

IOS Services Géoscientifiques inc.

**CHEECHOO PROJECT
A GOLD EXPLORATION
PROJECT NEAR OPINACA
RESERVOIR
BAIE-JAMES, QUEBEC
NI-43-101 TECHNICAL REPORT**

Presented to

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SIRIOS RESOURCES INC.

Presented by

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Ville de Saguenay

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ITEM 1: SUMMARY

In autumn 2012, Sirios Resources drilled on Cheechoo B-west what might be one of the most important gold discovery after Eleonore in the James Bay area. This project represents a new paradigm in gold exploration for the area. It justifies the onset of definition drilling for a low-grade large tonnage gold prospect, as well as it open to door to a new exploration approach for the whole area.

The autumn 2012 drill discovery made by Sirios Resources on Cheechoo-B-west might be the most significant gold occurrence in James Bay after Eleonore mine.

The broad low-grade gold-only mineralization is hosted in a silicified thondjemite, and suggest it might be an Reduced-Intrusion related deposit.

The Cheechoo and Shark properties, from the Cheechoo project, were acquired by staking in autumn 2004 by Sirios Resources in the Opinaca Reservoir area, after the announcement of the Eleonore discovery by Virginia Gold Mines. The properties were granted to option to Canadian Royalties and Golden Valley Mines in early 2005, prior to be all versed into Golden Valley

Mines. This company acted as operator of the project, which was converted into a 60%/40% joint venture with Sirios in December 2009. In June 2012, Sirios entered into a buy-back option, within which a drilling program in autumn granted it a 5% supplementary interest, plus a right to acquire 100% of the project according to completion of \$4,200,000 in expenditure plus some payment and royalties in regard of Golden Valley.

The geology of the various properties is divided in two lithodemic assemblages.

- Cheechoo A is located in the LaGrande Sub-province, encompassing partly the Kasak Formation, dominated by metabasalts and metasediments, as well as the Elk Lake granodiorite.
- Cheechoo-B straddles the LaGrande and Opinaca sub-provinces suture zone. The actual Cheechoo-B-east is located well into the LaGuiche Complex and dominated by the metatexite and anatectic granites. Cheechoo-B- metasediments of the Low Formation and an un-nammed tonalitic intrusion in the south, while the north is in the LaGuiche Complex.
- Cheechoo-C formerly covered a band of peraluminous paragneiss attributed to the LaGuiche Complex.

Examples of Reduced-Intrusion related deposits includes world-class multi-million ounces mines or projects such as Fort-Knox in Alaska and Dublin Gulch in Yukon.

- Shark property is thoroughly included within the LaGuiche Complex, dominated by metatexite and anatectic granites.

In the course of its operatorship, Golden Valley conducted various exploration programs:

- Winter 2005: Systematic airborne frequency domain electromagnetic and aeromagnetic survey.
- Summer 2005: Systematic lake bottom sediment sampling and geochemistry, conducted by the author's firm.
- Autumn 2005: Conventional prospecting of the AEM anomalies.
- Spring 2006: Line cutting, ground magnetometric survey, HLEM survey and induced polarization survey on the north-eastern half of Cheechoo-A.
- Summer 2006: Follow-up prospecting on the various occurrences discovered in 2005, including the grid on Cheechoo A and the extension of Everton Ressource's In-Ex discovery on Shark.
- Summer 2006: Limited trenching on Cheechoo-A AEM anomalies.
- Winter-spring 2007: Line cutting, magnetometer surveys, HLEM surveys and Induced polarization surveys on Top-Fin (Shark), Marchand (Shark+Cheechoo B), Garrioch and Last-Day (Cheechoo-B) occurrences.
- Summer 2007: Geological mapping and prospecting of the various grids.
- Summer 2007: Trenching and channel sampling of the diverser occurrences or anomalies on the various grids.
- Summer 2007: Humus geochemistry on various grids.
- Autumn 2007: Drilling of 24 holes, for 2774 metres, on various targets. Most of the meterage was dedicated to Cheechoo-A.
- Summer 2010: Humus geochemistry and walking-magnetometer survey on the southern portion of Cheechoo-B, conducted by the author's crew.
- Autumn 2010: Prospecting of what will become the Cheechoo-B-west occurrence, conducted jointly by the author's, client's and operator's crew.
- Summer 2011: Prospecting of the northern part of Cheechoo-B-west property, a few kilometers away from Eleonore mine.

Golden Valley efforts allowed the discovery of various mineralized occurrence:

- Cheechoo A
 - Boulder field (2005), including about more than 22 mineralized blocks with gold with grades between 0.1 g/t and 3.9 g/t gold. These blocks were likely derived from the Kasak Formation, a metabasaltic assemblage belonging to the Middle Eastmain River volcanic belt.
 - Letang occurrence (2006), which is a small quartz vein in a granodiorite, which yielded 209 g/t gold on a selected sample.

- Hole GCHA-07-01 yielded two minor intercepts of 0.145 g/t and 0.198 g/t over 0.5 metres of apparent thickness each.
- Outcrop #150 (2007), which is a mineralized outcrop from Kasak Formation, which was stripped and channel sampled, yielding a non-significant intersect of 0.1 g/t gold over 7.0 metres.
 - Hole GCHA-07-02 intersected 0.128 g/t gold over an apparent thickness of 1 m.
- Outcrop #159 (2007), which is a mineralized outcrop from Kasak Formation, which was stripped and channel sampled, yielding a non-significant intersect of 0.06 g/t gold over 9.8 metres.
 - Holes GCHA-07-08,09,10,11 provide a profile across the area, with the best intersect being a non-significant 0.23 g/t gold over 0.8 metres of apparent thickness.
- Trap-Zone occurrence (2007), which is a mineralized outcrop from the Kasak Formation, which was stripped and channel sampled, yielding a non-significant intersect of 0.01 g/t gold over 8.7 metres.
 - Holes GCHA-07-02,04,05,06,07 provide a section across the area, with a best intercept of a non-significant 0.135 g/t gold over 1 metre of apparent thickness.

✚ Cheechoo B-East

- Marchand occurrence, which straddles the Cheechoo-B and Shark boundary. Eleven grab samples were collected, grading between 0.114 g/t and 11.96 g/t gold, plus a channel sample grading 0.07 g/t over 27.6 metres including 1.065 g/t over 1.0 metre.
 - Hole GMC-07-01 did not intersected anomalous gold grade.
- Garrioch occurrence, which include a single grab sample at 0.43 g/t, plus a few channel sample with their best intercept of a non-significant 0.16 g/t over 0.5 metres.
 - Hole GGH-07-01 intersected 0.176 g/t gold over an apparent thickness of 3 metres.
- Last-Day occurrence, on which a single grab sample of 0.124 g/t gold has been obtained.

✚ Shark

- Top-fin occurrence, which is in the eastward extension of In-Ex occurrence (Everton Resource). This site yielded a few mineralized grab samples, plus a channel sample grading non-significant 0.02 g/t over 3.4 metres and 0.01 g/t over 18.5 metres.
 - Holes GSK-07-01,01b, 02, 03, 04 and 05 were drilled here and there without returning any significantly mineralized intercept
 - .

Cheechoo B-West

First evidence of Cheechoo-B-west occurrence was discovered through prospecting by Golden Valley in 2007, which included a poorly significant channel sample grading 0.01 g/t over 11.5 metres. Systematic prospecting by a Sirios-Golden Valley-IOG crew in 2010 enabled the collection of 37 grab samples from tonalitic rock, grading between 0.103 and 25.5 grams per ton gold.

In 2005, Eastmain Resources conducted a systematic B-horizon soil survey on their Eleonore south project, on which they outlined a plurikilometric gold anomaly. This anomaly is stretched along the ice-flow direction, and rooted on the south-west end of Cheechoo-B. The author then indicated that the source of this anomaly was likely in Sirios-Golden Valley property. The area up-ice of this anomaly was prospected in 2010, where abundant mineralized grab samples were collected, confirming the hypothesis. These samples were very slightly mineralized trondhjemite (or leucocratic tonalite), with only trace amount of pyrite, pyrrhotite and arsenopyrite. Alteration is restricted to pervasive and stockwerk silicification, possible potassic alteration, with traces of tourmaline and diopside, but with very little phyllosilicates such as sericite or biotite.

Literature review suggested this might represent a *Reduced intrusion related* mineralization. Such deposit type is mostly reported in the Canadian Cordillera, where it includes world class deposit such as Fort-Knox in Alaska. They are reputed to generate very large and low-grade deposit, typically millions of ounce at less than 1 g/t gold. Similarities with what is found in Cheechoo-B-west is striking. The author has not found documentation relating to another such deposit in Archean terrain. This might represent a new paradigm of exploration, at the least for the area.

In summer 2012, Sirios conducted a geophysical survey including ground magnetometry and induced polarization. The occurrence has been drilled with success in autumn 2012, for eight (8) holes and 938 metres (**table 1**). The three first holes contained low-grades of gold over almost their entire length. Holes #4 and #5 were anomalous and the three remaining holes, drilled outside the mineralized area, were barren

| Hole | From | To | Length | Au g/t |
|-----------|----------|-------------------------|----------|-----------|
| 919-12-01 | 3.6 m. | 195 m. EOH ¹ | 191.4 m. | 0.21 g/t |
| Including | 3.6 m. | 49.4 m. | 45.8 m. | 0.50 g/t |
| Including | 18.0 m. | 42.0 m. | 24.0 m. | 0.70 g/t |
| 919-12-02 | 43.5 m. | 100.0 m. EOH | 56.5 m. | 0.59 g/t |
| Including | 43.5 m. | 56.0 m. | 12.5 m. | 0.39 g/t |
| Including | 60.5 m. | 100.0 m. EOH | 39.5 m. | 0.72 g/t |
| 919-12-03 | 3.4 m. | 132.0 m. EOH | 128.6 m. | 0.65 g/t |
| Including | 3.4 m. | 4.0 m. | 0.6 m. | 10.70 g/t |
| Including | 76.0 m. | 132 m. EOH | 56.0 m. | 1.09 g/t |
| Including | 89.0 m. | 90.0 m. | 1.0 m. | 10.85 g/t |
| Including | 119.0 m. | 120.0 m. | 1.0 m. | 25.90 g/t |
| 919-12-04 | 58.0 m. | 64.0 m. | 6.0 m. | 0.17 g/t |

Table 1: Fourth first holes with best gold mineralization.

Although very preliminary, the 2012 drilling results are extremely encouraging. They suggest that an area of approximately 1 kilometre in length and 600 metres in width is broadly mineralized in gold. Grades and widths are comparable with other *Reduced Intrusion related* gold deposit. Such mineralized system definitively warrant systematic drilling in order to delineate resources, and the author recommends that the bulk of the expenditure commitment indicated in the Sirios-Golden Valley buyback option, for a total of \$4.2 million, be dedicated for such drilling.

¹ EOH: End of the hole.

ITEM 2: INTRODUCTION

ISSUER AND MANDATE

M. Dominique Doucet, president of Sirios Ressources inc, mandated M. Réjean Girard, president of 'IOS Services Géoscientifiques inc. and professional geologist, first through a verbal agreement in April 2013 and subsequently by letter on May 28 2013, to write the current technical report, to be compliant with the National Instrument 43-101, form F1 instructions. The report is required by the TSX Venture Exchange in the

Sirios Resources requested the present technical report in compliance with an expedited transaction in order to acquire 100% of the Cheechoo project.

context of their review of the proposed expedited transaction between Sirios Resources and Golden Valley Mines. This transaction would enable Sirios to acquire the entirety of the dominant interest of Golden Valley in the project. All the available information regarding the project, either geoscientific or corporate, are presented, regardless they were conducted by Sirios or Golden Valley. Mr Block, co-author of the report, conducted the autumn 2012 drilling program, which stands for the official site visit.

Two former NI-43-101 compliant reports were produced in regard of the property on behalf of Golden Valley Mines, the first written by the author (Girard, 2005) as requirement for their initial public offering, the second more recent written on behalf of Golden Valley Mines (Beauregard and Goudreault, 2011), as requirement for the tentative spin-off of James Bay Gold. Although the information available in these reports has been used by the author, the current report represents an in-depth and thorough reviewing and rewriting.

The geoscientific information used in the current report is collected from governmental report as well as publically available assessment reports archived at the *ministère des Ressources naturelles du Québec (MRNQ)*. The author has conducted no in-depth review of this governmental information, but who is quite familiar with the regional geology. Information was also gathered from reports and database provided by Golden Valley Mines, as well as proprietary database of the author.

The author and its firm has been involved on a recurrent basis on this property. They have conducted the initial work on behalf of Golden Valley Mines in 2005, has been involved in various aspect of the subsequent programs, and finally conducted the autumn 2012 drilling program on behalf of Sirios. The author and its firm also conducted the initial work on behalf of Everton Resources, the property of who are intricate with Cheechoo project, as well as numerous other projects in the vicinities.

MANDATORY FIELD VISIT

The author, M. Réjean Girard, P. Geo, conducted the mandatory field visit on June 05, 2013 (**pictures 1 and 2**). In the course of the visit, he examined four of the drilling site of the 2012 drilling program as well as various mineralized outcrops in Cheechoo B-West. He also visited the Letang occurrence and one of the mineralized boulder field in Cheechoo A. He visited one of the drilling site in Shark property, and attempted to find one of the drilling site in Chechoo B-East, without success.

All four properties of the Cheechoo project were visited by the author on June 05, 2013, when he visited number of the drilling sites.

M. Mikaël Block, professional geologist and employee of the author, conducted the autumn 2012 drilling program on the property. He has been present on the property from October 22 to November 06. Most of his work has been concentrated on the west-part of Cheechoo-B property, where drilling took place, and which is the main focus of subsequent Sirios proposed work.

No exploration work has been conducted on the property since the last drilling program, and the visit is then considered as actual.



Picture 1: Picture of the author taken at drilling site 919-2012-003 on June 5, 2013, in the course of his mandatory field visit.

AUTHORSHIP

The report has been written by Réjean Girard, professional geologist, assisted by Mikaël Block, professional geologist, plus clerical and technical staff of the firm. The author takes full liability of all the items of the current report.

Mr. Réjean Girard has more than 30 years of experience as geologist specialized in mineral exploration, including a vast experience in the James Bay area. Historically, he has been involved in more than 1200 projects, dominantly in Québec, but also around the world.

INDEPENDENCY

The initial properties were acquired through map designation by Sirios Resources in August and September 2004 without the involvement of the authors. The author has not been involved in any of the transaction between the partners. The author personally or the firm he represent is considered as independent of the vendor, as required in the case of an expedited transaction. The author personally or the firm he represent is considered as independent of the issuer although this is not a requirement for an expedited transaction. He is fulfilling all the requirement of the NI-43-101 for such. The authors do not own participation in the project or neighboring projects, neither he owns any participation in the capital of the issuer, the vendor or affiliated company, neither it has other liens, royalties, options or other incentives. Both Sirios and Golden Valley are regular clients of the author's firm. However, their combined volume of work being less than 20% of the income of the firm, this provider-client relationship does not impair the independency.

The Author and the firm he represent are independent from the issuer as well as the vendor according to the terms of the National Instrument 43-101.

Sirios has recently required IOS to conduct on a contract basis the summer 2013 drilling program on the property, which program is expected to represent less than 10% of the income of the company, and thus not altering the independence.

Finally, Sirios currently has a commercial debt to IOS, which is not sufficient to threaten the firm with misfortune or to alter the independence relationship, according to the author's judgement. A payback agreement has been settled with Sirios, which will not draw from the current financing nor will impact the current transaction.

ITEM 3: RELIANCE UPON OTHER EXPERTS

The authors did not rely upon other experts for the writing of the current report, and carry the full liability of the report. The authors personally validated the information provided by the clients within the limits of their capability. Claim status has been obtained from the MRNQ on-line registry "Gestim" on the 08 of May 2013.



Picture 2: View of Goldcorp's Eleonore mine, currently under construction, taken by the author from helicopter standing above Cheechoo-B property. Notice the presence of the two head frames, tailing ponds to the left and the living compounds to the right.

ITEM 4: LOCATION AND DESCRIPTION OF THE PROPERTY

CLAIMS AND AREAL EXTENT

When map-designated in 2004, the original Sirios project, then named EEAE², included four distinct claim blocks, subsequently named Shark and Cheechoo A, B and C by Golden Valley Mines (**table 2**).

| 2004 Properties | Number of cell | Areal extent |
|-------------------|----------------|------------------------|
| Shark | 277 cells | 141.43 km ² |
| Cheechoo A | 35 cells | 18.29 km ² |
| Cheechoo B | 231 cells | 122.43 km ² |
| Cheechoo C | 40 cells | 21.2 km ² |
| Total | 583 cells | 303.35 km ² |

Table 2: Original properties extent.

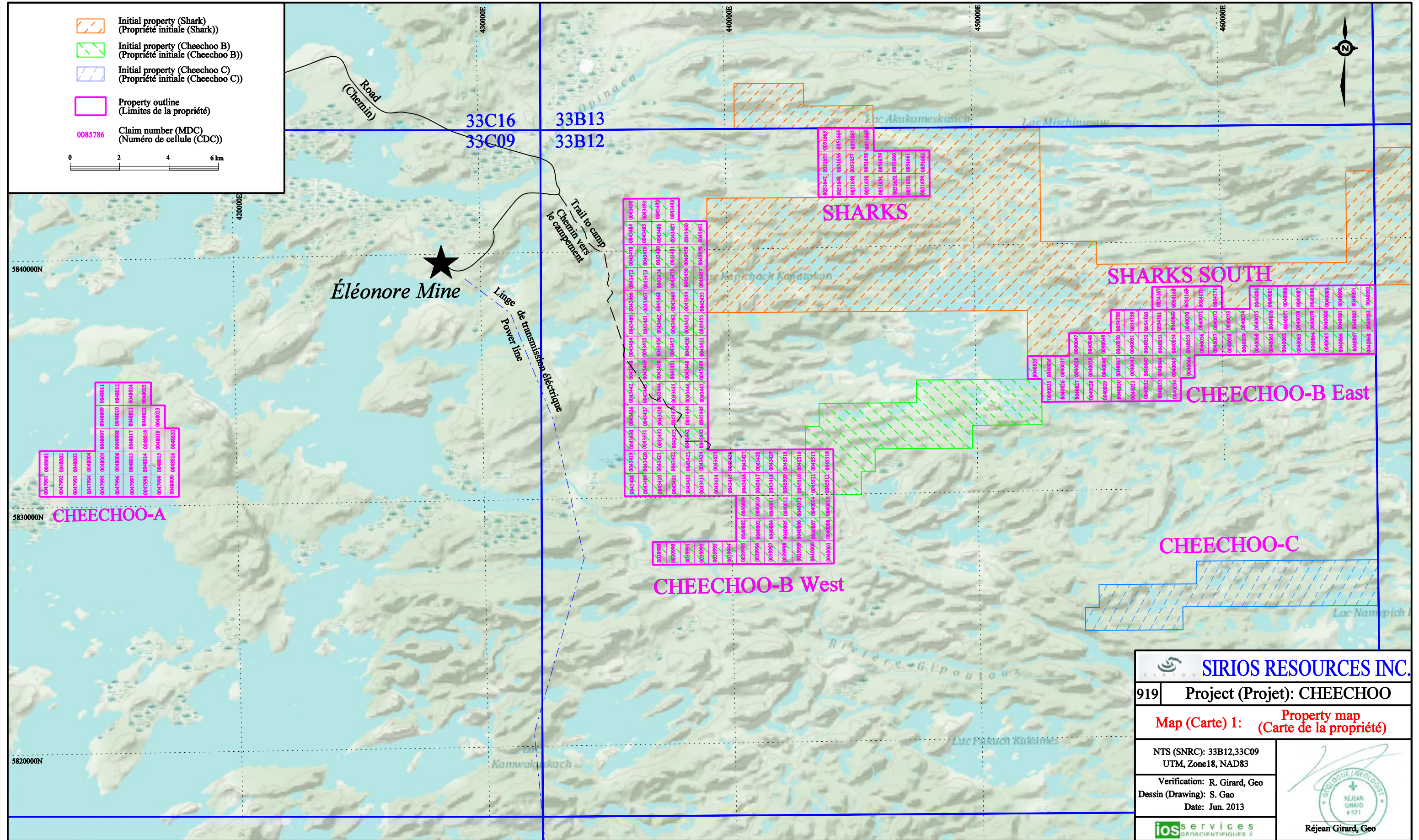
These properties were progressively reduced in size by Golden Valley, through claim abandon (**table 3**). Currently, the Cheechoo A property has been maintained almost intact, the Cheechoo B property has been reduced to two distinct blocks of claims (Cheechoo-B East and West), Cheechoo C has been allowed to lapse while Shark has been significantly reduced in size. The current status of the properties is as follow:


| 2013 Properties | Number of cell | Areal extent |
|------------------------|----------------|------------------------|
| Shark | 20 cells | 10.43 km ² |
| Cheechoo-A | 24 cells | 12.54 km ² |
| Cheechoo-B East | 77 cells | 40.22 km ² |
| Cheechoo-B West | 121 cells | 63.24 km ² |
| Total | 242 cells | 126.45 km ² |

Table 3: Actual properties extent.

The mining title list has been extracted from the online MRNQ registry “Gestim” on May 08, and compared with the list provided by Sirios. Ownership of these titles is currently recorded at 45% Sirios and 55% Golden Valley, which does not reflect the current ownership ratio. The mining titles list is provided in **appendix 1** and is displayed on **map 1** and **figure 1**.

² EEAE : An acronym meaning *Elle est à l'est*, a pun made against the discovery of Eleonore (*Elle est au nord*).



