
Resolution 1718-02: Nimsken Corporation Inc. - 2017 Exploration Program Targets 32G07-A, B, C and 32G15A AND B	\$38,500
Resolution 1718-03: Dennis Moar - Apimichiskutasich Lake Project	\$8,700
Resolution 1718-11: Native Exploration Services Reg'd. - Mina Gold DDH Project	\$22,500
Resolution 1718-12: Nimsken Corporation Inc. - Rush Lake DDH Project	\$22,500
Resolution 1718-15: Larry Desgagné - Molly Final Phase	\$9,920
Resolution 1718-21: Jonas Sheshamush - Trapline GW-01 Phase II	\$15,000
Resolution 1718-22: Nimsken Corporation Inc. - 2018 Exploration Program Electromagnetic and magnetic surveys in NTS 32G15	\$37,470
Total	\$365,500

#### **4.8 NEW COLLABORATION AND JOINT VENTURE PROJECTS**

The Cree Mineral Exploration Board received several proposals from Cree and non-Cree companies for the fiscal year 2015-2016.

In order to satisfy the Board's concerns for economic development, the CMEB is willing to evaluate projects from any serious company. The Board receives proposals from several companies such as Geomega Resources Inc., NIOGOLD Inc., Nemaska Exploration Inc., Eagle Hill Exploration Corp., SIRIOS Resources Inc., Ressources D'Arianne Inc. and Metanor Resources Incorporated.

These proposals are discussed and decided upon at the Board meeting following reception of the proposals. The companies are seeking joint ventures, shares holders or investments. They support hiring Cree employees from proximal communities and contract Cree services companies.

## **4.9 GEOSCIENCES**

The interactive Geo-Economic Map on the CMEB website at [www.cmeb.org](http://www.cmeb.org) now has the traplines for each of the nine Cree communities in Eeyou Istchee. Each trapline has the information related to community, tallyman, contact person and mineral potential. The Map is accompanied by a report on mining activity in Eeyou Istchee.

The interactive geo-economic map has multiple uses. Cree prospectors, tallymen and the public in general can consult the geological base map for information on the geology of an area of interest. Mining companies can consult the communities and trapline overlay for the names of tallymen impacted by company projects and other contact persons. This information is important for establishing and maintaining proper relations between tallymen, communities and exploration companies on land use. This overlay also highlights the geology and mineral occurrences within the trapline boundary. The guideline for exploration companies is published on the website but, as it is a work in progress, there is room for improvement. The active mine overlay will be developed further to include historical and statistical information on the mines.

The CMEB performs several geo-scientific activities beginning with academic activities with children during summer, regular school scientific events, and the evaluation of the Cree Territory mineral potential via the production of an Eeyou Istchee geological map and geological impact studies. The Board produces compact discs containing presentations on the Earth sciences which will be distributed in all the CSB schools. A CMEB executive conducted a geology activity including both theory and a field trip for the youth. The CMEB also gave a presentation on the mining industry and job opportunities to secondary students in the communities of Chisasibi, Wemindji and Mistissini.

The CMEB is collaborating in several scientific studies with the INRS institute, École Polytechnique de Montréal, Geological Survey of Canada (GSC) and University of Quebec in Montreal (UQAM).

The collection of geophysical data from the seismic station set up by Dr. Fiona Ann Darbyshire from GEOTOP-UQAM was done with the collaboration of the Cree Mineral Exploration Board. This station supplies continuous information on the seismic activity of the Earth and its composition.

#### **4.10 COLLABORATIONS**

The CMEB objectives in this area of activity are described in the Training and Job Assistance section. The CMEB has examined various ways and proposals to further the development of its program on Training and Job Assistance. It is examining ways of developing on-the-job training through a joint action committee with the Government of Quebec and the mining industry.

Finally, it is examining ways of collaborating with the Cree Human Resources Department in these matters. The CMEB continues working on long term training in prospecting and continues collaborating (through expertise and promotion) in several training programs related to mineral exploration in Eeyou Istchee. The CMEB is a partner in the CHRD Eeyou Mining Skills Enhancement Program (EMSEP) designed to create a workforce with the fundamental skills to embark upon any career in the mining sector.

#### **Ministry of Energy and Natural Resources (Ministère de L'Énergie et des Ressources naturelles)**

The Board continues the development of collaborative and mutually productive relationships with the mining department of the Ministry of Energy and Natural Resources (MENR). Among other initiatives, the MENR has agreed to promote the CMEB mission and purposes by informing all companies holding mining titles in the Territory and by including the CMEB on its web site. Furthermore, the MENR has set up an internal monitoring program of Cree employment in the mining sector, is planning to set up a joint action committee between the government, the industry and the CMEB, and has put in place a consultation mechanism with the CMEB on its own mapping programs in the Territory.

As discussed in the section on Awareness and Promotion, the MENR promotes mineral development and Cree involvement in the Territory. This promotional representation is in evidence at the Quebec Annual Symposium on Exploration and the Prospectors and Developers Association of Canada meetings.

#### **Cree Trappers Association**

The CMEB formally invited representatives of the Cree Trappers Association (CTA) to establish direct links and communication channels between the two organizations. It was agreed to continue to further develop these links in the near future. The board attends CTA annual meeting events to present a conference concerning the CMEB and mining activities in Eeyou Istchee.

The CMEB is establishing a solid working relationship with the CTA; a direct result of information exchange and CMEB interventions in the field. The members of CTA believe that CMEB should play the role of liaison between the mining industry and the trappers. The Board facilitates communication and offers a source of information for Cree trappers and prospectors. This establishes harmony between hunting and fishing activities and exploration activities. The trapper is a good prospector who can conduct fieldwork in unexplored territories and can find mineralized rocks that could lead to future world class ore deposits.

### **Cree School Board**

The CMEB hopes to participate in scientific education in all Cree communities by establishing a dynamic link with the Cree School Board. The objective of this kind of venture is to promote the geosciences to our younger generation. Presentations are given by the CMEB geologists in various CSB primary, secondary, and continuing education schools. The topics presented include the Earth Sciences, the environment, mineralogy, and mining. The purpose of the presentations is to popularize the sciences and to facilitate access to both the geological and mining domains.

### ***4.11 PUBLIC SERVICES AND INTERVENTIONS OF THE CMEB***

The CMEB made several interventions in the territory. Most of them concern requests by companies to have access to the Territory, to meet tallymen, to obtain different services and to hire manpower. The CMEB is also in demand by junior companies, universities and research centers for logistics and expertise and is consulted in cases of misunderstandings between tallyman and companies. The CMEB is the first contact to guide the parties to a suitable agreement.

The CMEB is developing geological data and an information bank for the Crees and for the mining industry. All field work is systematically reported to the CMEB. The latter makes the non- confidential information available to the public.

The Cree Mineral Exploration Board is an intermediary to facilitate communication between the mining industry and the Cree and develops mineral resources training programs to build a network between trainees and training institutions.

## 5. A FIVE-YEAR BUDGET

The accounting firm Raymond Chabot Grant Thornton LLP does the bookkeeping and produces the financial statement for each fiscal year for the CMEB. These documents are annexed to the Activity Report. Administrative and management expenses have been broken down into six categories, namely 1) Head Office and other office expenses; 2) Communications expenses; 3) Clerical and other support; 4) Technical support and expertise; 5) Board meetings and professional fees, and finally 6) Others and miscellaneous. All the expenses are best viewed in the light of the five-year work plan adopted by the CMEB. The amount for Year 1 includes an exceptional non recurrent expense related to the requirement of a vehicle for the Board and its Chief Geologists. The amounts for years 2, 3, 4 and 5 are indexed for a slight increase (5%) as a provision for cost of living and the requested services from the Board.

### *1) Office rent and expenses (\$40,000)*

These include rent and general services for a Head Office location in Wemindji, covering not less than 200 square feet, and possibly other office spaces in other communities, as possibly required such as an information center or a regional office in Mistissini. Expenses also include general office supply, and hardware and software packs for general business and possibly technical, purposes.

These services are to be provided by a Service Agreement between the Cree Nation of Wemindji and the Cree Mineral Exploration Board. This Agreement factors in administration and benefit fees for the Cree Nation of Wemindji in the amount of 15% of the value of the service offered.

### *2) Costs of Communications (\$30 000)*

These include expenses related to the use of phones, faxes, photocopies, and mostly and largely internet based communications, including web-based servicing to all communities. The costs therefore include expenses related to computer hardware and software acquisition, upgrading and maintenance.

These costs are to be included partly within the Service Agreement between the Cree Nation of Wemindji and the Cree Mineral Exploration Board.

### *3) Clerical and other support (\$60 000)*

These include a permanent clerical position(s) at the Head Office, and part-time and/or contracted specific support tasks at the Head Office or at a subsidiary information

or regional office. They include accounting, bookkeeping and auditing fees, including the provision of a financial statement at the fiscal year.

These costs are to be included partly within the Service Agreement between the Cree Nation of Wemindji and the Cree Mineral Exploration Board.

#### *4) Chief geologist and technical expertise (\$140 000)*

Based on the similar and comparable Nunavik Mineral Fund which began six years before the CMEB, a critical element of success and credibility lies in the hiring of a Chief Geologists, whose functions will be to coordinate the programs and assist the Board in all technical and professional matters. In addition, the Chief geologists, or the Board, may at time request outside independent expertise either to assess, review or plan mineral exploration assistance.

The Board has proceeded to the hiring of such a Chief Geologist, following a public and open competition. The position has been offered to Dr Youcef Larbi, PhD from UQÀM. The amounts indicated include salary, premiums, benefits and lodging. A provision of 10% is internalized in that amount to request and purchase, at time, independent expert advices on a need and service basis.

Lodging costs are to be included partly within the Service Agreement between the Cree Nation of Wemindji and the Cree Mineral Exploration Board.

#### *5) Board Meetings and Professional Fees (\$80 000)*

The Board is expected to hold an average of four meetings per year, at its Head Office or at any location deemed convenient. The amount indicated is based on that provision and an average of \$20k per meeting, based on 2002-2003 real costs for face-to-face meetings in Wemindji.

Professional Fees are for senior consulting advices to the Board such as may provide from time to time by external experts in mineral resources development, professional training or environmental policy.

#### *6) Other expenses (\$150 000)*

Expenses included in this item are related to the day-to-day operations of the information offices, field and traveling expenses of the Chief Geologists and/or experts, and miscellaneous expenses not covered by specific items of the work plan.