**SIRIOS RESOURCES INC.**

919


Project (Projet): CHEECHOO


Map (Carte) 1:

Property map
(Carte de la propriété)

NTS (SNRC): 33B12,33C09
UTM, Zone18, NAD83

Verification: R. Girard, Geo
Dessin (Drawing): S. Gao
Date: Jun. 2013

ios services
GÉOSCIENTIFIQUES


Réjean Girard, Geo

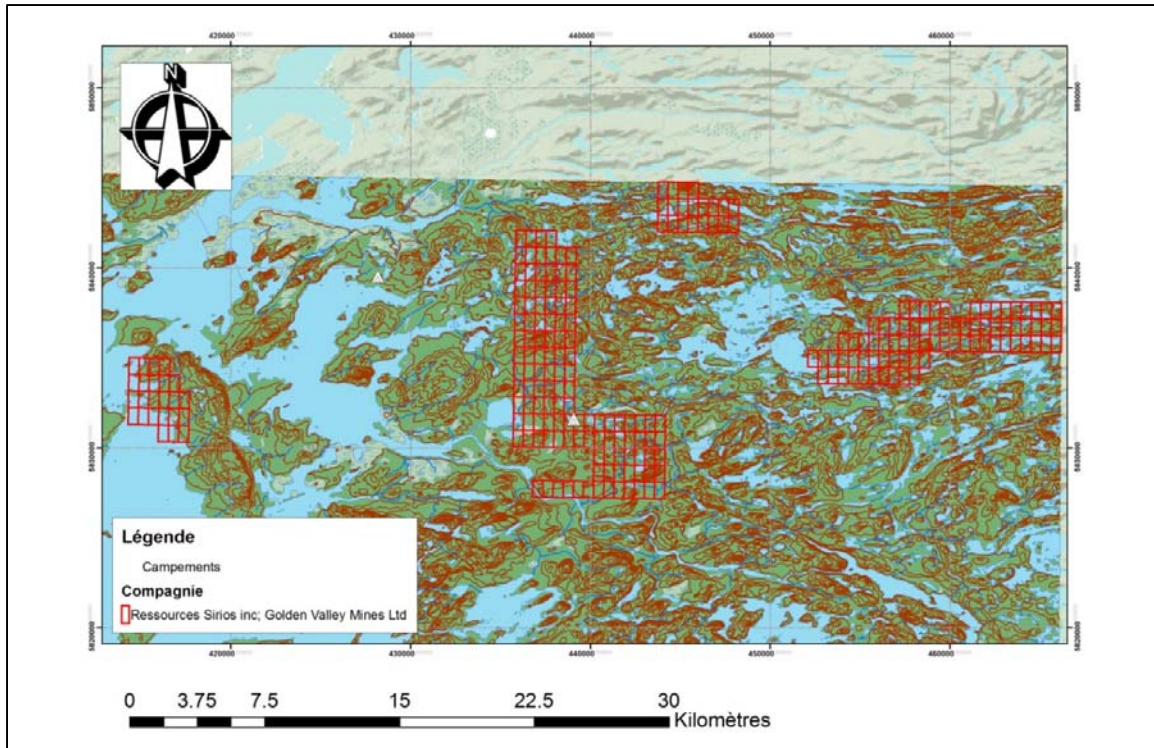


Figure 1 : Map of all properties Cheechoo A, B and Shark.

CLAIM STATUS

Dated May 08 2013, all 242 titles are duly recorded as active. Exploration titles in Québec require to be renewed every two years, sixty days prior to their anniversary or until their anniversary with a penalty. A renewal fee is needed, which varies according to the age of the title. Renewal also requires assessment credits, accumulated from exploration expenditures, the management rules of which are complex. In the current project, assessment credits are not evenly distributed among the titles and can only be transferred within contiguous claims. Therefore, credits from each property must be evaluated on a property per property basis. The status is summarized in **table 4**. Renewal is currently under the responsibility of Sirios.

| Property | Cells | Renewal fees | Available credit | Required credit | Next expiry date |
|-----------------|------------|-----------------|-----------------------|------------------|-----------------------|
| Shark | 20 | \$2 520 | \$722 087.31 | \$36 000 | Jan. 26, 2015 |
| Cheechoo A | 24 | \$3 024 | \$1 394 576.84 | \$43 200 | Dec. 9, 2014 |
| Cheechoo B East | 77 | \$9 702 | \$342 974.97 | \$138 600 | Sept. 27, 2014 |
| Cheechoo B West | 121 | \$15 246 | \$170 100.82 | \$217 800 | Sept. 26, 2014 |
| Total | 242 | \$30 492 | \$2 629 919.94 | \$435 600 | Sept. 26, 2014 |

Table 4: Claim status and assessment credits.

Bulk of the titles are to be renewed from next September to next January. All properties have sufficient credits, with the exception of Cheechoo-B West. However, the last drilling program, which incurred expenses in excess of 1 million dollars, still has to be filed for assessment credits. This drilling program took place in the southern portion of this property, where credit has to be applied. These claims are too far away to allow credit transfer to the northern part of the property, not respecting the 4.5 kilometres rule, and it is uncertain if sufficient credits are sufficiently close to renew these cells.

IRREVOCABILITY

Map designated cell, once registered at MRNQ, such as in Cheechoo project, are near to irrevocable by law, and cannot be challenged by a third party, as long as the owner properly fulfil the renewal requirements.

SURVEYING AND PATENTING

Map designated cells have by law pre-established perimeter of 15 second of arc of longitude by 30 second of arc of latitude. Therefore no land surveying or claim patenting are needed and no border conflict can be raised. Furthermore, there is no interference with patented claims or “staking parks” in the vicinities.

PROPERTY ACQUISITION

All the mining titles are map designated cells “CDC”, which were acquired through on-line map designation by Sirios Resources in the 2004 autumn, between 26 and 28 of September, with a second wave in January and February

In 2005, Sirios Resources granted the properties for option to Golden Valley Mines and Canadian Royalties, subsequently consolidated to Golden Valley Mines, who acted as operator of the project.

2005. No lien or grubstake is related to this acquisition. Subsequent to their acquisition, the Cheechoo and Shark projects were the object of nine (9) consecutive agreements.

SIRIOS-GOLDEN VALLEY MINES OPTION AGREEMENT

An option to acquire a participation in the Cheechoo A, Cheechoo B and Cheechoo C properties has been signed by Golden Valley Mines with Sirios Resources on 31th March 2005. This agreement, duly executed, stipulates that:

- The property is free of encumbrance.
- The optionee has the right to acquire a 60% undivided participation in Shark property in consideration of a share and cash payment plus the execution of exploration expenditures of \$1 000 000 before January 2009, which is duly executed.
- Upon completion of the requirements indicated in the option agreement, the parties had to enter into a formal joint-venture agreement, whereas Sirios owns 40% of the property and Canadian Royalties owns 60%. The optionee had the possibility to acquire a supplementary 20% of interest, majoring its share to 80% of the property, by indicating its intent to finance a feasibility study on the project³.
- No royalty is indicated in favour of Sirios.

SIRIOS-CANADIAN ROYALTIES OPTION AGREEMENT

An option to acquire a participation in the Shark property has been signed by Canadian Royalties⁴ with Sirios Resources on 21th January 2005. This agreement, duly executed, stipulates that:

- The property is free of encumbrance.

³ Ambiguities were noted between the “letter of intent”, the “mining option agreement” and the “joint-venture agreement” in regard of this clause, but deciphering the details is currently irrelevant since the clause is obsolete.

⁴ Canadian Royalties is a sister company to Golden Valley Mines, operated partly by the same management.

- The optionee has the right to acquire a 60% undivided participation in Shark property in consideration of a share and cash payment plus the execution of exploration expenditures of \$1 000 000 before January 2009, which is duly executed.
- Upon completion of the requirements indicated in the option agreement, the parties were indicated to enter a joint-venture agreement, whereas Sirios owns 40% of the property and Canadian Royalties owns 60%. The optionee had the possibility to acquire a supplementary 20% of interest, majoring its share to 80% of the property, by indicating its intent to finance a feasibility study on the project, option which has been declined and which is thus obsolete.

CANADIAN ROYALTIES - GOLDEN VALLEY MINES AGREEMENT

On May 13, 2005, Canadian Royalties Inc entered into a letter of intents with Golden Valley Mines in order to transfer its participation, rights and interest into Shark project. According to this letter, Golden Valley Mine was deemed to:

- Transfers to Canadian Royalties all his Sirios common shares.
- Reserve a 1.5% royalty to Canadian Royalties on the Cheechoo A, B and C properties⁵.
- Reimburse Canadian Royalties expenditures.

Golden Valley Mines and Canadian Royalties were partly related, and the transaction is not considered as arm-length.

CANADIAN ROYALTIES - GOLDEN VALLEY MINES – SIRIOS AGREEMENT

They May 13, 2005 letter of intent binding Canadian Royalties and Golden Valley has been formalized with Sirios, in an assignment and novation agreement dated September 30 2005 This agreement did not caused any material changes for Sirios in regard of the conduct of the option contract, except that Cheechoo and Shark projects were managed jointly by the same partner.

⁵ This 1.5% royalty exceed the payable royalty of 1% to Golden Valley by Sirios in the event former get diluted by the second in the course of the subsequent Joint-Venture agreement. No legal advice was seek by the author on this incongruence.

SIRIOS-GOLDEN VALLEY MINES JOINT-VENTURES AGREEMENTS

Upon execution of the option within the aforementioned option agreement, both parties agreed in the formation of the joint-venture, dated March 31 2009. Two similar and independent agreements were signed for each Shark and Cheechoo option agreements. Management committee agreements were signed by parties, one for Shark and Cheechoo, on December 8, 2009. These agreements stipulated that:

- Both parties had to fund its share of the expenditures based on the participation pro-rata, process which has been maintained until the June 12 2012 agreement.
- The joint-venture agreements also extended for three years the Golden Valley Mines option to acquire the aforementioned 20% upon completion of a feasibility study, option which is currently obsolete.
- A management committee shall be formed, with an indicated elaborate set of rules, which was operated on the pro-rata of the participation in the project.
- In the event a partner decline or fail to fund his share of expenditure, participation into the joint-venture is to be adjusted accordingly. Up to the summer 2012 program, the 60%-40% ratio has been maintained in favour of Golden Valley.

SIRIOS-GOLDEN VALLEY 2012 BINDING SHEET

In June 12, 2012, Golden Valley Mines entered into a binding agreement “*Binding term sheet*” in order to terminate the former Joint-Venture agreement, duly executed, according to the following terms:

- Golden Valley grants the option to Sirios to acquire all rights in its 60% interest in the Cheechoo and Shark properties
- Sirios shall first acquire a supplementary 5% of the project by incurring a \$800 000 exploration expenditures, which has been completed by the Autumn 2012 drilling program. Sirios interest in the project then currently stands at 45%, while Golden Valley stands at 55%. Operatorship is granted to Sirios.

In the June 12, 2012, Sirios signed an agreement in order to acquire Golden Valley participation in the project, which agreement is the here concerned “expedited transaction”

- In order to acquire the remaining Golden Valley interest, Sirios shall:
 - Incur additional exploration expenditures of \$4 200 000 within 3 years.
 - No management fees to the operator is indicated in the agreement, and the former 10% management fee payable to Golden Valley is deemed included into the work commitments.
 - Issue for the equivalent of \$1 000 000 in common share to Golden Valley by December 31 2013 to a maximum of 9.9% of its outstanding shares.
 - Pay \$500 000 in cash or securities to Golden Valley within 3 years of the signature of the agreement.
- Upon production, Sirios agreed to pay a 4%⁶ royalty against any mineral production except gold.
- Upon production, Sirios agreed to pay a royalty on gold adjusted on the gold ounce price as follow:
 - 2.5% if gold price is less than \$1200 per ounce
 - 3.0% if gold price is between \$1200 to \$2400 per ounce
 - 3.5% if gold price is between \$2400 to \$3000 per ounce
 - 4% if gold price is in excess of \$3000 per ounce
- Sirios become the operator of the project
- In the event Sirios fail to fulfill its obligation, its interest in the project shall remain of 45%, and a new joint-venture agreement be renegotiated.
- This agreement is reputed to supersede all previous agreement and to render them obsolete.

Sirios did notified Golden Valley on February 6 2013 in regard of the completion of the first terms of the option agreement, which grant the rights to acquire the 5% supplementary interest in the project. A request for the interest modification has been filed in regard of the claim to the Registry of the *ministère des Ressources naturelles du Québec* on April 22, 2013.

Sirios did notified Golden Valley on June 12 2013, duly acknowledged, of its earning of the 5% supplementary interest and of its intent to proceed with a complete acquisition of the project.

⁶ It is uncertain to the author if the 1.5% royalty due by Golden Valley to Canadian Royalty survived the current agreement. It is the opinion of the author that this royalty shall be payable by Golden Valley from the royalties indicated in the current agreement.

LIENS

Aside the terms of the aforementioned agreements, the mining titles constituting the Cheechoo and Shark properties are free of any liens, mortgage, hidden fees, grubstake or other encumbrances, as certified by email to the author by Mr. Dominique Doucet and Mr Michael Rosateli, respectively representative of Sirios Resources and Golden Valley mines. No verification were made by the author on the government ledger or *Registre des hypothèques du Québec*.

Else than the sequence of agreement between Sirios Resources and Golden Valley Mines, there is no other liens or hindrance affecting the project.

OBSOLETE AGREEMENT

No former and obsolete agreements between the current partners and third parties regarding the properties were indicated.

THIRD PROPERTIES

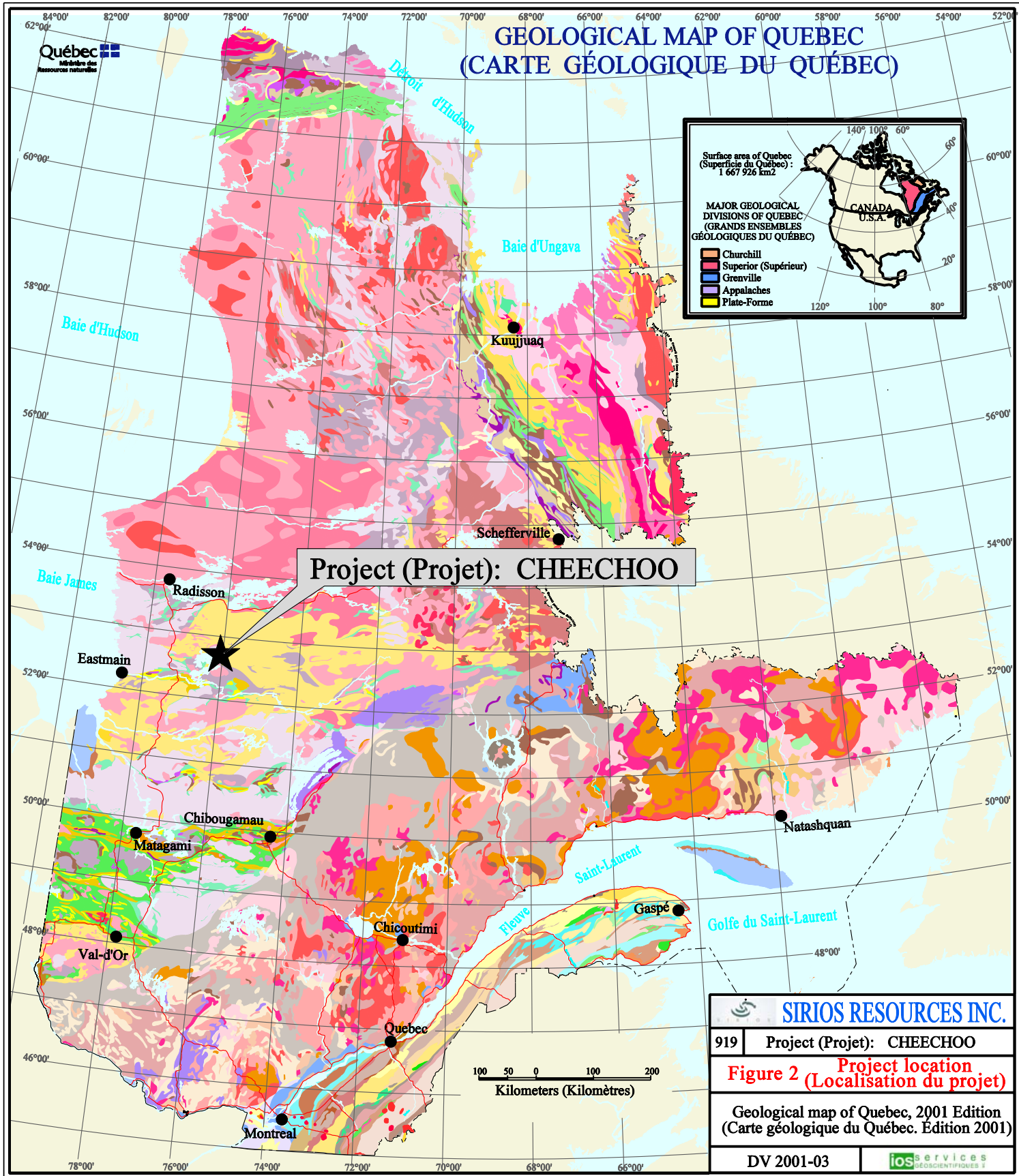
Both parties own other properties in the vicinities of Cheechoo and Shark properties, such as Kukames, Pontax and Upinor for Sirios, and Blade, Skate and Solo group for Golden Valley. These properties were not mentioned, and are therefore not covered by the aforementioned agreement, and remain free of lien in regard of the second partner. No areas of interest or restriction to staking were indicated in any of the agreements. No claims were jointly staked and added to the project.

A mention of the other Golden Valley Mines properties was noted in the Canadian Royalty transfer agreement, which cannot be perpetuated into the Sirios Resources-Golden Valley Mines subsequent agreements.

LOCATION

Shark and Cheechoo properties are located within the James Bay municipality territory, Ungava county, Nord du Québec (Administrative area 10), as shown on **figure 2**. The nearest well known geographical landmark is the Opinaca Reservoir, adjacent to the west of the properties. The properties are bounded within NTS-IV map-sheet 33B-12 (Gladman Lake) and 33C-09 (Baie Kasipaskatch).

The project is located east of the Opinaca Reservoir and composed of four properties, Cheechoo-A to the west, Cheechoo-B-west which is the main focus of the project, Cheechoo-B-east and Shark to the northeast.



Shark property

The property is located in NTS 33B12 (Lac Gladman). It is bounded by latitudes 52°43'30" and 52°44'60" North and longitudes 75°46'00" and 75°50'00" West, at north of Gladman Lake.

Cheechoo properties

Cheechoo A property is located in NTS 33C09 (Baie Kasipaskatch) while Cheechoo B (west and east) are located in NTS 33B12 (Lac Gladman). They are bounded by latitudes and longitudes as follows:

Cheechoo A: 76°13'-76°16' West, 52°37'-52°39'30" North

Cheechoo B West: 75°49'30"-75°57' West, 52°35'30"-52°43'30" North

Cheechoo B East: 75°30'-75°42'30" West, 52°39'-52°41'30" North

While Cheechoo A is located in the centre of Opinaca Reservoir, Cheechoo B is adjacent to the east of the reservoir and south of Gladman Lake.

FIRST NATION RIGHTS

Cheechoo and Shark properties are concerned by the James Bay and Northern Québec Agreement (*Entente de la Baie-James et du Nord québécois*), binding the Cree nation, the Québec Government and the Canadian federal Government. This agreement includes a set of rules in regard of territory management and project development, which differs from the rest of the province, and which brings a general agreement in regards of the first nation rights. Within this agreement, the territory has been divided in different categories, with different sets of rights for the First Nation communities. Subsequently, the *Paix des Braves* agreement has been signed between the Québec Government and the Cree Nation, which further clarifies the rules, mainly in regard of forestry.

The different properties within Shark and Cheechoo project are located Category III lands according to the JBNQA, meaning that there is no substantial restriction to mineral exploration in regard to First Nation Community. Courteous relationships are a prerequisite, and notice of work shall be forwarded to communities and Tallymans prior to initiate any exploration work.

Cheechoo B East and West as well as Shark properties are located within the traditional lands attributed to Wemindji community, as well as trap line VC-29 owned by Mrs Johnny Mark and Sinclair Mayapo. Cheechoo A property is located within the traditional

lands attributed to Eastmain community as well as trap line VC-34, owned by Mr Thomas Mayapo.

A good standing relation is usually maintained by Sirios in regard of Tallymans where there properties are located. However, the author is not aware if such good standing relation has been established between Golden Valley and Tallymans. No restriction is indicated in regard of halieutic and cynegetic resources in favor of first nations, except in regard of trapping and corregone fishing. Else, the regular fishing and hunting provincial regulation applies.

Else than the restriction in regard of Opinaca Reservoir and the embankment of the powerline leading to Eleonore mine, there is no recorded restriction to exploration within the properties.

OTHER RESTRICTION OF ACCESS

Cheechoo A property is located within the Opinaca reservoir, diverting the Eastmain River flow towards the Sakami Lake and La Grande hydroelectric complex. Most of Cheechoo A property as well as a part of Cheechoo B West are located within the inundated zone of the reservoir, and encompassed by #241-86 decree and #10920 limitation. Approval of Hydro-Québec is required to conduct infrastructure construction or any other important work.

A second restriction, #25400, from decree #2009-042, is associated with the electrical line power line linking the EM-1 station to Eleonore mine. Exploration activities as well as vehicular circulation require approval from Hydro-Québec.

No restriction in regard of park, ecologic reserve or other preservation zone are indicated by the *ministère du Développement durable, de la Faune et des Parcs* in the area.

Mineral exploration titles do not confer the owner with surface rights, which are currently crown land. However, the mineral exploration titles include the right for the owner to built the required infrastructures. Such surface rights will be included in an eventual mining lease.

PERMITTING

Permitting in Québec is reputed as complex, although the properties are located far from any inhabited areas. However, the main permits to conduct mineral exploration within the James Bay municipality are quite simple:

Only limited permitting is needed to conduct exploration work, such as a logging permit and the authorization to operate the temporary camp.

- A forest intervention permit (*permis d'intervention forestière*) is required for any logging activity, including road, camps and drill pads clearing. Documentation for such permit shall be submitted by a forest engineer to the Chibougamau or Amos forest management unit (*Unités de gestion forestières*), part of the *ministère des Ressources naturelles*. The representative of the *Ministère* will contact the Cree Tallyman who owns the trap line where the logging is needed, according to the *Paix-Des-Braves* protocols, which Tallyman then has 45 days to provide his approval. A small logging royalty is deemed payable to the *Ministère*.
- Road construction requiring any earth-moving authorization from MRNQ (*Secteur Territoire*). This request is made concomitantly with the forest intervention permit request, and may take a few months for approval.
- Installation of a temporary camp, such as needed to operate in Cheechoo, require a permit to be issued by the *Municipalité de la Baie-James*, from Matagami. Installation must be compliant to municipal regulation as well as *ministère du Développement durable, de l'Environnement, de la Faune et des Parcs* regulations, especially in regard of waste water management. Approval delays are usually prompt.
- Excavation and trenching require a permit from MRNQ (*Secteur Mine*).
- No specific permit is required to conduct drilling, geophysics, line cutting or other activities not requiring significant logging.

ENVIRONMENTAL ISSUES

The author is not aware of the presence of environmental restriction, such a sensitive ecosystem, nesting area, endangered plant species, etc. Rules edicted by the *ministère du Développement durable, de l'Environnement, de la Faune et des Parcs du Québec*, from *Environment Canada*, as well as the *Règlement sur les normes d'intervention* regarding logging activities are to be followed without specification. In the event the project evolved into development phase, the project shall be reviewed by the COMEX and the COMEV, both being environmental reviewing committee according to the James Bay and Northern Québec Agreement, and which are jointly held by representative of the Cree Nation, the provincial government and the federal government. No polluted site or other environmental infractions were noted by the author in the course of his visit.