**6. THE CREE MINERAL EXPLORATION BOARD FINANCIAL YEAR ENDING MARCH 2017**

<b>FUNDING FROM THE CNG AND MENR FOR CMEB'S OPERATION</b>	<b>CNG</b>	<b>MENR</b>
2001-2002	\$300,000	\$300,000
2002-2003	\$300,000	\$300,000
2003-2004	\$300,000	\$300,000
2004-2005	\$300,000	\$300,000
2005-2006	\$320,000	\$300,000
2006-2007	\$320,000	\$300,000
2007-2008	\$320,000	\$300,000
2008-2009	\$320,000	\$300,000
2009-2010	\$500,000	\$300,000
2010-2011	\$500,000	\$300,000
2011-2012	\$500,000	\$300,000
2012-2013	\$500,000	\$300,000
2013-2014	\$500,000	\$300,000
2014-2015	\$500,000	\$300,000
2015-2016	\$500,000	\$300,000
2016-2017	\$500,000	\$300,000
2017-2018	\$500,000	\$300,000

<b>ALLOCATION OF FUNDS FROM THE GOVERNMENT OF QUEBEC 2016-2017</b>	
<b>RECIPIENT/PROJECT</b>	<b>\$ ALLOCATED</b>
CMEB (a) Mistissini Prospecting Program and (b) Waswanipi and Ouje-Bougoumou Prospecting Program	\$192,160
Resolution 1718-01: Native Exploration Services Reg'd. - Opemiska Project, NTS 32G15	\$18,750
Resolution 1718-02: Nimsken Corporation Inc. - 2017 Exploration Program Targets 32G07-A, B, C and 32G15A AND B	\$38,500
Resolution 1718-03: Dennis Moar - Apimichiskutasich Lake Project	\$8,700
Resolution 1718-11: Native Exploration Services Reg'd. - Mina Gold DDH Project	\$22,500
Resolution 1718-12: Nimsken Corporation Inc. - Rush Lake DDH Project	\$22,500
Resolution 1718-15: Larry Desgagné - Molly Final Phase	\$9,920
Resolution 1718-21: Jonas Sheshamush - Trapline GW-01 Phase II	\$15,000
Resolution 1718-22: Nimsken Corporation Inc. - 2018 Exploration Program Electromagnetic and magnetic surveys in NTS 32G15	\$37,470

## 7. OVERVIEW OF THE FINANCIAL ASSISTANCE ALLOCATED TO PROJECTS SINCE 2002

FUNDS ALLOCATED FOR EXPLORATION PROJECTS SINCE 2002	\$ ALLOCATED
2017-2018	\$365,500
2016-2017	\$463,626
2015-2016	\$437,551
2014-2015	384,451
2013-2014	232,075
2012-2013	300,544
2011-2012	265,000
2010-2011	373,670
2009-2010	425,438
2008-2009	389,100
2007-2008	193,054
2006-2007	380,360
2005-2006	216,398
2004-2005	178,220
2002-2004	468,845

WEMINDJI EXPLORATION INC.	
Agreement 2003-01 Initial Exploration Phase	113,587
Agreement 2003-02 Property Renewals	63,816
Agreement 2006-01 Lake Helen	25,000
Agreement 2006-03 Diamond Exploration Phase 2	60,000
Agreement 2006-05 Negotiations with Opinaca Mines Ltd-Goldcorp Inc.	175,000
Agreement 2006-08 Field Work including Geophysics Lake Astree	10,000
Agreement 2007-03 Complete Field Works on Wemindji Properties	25,000
Agreement 2008-01, Helen Lake Property Extensions	75,000
Agreement 2008-02 Diamond Exploration Project Phase 3	100,000
Agreement 2009-09 Wemindji Exploration 33 C, D, E, F and G	44,880

Agreement 2010-02 WEMEX Phase 2 Exploration Work	60,000
Agreement 2011-02 Wemindji Exploration Inc. JV Virginia Mines Inc.	37,500
Agreement 1112-10 Wemindji Exploration Inc. JV Virginia Mines Inc. Till and Au 2011	37,500
Agreement 2012-05 Project 3 Claims Block	50,000
Agreement 2012-06 Project JV Virginia Sampling	37,500
Resolution 1617-02 Research and Grassroots Exploration on New Targets In Eeyou Istchee	45,900
Resolution 1617-03 Summer Exploration Works on Claims, 33C07 and 33C06	47,538
CREE GOLD EXPLORATION INC.	
Agreement 2003-03 Perch River Copper	5,185
Agreement 2003-05 Mistissini Joint Venture	60,650
Agreement 2003-09 Assist in the Listing of Cree Gold	50,000
Agreement 2005-04 Mistissini JV Project 2005-2006	53,388
NIMSKEN INC.	
Agreement 2003-04 Oujé-Bougoumou NTS sheet 32J02 and 32J03	25,755
Agreement 2003-06 Work on the Michwacho Property	25,000
Agreement 2003-07 Beep Mat Surveys and Sampling	50,000
Agreement 2003-10 2003 Work on the Cummings Property	17,500
Agreement 2004-02 Beep Mat Surveys and Sampling	45,750
Agreement 2005-01 Work on the Michwacho Property	34,000
Agreement 2007-04 EX-In, Presentation on an Exploration Project	40,000
Agreement 2009-03 Nimsken, 32G02, 03	37,500
Agreement 2009-04 Nimsken, 32G06, 07	37,500
Agreement 2009-05 Nimsken, 32J05, 11 & 12	37,500
Agreement 2009-06 Nimsken/Soquem JV Cummings Properties	25,000

Agreement 2010-07 Nimsken Corp. 32J03, 04 and 32G14, 15	37,500
Agreement 2010-08 Nimsken Corp. 32G06,07,10 and 11	37,500
Agreement 2013-01 Nimsken Corp. 32G01, 07 and 08	37,500
Agreement 2013-02 Nimsken Corp. 32G01, 07 and 08	40,500
Agreement 1415-06 Nimsken Corporation Inc. - Opawica Project	31,500
Agreement 1415-07 Nimsken Corporation Inc. - Areas 32G02, 32G07 and 32G08	37,500
Agreement 1415-08 Nimsken Corporation Inc. - Areas 32I04, 32G13, 32G15 and 32J03 Project	37,500
Agreement 1415-13 Nimsken Corporation Inc. - Barlow East Project Geophysical Induced Polarization and Magnetometer Surveys, NTS Area 32G15	37,500
Agreement 2015-05 Nimsken Corporation Inc. - Opawica and Barlow East projects	31,733
Agreement 2015-12 Nimsken Corporation Inc. - Beep Mat Project	37,500
Agreement 2015-13 Nimsken Corporation Inc. - Diamond Drilling Barlow East Project	22,500
Agreement 2016-02 Nimsken Corporation Inc. -Chibougamau River Project	50,000
Agreement 2016-03 Nimsken Corporation Inc. - Barlow East DDH Project	19,500
Agreement 2016-02 Chibougamau River Project	50,000
Agreement 2016-03 Barlow East DDH Project	19,500
Resolution 1617-08 2016 Beep Mat Prospecting Project, Targets 32G07-A, B, C and 32G15-D and E	37,500
Resolution 1617-14 Barlow East Extension Project: MaxMin and Magnetometer Surveys NTS Area 32G15	12,450
Resolution 1718-02: Nimsken Corporation Inc. - 2017 Exploration Program Targets 32G07-A, B, C and 32G15A AND B	\$38,500
Resolution 1718-12: Nimsken Corporation Inc. - Rush Lake DDH Project	\$22,500
Resolution 1718-22: Nimsken Corporation Inc. - 2018 Exploration Program Electromagnetic and magnetic surveys in NTS 32G15	\$37,470
NATIVES EXPLORATION SERVICES	

Agreement 1112-06 Natives Exploration Services	50,000
Agreement 1213-05 Natives Exploration Services Reg'd. - Arthur and Sam Bosum NTS Area 32G06	26,438
Agreement 1213-06 Natives Exploration Services Reg'd. - Arthur and Sam Bosum NTS Area 32G10	30,750
Agreement 1213-11 Natives Exploration Services Reg'd. - Reconnaissance Geological Mapping, Prospecting and Sampling on 3 claim blocks of the "New Claims" Group of Properties	50,000
Agreement 1213-12 Natives Exploration Services Reg'd. - Follow Up Sampling Program for 2012 as Part of our Joint Venture with Virginia Mines in James Bay	37,500
Agreement 1314-23 Natives Exploration Services Reg'd. - Mina Gold Project	19,575
Agreement 1415-12 Natives Exploration Services Reg'd. - Diamond Drilling Campaign NTS Area 32G11	30,000
Agreement 2015-03 Native Exploration Services Reg'd - Barlow North-East Project	21,090
Agreement 2015-04 Native Exploration Services Reg'd - Nemenjiche and Mina Gold projects	24,765
Agreement 2015-11 Native Exploration Services Reg'd - Mina Gold East Project	33,938
Resolution 1617-09 Prospecting and Follow-up on Targets 32G10-A, 32G11 and 32J01-C	50,000
Resolution 1617-22 Prospecting and Follow-up of the 29% Cu Atlas Showing, NTS 32G15	36,983
Resolution 1718-01: Native Exploration Services Reg'd. - Opemiska Project, NTS 32G15	\$18,750
Resolution 1718-11: Native Exploration Services Reg'd. - Mina Gold DDH Project	\$22,500
ENVIROCREE LTD.	
Agreement 1415-17 Mistassini Lake Picnic Areas Clean-up Project	5,000
MCV SERVICES	
Mining 101 and Basic Mineral Exploration Session 1, Chisasibi	23,000

Mining 101 and Basic Mineral Exploration Session 1, Whapmagoostui and Waskaganish	50,000
CREE NATION OF CHISASIBI	
Agreement 1314-14 Chisasibi Prospecting Course	16,000
CREE NATION OF MISTISSINI	
Agreement 2003-11 Basin Study Research Project Phase 2	30,500
Agreement 2004-01 Diamond Exploration Field Assistant Training Course	20,000
Agreement Cree Nation of Mistissini (Line cutting Grid)	19,500
Mistissini Funding Request Uranium Consultation	10,000
Mistissini - Safety Security 11-004, Copper Boulder Tracing Phase 3 and Washaw Sibi Training	120,000
CREE NATION OF WASWANIPi	
Agreement 2011-01 Mineral Exploration and Mining Activity Eeyou Istchee	10,000
Agreement 1314-12 Waswanipi Training Workshop, Introduction to Mineral Exploration and Mining 101, August 2013	10,000
Agreement 1314-13 Waswanipi Training, Introduction to GESTIM Plus: A mining title management system, August 2013	3,000
PROSPECTORS	
Assinica Lake Project	16,072
Agreement 2004-05 Baie à la Roche Rouge	10,245
Rale Project	11,800
Agreement 2005-02 Lake à l'eau Jaune Phase 2	11,100
Agreement 2005-03 Lake Assinica Phase II	17,550
Agreement 2005-06 Lake Assinica Phase III	8,485
Agreement 2006-02 JS Stromatolite Parts A and B	20,000
Agreement 2007-01 Almungo Project Phase 1	10,300
Agreement 2007-02 Kaychikwapichu Project Phase 1	10,060