There is no noticeable environmental liability related to the permit, neither there is any specific environmental restriction.

ITEM 5: PHYSIOGRAPHY AND ACCESSIBILITY

PHYSIOGRAPHY

The Opinaca Reservoir represents the easternmost extent of the James Bay lowlands, the limit of which is coinciding with Cheechoo 2 West property. To the west, the landscape is dominated by a flat plain with an altitude of approximately 220 metres asl. This plain is poorly drained with abundant marsh and meandering stream, or inundated by the reservoir. It is punctuated by abundant hills typical of the Canadian Shield. Lakes are abundant, either shallow in muskegs, or more crystalline on hilltops.

The eastern area has a more rugged topography, typical of the Canadian Shield, with abundant lakes, dense drainage, and ubiquitous rounded hills reaching an altitude of 405 metres. Gladman Lake dominates the landscape. Drainage is composed of the Opinaca River to the north and Gipouloux River to the south, both flowing into the Opinaca Reservoir, and subsequently the Sakami Lake, La Grande River and James Bay.

Outcrops are not abundant, especially in the western area. Most outcrops are located on hill side or tops. Overburnen deposits are either thin till blankets to the East, or a complex assemblage of periglacial and glaciomarine sediment to the West.

The area near to the Opinaca Reservoir is a flat land corresponding to the former Tyrrell sea invasion. A few hills representing shoaling area are surrounded by poorly drained clay dominated plains. These glaciomarine clays are a hindrance to exploration. To the east, the terrain is more rugged, typical of the Canadian Shield.

VEGETATION AND WILD LIFE

The area is covered by a scattered boreal forest, taiga subzone, dominated by black spruce (*Picea mariana*) stands. Local stand of jack pines (*Pinus banksiana*) and poplars (*Populus tremuloides*) dominates the well drained areas. Shrubs are dominated by alders (*Alnus rugosa*) and willows (*Salix sp.*), while ericacea (*Ledum*, *Kalmia*, *Vaccinium*, etc) can form dense carpets.

The area has repeatedly been affected by forest fire, leaving only restricted stands of mature trees (**picture 3**). Old burnt forest can be very difficult to travel through, criss-crossed fallen trees being invaded by dense regeneration (**picture 4**).

Large mammals are not abundant, including occasional bears, moose, caribous and wolves. Ptarmigan, grouse and hares are the dominant small games. Fishes, including brook and lake trout's, walleyes and pikes are abundant. Opinaca Reservoir is not renowned for its catches, due to its turbid waters.



Picture 3: Areal view of the southern part of Cheechoo B-West area. Notice the rolling hills and the sparse forest cover due to recurrent fires. A bay of the Opinaca Reservoir is visible in the far.



Picture 4: Close view of a burnt pine forest re-grown by small scrubs of alder and ericacea. The landscape is quite typical of the eastern part of the project.

CLIMATE

Climate is rather harsh in the area, typical of northern latitude. Although tampered by the James Bay and the abundant reservoirs, the climate remains cold continental with extreme seasonal variation. Summer temperatures are in the 10-25°C, while the can plunge below -40 in winter. Precipitations are not abundant, although fog and mist can be common in the autumn. The area is free of snow from late May to November. Ideal period for exploration work is in summer, from May to early September, of in spring from late February to early April for programs requiring winter access.

ACCESS

The Cheechoo project is located about 350 kilometres north of the mining town of Matagami, or about 600 kilometres north of Val-d'Or. The area can be accessed via the paved James Bay highway (extension of highway #109), about midway between Matagami and Radisson, or via all weather gravel *Route Du Nord* from Chibougamau. Various secondary gravel road give access to the Opinaca Reservoir and other Hydro-Québec infrastructure, as well as to Eleonore Mine.

Cheechoo project is located about 350 kilometres north of Matagami. It is accessible through the road leading to Eleonore mine, from where opening of a bush road to the campsite is currently being organized.

Cheechoo A property being an island within the Opinaca Reservoir, it can easily be accessed by boat. Cheechoo B-West property can hardly be accessed by boat or by the maintenance trail along the Eleonore power-line. However, convenient access requires helicopter support. No lakes in vicinity of the property enable seaplane landing. Cheechoo B-East and Shark properties are more remote, and absolutely require seaplane (landing possible at Gladman Lake) or helicopter support.

Seaplanes are available upon request at KM-371 sea-plane base, operated by Norvik Aviation from Eastmain, or require to be mobilized from Temiscami or LG-3 bases. Helicopters are available at Radisson of Chibougamau, about 1-1.5 hour away. A regional airport is located at Nemiscau, about 100 kilometres south of the project, while a private landing strip is available near the Opinaca Reservoir. Heliport with fuel is available at EM-1 facility, operated by Hydro-Québec, and located about 50 kilometres to the south of the project. Arrangement can also be made at Eleonore mine or KM-381 relays to land and fuel the helicopter.

ADEQUACY OF SIZE

Although apparently vast, the four properties are quite narrow, which may create some issues in the event of a large scale mining operation. Furthermore, Cheechoo A property being located within the Reservoir may face severe restriction. Cheechoo B-West property is partly located on clay plains, which may cause issues for infrastructures.

INFRASTRUCTURE

There is no transport infrastructure within the properties. Railheads are available in Matagami and Chibougamau, about 350 and 450 kilometres to the south. A seasonal seaport is present in Chisasibi, about 235 kilometres to the north-west. The 161 kv

powerline serving the Eleonore mine is located a few kilometres to the west of Cheechoo-B-West. No 15 kv power is available, in order to supply an exploration camp. A partial cellular phone coverage is available.

SERVICES

Services in the vicinity of the project are limited:

- Goldcorp's Éléonore is located about 15 kilometres to the north-west of Cheechoo B-West⁷. Emergency services are available, such as nurse and helicopter. No lodging is available.
- Hydro-Québec's EM-1 camp is located about 50 kilometres to the south. Lodging, a nurse, fuel and heliport are available.
- KM-381 truck stop is the convenient outpost in the area, located along the James Bay highway. Some services are available such as lodging, cafeteria, fuel, heliport, garage and an ambulance.
- A private airstrip servicing the Eleonore mine is located at the mine site 14 km from Sirios camp.
- LG3 airport is located about 105 km to the north, while Némiscau airport is located about 105 km to the south-east. Both are services by Air Creebec, with daily scheduled flight to Dorval.
- The Cree community of Nemaska, located about 100 kilometres to the south-east, offers various services such as Hotel, grocery store, garage and fuel, as well as a dispensary. Nemaska is the site of the *Grand Conseil des Cris*, a kind of the Cree capital.

An airport is conveniently located at the Eleonore Mine, about 15 kilometres from the project. Various services are available within 100 kilometres from the campsite.

Other services are available in the towns of Radisson, 160 km to the north, or Matagami and mainly Chibougamau (400 km to the south). Chibougamau offers a hospital, all main industrial services, as well as a MRNQ office.

Water is plentiful with no hindrance from Hydro-Québec's hydraulic rights is indicated except for the area affected by Opinaca Reservoir. Operation of an eventual mine will require establishing a work camp, for which the manpower will need to be trained from the neighbouring Cree communities, or drawn from Abitibi and Chibougamau regions.

⁷ All distances cited in this section relates to the southern Cheechoo B-West property, where the 2012 camp was located.

ITEM 6: HISTORY

GOVERNMENT WORK

The Cheechoo Prospect has apparently never been the subject of industry supported exploration activities in the past according to the historical assessment files, maybe with the exception of limited work in vicinity of Cheechoo A.

There are very few assessment reports available prior to 2005, all of them regional in scope, far less informative than what has produced since then. Since 2005, a total of 123 assessment reports (including 35 written by IOS) were submitted for the NTS map sheets encompassing the property, carried out on behalf of various property holders involved in the area. Compilation of all these reports has not been attempted.

Governments carried out different surveys in the area. Geological framework was established in the SDBJ period by Franconi (1978). More recent and accurate geological maps were made for NTS 33B (1/250 000) (Simard and Gosselin, 1999) (**map 2**) for 33C/09-33C/16 (1/50000) (Bandyera and Fliszár, 2007), for 33C/10 and 33C/15 (Bandyera and Lacoste, 2009) and 33B/12-33B-13 (Bandyera et al., 2010). A low-density aeromagnetic survey (GSC) and more recent medium density aeromagnetic and aerospectrometric surveys (Goldak, 2008) are available, along with a geochemical survey of lake-bottom sediments (Gleeson, 1976), reanalyzed by Beaumier and Kirouac in 1995 for NTS sheet 33B and in 2004 for NTS sheet 33C⁸ (Beaumier and Leduc, 2005).

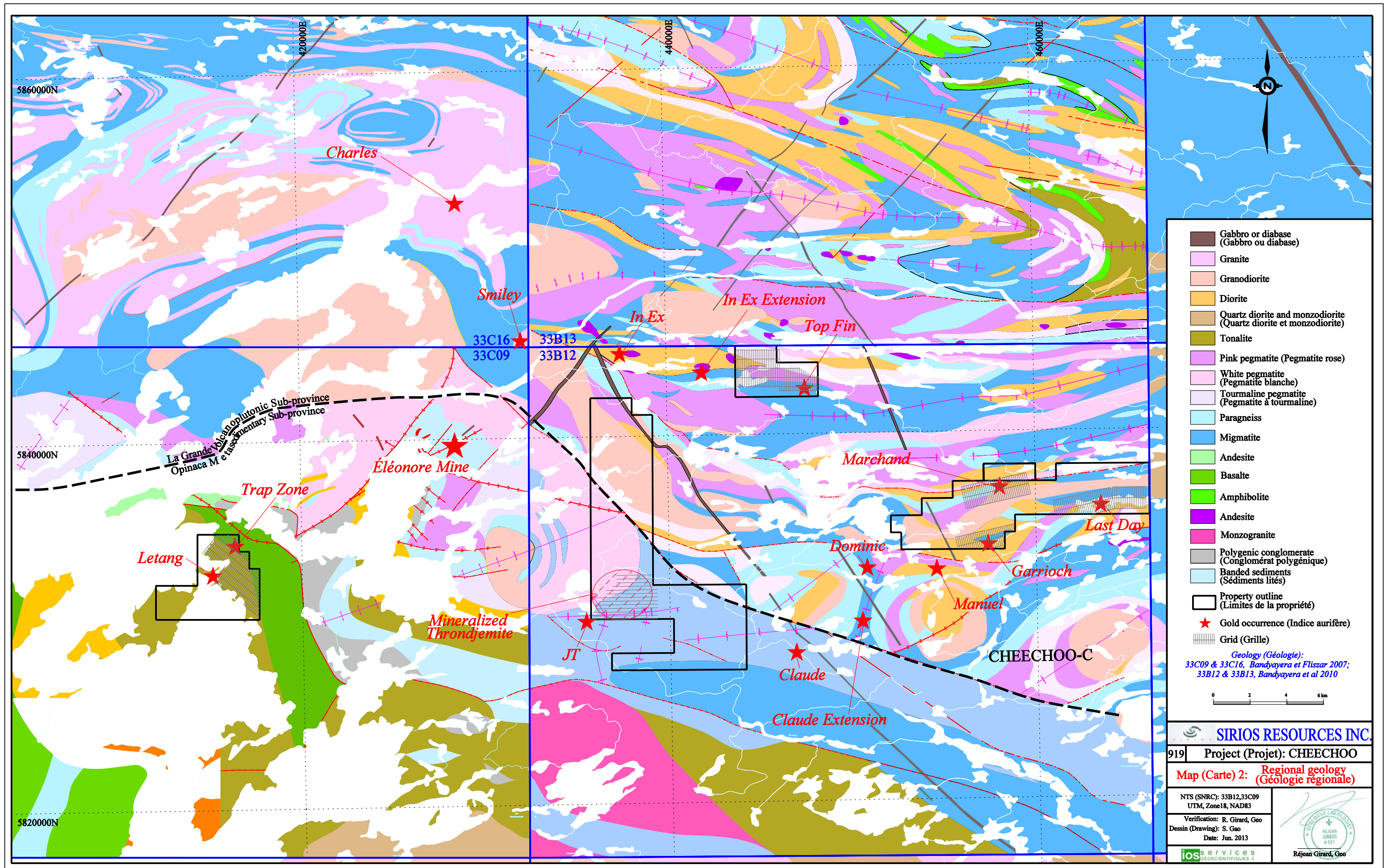
Recent geological mapping, at the scale of 1:50 000, encompassing the whole area of the project has been conducted by Géologie Québec.

Regional geological mapping is reported by the SDBJ. It is suspected that airborne radiometric, VLF and aeromagnetic surveys have been conducted by SDBJ, although none were ever submitted as assessment work.

The paucity of pre-2005 exploration work in the area contrasts with the Lower Eastmain River volcanic belt to the south and the west where abundant literature is available (airborne VLF, lake-bottom sediment survey, airborne radiometric and electromagnetic surveys, detailed geology and ground geophysics, etc).

The paucity of pre-2005 exploration work in the area contrasts with the Lower Eastmain River volcanic belt to the south and the west.

⁸ In behalf of Virginia Gold Mines, released to public in autumn 2005.



Legend

- Gabbro or diabase (Gabbro ou diabase)
- Granite
- Granodiorite
- Diorite
- Quartz diorite and monzodiorite (Quartz diorite et monzodiorite)
- Tonalite
- Pink pegmatite (Pegmatite rose)
- White pegmatite (Pegmatite blanche)
- Tourmaline pegmatite (Pegmatite à tourmaline)
- Paragneiss
- Migmatite
- Andesite
- Basalte
- Amphibolite
- Andesite
- Monzogranite
- Polygenic conglomerate (Conglomérat polygénique)
- Banded sediments (Sédiments lités)
- Property outline (Limites de la propriété)
- Gold occurrence (Indice aurifère)
- Grid (Grille)

Geology (Géologie):
33C09 & 33C16, Bandyayera et Fliszar 2007;
33B12 & 33B13, Bandyayera et al 2010

0 2 4 6 km

SIRIOS RESOURCES INC.

919 Project (Projet): CHEECHOO

Map (Carte) 2: Regional geology (Géologie régionale)

NTS (SNRC): 33B12, 33C09
UTM, Zone 18, NAD83

Verification: R. Girard, Geo
Dessin (Drawing): S. Gao
Date: Jun. 2013

ios services
GÉOSCIENTIFIQUES

Réjean Girard, Geo

HISTORICAL MINERAL EXPLORATION WORK

The first detailed exploration work reported in the Opinaca Reservoir was with the discovery of the “Elk Lake” occurrence by Noranda Exploration Inc. in 1964 (Miller, 1966). This occurrence was discovered after prospecting and subsequent work included geological mapping, rock sampling, geochemical survey, ground and airborne geophysical surveys and drilling programs.

Noranda Exploration conducted prospecting and drilling in the former Elk Lake area in 1964. Their results attracted the attention of Virginia Gold Mines in 2001, which lead to the Eleonore mine discovery.

In 2001, Virginia Gold Mines Inc. resumed the exploration on the “Elk Lake” showing by taking some selected rock samples and channel samples (L'Heureux, 2001 et Costa et Ouellette, 2003). A few slightly mineralized samples encouraged them to pursue effort the next year. So, in summer 2002, they commissioned a high density aeromagnetic survey over their property, plus a magnetic and induced polarization surveys encompassing the original Elk showing area. This exploration work led to a discovery of the “Roberto Zone”, from which Goldcorp is developing the Eleonore Mine. The release of the Roberto discovery in late 2004 triggered a massive staking rush in the area, mainly to the east of the discovery. Staking of Cheechoo and Shark were part of this frenzy.

No previous exploration work was apparently conducted within the property prior to Sirios Staking in 2004. Golden Valley Mines initiated their prospection work in summer 2005, efforts which were rather intensive until 2007, plus a drilling program in 2009. With the formation of the joint-venture with Sirios in 2009, work continued sporadically until 2011. Then in 2012, Sirios took over the project, and conducted geophysics survey and drilling.

There is no indication of the area being claimed before the current staking.

KNOWN MINERAL OCCURRENCES

No mineral occurrences were known within the property prior that Golden Valley Mines initiated its work in 2005. Prior to this program, only the Elk lake occurrence, discovered by Noranda in 1964 and the Roberto occurrence, discovered by Virginia in 2002, were reported.

Since 2005, the massive exploration efforts deployed in the area by the different companies enabled the discovery of numerous mineral occurrences in the vicinities of the properties. None of these hosts any resources, although many were drilled.

WORK DONE BY GOLDEN VALLEY MINES

2005: Golden Valley Mines

In winter 2005, Golden Valley Mines commissioned a magnetic and electromagnetic survey over all their property in the area (Smith, 2005). The strategy of Golden Valley was then to outline electromagnetic conductor, on a classical base-metal exploration approach. This approach differed from all the other companies involved in the area.

In 2005, Golden Valley commissioned a systematic coverage of the property with a frequency-domain AEM and aeromagnetic survey, and conducted a first anomaly follow-up prospecting.

In summer 2005, IOS conducted or supported a vast exploration program for various clients in the area east of Eleonore discovery, which included Golden Valley Mines among others.

Work conducted for Golden Valley included a lake bottom sediment geochemical survey, which integrate into other clients in order to form a regional survey. Also conducted was a prospecting program, with the participation of Golden Valley geologists. The prospecting work mainly targeted the AEM conductor, and thus not represents a systematic mapping and differs in this sense to the other program conducted in the area. All four properties were investigated, with diverse success. The main discovery was made on Cheechoo A property, with a cluster of gold bearing boulders. Of the 177 samples collected, 23 graded between 0.1 and 3.98 g/t gold, with local copper values at 1.6 and 1.7% Cu and silver at 37.4 and 52.9 g/t Ag (Girard et al., 2006a). Only marginal gold values were obtained on Cheechoo B (Girard et al., 2006b), while no significant results were found on Cheechoo C (Girard et al., 2006c) and Shark (Girard et al., 2006d).

2006: Golden Valley Mines

Pursuing its approach of targeting AEM conductors, Golden Valley commissioned line cutting for a total of 93 km and a geophysical survey on the north-east corner of Cheechoo A. Geophysics, conducted by Geosig (Hubert 2006) included induced polarization (77 km), horizontal loops electromagnetic (Max-Min) (13.3 km) and ground magnetic surveys (93 km). The only anomalies detected are related to the electromagnetic conductors outlined in the airborne survey (Smith 2005).

A prospecting program has been conducted in late summer, lead by M. Rosatelli (Harnois and Boubakour, 2009⁹). Targets included geophysical anomalies, lake bottom anomalies as well as occurrences unearthed in 2006. Abundant rock samples¹⁰ were collected, leading to the discovery of three gold-bearing occurrences: Letang (Cheechoo

The main exploration efforts by Golden Valley were in 2006 and 2007, when the conducted line cutting, HLEM, magnetic and IP surveys, humus geochemistry, prospecting and trenching on all then known occurrences.

A, 209 g/t Au in a selected sample), Marchard (Shark-Cheechoo B; 11.96 g/t Au in a selected sample) and Garrioch (Cheechoo-B, 0.39 g/t Au in a selected sample) occurrence (Shark, 0.13 g/t Au). Fourteen trenches were excavated over gossanous zones, most of them on AEM anomalies, for 142 channel samples, without any significant results except arsenic. Furthermore, three new gold-bearing boulder fields were found in Cheechoo-A, with similar grade distribution as in 2005, between 0.1 and 2.1 g/t.

2007: Golden Valley Mines

Pursuing its approach of targeting AEM conductors, Golden Valley commissioned line cutting over four grids as follow:

- Grid #1: Shark, North of Gladman lake, 73.2 km, (Dubois 2007a)
- Grid #2: Straddling Shark and Cheechoo-B, Marchand occurrence, 45.8 km (Dubois and Alvarado, 2007)
- Grid #3: South-east of Cheechoo-B, 29.0 km, Garrioch occurrence, (Alvarado and Lalande, 2007)
- Grid #4: South-east of Cheechoo-B, Last Day occurrence, 45.4 km, (Dubois 2007b)

Geophysical surveys were conducted by Abitibi Géophysique and included a combination of induced polarization, horizontal loop electromagnetic (Max-Min) and ground magnetic survey with total field and measured vertical gradient. The rationale for the grid selection is not indicated, but seems to relate to mineralized occurrences from 2005 or 2006 prospecting. Grids were apparently tailored to AEM conductors although HLEM has not been conducted on every grid.

⁹ The 2006 program has been described in 2007 report, by people who did not participate in the program.

¹⁰ The report do not relates samples and assays, making it difficult to properly describe the results.

A Golden Valley crew conducted a wide array of field work in 2007, as indicated in an exhaustive consolidated report (Harnois¹¹ and Boubakour, 2009a). This fieldwork aimed to follow-up on 2006 results, and very limited work has been conducted outside of the geophysical grids. Although well illustrated with photograph, the grid mapping is poorly documented, with only description of the geological features near the occurrences such as Last-Day (Cheechoo B), Inex Extension East¹² (Shark), Letang (Cheechoo A), Marchand (Cheechoo B) Garrioch (Cheechoo B). Prospecting is limited, and only 82 samples were collected, none with outstanding grades with the exception of one sample at 3.83 g/t Au in Cheechoo A. The program also included trenching and channel sampling on Marchand, Last-Day, Garrioch occurrences on Cheechoo B, on Trap zone, Outcrop 150 and Outcrop 159 on Cheechoo A, as well as Inex extension east occurrence on Shark. A total of 22 trenches, for 118 metres, were excavated by hand, and 150 samples collected. Broad low grade gold was intersected on Marchand and Outcrop 159.

Letang occurrence, discovered in 2006 on Cheechoo-A, is a quartz veins in a granodiorite which yielded 209 g/t gold, and is by far the best prospecting result obtained by Golden Valley.

A humus geochemical survey was also conducted, for 5496 samples over six (6) grids. Only gold has been analyzed, by fire-assay. One outstanding sample graded 8.4 g/t on Shark, plus two assays at 0.345 and 0.273 g/t on near Letang (Cheechoo A), the rest of the samples having below 20 ppb assays.

Finally, in autumn 2007, Golden Valley conducted an exploration drilling program (Harnois and Boubakour, 2009b)¹³. A total of 20 short holes were drilled, for 2506.7 m and 682 samples. Twelve (12) of these holes are on Cheechoo-A, six (6) are located in Shark and the last two (2) are on Cheechoo B. Near to all these holes targeted AEM conductive or IP chargeable zones, except for those on Cheechoo B. The holes intersected only slightly anomalous grades.

¹¹ Harnois was contracted from Caracle Creek Internation Consulting (CC/C), while Boubakour was the Golden Valley representative. Harnois's affiliation is only indicated in the text, the report not being produced by CCIC. This suggests it was prepared by Golden Valley staff and signed by Harnois, Boubakour being only geologist in training. A similar situation occurred in Girard et al (2011) and Barrette and Ali (2012), with the difference that these reports were dominantly rewritten by the signing author. Such practice from Golden Valley is not recommended.