Agreement 2008-03 Projet Nicobi Exploration	12,500
Agreement 2009-01 Larry Desgagné Nicobi 2	17,940
Agreement 2009-02 Larry Desgagné Windy Lake	5,675
Agreement 2009-07 Sam R. Bosum (32G-11)	25,500
Agreement 2009-08 Arthur Bosum (32G14)	28,800
Agreement 2010-03 Larry Desgagné Buteux Gold	11,940
Agreement 2010-04 Larry Desgagné Nicobi Phase 3	14,200
Agreement 2010-05 Sam Reggie Bosum 32G11	30,000
Agreement 2010-06 Arthur Albert Bosum 32G11	30,000
Agreement 1112-05 Larry Desgagné Buteux Phase 2	18,500
Agreement 1112-11 Terry-Charles Bearskin Black Bear (46.5 km LG-4)	25,000
Agreement 1213-09 Larry Desgagné Buteux Phase III	5,600
Agreement 1213-10 Larry Desgagné Ganthier Phase 1	19,400
Agreement 1213-14 Larry Desgagné Perch River #3	2,500
Agreement 1314-04 Larry Desgagné - Buteux Gold Phase 4 Project	17,575
Agreement 1314-05 Larry Desgagné - Copper Pointe Project	9,425
Agreement 1314-08 Jim MacLeod - Copper Stromatolite Project	23,000
Agreement 1314-10 Wayne Fireman - Virginia Claims Project	15,000
Agreement 1314-16 Jonathan Gunner - Stajan Project	12,000
Agreement 1314-20 Marc Bouchard - Win-Win Project 32G10, Lac à l'Eau Jaune	14,100
Agreement 1314-22 Sam R. Bosum - Nemenjiche Project	16,400
Agreement 1415-03 Christopher Quinn - Merrill Lake Project	30,000
Agreement 1415-04 Larry Desgagné - Moly Extension 2014 Project	9,855
Agreement 1415-05 Larry Desgagné - Copper Point Project	15,525
Agreement 1415-14 Dennis Moar and Teddy Ekomiak - Rawkz TD Project	9,700
Agreement 1415-15 Nikamoon Mitchell and Robert Ratt - Mitchell Project	12,600
Agreement 1415-16 Marc Bouchard - Lac à l'Eau Jaune Win-Win Project Phase 2	7,000
Agreement 1415-20 Dennis Moar - Utahunanis Project	4,400
Agreement 1415-21 Larry Desgagné - Copper Point Phase V Project	5,000

Agreement 2015-01 Dennis Moar - Utahunanis Project	4,400
Agreement 2015-02 Larry Desgagné - Copper Point Phase V Project	5,000
Agreement 2015-06 David John Peace - Brun Lake Project	10,300
Agreement 2015-07 Larry Desgagné - Fushite Gold Project	5,450
Agreement 2015-08 Larry Desgagné - Buteux Gold Project	18,550
Agreement 2015-09 Frederick Whiskeychan - River Allard Project	10,000
Agreement 2015-10 Kenny Wapachee - Trapline M-13 Project	9,000
Agreement 2015-14 Marc Bouchard - Win-Win Project	13,150
Agreement 2016-01 Larry Desgagné - Buteux Gold Project 2016 Phase VI Project	8,100
Resolution 1617-04 Larry Desgagné - Nicobi 2016	16,900
Resolution 1617-05 Nikamoon Mitchell and Robert Ratt - Mitchell Project Phase 2	8,200
Resolution 1617-06 Dennis Moar - Rawkzt Phase 2	5,800
Resolution 1617-12 Kenny Wapachee - Trapline M13 Exploration Project	9,100
Resolution 1617-13 William Fireman - Trapline CH16 Au-Cu Exploration Project	10,300
Resolution 1617-21 Larry Desgagné - Nicobi 2017	7,945
Resolution 1617-23 Larry Desgagné - Molly Drilling Project 2017	21,175
Resolution 1617-24 Marc Bouchard - Phoenix Project	13,000
Resolution 1617-25 Jonas Sheshamush - Whapmagoostui Trapline GW-01 Exploration	15,000
Resolution 1718-03: Dennis Moar - Apimichiskutasich Lake Project	\$8,700
Resolution 1718-15: Larry Desgagné - Molly Final Phase	\$9,920
Resolution 1718-21: Jonas Sheshamush - Trapline GW-01 Phase II	\$15,000
<b>SPECIAL PROJECTS</b>	
Agreement 2004-03 Study of a Cree Mining Investment Fund	39,575
Agreement 2005-05 Cree Mining Investment Fund Phase 2	31,125
Agreement 2006-04 Creation of study program in mineral exploration	40,000
Agreement 2006-07 Identification of abandoned exploration sites Phase 1	30,000

Elders Field visit of Uranium Mines in Saskatchewan	7,000
TJCM, Glaciofluvial Sampling Survey Sakami Moraine	15,000
Purchase of one Beep Mat	14,000
Agreement 1112-08 Jeremy Brown, New CMEB Website	2,775
Agreement 1112-17 Geo -touristic Map	9,700
Agreement 1112-20 Dissemination of information on Uranium - Sydon Consulting Inc.	58,450
Agreement 1213-21 Niskamoon Corp. - Natural environment Technology	20,000
Agreement 1213-23 MCV Services - Mining 101 and Basic Mineral Exploration Session 1, Chisasibi	23,000
Agreement 1213-24 MCV Services - Mining 101 and Basic Mineral Exploration Session 1, Whapmagoostui and Waskaganish	50,000
Agreement 1213-26 UQAM - An analysis of the mining development in North Quebec	5,000
Agreement 1213-28 Purchase of a vehicle	27,000
Agreement 1314-18 James Bay Advisory Committee on the Environment Workshop on the acquisition and dissemination of environmental and social knowledge	5,000
Agreement 1314-19 Maquata Eeyou School, Wemindji	1,500
Agreement 1314-21 Purchase of second Beep Mat	14,400
Cree Nation Bears AAA U-17 Girls Hockey Team Jackets	2,500
Sponsorship to Larry Desgagné to participate in a Vintage Snowmobile Race	500
Commercial Ad for the CMEB on Eeyou TV	3,500
2015 Prospecting Courses Mistissini, Nemaska and Eastmain	121,975
Cree Nation Bears AAA Girls Hockey Team Sponsorship	1,000
Sponsorship to Marc Bouchard for the Festival Du Doré registration	650
Resolution 1617-01 Suzanne Bourdon - Communications Plan for the Cree Mineral Exploration Board	10,000
CONFERENCE	