¹² In-Ex Extension is a high grade gold occurrence discovered by Everton Resources on their adjacent Opinaca-A property (Boudreault and Allou, 2006).

¹³ A mention is made in this report of a Harnois, Boubakour and Rosatelli report in 2008, which is not available to the author.

2010: Golden-Valley and Sirios

In summer 2010, Golden Valley, as operator of the joint-venture with Sirios, commissioned a ground magnetometric and a soil geochemical survey. The objective was to outline the source of the geochemical dispersion train found down-ice on Eleonore-South property of Eastmain Resources (Canova *et al*, 2010). The surveys were conducted concomitantly by IOS, along uncut grids. The geochemical survey included 1555 humus samples analyzed by ICP-MS after sodium pyrophosphate digestion. The same crew conducted the magnetometer survey¹⁴, using GEM sensor plus a base station located in the center of the survey. Camille St-Hilaire (2010) interpreted the geophysical results.

In 2010, a joint team of Golden Valley, Sirios and IOS conducted prospecting in the south-west corner of Cheechoo-B, where 26 samples of “look-like-nothing” thondjemite assayed between 0.1 to 2.58 g/t gold, plus erratic values at 8.2 and 25.5 g/t.

Upon reception of the preliminary results, Golden Valley conducted a ground follow-up prospecting program targeting the main geochemical anomalies. The program included prospecting by a composite Golden Valley-Sirios-IOS crew (Girard, Aubin and Boubakour, 2011¹⁵) made of four (4) geologists. Abundant gold bearing samples were collected, most of them from “look-like-nothing” slightly altered granitoid. Of the 168 selected sample, 26 (15%) from various location were mineralized with 0.1 to 2.58 g/t Au. Numerous mineralized samples were coincident with soil anomalies.

2011: Golden-Valley and Sirios

In summer 2011, a second prospecting program was initiated Cheechoo B West, by Golden Valley, as operator of the joint-venture with Sirios, The objective was to cover the deficiently explored northern and south-eastern part of the property (Barrette and Ali, 2012¹⁶). None of the 51 selected sample collected returned significantly anomalous grades.

¹⁴ Arrangement made in order to reduce the operating cost, although this was not their usual field of expertise.

¹⁵ See footnote #10.

¹⁶ See footnote #10.

2012: Sirios Resources

According to the June 2012 agreement, Sirios became the operator of the project from this date, and initiated a drilling program on the Cheechoo B-west property. The goal was to drill test the occurrences discovered by prospecting in 20010. The program included line cutting for 46.65 kilometres, followed by induced polarization and ground magnetic survey (Dubois, 2012). The grid covers the southeast corner of the property, encompassing the same area as the 2010 soil geochemical survey.

The 2012 drilling program by Sirios Resources represent the last exploration work conducted on the properties.

Eight (8) short holes were drilled in October, for 938 metres and 782 samples, of which five (5) intersected broad low-grade gold mineralization. To date, only gold assays were obtained, multi-elemental analyses as well as coarse gold assays are pending. The detail of the program, which was highly successful, is provided in item 10. Various outcrops were also visited in the meanwhile.

The autumn 2012 drill program represent the last work conducted on the project.

ITEM 7: GEOLOGY AND MINERALIZATION

REGIONAL GEOLOGY

The major part of the following information results from a compilation of the fieldwork carried on the properties and their vicinities by the author's staff and scientific studies from Simard and Gosselin (1999), Sawyer (1998), Bandyera and Fliszar (2009), Bandyarea et al (2010) and Franconi (1978).

The area of the project straddles the suture zone between the Opinaca metasedimentary Subprovince (2700 to 2648 Ma) and the southern segment of the La Grande volcanoplutonic province (2880 Ma) (**map 2**). The limits between these two sub-provinces are not accurately established, likely gradational, invaded by granitoid.

Cheechoo-B-east and Shark properties are located in the LaGuiche Complex, which is a migmatite package of Achaean age. The La Guiche migmatites grade into flyschoid metasediments of the Auclair Formation at the base of La Grande stratigraphy. On a regional scale, La Guiche migmatites are cut by syn- to late-tectonic tonalite-trondhjemite-granodiorite intrusions, which currently make about 50% of the complex. The Opinaca Subprovince is bounded to the north and to the south by two segments of the La Grande volcanoplutonic Subprovince.

Cheechoo A property is located within the LaGrande sub-province while Cheechoo-B-east and Shark are located in the Opinaca sub-province. The lithodemic affiliation of the rocks within Cheechoo-B-west is ambiguous, being located near the suture zone between both provinces.

Inversely, Cheechoo A is located well within La-Grande sub-province, at the contact between the Kasak Formation and the adjacent granitoids. Cheechoo- B-west property is located along the supposed contact between the two sub-provinces, and its affiliation is ambiguous. It is composed of both granitoids typical La Grande sub-province and metatexite typical of Opinaca sub-province.

Regional metamorphic grade varies from greenschist to retrograded granulite facies. Metamorphic minerals occurring in the paragneisses of the Cheechoo B Prospect include hornblende, garnet, sillimanite and cordierite, indicative of upper amphibolites to granulite facies.

Opinaca sub-province

The Opinaca Sub-province (2700 to 2648 Ma) comprises metamorphosed sedimentary rocks of the La Guiche Complex, intruded by intermediate to felsic intrusions. The La Guiche Complex is essentially composed by migmatized paragneisses, amphibolites and gneisses of unknown origin, also referred as *Gneiss de la Gorge Prosper* (Franconi, 1978). The intrusive rocks comprise three Archean age units: the tonalite - granodiorite suite, the quartz diorite - quartz monzodiorite suite and granites. Some Proterozoic diabase dikes intrude the geological units of the area. The Opinaca Sub-province is bordered to the north and to the south by two segments of the La Grande Sub-province.

All the geological units, except for the late granites and diabase dikes, were affected by a regional high-grade metamorphism and deformation, causing pervasive although not uniform migmatization. Metamorphism reaches granulite facies conditions, but conditions were not uniform and remnants of prograde greenschist facies are locally preserved and that retrograde metamorphism is ubiquitous. Metamorphic minerals assemblage occurring in the paragneisses are hornblende, garnet sillimanite and cordierite. The dominant structure is a regional foliation that forms a large east-west-trending open fold, locally developed into domes and basin or anastomosed structures. Stretching lineations are seldom. The complex folding pattern can be visualized from the aeromagnetic surveys. Surprisingly, conductive zones outlined by these surveys, mainly the AEM, seem to indicate some lithological continuity despite of the overall gneissic imprint. Relation between the La Guiche Complex tectonic fabric and the adjacent volcanic belts is not deciphered.

Opinaca Sub-Province is dominated by the LaGuiche Complex, which is package of paragneiss and metatexites, invaded by abundant anatectic granites, plus small remnant of mafic gneiss.

The contact between the Opinaca Sub-province and the La Grande Sub-province is poorly known, but the field observations suggest that the “Roberto Zone” is located near these important geological and metamorphic contacts (Cayer, Tremblay, Ouellette and Archer, 2004).

La Grande sub-province

The La Grande Sub-province is a volcano-plutonic sub-province (Caro and Ciesielski, 1986) which wraps around the Opinaca Sub-province to the west in a crescent shape. It is made up of nearly 85% plutonic rocks whose nature varies according to their age and relative position with respect to the volcanic bands. They are generally an assembly of tonalites and granodiorites with some gabbro and diorite (Labbé and Grant, 1998). In the

west, the volcanic and volcanoclastic dominated band of the lower Eastman River (BVREI), and in the north a volcanic and volcanoclastic dominated band of the La Grande River (BVRLG) are present and nearly connecting. All the volcanic and sedimentary rocks which compose these volcanic bands are strongly deformed and metamorphosed, typically to the amphibolite facies. Within the BVREI, the least metamorphosed rocks are the sediments, typically to greenschist facies and with preserved primary structures.

In the southwest of the La Grande Sub-province, the various bands of volcanoclastic and sedimentary rocks of the Eastmain and Opinaca rivers constitute a specific rock packages that are likely to be connected to each other on both sides of small domes formed by foliated tonalite or similar paragneiss with those of the Opinaca Sub-province (Franconi, 1978). Two folding phases are responsible for the foliation whose principal orientation is east-west, mostly evident in the Opinaca Reservoir area.

The south segment of LaGrande Sub-province includes the Eastmain River volcanosedimentary belt and its associated plutonic intrusions. The Eastmain River has a complex internal stratigraphy.

In the north, the volcanic (amphibolites) and the metasediments rocks of the La Grande River (BVRLG) Sub-province constitute long narrow bands insulated by hornblende and biotite granodiorite. Fault zones are oriented west-northwest, east-west, and east-northeast.

The volcanic sequences are characterized by multiple cycles with local hiatus between them. Hiatus are expressed either by Algoma-type iron formation, suggestive of exhalative activity. Another hiatus, likely higher in the sequence, is underlined by a polygenic conglomerate, and locally some ultramafic volcanic. This conglomerate is associated with many of the mineral occurrences.

Metamorphism

In the La Grande Sub-province, the regional metamorphism varies from the higher grade facies of greenschist to the amphibolite grade. The intensity of metamorphism increases to the east (Labbé and Grant, 1998).

In the Opinaca Sub-province, regional metamorphism is dominated by granulite facies, although some keels of lower prograde metamorphism are locally preserved. Orthopyroxene in the paragneisses is seldom but still present, as well as in quartz-diorite and quartz-monzodiorite (Simard and Gosselin, 1999). Occasional presence of garnet and/or alkali-feldspar and/or cordierite (Sawyer, 1998) is in accordance with granulite at

high temperatures of 850°C and 6 kbars of pressure (Sawyer, 1998). Partial melting leading to granitic leucosome is ubiquitous.

STRUCTURAL GEOLOGY

Opinaca Sub-province

In the Opinaca Sub-province, the primary structures of the meta-sedimentary rocks were near to all obliterated by the effect of metamorphism, deformation and partial melting. Geometry of first generation folds are cannot be deciphered nor is the right stratigraphic succession of the sequence (Simard and Gosselin, 1999). The dominant structural element corresponds to the regional foliation coeval with granulite facies, which overprint in the entire region. This foliation affects every rock facies, except the late granites and the Proterozoic diabase dikes. It develops a gneissosity in the paragneisses or occurs as a foliation in the intrusive rocks, defined by alignment of biotite and hornblende (Simard and Gosselin, 1999).

The LaGuiche Complex is characterized by granulite facies metamorphism, gneissic layering and a complex volute structure. The supracrustal rocks of the LaGrande sub-provinces are affected by amphibolites facies metamorphism and schistosed rocks.

Folds

The dip of the foliation varies between 30° to 60° from the north to the south, creating long east-west open folds with a weak to moderate plunge towards the east or towards the west (Simard and Gosselin, 1999). Small scale and ptygmatic folds provide good insight of the strain intensity, although the kinematics of the regional tectonic movements is complex and not fully deciphered.

Faults

A late fault network oriented northwest affects all rocks of the Opinaca Sub-province. These faults are only observed in some locations and deduced from the trace of structural displacements, lithological units or magnetic horizons. Displacements of the marker horizons exhibit apparent dextral movement. The diabase dikes were typically emplaced along these brittle fault structures (Simard and Gosselin, 1999). The late faults are not to be confused with syn to late metamorphism shearing. These shears are associated with limbs of the large scale folds, and merge into anastomosed structures. Field evidences of these shears are diffuse banding and stromatic migmatites, difficult to be recognized as deformation zone by the untrained eye.

La Grande Sub-province

The structural grain in the La Grande Sub-province is oriented generally east-west. Its presence is observed in the form of schistosity in the volcano-sedimentary rocks and a foliation in the intrusive rocks. The primary structures are often preserved inside volcano-sedimentary bands of the lower Eastmain River (BVREI) group.

Some folds were identified in the La Grande Sub-province. The most important of these is located in the southern part of the volcano-sedimentary band. It corresponds with a northeast to east-west trending synclinal fold (Labbé and Grant, 1998), whose core is occupied by a felsic pyroclastic unit. Poly-phased folding patterns are locally outlined, mainly by the continuous iron formation. Folding complexities are affecting the Opinaca Reservoir, where a kind of circular structure is present.

Some sheared and mylonitized zones affecting mainly the granitoids are observed (Eakins et al., 1968), generally oriented northwest-southeast.

QUATERNARY GEOLOGY

The actual landforms in Cheechoo project were created by the event related to the last glacial events, such as the retreat of the Laurentian and Wisconsinian Inlandsis. Chronology of the events in the course of deglaciation in the area was studied by Hardy (1976, 1977, 1982), Veillette (1994, 1995, 1997, 1999), Vincent and Hardy (1977) and Hillaire-Marcel et al. (1981). Elongated landforms and dominant striae suggest ice-flow toward southwest (N236°-N242°), and represent the dominant transport direction. However, Veillette (1995) and Parent et al. (1995) indicated an older direction of transport toward northwest, representing a lower Wisconsinian glacial advance. A migration of the glacial divide centered to the east caused this reorientation of the flow, first dominant toward the west, then west-south-west, then south-west during the late Wisconsinian. This glacial event left a thin discontinuous blanket of basal and ablation till, known as the Chicougamau Till. Younger glacial deposits, such as the Cocherane Till, did not invade the area. The Chibougamau covers most of Shark and Cheechoo B properties.

The area surrounding the Opinaca Reservoir is underlain by glaciomarine sediments of the Tyrrell Sea and their periglacial sediment. The area to the east is covered by a thin blanket of the Chibougamau till. Dominant ice-flow direction is toward south-west.

Ice retreat in northern Labrador enable seawater to invade Hudson Strait, and then emptying of Ojibway Lake. This causes a marine invasion and the formation of Tyrrell

Sea. Sakami frontal moraine developed in relation to this marine invasion, the trace of which spans 630 kilometres from Kuujjuruapik to Mistassini Lake.

Eastern limits of the Tyrrel sea transgression are discernible from the paleo-shorelines, reaching Cheechoo-B west property, and encompassing Cheechoo A. The maximum altitude of the marine invasion is 270-275 metres asl (Vincent 1989). This invasion left a blanket of marine clays and local periglacial or prodeltaic sediments.

LOCAL GEOLOGY

Cheechoo A

Cheechoo A property is dominantly underlain by granitoid plutonic rocks, with only the topmost northeastern corner being underlain by metavolcanic rocks (**map 3**). This assemblage is thoroughly different from what can be seen in Cheechoo B and Shark. Outcrops are seldom, meaning that, aside the northeast corner, the geology is poorly constrained.

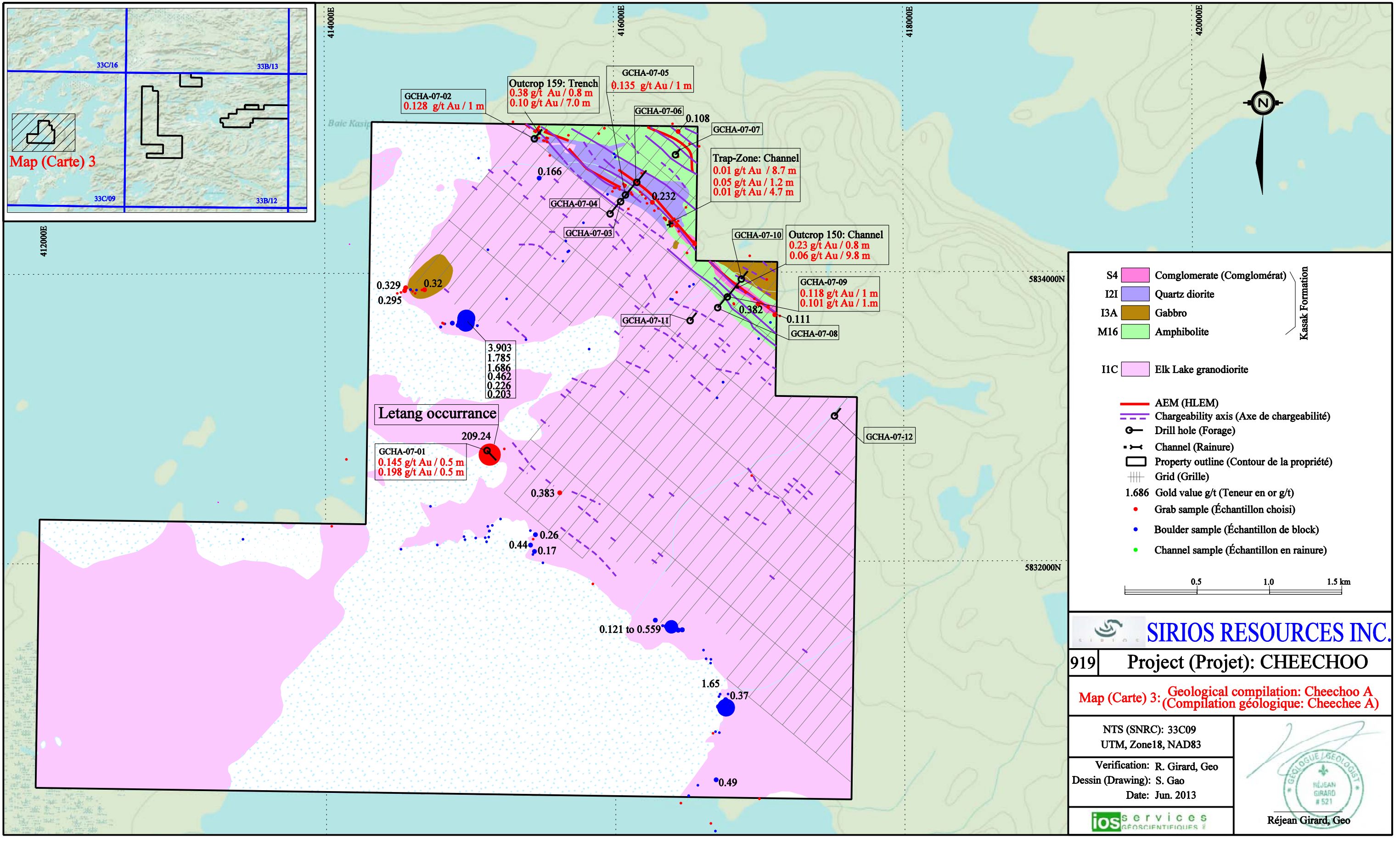
Cheechoo A is located within the La Grande volcanoplutonic Subprovince. It straddles the contact between the Kasak Formation, a basaltic sequence belonging to the Eastmain River volcanic belt, and the Ell Lake syntectonic granitoid intrusion (Girard et al., 2006a). Ell Lake granitoids are dominantly diorites, which are observed in the north and the south of the property. They are greenish grey, occasionally foliated and fine to medium grained. They are mainly composed by plagioclase and amphibole (hornblende) with a few quartz and potassium feldspar. Accessory minerals are biotite and epidote. Some quartz diorites were noted on the northern part of the property. These diorites contain are locally pyrite-rich.


Cheechoo-A encompasses a short segment of the Kasak Formation, dominated by basaltic volcanics, the rest being the Elk Lake granodiorite.

Granites are observed near the south-western boundary of the property. They are pink or white, hololeucocratic, homogeneous and massive rocks, composed by feldspar, quartz and occasionally biotite. The accessory mineral is hornblende. They are fine to coarse grained. The relation with diorite is not established.

The contact between the Elk Lake Intrusion and Kasak Formation is not described.

Kasak Formation is dominated by mafic volcanics and is restricted to a 800 metres wide band in the north-east of the property. These are black to dark greenish grey and are




**SIRIOS RESOURCES INC.**

919 | **Project (Projet): CHEECHOO**

Map (Carte) 3: Geological compilation: Cheechoo A
(Compilation géologique: Cheechee A)

NTS (SNRC): 33C09
UTM, Zone18, NAD83

Verification: R. Girard, Geo
Dessin (Drawing): S. Gao
Date: Jun. 2013

**Réjean Girard, Geo**

commonly associated to paragneiss. They are fine to medium grained, foliated and banded rocks containing between 50% to 70% hornblende and biotite, associated with plagioclase. The accessory minerals are epidote and sulfides. The sulfides consist mainly in pyrite veinlets (1% to 5%), pyrrhotine clusters (up to 25%) and trace of chalcopyrite. Electromagnetic and magnetic anomalies are coincident with these volcanic rocks. According to Harnois and Boubakour (2009), the amphibolites grades into a diorite toward the contact with the Elk Lake granitoid, while it is indicated to grade into metabasalt by Girard et al. (2006).

Kasak Formation includes mafic volcanics, but also rusty paragneiss, some felsic pyroclastites and conglomerates. Sulphides are rather abundant, causing electromagnetic anomalies.

Biotite paragneiss is confined to small lenses within the Kasak metabasalts in the north-eastern part of the property, lense which was shown as continuous by Harnois and Boubakour (2009). They demonstrate a moderate to high silicification. The biotite paragneiss is grey to bright grey on fresh surface and rusty brown under meteoric weathering. Paragneisses are composed by quartz, plagioclase, biotite and potassium feldspar. Accessory minerals are epidote, hornblende, garnet and sulfides.

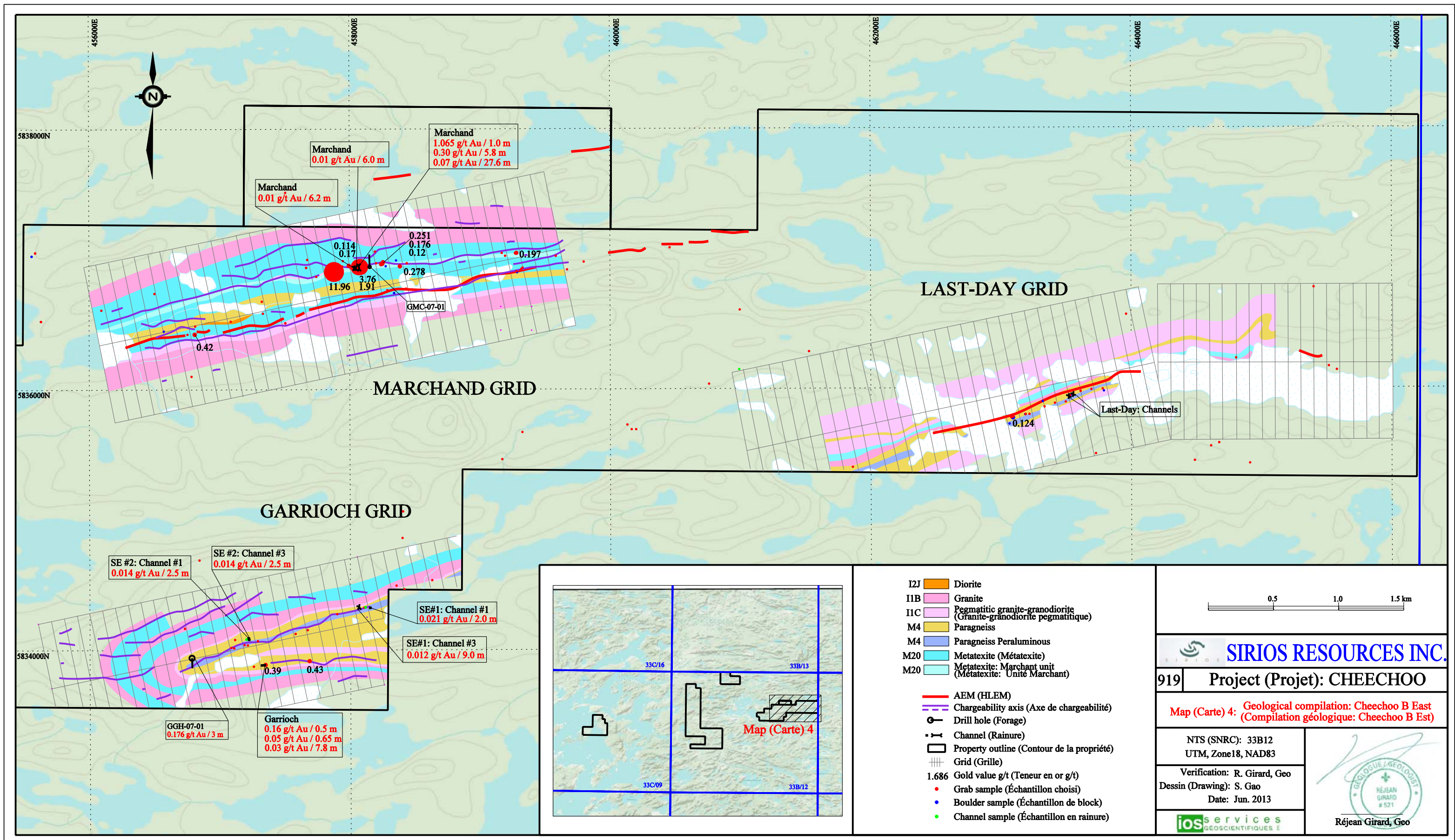
There is poor information about structural geology on the Cheechoo A property, else than the Kasak Formation represent a homoclinal sequence. Only one fault (F1) was measured on the field. It is a 250° fault dipping 70° which intersects a diorite in the south of the property. Three other faults striking 20° to 35° (F2, F3, F4) were identified by the AEM survey. These faults are also located in the south of the property.

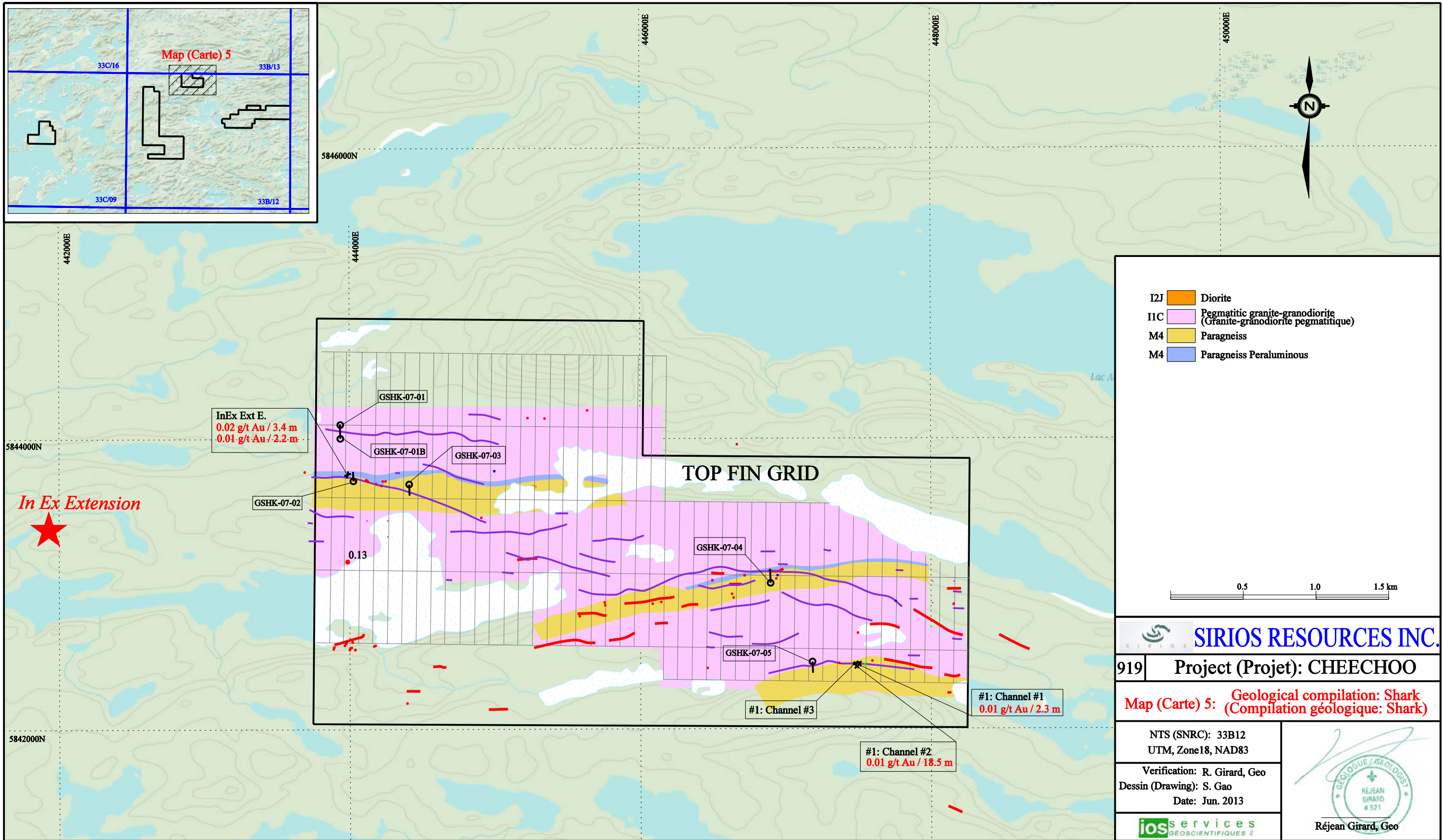
Cheechoo B-East and Sharks

The Cheechoo B-east and Sharks properties were initially partly contiguous, and thus share a common local geology, and will thus be described jointly (**maps 4 and 5**). Geological mapping was conducted in 2005 (Girard et Ivanov, 2011), and was intertwined with the mapping of other intercalated properties belonging to Azimut Exploration (Boudreault et Allou, 2006), Everton Resources (Boudreault et Allou, 2006 et Villeneuve et Allou, 2006) and Sirios Resources (Lalancette et Girard, 2008, Girard et Walter, 2008 et Girard et Kerdraon, 2008).

Amalgamation of these enabled the author to reconstruct the regional map with a coherent dataset (Girard and Ivanov, 2011). The area is entirely located in the Laguiche Complex of the Opinaca Sub-Province, away of the diffuse suture with La Grande sub-

Shark and Cheechoo-B-east are within the Laguiche Complexe, dominated by biotite paragneiss, in a continuum with metatexite and diatexites. Local bands of mafic gneiss and aluminous gneiss are scattered within.





province. The map produced by the author is slightly different from the one from Bandyera et al (2010), likely due to how the different authors grouped the various lithofacies at the mapscale.

LaGuiche Complex is dominated by biotite paragneiss, but also includes biotite-muscovite paraschist, biotite metatexite and diatexite, injected with hololeucocratic anatectic granite sheets. Amphibolite and mafic gneiss are locally reported, as well as rare metapyroxenite bodies. These units were not resolved by regional mapping. The gneisses are complexly folded, but generally trend east-west with moderate dips to the north (Girard, 2005). However, since exploration work for Golden Valley has been restricted to vicinities of the AEM anomalies, remaining geology has been interpreted from neighboring properties, Landsat images and then available airborne geophysics.

The quartz-plagioclase-biotite-amphibole-microcline assemblage is overwhelmingly dominant in most rock type. Garnet, augite and hypersthene are occasionally associated to this assemblage, generally not abundant. Local paragneiss bands host cordierite and sillimanite. The granulite imprint is deduced from the typical granular texture, buff weathering and remnant of the greenish feldspar. Remnants or keels affected by lower paroxysmal metamorphism were noted by the author, where the sediments preserved their primeval mudstone-like textures and avoided anatexis. Locally, lower grade metamorphic minerals, such as epidote, amphibole (actinolite and hornblende) and chlorite can be considered as retrograde metamorphic minerals, typically associated with tectonic features.

Eight lithological units have been identified along the AEM conductors of the property: biotite paragneisses, migmatites, granites, amphibolites, diorites, tonalites, quartzitic sandstones and diabase dykes. Among these units, biotite paragneisses, granites and migmatites dominate almost all the areas covered during field works.

BIOTITE PARAGNEISS

The biotite paragneiss is observed almost everywhere on the property. It is grey to bright grey on fresh surface and rusty brown under meteoric weathering. Paragneisses are composed by quartz, plagioclase, biotite and potassium feldspar. Accessory minerals encountered in this unit are amphibole (hornblende), garnet, epidote and chlorite. They are relatively homogeneous, foliated or banded, and are fine to medium grained. There are abundant neosomes resulting from the intense migmatization that affected all the Opinaca Sub-province. During the field works, all the biotite-rich gneisses containing less than 50% neosomes were considered as paragneisses.

PERALUMINOUS PARAGNEISS

Cordierite, garnet and biotite bearing paragneiss were described associated with the Inex-Extension-East occurrence, northwest corner of Shark (Harnois and Boubakour, 2009). Little information is available. Similar rocks were reported in the former Cheechoo-C, where a distinctive horizon was described over kilometres in length. The peraluminous nature of these metasediment may origin from an aluminous rich mudstone as well as from alkali leaching in the course of premetamorphic hydrothermal alteration.

Bands of peraluminous paragneiss were described by the various authors, as including cordierite-garnet-biotite assemblage. Bands of pyrigarnite, a rock made of dominant pyroxene and garnet, are also reported on adjacent

MIGMATITES

Almost all the rocks of the property, principally the paragneisses, were affected by an intense migmatization perceptible by many concordant or discordant neosomes injections with regard to the gneissosity. All the rocks containing more than 50% neosomes were considered as migmatites. Depending of the neosomes percentage in the rocks, they are called metatexites or diatexites according to Mehnert (1968). They are generally diffusely banded leucocratic rocks with a granitic composition and are coarse to pegmatitic grained.

The above mentioned migmatites were often described as pegmatites on the field. The geologists agreed to a common terminology after comparing their field observations.

GRANITES

Like the paragneisses, granites are observed almost everywhere over the property. They are pink or white hololeucocratic, homogeneous and massive rocks, composed of alkali feldspar, quartz and occasionally biotite (trace to 5%). The accessory minerals are amphibole (hornblende) and magnetite. The sulfides, as pyrite, are generally mineralized as clusters from traces up to 10%. The visible alteration minerals are epidote and potassium feldspars, commonly associated with fractures, along with local rubification. The granites are fine to coarse grained and foliation develops near the contact zones, where granite is succeeded by granitic gneiss. They form hectometric bands alternating with paragneisses and migmatites.

AMPHIBOLITES

Amphibolites or magic gneiss form small bands dispersed or disaggregated in the central and eastern parts of the property. They are black to dark greenish grey and are systematically associated to paragneiss. They are fine to medium grained, foliated and banded rocks containing between 40% to 60% hornblende and biotite, associated with plagioclase. Some outcrops contain chlorite and a few porphyritic garnets. Ultramafics and metapyroxenite lumps were not described within Cheechoo-B or Shark, potentially due to the lack of systematic mapping.

Scattered bands of dismembered amphibolite and mafic gneiss are present in the LaGuiche Complex, likely relicts of former basaltic volcanic. Lumps of ultramafics were also described in adjacent properties.

TONALITES

There are some small tonalite outcrops located in the central part of the property. They are composed by quartz, plagioclase and trace of alkali feldspar. Compared to the granites, they contain higher concentrations of mafic minerals, with 10% to 15% biotite and amphibole. They are fine to medium grained rocks, massive and homogeneous.

QUARTZ DIORITES

A few quartz diorites are observed in the central part of the property. The diorites are fine to medium grained with a medium greenish grey color. Foliation is occasionally observed on the outcrops. They are mainly composed of plagioclase and amphibole (hornblende), with low quartz concentrations. These diorites may contain abundant pyrite.

QUARTZITIC SANDSTONES

There are few outcrops of distinctively sedimentary rocks on the property's north-central part, where quartzitic sandstones have been observed. These sandstones are essentially made of quartz. They are grey and medium grained.

DIABASE DYKES

Diabase dykes were reported on the property. The diabase is a medium grained massive and homogeneous rock. It is composed with pyroxenes (clinopyroxenes and

orthopyroxenes), plagioclases and amphiboles. Locally, trace to 3% disseminated pyrite and pyrrhotines are associated to the fractures.

STRUCTURAL GEOLOGY

The interpretation of the geological structures is based on field structural data, geophysical survey (AEM magnetic and conductor maps) and topographic maps. Here too, there is a lack of geological information preventing robust interpretation. Only the magnetic and EM conductor maps and the structural data have been used to define the major faults, the shear zones and the lithological contacts of the property, which were not verified in the field.

Schistosity and gneissosity are the dominant structures. These planar structures are affected by faults, shears, geological contacts and intrusions.

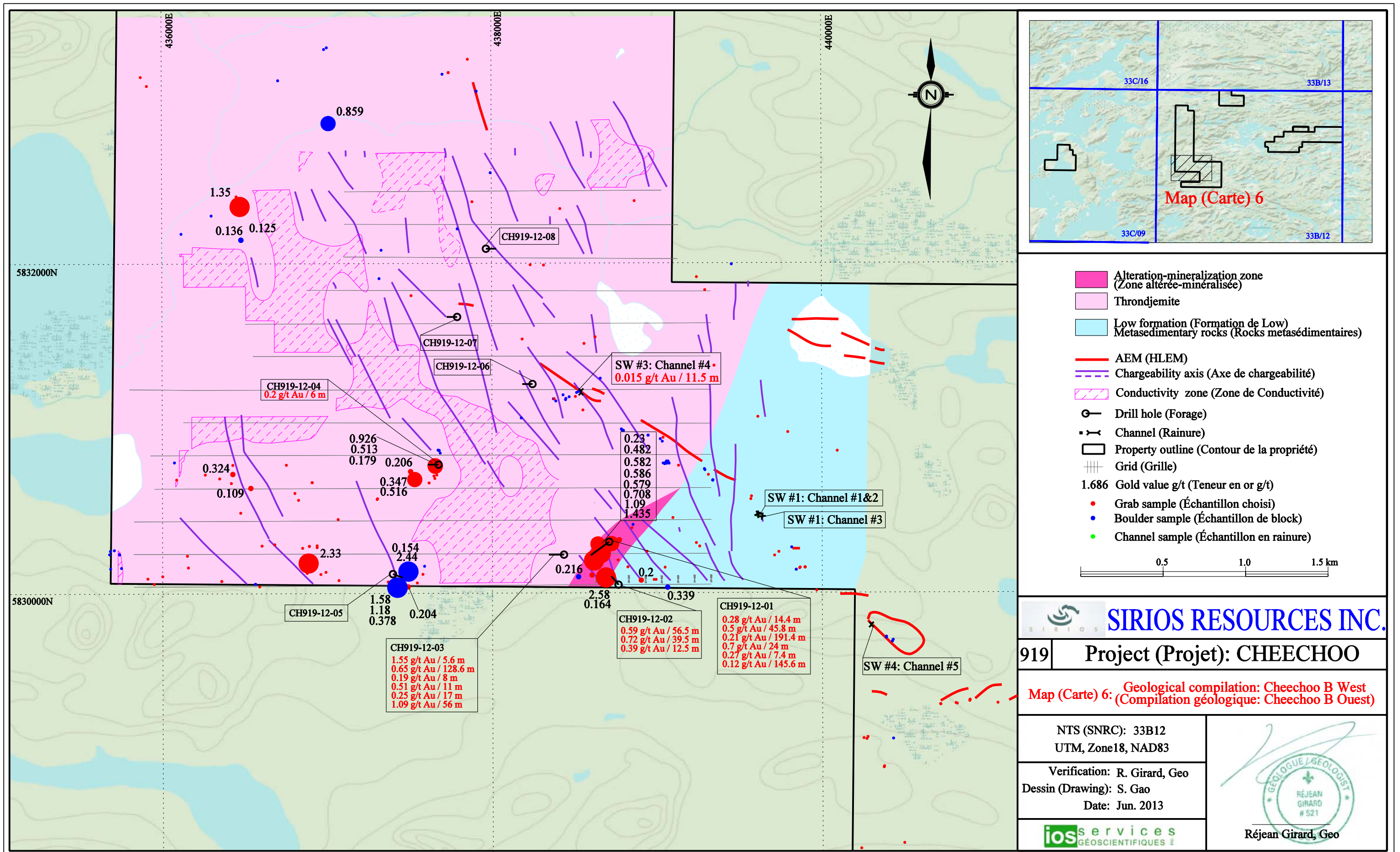
Four systems of faults were interpreted. A 320° major senestral fault (F1) was identified on the western part of former Shark property. Two other major faults (F2 and F3) have been identified with the AEM survey at the north-central part of the property. They are a 160° (F2) and a 145° (F3) strike-slip faults. The last one is an 80° senestral fault located in the south-central part of the property.

The schistosity and the gneissosity are the most frequently measured structures. On the field, these planar structures are parallel and controlled by faults, shears, geological contacts and intrusions.

Cheechoo B-West

Cheechoo B-west property is located near the suture zone between Opinaca and La Grande sub-provinces, and lithofacies commonly attributed to both are reported (**map 6**). The southern part of the property was mapped in detail in 2010 (Girard et al., 2011), while the northern part was covered by Barrette and Ali (2012). In 2005, a geological map of the entire Cheechoo-B property was then interpreted by the integration of the structural and lithological data available, a magnetic and a conductor map (Girard et al., 2006). Little information was offered on this part of the project by Harnois and Boubakour (2009).

Both the southern (Girard et al., 2011) and northern part (Barrette and Ali, 2012) of the property, only two lithofacies are reported, either a biotite bearing paragneiss (**pictures 5 to 9**), and a trondjeimite (leucocratic tonalite). These two lithofacies are imbricated if we consider the details of the field description, but were not resolved accurately on the



maps. Pegmatites are reported here and there. These maps were obviously not interpreted in consideration of the neighboring properties, such as the Girard et al. (2006) map, which include much more details. Integration of both dataset (2005 and 2010-2011) has not been attempted.

The trondhjemite in the southern part of the property is pervasively altered, by a severe silicification, and a slight sulphides and sulphosalt alteration. This alteration might not be readily discernible by the un-trained eyes, and the lack of mention in the notes do not imply its absence. This alteration is intimately associated with the gold mineralization, and will be discussed in the subsequent sections.

The biotite paragneiss is observed almost everywhere on the property. It is grey to bright grey on fresh surface. Paragneisses are composed by quartz, plagioclase, biotite and potassium feldspar. Accessory minerals encountered in this unit are amphibole (hornblende), garnet, magnetite, epidote, chlorite and pyroxene. Biotite is locally concentrated into sheaves in xenoliths of paragneiss. Occasionally, on low-lying outcrops, the exposed paragneiss inclusions on the edge of the outcrops weather rusty brown, and the brown weathering is inferred to be due to the biotite or mafic minerals in the unit. The paragneiss xenoliths in the northwestern part of the property contain only traces to minor amounts of sulphides. In the southeast sector of Cheechoo B west, metasandstone, metaquartzite and metamudstone were mapped and are interpreted as well bedded turbidite. Few centimeters to meter-sized bands of felsic rocks (+/- graphite, +/- sulfides), and cherty (+/- sulfides) thin bands were observed within metasedimentary rocks. Subvolcanic felsic intrusive veins and stockwork such as feldspar and/or quartz porphyry, as well pegmatite dikes, intruded the metasedimentary rocks. Metasediments are intercalated locally with hornblende (hb), diopside (diop), biotite (bo), chlorite-bearing mafic gneiss (métagabbro/diorite), and with intermediate feldspar crystal tuff bands.

Cheechoo-B-West straddles the boundary zone between Opinaca and LaGrande sub-provinces. It is characterized by a large thondjemite in the south and metasediments of the Low Formation or similar paragneiss from the LaGuiche.



Picture 5: Outcrop of paragneiss, recognized by its buff color, coarse grain and abundance of leucosome veins. Notice the late quartz vein. These, from Cheechoo-B-west, are typical of the LaGuiche paragneiss.



Picture 6: Sillimanite alteration affecting a paragneiss, a localized feature on Cheechoo-B-west.



Picture 7: Typical biotite paragneiss with ptigmatitic folds from the LaGuiche Complex, but which are also characteristic of the Low Formation.



Picture 8: Heavily migmatized paragneiss from the LaGuiche Complexe.



Picture 9: Horse-tail diabase dyke injected in a paragneiss.

Almost all the rocks of the property, principally the paragneisses, were affected by an intense migmatization perceptible by many concordant or discordant neosome injections with regard to the gneissosity. All the rocks containing more than 50% neosomes were considered as migmatites. Depending on the neosomes' percentage in the rocks, they are called metatexites or diatexites according to Breaks et al. (1978). They are generally bright banded rocks with a granitic composition and are coarse to pegmatitic grained.

Thronjemitite are observed mainly in the southwest part of the property, and in contact with migmatized paragneiss likely of the Low Formation in southwest sector. They are hololeucocratic white, homogeneous and massive rocks, composed of feldspar, quartz and occasionally biotite (trace to 5%). The accessory minerals are amphibole (hornblende), diopside and magnetite. The sulfides, like pyrite, are present in trace or up to 10%. The visible alteration minerals are epidote and potassium feldspar commonly associated to fractures. The thronjemitite are fine to coarse grained. Foliation is typically observed near the contact zones, where they are succeeded by granitic gneiss. Some granitic gneisses rarely contain red garnets.

Thronjemitite in Cheechoo B-West are restricted to the southern portion, in contact with the Low Formation metasediments. They are hololeucocratic heterogeneous aphyric intrusions.

Granites generally form hectometric bands alternating with paragneisses and migmatites. The granitic rocks are usually intruded by metre-scale coarse-grained pegmatite dikes in the northwest sector. The pegmatite dikes injected into granitic rocks are, similar to the paragneissic inclusions, ubiquitous in the northwest sector. The pegmatite is extremely coarse-grained with quartz and feldspar measuring up to 6 inches locally.