Agreement 2006-06 Sponsorship of the Learning Together	15,000
Agreement 2007-05 Sponsorship of the Learning Together	15,000
CAMA-Québec Exploration	12,500
Québec Exploration	17,500
Agreement 1112-02 Sponsorship of James Bay Mining Symposium	15,000
Agreement 1112-16 Sponsorship of Learning Together	15,000
INVESTMENT IN JUNIOR EXPLORATION COMPANIES ACTIVE IN EEYOU ISTCHEE	
Niogold Inc.	35,000
Ressources d'Arianne Inc.	50,000
Nemaska Exploration Inc.	150,000
SIRIOS Resources Inc.	75,000
Eagle Hill Exploration Corp.	75,000
Geometa Resources Inc.	50,000
Metanor Resources Inc.	150,000
SIRIOS Resources Inc.	30,000
SIRIOS Resources Inc.	50,000

## 8. THE WORK PLAN April 2018-March 2019

Since The beginning of CMEB activities on 2003, the mining industry is on an increasing trend. This last year we observed a major decreasing in investment and exploration projects. CMEB has to face the new mining situation in Eeyou Istchee. The priority is the application of the five programs of the Cree Mineral Exploration Board as submitted to the Cree Regional Authority and the MERN. This includes the creation for project with low expenses usually handled by prospectors, the preparation of training programs and the creation of job opportunities within the exploration companies and mines in Eeyou Istchee; to keep informing the communities about mining activities on their traplines on regular basis; establishing communication and networking between the tallyman and the local authority and the mining industry, and helping Cree prospectors and companies develop exploration projects. *The CMEB will participate in improving the environmental aspect related to mining impacts and encourage environmentally safe mining activities; and will participate actively in the Plan Nord planning. The Crees want to develop mining in the context of Eeyou Istchee sustainable development; this has to be done appropriately to protect the environment and wildlife (The former Grand Chief Matthew Coon Come, Quebec Exploration Conference). In the same subject the CMEB's president Reggie Mark insists on the sustainable character of CMEB. The board members believe that we have to keep undertaking the best practices to succeed in Exploration projects realization. We are ameliorating our proper communication tools and insisting to consult at the very beginning. The process will benefit all parties concerned and a mutual understanding lead to sustainable development.*

### Programs Development

- The CMEB has as objective to create a number of prospectors in each community. These trainees will be the go-to people for the community in terms of “what happens in mining exploration in the territories and in other places”. We will conduct the minerals prospecting courses in the **summer 2018. We will**

**strengthen the knowledge of the new prospectors and guide the Tallyman-Prospectors on the field.**

- As follow up to our prospectors program, CMEB will organize four weeks **update training with our graduate prospectors this summer 2018**, in the communities.
- Workshop (**mining 101**) for entrepreneurs in mining industry. This program helps Crees seeking opportunities in the mining industry to learn about running private companies in mining services and establishing agreements.
- Continue collaborating with the CTA in Recognizing Metal Mineralization training for tallymen and trappers. **The CTA is the most important CMEB partner.**
- Continue collaborating with MERN in exchanging data and **visiting the MERN mapping camps with the CMEB trainees.** This improves the students' knowledge considerably. Many thanks for Ministère de l'Énergie et des Ressources naturelles.
- Upgrading Trainings in Mineral Resources and Environment built in **collaboration with the CHRD, NISKAMOON, CSB, SDBJ and CEGEPs.** This is a technical level training program and the trainees are full time students or are on student summer jobs. The program in environmental sciences started in 2011 with the collaboration of the CMEB, NISKAMOON, CSB and le CÉGEP de St-Félicien.
- AEC geology technic built in **collaboration with the CHRD, CMEB and CÉGEP de St-Félicien.** This is a technic program, the student are full time and are on «Stage» for the summer. The program of Technician Geologist started in 2017 with the collaboration of the CMEB, CHRD and le CÉGEP de St-Félicien at Chibougamau. We will receive the next cohort in the fall 2018.
- Two days open doors to keep prospectors up-to-date on new technology. This workshop will keep our prospectors in touch with the mining activities and with

the new techniques and/or equipment. We offer this activity in all communities.

- **Sponsoring of university graduate cree students** in the field of mineral resources, geology and environment
- Continue bringing out the new geo-touristic and geo-trapline maps.
- Trapelines/Tallyperson Interactive Map for the Exploration Companies needs. The map contains layers : 1. Google Map, 2. Trapelines and number for each the trapline (ex. W23), 3. NTS 1/50 000 grid for better location, and The Cree Communities location
- Website update and Creation of **webpage for the Cree youth** on (cmeb.org) site. This will contain educational and entertainment materiel. Organizing social media tools for the Crees (Facebook and Tweeter).

### **Updating courses in Mineral Exploration Project**

Grassroots exploration, GIS and mapping: the CMEB will carry out two projects in July 2017. The first one will occurred in the area of Mistissini and the other one concerns a visit to each community in Eeyou Istchee to meet and inform the Tallyman and the trappers. The projects are in preparation and are aimed at various commodities. The domain selection is based on the needs of the Crees and job opportunities in Eeyou Istchee. The field work is based on technical preparation and on data from previous geological compilation and from several known targets.