There are some tonalite outcrops on the north-western and south part of the property. Tonalites are composed by quartz, plagioclase and some alkali feldspar. Compared to the granites, they contain higher concentrations of mafic minerals. Biotite and amphibole constitute 10% to 15% of the rock. They are fine to medium grained with massive and homogeneous textures. They shall not be confused with the thondjemite.

Thondjemite are not to be confused with tonalite, which are richer in mafic minerals, and anatectic granites, which typically forms hololeucocratic granular granitoid sills within the paragneiss.

Amphibolites constitute two small bands in the west and the east parts of the property. They are black to dark greenish grey and are associated to paragneiss. They are fine to medium grained foliated and banded rocks containing 40% to 70% hornblende and biotite, associated to plagioclase. Some outcrops contain chlorite.

There are four north-west major faults located in the south-western part of the Cheechoo B property. There is not sufficient data to establish the main characteristics of those faults. They all seem to be strike-slip faults basing on the magnetic map. The orientations of these faults are:

- Fault F1 = 320°
- Fault F2 = 305°
- Fault F3 = 305°
- Fault F4 = 310°

The main structural element noticed in Cheechoo B west is an irregular foliation, either developed as a gneissosity or schistosity. In the western part of the Cheechoo B southwest sector, the foliation has an approximate north-northeast/south-southwest direction and in the northeast part, the foliation has a north-northwest/south-southeast direction. Typically, pegmatite dikes, metasedimentary enclaves, mineral lineation and gneissosity are parallel to the main foliation. The overall trend of the foliation suggests a regional virgation from the dominant east-west trend in the east, to the more northeast trend near to contact with the La Grande sub-province.

The contact between the granitic and metasedimentary rocks is not exposed, the location of which is interpreted from aeromagnetic patterns. This contact is inferred to have been reactivated as a shear zone. Proximal to the interpreted contact, a cluster of schist boulders have been observed, the source of which is considered to be local. At the outcrop scale, irregular and asymmetric pygmatitic folds are developed within paragneiss, highlighted by the granitic material.

Quartz injections have been abundantly observed cross-cutting granitic rocks. These injections are characterized by various attitudes, parallel and/or oblique to the main foliation.

MINERALIZATION

There is only two mineral occurrence worth of being considered within the project, in Cheechoo B-west and Cheechoo A. Three other sites within Shark and Cheechoo-B east, namingly the Top-Fin ¹⁷, Marchand and Garrioch occurrences, were the focus of intense exploration efforts by Golden Valley, although no significant results were unearthed. These three occurrences are not considered as significant by the author.

Only two significant mineralized occurrences are known within the project, the mineralized thondjemite in southern Cheechoo-B-west, and the sulphidic meta-volcanics and associated metasediments of Kasak Formation in Cheechoo-A.

The best gold results from surface samples are summarized in the following table (**table 5**) and will be discussed at length in subsequent sections:

¹⁷ Initially reported as Inex Extension East occurrence.

| Sample_nu | UTMX Nad | UTMY Nad | Outcro | Flo | Rocktyp | Au_PP | Ye | Properties |
|-----------|----------|----------|--------|-----|-------------|--------|------|-----------------|
| 120768 | 437594 | 5830014 | Grab | - | M4/I1N | 8,200 | 2010 | Cheechoo B West |
| 120770 | 437612 | 5830010 | Grab | X | M4/I1N | 25,500 | 2010 | Cheechoo B West |
| 120775 | 438688 | 5830093 | Grab | X | M10/I1G | 2,580 | 2010 | Cheechoo B West |
| 120800 | 436885 | 5830183 | Grab | - | I1D/I1G/I1N | 2,330 | 2010 | Cheechoo B West |
| 120932 | 437424 | 5830034 | Float | X | I1D | 1,180 | 2010 | Cheechoo B West |
| 120934 | 437422 | 5830036 | Float | X | I1D | 1,580 | 2010 | Cheechoo B West |
| 120939 | 437490 | 5830132 | Float | X | I1D | 2,440 | 2010 | Cheechoo B West |
| 120946 | 438616 | 5830196 | Grab | - | I1D | 1,090 | 2010 | Cheechoo B West |
| 120851 | 438657 | 5830240 | Grab | - | M8 | 1,435 | 2010 | Cheechoo B West |
| 120862 | 436473 | 5832346 | Grab | - | I1G | 1,350 | 2010 | Cheechoo B West |
| 341201 | 458071 | 5836939 | ? | - | - | 1,910 | 2007 | Marchand |
| 341202 | 458082 | 5836941 | ? | - | - | 3,760 | 2007 | Marchand |
| 310764 | 457881 | 5836903 | Grab | | M4 | 11,96 | 2006 | Marchand |
| 313402 | 416762 | 5830960 | Float | X | M4 | 1,65 | 2006 | Cheechoo A |
| 313468 | 415149 | 5832705 | Grab | | I1C | 209,24 | 2006 | Letang |
| 131533 | 414779 | 5833611 | Float | X | SULF MASS | 1,6860 | 2005 | Cheechoo A |
| 131542 | 414783 | 5833640 | Float | X | - | 1,7850 | 2005 | Cheechoo A |
| 131550 | 414783 | 5833640 | Float | X | M4 | 3,9030 | 2005 | Cheechoo A |

Table 5: Top results about samples collected between 2005 and 2010 on the Cheechoo and Sharks properties. These assays are from selected samples, taken from outcrops or boulders, and are likely biased and non-representatives.

Cheechoo B-West

Mineralization in Cheechoo B-west has been discovered in 2010, and thus escape the large 2007 exploration program. Most of the best gold results were found in “looks-like-nothing” felsic intrusions, described as tonalite, but which are better described as trondhjemite (**picture 10** to **12**). Minor mineralization can also be host in pegmatite, quartz veins and locally in paraschists and paragneiss. Although the detailed mineralogy of the trondhjemite is not available, this hololeucocratic rock is apparently silicified or altered by potassic feldspar or albite. Mineralization is subtle, with trace amount of very minute pyrite, arsenopyrite, chalcopyrite and pyrrhotite. It is usually detected only by a well trained eyes and localized buff weathering. Silicification (or potassic alteration or albitization) is associated with a diffuse diopside, biotite and local tourmaline alteration. The mineralized area encompass an area of about 3 kilometres east-west by 1 kilometre north-south, where gold bearing outcrops are randomly scattered. Of the 152 grab samples collected, 35 samples yielded grades above 0.1 g/t, including 8 samples between 1 and 2.58 g/t gold (**picture 13**). No other valuable metals are associated with, this being a *gold-only* occurrence, but arsenic, antimony and tungsten are abundant. Two other samples, collected just south of the limit of the property, also yielded 8.2 and

25.5 g/t Au. Similarly, JT occurrence unearthed by Eastmain Resource is located less than 500 m west from property limits.

These mineralized areas coincide with gold and arsenic anomalies in humus, but do not have obvious geophysical signatures. No stripping or channel sampling has been conducted on this occurrence. Drilling results is described in **item 10**.



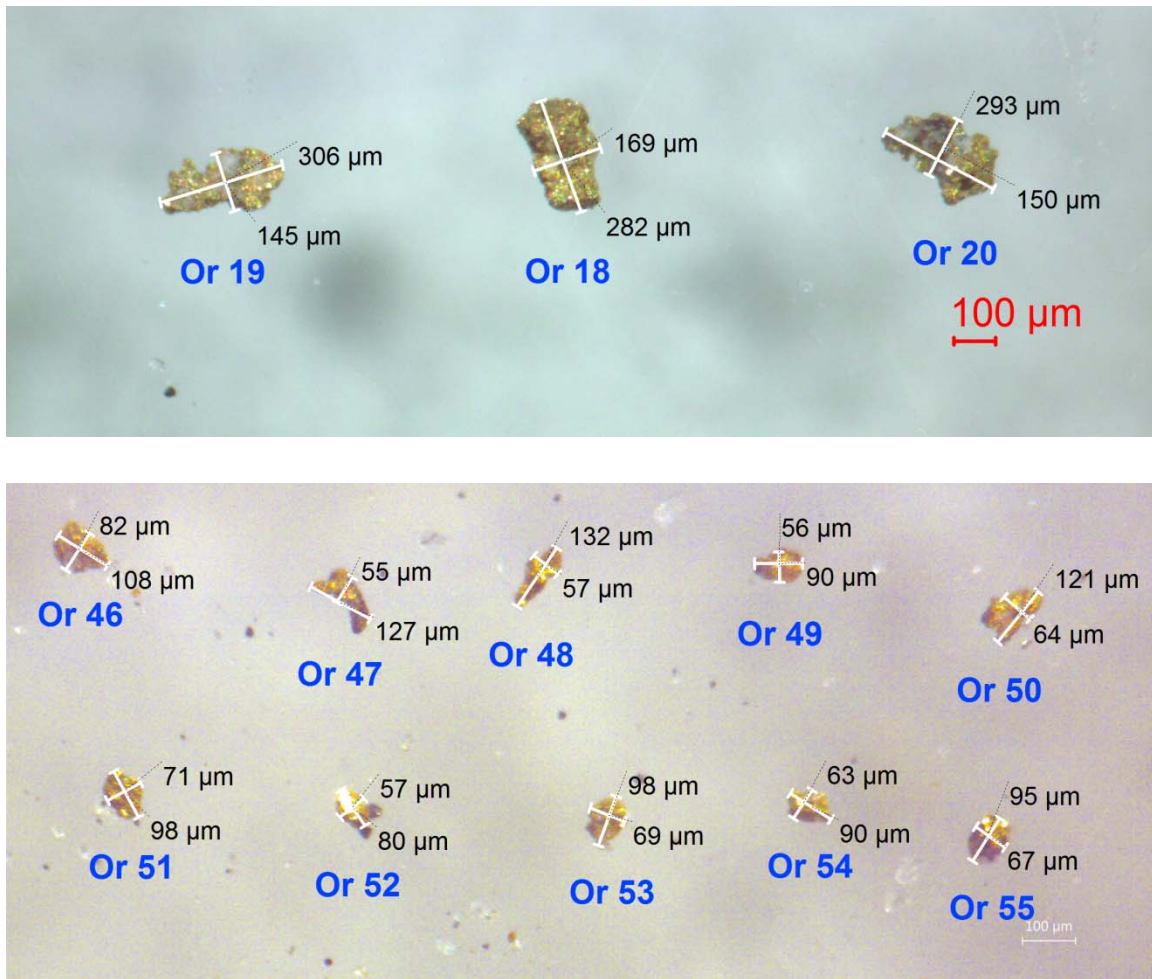
Picture 10: View of a mineralized trondhjemite outcrop from Cheechoo B-West, which could be easily mistaken for a barren tonalite by the untrained geologist. Notice the faint quartz veining on the right. This specific outcrop yielded grab samples which graded about 2 g/t gold.



Picture 11: View of a fresh broken surface of the mineralized trondhjemite. Quartz diffused stockwerk is discernible, highlighted by tourmaline and diopside streaks. Note the lack of oxidation and sulphides.



Picture 12: Detailed view of a trondhjemite sample mineralized by very fine arsenopyrite.



Picture 13: Photomicrograph taken with high magnification binocular (approximately 40X in the upper view and 50X on the lower view) of gold grains extracted by pulverizing a rock sample and separating the heavy minerals. The sample is from DDH CH-919-12-01, pulverized at 70μm. About 100 grains were extracted from a sample grading about 2 g/t, indicating gold is rather fine, free and easily liberated.

Cheechoo A

The best grab sample collected in the area outside of Eleonore deposit come from the Letang occurrence (**picture 14**), in Cheechoo-A (UTMX: 415144, UTM Y: 5832697). This isolated sample returned a grade of 209 g/t gold. This single sample (313468) was collected from a small quartz vein, 30 centimetres in width and visible over a few meters in length, injected in a homogeneous medium grain granodiorite outcrop. No alteration affects the wallrock, and the veins suggest a cold crack filling. Lumps of sulphides are present within the quartz, and are likely the gold carrier. The Kasak Formation which

includes diverse supracrustal lithofacies, yielded only 3 grab samples at 0.11g/t, 0.23 g/t and 0.38 g/t.

Shoreline prospecting outlined a serie of four clusters of mineralized boulder, composed of diverse supracrustal rock type. They are dominated by metabasalts, likely from the Kasak Formation (**picture 15**), but also includes what seems to be metasediments and possibly felsitic volcanic. Highlights of the sampling in this area included 28 boulders with grades between 0.1 and 1.8 g/t plus one erratic value at 3.9 g/t Au. Some of the gold rich boulders are also enriched in copper, with three samples between 1.63 and 1.73% Cu.

The Kasak Formation, located one to two kilometers up-ice of the boulder cluster, has been explored without success. Three occurrences are reported but only channel sample description is available. Outcrop #150 is a conglomerate with trace amount of gold. Outcrop #159 is a rusty amphibolites with trace amount of gold and copper. Trap-Zone is a conglomerate outcrop. These occurrences were channel sampled, but failed to yield results of interest (**table 6**).

| Occurrence | UTMX | UTMY | Lithofacies | Length | Au (g/t) |
|-----------------------|--------|---------|----------------|--------|-----------|
| Outcrop 150 #1 | 416872 | 5833863 | Conglomerate | 9.8 m | 0.09 g/t |
| Outcrop 150 #2 | 416875 | 5833862 | Conglomerate | 4.9 m | 0 g/t |
| Outcrop 159 | 415847 | 5834966 | Amphibolite | 7.0 m | 0.09 g/t |
| Trap Zone | 416394 | 5834339 | Amphibolite+FP | 4.7 m | 0.015 g/t |

Table 6 : Channel sampling results on occurrences located within the Kasak Formaiton, Cheechoo-A. Reported widths are apparent in regard of the geometry of the bedding. Grades are not significant.



Picture 14: View of the Letang occurrence (209 g/t Au in a grab sample). The quartz vein is located beneath the hammer and the pile of rubbles from sampling. The rest of the outcrop is a greyish granodiorite. Picture taken by the author.



Picture 15: View of a boulder of pyrrhotite-bearing weathered amphibolites found in one of the boulder field along the shore of Opinaca Reservoir, about 1 kilometre down-ice of the Kasak Formation. White veinlets are jarosite or gypsum, sulfates from the oxidation of pyrrhotite. Assay result on this specific boulder is not known. Picture taken by the author.

Cheechoo B-East

No significant mineralization is known on Cheechoo B-East property. Three occurrences were worked by Golden Valley (Harnois and Boubakour, 2009), namely the Marchand¹⁸, Garrioch and last-day zones¹⁹. These occurrences originated from prospecting while low-grade gold bearing samples were found in 2005 (Girard et al., 2006) and subsequent discovery of a few high grade grab samples in 2006 (Harnois and Boubakour, 2009). Ten values are anomalous with results between 0.114 and 0.43 g/t Au. Five of these samples are paragneiss, while no information is available for the remaining five. No significant results were reported from Last-Day zone. Only poor geological description is available.

- Two values near Marchand occurrence: 5833886 (0.39 g/t), 5833915 (0.43 g/t),
- Eight values at Garrioch occurrence: 5836920 (0.114 g/t) to 5836424 (0.42 g/t).

All samples on Marchand occurrence are oriented on an east-west direction, exactly along a major fault noted by MRNF.

Shark

Mineralization on the Sharks property is hosted in paragneiss associated with low to moderate silicification and/or propylitic alteration in paragneiss bands. Gold grades are low, however several silver, arsenic and copper low anomalies have been identified on outcrops and/or blocks. One sample is anomalous at 0.13 g/t gold. The property includes the *Inex-Extension-East* occurrence, which is in the eastern prolongation of Everton's In-Ex Extension occurrence. The *Top-Fin* occurrence is located a few kilometers to the east, and Peraluminous, cordierite-garnet bearing paragneiss are described at both location, but pyrigarnite such as described by Everton are lacking.

¹⁸ Marchand grid straddles the Cheechoo B-East and Shark-South blocs.

¹⁹ Golden Valley refers to these zones as “*showing*”. The author is reluctant to use this term, considering the assays results being significantly lower than the usual threshold used for such denomination.

ITEM 8: METALLOGENY

The James Bay region of Québec is characterized by a variety of deposit types comparable to other Archean mining districts such as Timmins and Red Lake, Ontario as well as Noranda and Val-d'Or, Québec. A fair analogy is also the South-African craton, characterized by small volcanosedimentary belts interlacing plutonic or core complexes, which are highly endowed in metallic occurrences. The main deposit types foreseen in James Bay include:

- 1) Sedimentary-hosted (Au-As-Sb);
- 2) Volcanic-hosted (Au-Te-Bi-Mo-Ag-B quartz-tourmaline vein systems);
- 3) Volcanic-hosted (Cu-Au-Ag sulphide type);
- 4) Volcanogenic Bousquet-type gold deposits;
- 5) Zinc-rich iron formations;
- 6) Spodumene, beryl and molybdenite pegmatites;
- 7) Uraniferous migmatites.

The most significant deposit in the district to date is the Roberto gold-deposit (Eléonore Project) discovered by Virginia Gold Mines Inc. and now owned by Les Mines Opinaca Ltée, a wholly-owned subsidiary of Goldcorp Inc. Roberto (or Eleonore) is a sedimentary hosted stratabound Au-As-Sb deposit associated with felsic intrusive rocks and pegmatite. The mineralized zones at Roberto consist of stockworks of quartz-tourmaline-actinolite-arsenopyrite-pyrrhotite veins contained within microcline and tourmaline replacement zones. The deposit is situated near the break between lowermost La Grande volcanic rocks and overlying deformed Opinaca-group sedimentary rocks.

The Roberto gold deposit, or Eleonore Mine, is a sediment hosted, intrusive related orogenic deposit. Mineralized zones consist of stockwork of quartz veins with accessory tourmaline, arsenopyrite and pyrrhotite.

Since the beginning of exploration in the area of Cheechoo-B-west project by Golden Valley and Sirios, research focused on gold occurrences and no work was devoted for other metals or commodities. In view of the relationship between the host rocks (intrusive rocks) and the distribution of gold, the best genetic model which fits with known occurrences should be a system "Intrusion Hosted Deposit Style". This system is not similar to the one occurring at the Roberto deposit, but a relationship is worth investigating.

REDUCED INTRUSION-RELATED DEPOSITS

Reduced Intrusion-Related is a class of gold-only deposit recently introduced in the literature, which encompass a few giant low-grade high tonnage deposits, the best known being Fort Knox in Alaska (Robert et al 2007). A faint signature characterizes them, either in regard of geophysics, geochemistry and alteration, and can thus easily escape the attention of explorationists. They are distinct from the porphyry class of deposit, also referred as *Oxidized Intrusion Related*, in regard of which explorationists are more educated.

Cheechoo-B-West mineralization shows similarities to a Reduced Intrusion-Related deposit, such as the giant deposits of the Canadian cordillera. If confirmed, this could be a new exploration paradigm for the area.

The key characteristics of *Reduced Intrusion-Related* (or “RIR”) gold deposits are summarized by Hart (2007). Mineralization typically has low sulfide content (<5%), with a reduced ore mineral assemblage that typically comprises arsenopyrite, pyrrhotite and pyrite and lacks magnetite or hematite. The reduced character is also expressed by the alteration minerals, the ferric-iron minerals such as epidote being virtually absent. The deposits also display restricted and weak hydrothermal alteration, being more characterized by higher temperature assemblage such as silicification, tourmalinitization and potassic alteration.

Reduced Intrusion-Related “RIR” deposits are spatially and temporally associated with meta-aluminous, subalkalic “I-type” intrusions of intermediate to felsic composition, implaced in thick reduced silicoclastic or flyschoid sequences. A key element of the model is that the deposits are coeval with their associated, causative intrusion, most of them invading these intrusions. They occur in orogenic settings well inboard of inferred or recognized convergent plate boundaries, and the sediment hosted sub-types are referred as orogenic by certain authors.

RIR deposits are subdivided into three types : epithermal intrusion, mesothermal intrusion and sediment hosted. Mesothermal intrusion hosted deposit, the ones contemplated for Cheechoo, refers to intrusion emplaced under mesothermal conditions, recorded by greenschist to amphibolites facies assemblage, such as biotite and hornblende as magmatic phases, and tourmaline and diopside as alteration phases. Similarly, no phyllic or argillic alteration of feldspar is usually noted, replaced by albite, orthose and silica alteration.

These deposits do not commonly have extensive hydrothermal alteration restricted to narrow and diffused quartz veinlets, pervasive silicification and potash-feldspar.

The mesozonal intrusion-hosted deposits are mainly documented in the North American cordillera, in the Yukon and Alaska. The mineralized zoned being pervasive in the host intrusion, they represent typically large but low grade deposit amenable for bulk mining. Most of these deposits are in the 0.5 to 1 g/t average grade. Well known examples are Fort Knox²⁰ (8.6 Moz, produced+reserve) and Dublin Glutch (6.3 Moz, indicated and inferred resources) in Yukon²¹. The giant Vasilkovskoe mine²² in Kazakstan, operated by Glencore, is attributed to this class of deposit (Robert et al, 2007). Gold in these deposits is generally free and not hosted in refractory minerals such as arsenopyrite, but is locally associated with bismuth minerals. Arsenic, tellurium and tungsten are also common element associations.

Examples of Reduced Intrusion Related deposits include the gold-only Fort-Knox mine in Alaska, containing 8.6 million ounces produced plus reserve, and Dublin Glutch with 6.3 millions ounces of resources.

Most of the characteristics of *RIR* deposits were noted at Cheechoo B-west. Similar settings were observed in Au-33-west occurrence (Dios Exploration and Osisko Exploration), as well as other occurrences in the James Bay area, known of the author but not yet not publicized. The discovery of *Reduced Intrusion Related* deposit opens a board new paradigm of exploration in the area.

OROGENIC GOLD

The Eleonore deposit is considered as a sediment hosted orogenic gold deposit, same as many other ones in the Eastmain River volcanoplutonic belt. This class deposits can be hosted in various lithofacies, either silicoclastic sediments, iron formations, metabasalts, metavolcaniclastics, or any rock type which can develop porosity or fracturation and which may represent a chemical buffer. Most of these are structurally controlled, associated with shear, faults or fold hinges. Many of these are also associated with felsic intrusive, which act as heat source for fluid circulation, or as source of the fluids themselves. This fluid involment leads to severe hydrothermal alteration, typically phyllisilicates such as sericite, chlorite and clays, which are the products of hydrolysis of other silicate minerals. Pyrite or pyrrhotite are typically

²⁰ Kinross Gold Inc. Actual proven plus probable reserve of 3.6 Moz, or 238 Mt at 0.47 g/t. About 5 Moz produced up to now.

²¹ Victoria Gold web-site. Construction currently delayed due to market difficulties. Indicated resources: 222 mT at 0.68 g/t, inferred resources: 78 mT at 0.60 g/t.

²² Vasilkovskoe mine in Kazakhstan is reported as the largest RIR deposit, with 12 Moz (reported resources Robert et al 2007). This deposit is somewhat "nebulous" in regard of its classification and gold content.

essential, while chalcopyrite or arsenopyrite are common. These deposits are typically associated with large alteration haloes.

Orogenic gold deposit are the dominant type in Archean terrain, such as the Abitibi. They include mines and former mines such as Lamaque-Sigma, Canadian Malartic, Dome, Hollinger, Hemlo, Red-Lake, etc. Eleonore is the first deposit to be developed into a mine in the James Bay area. However, occurrences and prospects are legions in the LaGrande sub-province. Examples for the Eastmain River segment are the Clearwater deposit, Eastmain mine, Auclair occurrence, etc. Similarly, in the LaGrande segment, are found the Orfée, LaGrande Sud and Aquilon occurrences, among others.

Most of the gold occurrences or deposits in the James Bay area are Orogenic type, either associated with silicoclastic sediments such as Eleonore, with BIF such as Auclair, or in volcanics such as Eastmain mine.

Within Cheechoo project, the Letang and Trap-Zone, located in Cheechoo-A property, are considered of this type. The abundant mineralized blocks from the Kasak Formation are other evidences.

Granulite- type deposits

The granulite type of occurrence is hosted in enigmatic mafic-looking gneiss, the origin of which has been debated.

The Cheechoo B-East and Shark properties are well inside the Opinaca province and interlaced with Hecla-Everton-Azimut properties. A serie of gold-only occurrences were described in these properties (Girard et Ivanov 2011), in setting that are likely present within the Sirios-Golden-Valley claims blocks.

The granulite type of occurrence discovered by Everton includes In-Ex, Manuel, and Charles prospects (**picture 16**); three occurrences about 15 km from each other. Gold in these occurrences is severely nuggety, with locally spectacular grades. Sulphides are generally not abundant, less than 5%, dominated by pyrrhotite and lesser pyrite and chalcopyrite. Sulfosalts are not abundant. These sulphides are hosted in enigmatic mafic-looking gneiss, the origin of which has been debated. These gneisses are dominated by iron and aluminium rich minerals, such as garnet, cordierite, biotite, hornblende, cummingtonite, with little feldspar but locally abundant quartz. These rocks are typically melanocratic, coarse grained, and well-banded, locally quartz flooded, locally brecciated or dismembered, with a slight uneven rusty weathering. Their banding is not the result of migmatization, although they are typically embedded in paragneiss and migmatites. Such rocks are occasionally found in other granulite terrains, and usually considered of interest with regards to prospecting.

The protolith of these enigmatic rocks is uncertain. They are typically deficient in alkalis (Na and locally K), leading to alumina saturation and a feldspar-free garnet-cordierite-amphibole/pyroxene assemblage. No usual sediments or volcanics are known to have such composition. Hypotheses are:

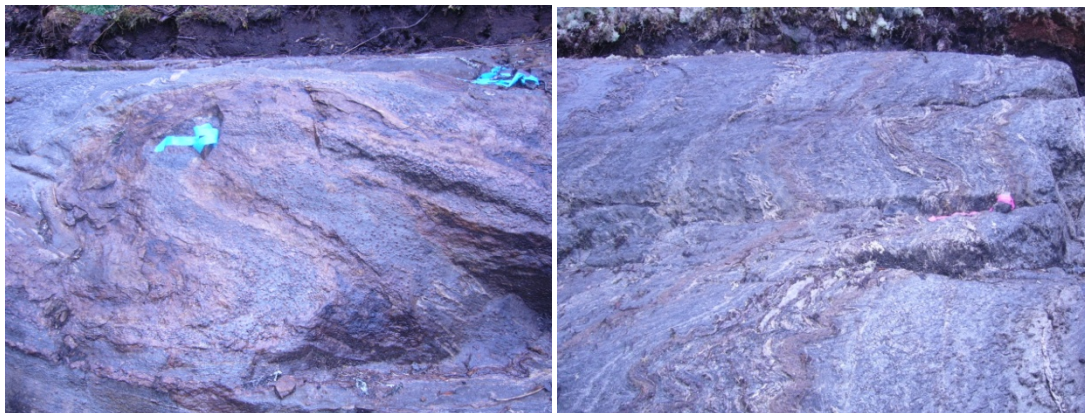
1. Lithic silicate-bearing iron formation
2. Iron-rich aluminous sediments
3. Sodium-leached mafic volcanics
4. Sodium-leached greywackes.

It is generally assumed these rocks were hydrothermally altered prior to peak metamorphism. Subtle chemical changes in these rocks may result in large variations in metamorphic mineral abundances. Detailed lithochemical studies are not available.

Free gold in granulite type is largely dominant in pyrigarnite hosted zones, mainly embedded in cracks and grain boundaries.

Free gold is largely dominant, mainly embedded in cracks and grain boundaries. Only limited amounts of gold are associated with or embedded in sulphides, and only small amounts of gold are noted embedded in peak metamorphism silicates such as garnet. The origin of the gold is debated. Numerous similar occurrences are known to the author from other high-grade metamorphic terrains, such as in the Grenville parautochthonous belt, Rae Province, Bienville

Subprovince or the Ashuanipi Complex. However, no deposit or mine is known to the author and a literature review is needed.



Picture 16: Examples of garnet-rich mafic gneiss, or pyrigarnite, as seen on Everton's In-Ex and Manuel zones.

The granulite type has not been described in Cheechoo project, neither is the presence of pyrigarnite reported. However, since such occurrence would not necessarily be

associated with conductive zones, they would have been unlikely to be discovered in 2005 prospecting. In 2006 and 2007, it is uncertain if the prospecting was systematic enough to find such occurrences, and if the geologist were trained to properly describe them. No such mentions were seen by the author in the database, which does not mean these were not encountered and described.

Granulite-type occurrences were found in In-Ex occurrences by Everton (Boudreault et Allou, 2006), the extension of which has been prospected by Golden Valley as the Top-Fin grid. Similarly, the Manuel occurrence of Everton is closely aligned with Golden-Valley's Marchand and Garrioch occurrence.

Shear-hosted epigenetic type

Shear hosted occurrences are associated with silica and arsenopyrite altered paragneiss, structurally controlled in a straight gneiss corridor.

The second type of gold bearing occurrence found in Everton's property, near Golden Valley project, is associated with silica and arsenopyrite altered paragneiss, typified by the Claude and Dominic occurrences. These occurrences are structurally controlled in a straight gneiss corridor affected by pure strain rather than shearing. The protoliths are meta-aluminous biotite-hornblende paragneiss, which are a type of metamorphosed greywacke. These paragneiss were affected by intense silicification, either pervasive or vein-flooding. Lesser but ubiquitous chlorite, tourmaline, carbonate and sericite is present, associated with overall grain-size reduction. Minutely disseminated pyrite and arsenopyrite are distinctive (0-5%), and associated with gold. Gold is typically very finely disseminated, although locally visible. It also been shown to be dissolved in arsenopyrite. The intensity and broadness of alteration requires a massive influx of hydrothermal fluids under mesothermal conditions, which is unlikely to be derived from the dehydrated surrounding rocks. An external source of these mineralizing late-tectonic fluids is needed, as well as for gold, and intrusive related sources were invoked. Similarities with Éléonore deposits are evocative.

The proximity of the LaGrande-Opinaca suture zone shall be considered as a potential source for the mineralizing fluids.

The source of the fluids at Claude is not known, but the proximity of the LaGrande-Opinaca suture must be considered. This suture zone is sealed by late-tectonic granitic intrusions. Its gold fertility is demonstrated by the Éléonore deposit. Such context can be compared to other sediment-hosted gold occurrences associated with breaks, such as in the Malartic camp, or the Casa-Bérardi camp, or even the Meguma Group or Windermere Group, if such occurrences were affected by

high grade metamorphism. Similarity of the mineralization at Claude and Éléonore shall be emphasised. The shear hosting Claude and Dominic occurrence is pointing directly into Cheechoo-B-west occurrence, and a relation might be suggested.

Base metal mineralization

Small base metal occurrences were found associated with massive pyrrhotite horizons embedded in gneiss in the Cheechoo property (Boudreault and Allou, 2006). The presence of residual copper, zinc, silver and cobalt anomalies in the lake sediments never been investigated.

Small amounts of molybdenite, hosted in pegmatite or granitoids, were found here and there in the gneiss, to which little significance is presently offered. No evidence of porphyry-type deposits is known.

Small dismembered horizons of poikiloblastic metapyroxenite, decametric in size, were found in various locations among the paragneiss. According to the author's experience, these may be considered as metamorphosed komatiites. However, these are not extensive enough for any copper-nickel potential.

Other commodities

Various uranium occurrences were found in the vicinity of Everton's property by other explorers (Upinor project by Dios Exploration, Uskawanis project by Uranium Bay, Star Lake project by NQ Exploration, etc.). These are disseminated uraninite within per-aluminous meta-alkaline pegmatites and alaskite, derived from anatexis of the migmatites. Similar pegmatites are abundant within Everton's claims, although no exploration effort has been dedicated to this commodity.

No specialized pegmatite, such as those bearing spodumene-holmsquistite-beryl, is known within Cheechoo project. Known lithium occurrences in the area are all located in the LaGrande Subprovince to the west.

ITEM 9: EXPLORATION

HISTORICAL EXPLORATION

Near to no exploration has been conducted upon the properties prior to Sirios and Golden Valley involvement. Only the volcanic of the Kasak Formation in the northeast corner of Cheechoo A were likely visited by former companies, such as Noranda Exploration in the 1960' and Mines d'Or Virginia in the early 2000, although no explicit mentions are made in report and no evidences are reported in the field.

GOLDEN VALLEY APPROACH

Upon acquisition of the properties in 2005 until drilling in 2007, Golden Valley conducted the exploration work with a very conventional approach, dominantly based upon geophysics. Their strategy has been to fly an EAM survey, and carry ground follow-up upon conductors, using prospecting and then grid-based ground geophysics and drilling. This approach contrast with the one used by other companies in the area, which was dominantly based upon geochemistry and intensive prospecting efforts (Girard and Ivanov, 2011).

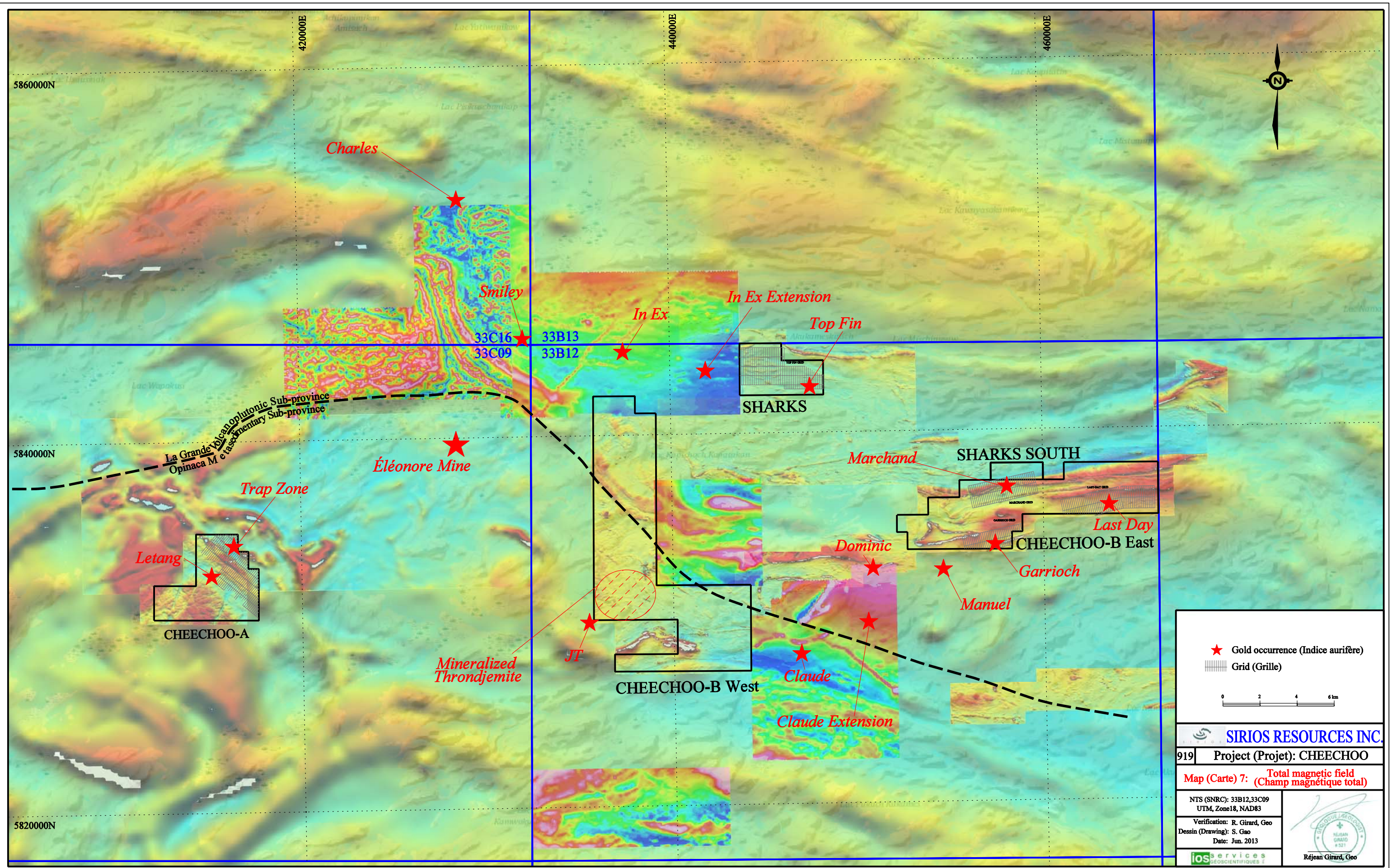
Golden Valley tackled the exploration of the area in a quite conventionnal manner, outlying airborne conductivity zone and carrying ground follow-up upon these, including ground geophysics, prospecting and drilling.

A set of maps and figures extracted from Golden Valley's report are reproduced in **appendix 2**, for the benefit of the reader.

AIRBORNE GEOPHYSICS

Early in 2005, Golden Valley commissioned an aeromagnetic and electromagnetic heliborne survey encompassing entirely the properties (**map 7**). The survey was contracted to Fugro (Smith 2005), according to the following parameters:

- DIGHEM^{V-DSP} frequency domain electromagnetic survey
- Multi-coils multi-frequency EM systems
 - Coaxial 116 Hz, 0.06 ppm
 - Coplanar 873 Hz, 0.12 ppm
 - Coaxial 5783 Hz, 9.12 ppm
 - Coplanar 7245 Hz, 0.24 ppm
 - Coplanar 55,950 Hz, 0.60 ppm



- Twin magnetometer for measured horizontal gradient
 - Cesium vapour, 0.01 nT
 - Proton precession base station, 0.1 nT.
- Line direction: North-south
- Line spacing: 100 metres
- Altitude of sensor: 30 metres
 - Monitored by a radar altimeter. And a barometer
- Sampling: 10 hertz or 3 metres
- Navigation: GPS and DGPS plus a video flight path recorder.
- Total kilometres of lines: 3917 for Cheechoo
 - Cheechoo A: 222 kilometres
 - Cheechoo B: 1455 kilometres
 - Cheechoo C: 290 kilometres
 - Shark: 1950 kilometres
- Maps provided:
 - AEM interpretation
 - Total magnetic field (calculated from horizontal gradient)
 - Calculated vertical gradient
 - Traversed horizontal gradient
 - Apparent resistivity 7200 Hz
 - Apparent resistivity 56,000 Hz
- Anomaly picks and recommendation

An in-depth interpretation for the AEM surveys was provided by Smith (2005 a,b). However, only the traces of the conductors were subsequently provided to the prospecting crew (Girard et al., 2006), and no subsequent reference was made to these survey, else than replicating the magnetic maps.

Two features were outstanding on these surveys. A strong and complex conductive zone was outstanding on the north-east of Cheechoo A, associated with the Kasak Formation. Second, on Cheechoo B and Shark, some of the outlined conductive zones were quite continuous and not disrupted, despite the high grade metamorphism and intense tectonism. Girard et al. (2006) used these conductors as marker horizons and to decipher the structural pattern.

GROUND GEOPHYSICS

2006 Geosig

In summer 2006, Golden Valley commissioned to Geosig (Hubert 2006) a combined induced polarisation, electromagnetic (HLEM, Max-Min) and vertical magnetic gradient survey on Cheechoo A. The survey encompassed the Kasak Formation and the area of the strong AEM conductive zone, extending about 2 kilometres into the Elk Lake granodiorite. Configuration of the surveys were:

- Line cutting: 93 kilometres
 - Line orientation: N040²³
 - Line spacing: 100 metres
 - Station spacing: 25 metres
- Induced polarization: 77 kilometres
 - Dipole-dipole, N=1-6, a=25 metres
 - Time domain, 2 seconds pulses.
 - GDD 1.8 kW transmitter
 - Elrec-6 receiver, 10 windows 160 ms.
 - Steel pins electrodes
 - 42 pseudoprofiles with chargeability, resistivity and normalized chargeability
 - Resistivity, chargeability and normalized chargeability maps, depth of interpretation not indicated.
- HLEM: 13,3 kilometres
 - Covers only the Kasak Formation, in the north-east of the property.
 - Lines 5+00E to *+00W, plus lines 8+00W and 9+00W, north of the base line only.
 - Max-Min II-5, spacing of 100 metres
 - Inclination measurement with clinometers.
 - Measures at 444 Hz, 1777 Hz and 3555 Hz.
- Magnetic survey: 93 kilometres
 - Gradiometer GEM, with a GEM magnetometer as base station
 - Measurement every 12.5 metres along lines
 - Configuration of the gradiometer not indicated.
 - Geosoft maps of the total field and gradient.

²³ Not indicated in the report, measured by the author on the map, therefore approximate.

A total of 17 IP anomalies were detected, most of them within the narrow band of the Kasak Formation. They are associated with HLEM conductors as well as magnetic crests. Such anomalies are suggestive of the presence of pyrrhotite in the volcanic. The rest of the survey, atop the granodiorite, is relatively featureless.

2007 Abitibi Geophysics

In summer 2007, Golden Valley commissioned four ground geophysics survey to Abitibi Géophysiques (**table 7**), over four grids located in Shark and Cheechoo B (Dubois 2007). Each of these grids included variable lineage of induced polarization, HLEM and magnetic gradiometry. Configurations on each of these surveys were identical.

| Grid | Property | IP Survey | HLEM Survey | Magnetic Survey |
|-------|------------|-----------|-------------|-----------------|
| #1 | Shark | 40.01 km | 36.2 km | 73.2 km |
| #2 | Shark/B | 30.6 km | | 48.5 km |
| #3 | Cheechoo B | 19.5 km | | 29.0 km |
| #4 | Cheechoo B | | | 45.4 km |
| Total | | 90.11 km | 36.2 km | 196.1 km |

Table 7: Summary of the ground geophysics conducted by Abitibi Géophysiques in 2007.

- Line cutting
 - A: N005°, 100 metres spacing, Shark property, Top-Fin occurrence
 - B: N010°, 100 metres spacing, Shark+Cheechoo B, Marchand occurrence.
 - C: N350°, 100 metres spacing, Cheechoo B property, Garrioch occurrence
 - D: N000° and N350°, 100 metres spacing, Cheechoo B property, Last Day occurrence
- Induce polarization:
 - Dipole-dipole, N=1-6, a=25 metres
 - Time domain
 - GDD TxIII transmitter, 2 seconds pulses
 - Elrec-Pro receiver, 20 windows of 80 ms.
 - Steel pins electrodes
 - 137 pseudo profiles and inversions for chargeability and resistivity

- Resistivity, chargeability and time-constant maps at 40 metres depth, plus an interpretation map.
- HLEM survey:
 - Max-Min I
 - Spacing 100 metres
 - Measures every 25 metres
 - Measures at 220 Hz, 440 Hz, 1760 Hz and 14 080 Hz.
 - Maps: Phase and quadrature profiles, 4 frequencies Hz
 - Vertical gradient magnetometry
 - GSM-19 (GEM) Overhauser magnetometers, field and base station
 - Sensors at 1.8 and 2.25 metres above ground
 - Measures every 12.5 metres
 - Precision of ± 0.2 nT
 - Geosoft map
 - Total field and gradient profiles
 - Contoured total field
 - Contoured measured vertical gradient.

The survey on Top-Fin grid (#1) produced a textures magnetic pattern, which can be difficult to relates to the local geology, also discernible from the disrupted electromagnetic conductive zones. The survey outlined three electromagnetic conductors and five significant chargeability anomalies, one of which is prominent, plus 18 secondary anomalies. Most of these anomalies were indicated as shallow, and only prospecting was recommended by M. Dubois (2007). Quality control issues are noticed for the vertical magnetic gradient survey.

The survey on Marchand grid (#2) outlined a contrasting magnetic pattern corresponding to lithological diversity (Alvarado and Dubois, 2007). Two broad and continuous chargeable zones were outlined, of which six (6) chargeability anomalies were recommended as priority for drilling, over a total of 13 anomalous zones. No HLEM was conducted on this grid.

The survey on Garrioch occurrence (grid #3) outlined a prominent magnetic anomaly, suggestive of an iron formation, extending for 1.5 kilometres. A chargeability anomaly coincides with the magnetic anomaly, but also suggest the presence of a tight fold hinge, on limb being magnetic, the other one not magnetic. This structure has been used as the basis for the geological interpretation. Notice the survey near the hinge has hindrance from lakes. Also, a quality issue is noticeable for the vertical gradient survey.

The survey on Last Day occurrence (grid #4) only included magnetometry and is disrupted by abundant lakes, where measurements were not possible. Total magnetic field shows the control by lithofacies, which is intense in the north and low in the south of the grid, with little internal features.

2010 IOS

Concomitantly with the soil geochemistry survey in summer 2010, conducted on the southern part of Cheechoo B-west, Golden Valley requested IOS to conduct a ground magnetic survey. The survey was conducted along the same east-west profiles as the geochemical survey, along un-cut and un-chained grid²⁴. A GEM Overhauser magnetometer was used for both mobile and base stations. The data has been processed by C. St-Hilaire, and indicated as very noisy²⁵. A more rigorous survey was conducted in 2011, rendering the 2010 one obsolete.

2012 Abitibi

In summer 2012, Sirios Resources commissioned Abitibi Geophysics to conduct a magnetometer and induced polarization survey in the southern portion of Cheechoo B-west (Dubois, 2012). A grid was cut, which more or less mimic the 2010 sampling grid. The survey was encompassing the area where gold mineralization was detected in the trondhjemite, and was prerequisite to the drilling program.