New prospecting project is in preparation with the prospectors from Chisasibi, Wemindji and Mistissini with the collaboration of Sam Bosum, and Jim Macleod pioneer prospectors in the Quebec.

### **Accompanying New under grade student in Geology**

CMEB is proud to be the mentor and the geo-scientific support for Norman Grant student at McGill University Montreal in Geology Program. CMEB will support him to

attend Quebec Mine and the Cree mining Conference in the purpose to develop his knowledge and his own experience. He will have a direct support from the CMEB's Chief Geologist.

### Activities

- Encourage Cree and non Cree companies to start new exploration projects.
- Organize several geology and Earth sciences activities for the Cree schools during the year visiting mines and mineral museums, and preparing la SEMAINE MINIÈRE event in April 2018 in schools in different communities.
- Encourage Cree prospectors and help them find new projects.
- Help new Cree prospectors trainees build prospecting projects.
- Finalize and update the ongoing Cree prospectors and Cree companies projects.
- Geological report and update geological maps in Eeyou Istchee, summer 2018.
- Exploration activities report in Eeyou Istchee produced in November 2018.
- Continue to improve the CMEB website; create a web page to interest youth in mining and the environment before November 2018.
- Participate and be a partner in different promotion and information events. The CMEB is a faithful collaborator of Quebec Mine and “la Semaine Minière”, of the Canadian Aboriginal Mining Association, Several Comities concerning Exploration and social acceptability. **le Congrès de l'exploration minière du Québec**, and of **Cree Mining Conference** (as major member and as a promoter).
- Build the first public Cree exploration company by the Crees for the Crees. This Company will be listed on the stock market.
- Build A Cree Investment Fund.

- CMEB continues working on the Cree Mining Exploration Table with the Cree Government and The Government of Quebec.
- For the 9<sup>th</sup> year CMEB is animating the Rock competition. This last year we had 7 participants from all over Eeyou Istchee.
- The CMEB continues to award academic scholarships to secondary 5 students graduating from CSB schools.

### **Awareness and Geosciences**

- Visits of information in the communities with the collaboration of the Cree School Board schools and participating in the internal events.
- Informative meeting with the trappers and tallymen in partnership with the CTA.
- Participate in science fairs in the communities and continue to do presentations in schools of Cree School Board.
- Update the guideline book for exploration companies already published on the CMEB website.
- Promote the CMEB via MERN, Cree Government, Cree Trappers Association, Société de la Baie James and the Secretariat to the Cree Nation Abitibi-Témiscamingue Economic Alliance.
- Promote Earth Sciences in class and on the field for youth in primary and secondary grades in April and May.
- Promoting Geology and Minerals Exploration in local Science and Career Fairs, Quebec Mine, the Canadian Aboriginal Mining Association, AEMQ Xplor, PDAC and Cree mining conference.
- Provide the latest news related to the Earth Sciences and Minerals Exploration on CMEB's website.

- Compile scientific data from summer mapping projects and from Minerals Exploration activities such as new targets, and from agreements between the mining industry and the Crees.
- Develop a link to the CMEB website on the Cree entities, the MERN and the AEMQ websites.
- CMEB continually maintains and updates a database on mining and staking activities by companies and prospectors in Eeyou Istchee. This information will be published and updated on the CMEB website to ensure that tallymen and companies are well informed.

### **Conclusion**

In this Work Plan, we attempt to suggest to the Board a numbers of recommendations for pursuing its objectives with regards to Training, Job Assistance and Prospecting projects. It may be useful to recall those objectives, as set forth in the CMEB Work Plan for 2017-2020, adopted at the board meeting, on May 30<sup>th</sup> 2017,

*Updating courses and Job assistance shall aim at a) promoting, initiating or supporting those programs and activities to increase the skills of native individuals at mineral exploration, and b) providing assistance to job development and placement, including monitoring and on-the- job training programs. The desired impact is, in the short term, to train individuals to the level of accessing the immediate job market in exploration, and in the mid-term, to provide ways to lead to higher education and more advanced skills in mineral or natural resources management.*

*These tasks include:*

- *the development of new or the support of existing training initiative in collaboration with Emploi-Québec or other organization certified in the field*
- *establishing working relationships with organization capable of certifying the value of the training programs, especially MERN, and the Ordre des Géologues du Québec*

- *promote and support as much as possible training programs which may lead to higher education, in collaboration with the Cree School Board, Cree Human Resources Development department, various Colleges, or the MELS*
- *ensure the collaboration and the consultation of the mining industry on the design of training programs*
- *monitor and disseminate information about job offers and attempt to forecast job demands in collaboration with the industry; set up appropriate instances and committees for that purpose.*

### **Recommendations**

#### **For Training and Job Creation:**

- It is imperative that more people be trained for the various job opportunities to be had from mineral exploration on Cree territory. Business partnerships with mining companies will be an important reality in the close future which is linked to the Plan Nord. The forward progress of exploration projects, especially in the Opinaca Reservoir, the Otish Mountains areas, Nemaska area and along the Trans-Taiga road, will create job opportunities for members of all Cree communities.
- Consolidate and develop prospecting, blasting and drilling courses with interested, motivated and educated young women and men;
- Encourage training in the environmental sciences;
- Organize with Cégeps and universities a program concerning mineral resources and the environment for technicians and Bachelor degrees in mineral resources and the Earth sciences.

Because of their isolation, communication with and between the communities is difficult. We have to establish a regional information network find new trainees, new

prospectors and post-secondary students in all communities willing to study the Earth sciences away from home. *The fibre-optic telecommunications recently installed between the communities will improve communication, facilitate training and increase the flow of information in our mineral resources domain.*

For Promotion:

The Cree Mineral Exploration Board continues to successfully promote Cree land mineral resources and raises awareness in Cree communities via schools and presentations in the communities. The CMEB helps prospectors develop their expertise. Concerning the new prospectors training program; the CMEB effectively delivers this program whenever needed. With reference to awareness, it is important to inform communities and Cree organizations about mining realities and avoid false expectations. Mining companies also benefit from any information concerning the needs in the Cree Territory for environmental protection, employment, and economic development.

Finally:

It is recommended that the Cree Mineral Exploration Board:

- Develops joint ventures with mining companies on advanced projects to share exploration costs;
- Each member of Cree Mineral Exploration board will promote the services of CMEB to the Crees. The Crees need to know more about the CMEB. This will facilitate the access to all the information about mining and its related jobs in Eeyou Istchee.
- Emphasizes grassroots exploration projects from the standpoint of offering more material for exploration and exploitation, and bring new companies to Eeyou Istchee;
- Develops partnerships with the MERN resident geologists to generate new projects;

- With reference to the Autonomous Prospectors Program - the CMEB is working closely with the prospectors in the development of their exploration projects by supplying knowledge in geology and business and report-writing services;
- Continues to work with the Cree School Board students and promote the Earth sciences;
- Continues to inform Cree organizations and the mining companies about the activities of the CMEB;
- Advises the communities in mining investment and be part of this big activity in Eeyou Istchee;
- Maintains the North-South Mineral Exploration network;
- Generates new detailed geological data in Eeyou Istchee: the CMEB collaborates with Quebec Government in mapping uncharted Cree territory. This increases the mineral potential value and improves the geological database of the territory and of northern Quebec. In addition, the CMEB collaborates with quaternary expertise organizations, such as the Université du Québec en Abitibi-Témiscamingue. This allows access to data on both glacial movement and mineral dispersion. The Board will study all comprehensive proposals within the parameters of this recommendation.

### **REMINDER: The five-year budget**

Administrative and management expenses have been broken down into six categories, namely 1) Head Office and other office expenses; 2) Communications expenses; 3) Clerical and other support; 4) Technical support and expertise; 5) Board meetings and professional fees, and finally 6) Others and miscellaneous. All the expenses are best viewed in the light of the five-year work plan adopted by the CMEB. The amount for Year 1 includes an exceptional non recurrent expense related to the requirement of a vehicle for the Board and its Chief Geologists. The amounts for years 2, 3, 4 and 5 are indexed for a slight increase (5%) as a provision for cost of living and the requested services from the Board.

*1) Office rent and expenses (\$40,000)*

These include rent and general services for a Head Office location in Wemindji, covering not less than 200 square feet, and possibly other office spaces in other communities, as possibly required for an information center or a regional office in Mistissini. Expenses also include general office supply, and hardware and software packs for general business and possibly technical, purposes.

These services are to be provided by a Service Agreement between the Cree Nation of Wemindji and the Cree Mineral Exploration Board. This Agreement factors in administration and benefit fees for the Cree Nation of Wemindji in the amount of 15% of the value of the service offered.

A regional office space may eventually be contracted out with the Cree Natural Resources Center, located in Mistissini and provisions for that purpose are included generally.

*2) Costs of Communications (\$30 000)*

These include expenses related to the use of phones, faxes, photocopies, and mostly and largely internet based communications, including web-based servicing to all communities. The costs therefore include expenses related to computer hardware and software acquisition, upgrading and maintenance.

These costs are to be included partly within the Service Agreement between the Cree Nation of Wemindji and the Cree Mineral Exploration Board.

*3) Clerical and other support (\$60 000)*

These include a permanent clerical position(s) at the Head Office, and part-time and/or contracted specific support tasks at the Head Office or at a subsidiary information or regional office. They include accounting, bookkeeping and auditing fees, including the provision of a financial statement at the fiscal year.

These costs are to be included partly within the Service Agreement between the Cree Nation of Wemindji and the Cree Mineral Exploration Board.

*4) Chief geologist and technical expertise (\$140 000)*

Based on the similar and comparable Nunavik Mineral Fund which has been in existence for six years before CMEB, a critical element of success and credibility lies in the hiring of a Chief Geologists, whose functions will be to coordinate the programs and assist the Board in all technical and professional

matters. In addition, the Chief geologists, or the Board, may at time request outside independent expertise either to assess, review or plan mineral exploration assistance.

The Board has proceeded to the hiring of such a Chief Geologist, following a public and open competition. The position has been offered to Dr Youcef Larbi, PhD from UQAM. The amounts indicated include salary, premiums, benefits and lodging. A provision of 10% is internalized in that amount to request and purchase, at time, independent expert advices on a need and service basis.

Lodging costs are to be included partly within the Service Agreement between the Cree Nation of Wemindji and the Cree Mineral Exploration Board.

#### *5) Board Meetings and Professional Fees (\$80 000)*

The Board is expected to hold an average of four meetings per year, at its Head Office or at any location deemed convenient. The amount indicated is based on that provision and an average of \$20k per meeting, based on 2002-2003 real costs for face-to-face meetings in Wemindji.

Professional Fees are for senior consulting advices to the Board such as may provide from time to time by external experts in mineral resources development, professional training or environmental policy.

#### *6) Other expenses (\$150 000)*

Expenses included in this item are related to the day-to-day operations of the information offices, field and traveling expenses of the Chief Geologists and/or experts, and miscellaneous expenses not covered by specific items of the work plan