- Line cutting: 51.45 kilometres.
 - 15 lines, 2-4 kilometres in length.
 - Line spacing: 200 meters, station spacing 25 metres
 - Oriented east-west.
 - Subsequently surveyed with a handheld GPS.
- Magnetometer survey: 104,5 kilometres
 - GSM-19G Overhauser magnetometer with integrated GPS
 - Survey made along lines and half-lines
 - Sensor at 1.8 metres above ground
 - Measures every 12.5 metres
 - Precision of ± 0.2 nT
 - Geosoft map

²⁴ IOS has been contracted for this survey, which is not in his usual field of expertise, in order to save cost.

²⁵ The tripod used to set the base station has been stolen in the field during the survey, rendering the exact positioning of the sensor difficult, which caused severe levelling issues.

- Total field profiles
- Contoured total field
- IP survey: 46,65 kilometres
 - Dipole-dipole, N=1-8, a=25 metres
 - Time domain
 - GDD TxIII transmitter, 2 seconds pulses, 2 kW
 - Elrec-Pro receiver, 20 time windows of semi-logarithmic width.
 - Steel pins electrodes
 - 15 Pseudo profiles and inversions for chargeability and resistivity
 - Resistivity, chargeability and interpretation maps at 40 metres depth.

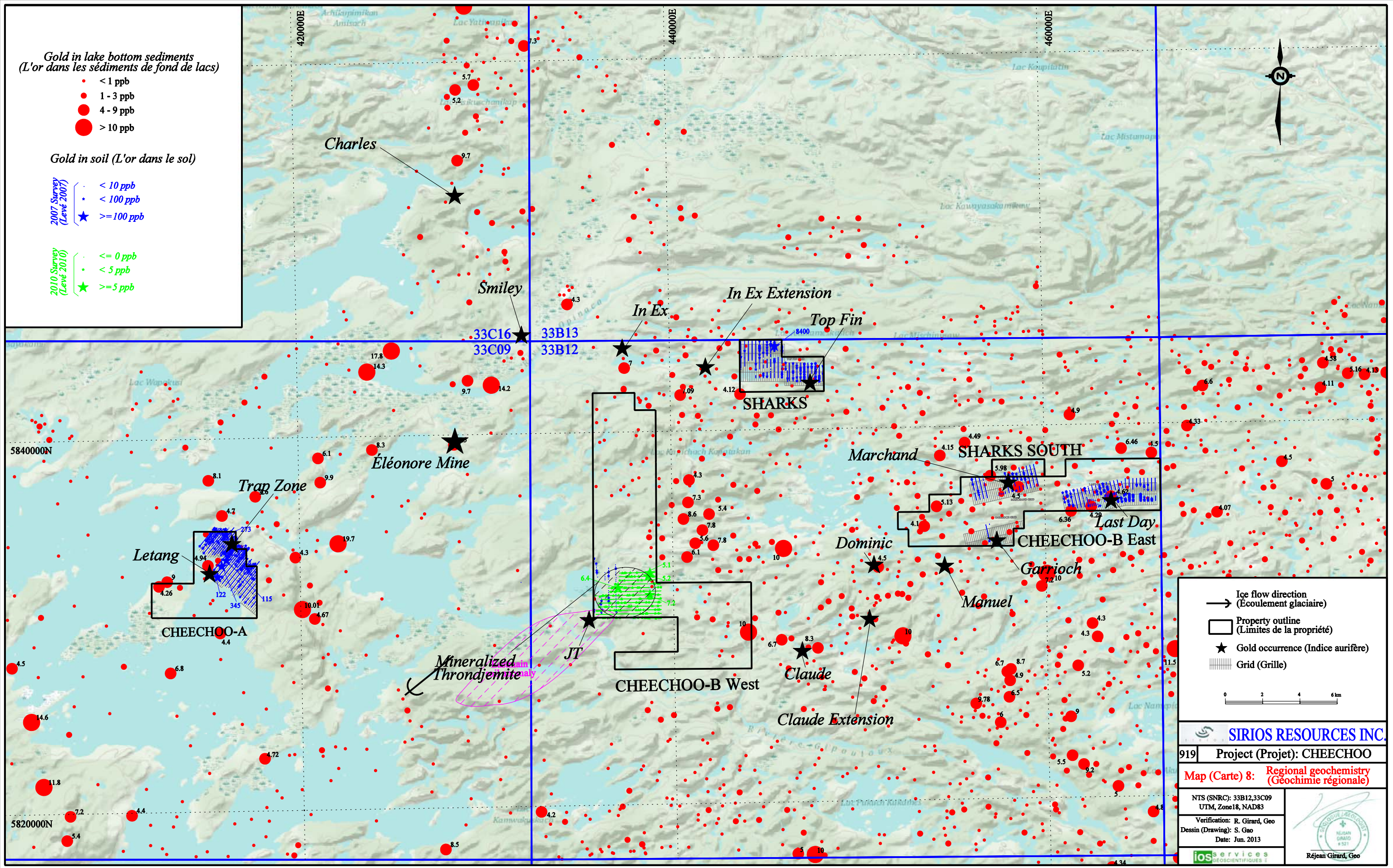
The magnetometer survey revealed a rather flat total field with a slight regional gradient. Features on the survey are considered as noise only. The resistivity maps shows a broad alternation of low resistivity and high resistivity areas. The high resistivity is clearly caused by the silicified trondhjemite. The resistivity lows were interpreted as paragneiss by Dubois, but are likely the mere signal of marine clay from the Tyrrel sea. A strong chargeable zone transect the survey from south-east to north, likely caused by a AEM barren conductor. Outside of this prominent feature, abundant dimmed chargeability anomalies are detected, outside the low resistivity area. Drill holes were planned according to this survey.

GEOCHEMISTRY

Lake bottom sediments

In 2005, Golden Valley commissioned a high density lake bottom sediment geochemical survey to IOS Services Géoscientifiques (Lalancette and Girard, 2006a to 2006d, Allou and Girard 2006) (**map 8**). These surveys, one per properties, were conducted in queue with identical surveys carried on behalf of Everton Resources, Azimut Exploration, Virginia Gold Mines, etc. All these different surveys put together encompass almost completely the area.

Sampling proceeded with the use of a pontoon helicopter and a torpedo sampler. Samples were processed at IOS facilities, and analyzed for a wide array of element by neutronic activation as well as ICP-MS after Aqua-Regia digestion, plus lost-on-ignition. Both methods enabled detection of gold at sub-ppb levels, although both methods being difficult to reconcile. Aqua-Regia only enable a partial digestion on 0.1 grams, and thus extract only the more labile components at very low detection limits. Inversely, neutron activation enables a total analysis on 30 grams of material, and thus counteracts the



nuggetty distribution of gold. A total of 362 samples were collected within the current properties, part of a total population of more than 8000 (**table 8**).

| Property | N. Sample | Avg ICP Au | Avg INAA Au | Max INAA Au | Average As |
|-------------------|--------------------------|------------|---------------------|-------------|------------|
| Cheechoo-A | 12 samples ²⁶ | 0.94 ppb | 0,8 ppb | 6 ppb | 3.22 ppm |
| Cheechoo-B | 108 samples | 3.67 ppb | <D.L. ²⁷ | 9 ppb | 0.82 ppm |
| Cheechoo-C | 45 samples | 5.60 ppb | 2.2 ppb | 13 ppb | 1.74 ppm |
| Shark | 197 samples | 1.90 ppb | <D.L. | 13 ppb | 0.57 ppm |
| Total | 362 samples | 2.89 ppb | <D.L. | 13 ppb | 0.90 ppm |
| Regional | 8095 samples | 1.76 ppb | <D.L. | 90 ppb | 1.31 ppm |

Table 8: Statistics on lake bottom sediment geochemistry.

The lake sediment sampling has been conducted concomitantly with the first prospecting in 2005. Since the subsequent prospecting programs were focussed on 2005 prospecting results, little attention has been devoted by Golden Valley to the results of the lake geochemistry. Interpretation of the survey considered the regional results as comparatives.

- Cheechoo A samples were collected in the Opinaca Reservoir and are thus heavily contaminated by Tyrrell Sea glaciomarine clays, themselves contaminated by the Eleonore deposit. A significant gold and arsenic background is detected. It is worth to notice that the Letang occurrence and the abundant mineralized boulder generated a distinctive anomaly.
- Cheechoo B samples were dominated by gyttja, and the geochemical signal is interpreted as cationic. A structured anomaly is detected in the actual Cheechoo B-east property in regard of gold and arsenic, tungsten and tellurium. Also

²⁶ Samples from Cheechoo A were collected in the Opinaca Réservoir. They are not gyttja and shall not be compared with regular lake bottom sediments.

²⁷ <D.L.: Samples with grades below detection limit (1 ppb) are too abundant to enable robust average calculation.

detected in the area is a strong copper residual anomaly²⁸. Near to no samples were collected within Cheechoo B-west, explaining the lack of anomaly.

- Cheechoo C samples are dominated by gyttja, and the geochemical signal is interpreted as cationic, with the exception of one sample. Some samples are heavily enriched in iron, an effect caused by orthoprecipitation of ferric iron or erosion of ferrochelated soil. This shall not be confused with the signal from sulphide alteration or the erosion of iron formations. Two lakes were significantly anomalous in gold and arsenic.
- Shark samples are largely dominated by gyttja, thus suggesting a cationic contribution, although 5% of the samples were of detrital origin. Scattered gold anomalies were detected, without supporting pathfinder elements, except some antimony and tellurium. A significant copper residual anomaly is detected.

Humus (2007)

A grid-based humus sampling program was conducted in 2007 (Harnois and Boubakour, 2009) over Cheechoo A, Top-Fin, Marchand and Garrioch occurrences (**map 8**). Two sampling profiles were also collected in the actual Cheechoo B-West area. A total of 5277 samples were collected, all described as humus (Ah horizon). They were “assayed” for gold only by ALS Chemex using regular one assay-ton fire-assay with atomic absorption finishing (5 ppb detection limit) (**figure 3**). Samples were collected by Golden Valley staff every 25 metres along lines. About 78% of the analysis were at or lower than the 5 ppb detection limits. Seven “control samples” were collected to replicate anomalous samples, of which only one weakly confirmed the initial results.

- No anomaly was detected on Top-Fin grid²⁹.
- Only marginal anomalies were detected on Marchand grid, with a maximum of 25 ppb Au.
- No anomaly was detected on Garrioch grid.
- Two dim anomalies, with a maximum value of 25 ppb, were detected on Last-Day grid.
- The best results were obtained on Cheechoo A grid, which yielded a few distinctly anomalous samples, two of them at 273 and 345 ppb. These anomalous samples were associated with the Kasak Formation and Letang occurrences respectively. However, along-the-lines anomalies are obvious.

²⁸ Residual anomaly : Anomaly left once the effect of co-enrichment with iron is removed.

²⁹ One sample graded 8.4 g/t Au on this grid, which has been subsequently resampled and reassayed, yielding below detection limit value.

- A few marginally anomalous samples were detected in the reconnaissance sampling collected in the gold enriched zone in the south of Cheechoo B-west.

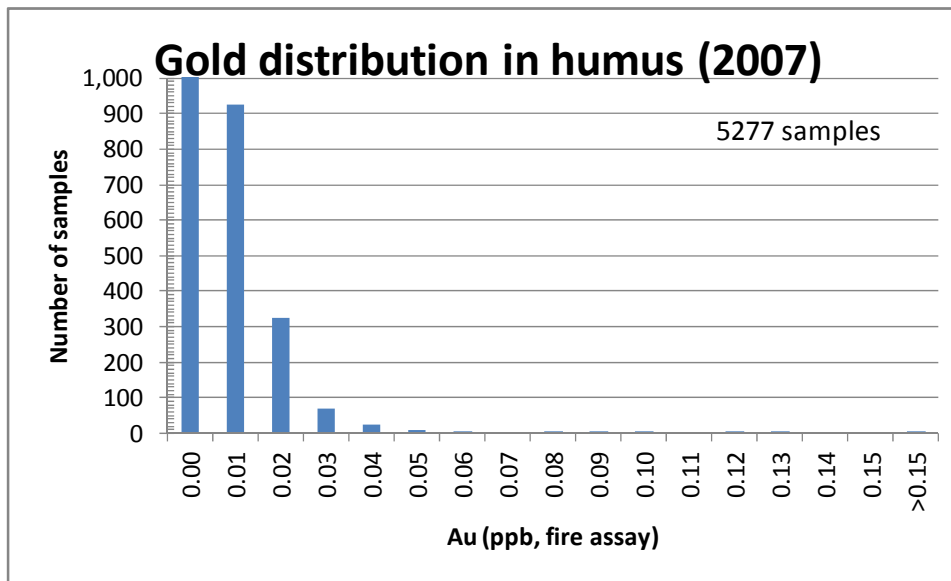


Figure 3: Gold distribution in 2007 humus samples, various grids.

Humus (2010)

A detailed humus sampling program has been conducted in 2010 by IOS Services Géoscientifiques inc. encompassing the southern part of Cheechoo B-West (**map 8**). This survey was conducted just before the 2010 prospecting program, which was conducted using the preliminary micro-XRF results from this survey. The survey includes 1555 humus sample, collected every 25 metres along east-west lines 200 metres apart (**picture 17**). Samples were prepared in IOS facilities, and analyzed by activation laboratories using ICP-MS after sodium pyrophosphate partial digestion. Sodium pyrophosphate is a detergent, which enable solubilization of humic acid and their chelated metal content. It is considered that this method enable measurement only of the metal present in cationic form, without contribution from the detrital signal. This survey has been conducted using exactly the same procedure are numerous other survey conducted by the firm, and thus enabling direct comparison in regard of anomaly thresholds. All the samples were also analyzed using a handheld micro-XRF analyzer, which enable to obtain fast analytical results. These second sets of data represent total analysis and thus not discriminate detrital, ferrochelated or chelated contribution. Such method is less reliable and with higher detection limits than laboratory procedures, and shall be used only a guiding tool. The survey outlined a strong arsenic anomaly

coinciding with the trondhjemite and paragneiss contact, and coinciding with the gold mineralization. Gold anomalies are not intense, but are rather well structured.



Picture 17: Example of a humus sampling pit, as seen by the author in his mandatory visit.

Till geochemistry

Till geochemistry has never been conducted within the Cheechoo or Sharks' properties, despite the success of the method in adjacent properties.

PROSPECTING AND GEOLOGICAL MAPPING

Five phases of prospecting were conducted on the various properties under the guidance of Golden Valley.

2005 Prospecting

In September 2005, a prospecting program was conducted with a mixed crew of Golden Valley and IOS Services Géoscientifiques (Girard et al., 2006a, b, c, d). This program, which includes 48 days/geologists, was conducted within a broader program involving various companies in the area, using

The first prospecting program was conducted in 2005, consisting of a ground follow-up upon AEM anomalies. Abundant mineralized boulders were found in Cheechoo-A.

similar approach and a uniform sampling and mapping protocol. Golden Valley oriented their prospecting toward AEM anomalies, which thus not represent a systematic coverage. Traverses and anomaly selection were planned by Golden Valley. Geological maps were discussed in *item 7*. Prospection enabled to evaluate about 50% of the targeted conductors. It proceeded with conventional boot-and-hammer methods, without the use of Beep-Mat or VLF (*table 9*).

| 2005 | Cheechoo A | Cheechoo B | Cheechoo C | Shark |
|-------------------------|------------|------------|------------|---------|
| Samples | 177 s. | 117 s. | 21 s. | 103 s. |
| Gold >100 ppb | 23 (13%) | 3 (2.5%) | 0 s. | 0 s. |
| Gold > 1 g/t | 3 samples | 0 s. | 0 s. | 0s. |
| Gold best | 3.9 g/t | 0.859 g/t | 16 ppb | 63 ppb |
| Copper best | 1.73 % | 0.085% | 135 ppm | 0.14% |
| Silver best | 52.9 g/t | 2.4 g/t | 1 g/t | 2.7 g/t |
| Arsenic best | 0.13% | 1.99% | 195 ppm | 0.36% |

Table 9: Statistics on selected outcrops and blocks samples from 2005 program. Notice the lack of significant values outside of Cheechoo-A

Prominent results on Cheechoo A are the discovery of a boulder train along the Opinaca Réservoir shoreline. These blocks are likely from the Kasak Formation, located less than 2 kilometres up-ice. Twenty-three (23) blocks yielded grades above 0.1 g/t, along with copper and silver. Inversely, despite intensive prospecting, no similar values were obtained from outcrops of the Kasak Formation.

In Cheechoo-B, efforts were limited to AEM conductors, mainly “S9”, “B-10”, “B-11”, “B-13” and “B-14”. The best results were located on what has been identified as Marchand “B-13” and Last-Day “B-14” occurrences in 2007. Six of these conductors were explained, “B-3”, “B-4” and “B-4-1” on the west despite the rarity of outcrops, and “B-10”, “B-14” and “S-9” on the east. The best results were associated with a long conductor “B2,B4,B6” in the southwest of the property, bordering the actual area of interest in Cheechoo B-west. Abundant arsenic and silvers anomalies were obtained, along with the sole gold assay above 0.2 g/t, despite the fact the conductor itself was not explained.

Cheechoo-C property targeted a aluminous paragneiss reported in former geological reports (Simard and Gosselin, 1999), lithofacies which has not been observed by the crew. No significant results were obtained.

Efforts on Sharks were devoted to AEM conductors only, and most of them were visited. Of the 22 conductors reported, seven (7) were explained (“S-2”, “S-6”, “S-7”, “S-10”, “S-

12", "S-13" and "S-14") by the presence of pyrrhotite-pyrite bearing rock, typically silicified paragneiss. No significant value was obtained.

2006 Golden Valley

The 2006 program included prospecting work. The program was under the guidance of M. Rosatelli from Golden Valley, but the report has been issued only in 2009 by Harnois (Boubakour, 2009) who did not participated in the program. Therefore little details are available³⁰.

In 2006 and 2007, Golden Valley conducted some prospecting, mainly as follow-up upon 2005 results and AEM anomalies. Else than two (2) samples, results were mitigated.

In Cheechoo A, the program consisted of detailed grid mapping of the Kasak Formation in Cheechoo A, along with prospecting along shoreline. A total of 138 samples were collected and assayed for gold (**table 10**). The prospecting lead to the discovery of Letang showing (one single sample at 206 g/t Au) as well as two other mineralized boulder field. The Kasak Formation has been extensively prospected with the use of Beep-mat, and numerous tranches hand-dug.

In Cheechoo B, exploration efforts were restricted to the occurrences unearthed in 2006 (Garrioch, Marchand and Last Day occurrences). A total of 179 samples were collected and assayed for gold. One sample, at 11.45 g/t, was obtained from Marchand occurrence. Remaining samples were below one g/t gold.

No work has apparently been conducted on Cheechoo C.

In Shark, exploration efforts were dedicated to the Marchand occurrence, as well as to the east of the Inex occurrence, discovered by Everton on an adjacent property (discovery sample at 35.9 g/t Au in a silicate iron formation, Boudreault and Allou, 2006). A total of 68 samples were collected and assayed. No significant results were obtained.

³⁰ Database from 2006 and 2007 programs were not properly maintained, contains errors and discrepancies, and are difficult to mine. The author did little use of them.

| 2006 | Cheechoo A | Cheechoo B | Cheechoo C | Shark |
|--------------------------------|---------------------|------------|------------|----------|
| Outcrops | 30 s. ³¹ | 104 s. | 0 s. | 71 s. |
| Boulders | 58 s. | 7 s. | 0 s. | 37 s. |
| Undifferentiated ³² | 42 s. | 38 s. | 0 s. | 8 s. |
| Total | 130 s. | 149 s. | 0 s. | 116 s. |
| Gold >100 ppb | 13 (10%) | 5 (3.3%) | - | 2 s. |
| Gold > 1 g/t | 2 samples | 1 s. | - | 0s. |
| Gold best | 209 g/t | 11.45 g/t | - | 0.42 g/t |
| Copper best | 0.38 % | 0.13% | - | 0.15% |
| Silver best | 38,2 g/t | 8.2 g/t | - | 3.4 g/t |
| Arsenic best | 0.51% | 3% | - | 3% |

Table 10: Statistics on selected outcrops and blocks samples from 2006 program. Only two samples yielded significant gold values.

2007, Golden Valley

The 2007 program, under the guidance of Luc Harnois from CCIC, included some prospecting limited to the south-east part of Cheechoo B. The program also included the systematic grid mapping on Top-Fin, Marchand, Garrioch and Last-Day grids. Efforts were mainly dedicated to geological mapping, and only limited sampling was conducted outside of channel sampling (**table 11**). Sample descriptions are not available, and multielemental analyses were not provided as database.

| 2007 | Cheechoo A | Cheechoo B | Cheechoo C | Shark |
|---------------|------------|------------|------------|-----------|
| Samples | 20 s. | 18 s. | 0 s. | 13 s. |
| Gold >100 ppb | 1 s. | 4 (22%) | - | 1 s. |
| Gold > 1 g/t | 0 s. | 2 s. | - | 0 s. |
| Gold best | 0.383 g/t | 3.76 g/t | - | 0.197 g/t |

Table 11: Statistics on selected outcrops and blocks samples from 2007 program. Only a small number of samples were collected outside of grids.

The only results worth to mentioned are the gold values obtained from sample collected in the area of current interest in the south-east of Cheechoo B.

³¹ Discrepancies can be noted between this table and the text. The number in the text was mentioned in the report, while numbers in the table were calculated from the database. Discrepancies are apparently caused either by misallocation of property by the author, or by the mixture of grabs and channel samples, which the author did to succeeded in unscrambling them.

³² No mention of sample type in database.

2010, IOS Services Géoscientifiques

The 2010 prospecting program has been conducted with the goal of locating the source rock of the abundant gold in soil anomaly ³³ discovered to the south-west by Eastmain Resources (Canova *et al*, 2010). Guided with the results of soil geochemistry, which indicated a strong arsenic anomaly, the program has been highly successful and lead to the discovery of the broadly mineralized trondhjemite (Girard *et al.*, 2011). Of the 152 grab samples collected, 35 yielded gold above 0.1 g/t (23%), including 8 samples above 1 g/t (5%), between 1.09 and 2.58 g/t. Moreover, two samples collected outside the property, but within 100 metres of the southern boundary, yielded 8.2 g/t and 25.5 g/t. Gold is associated with low silver content, maximum of 1.2 g/t Ag, but is associated with a panoply of pathfinder elements, such as arsenic and tungsten. One of the fundamental feature regarding prospecting, is that the mineralization contains very little sulfides, and therefore do not oxydize. Discriminating mineralized samples from non-mineralized samples is tricky. Although the trondhjemite is pervasively mineralized, the best grades were noted near the contact with host paragneiss, as well as with hydrothermal breccias. It is uncertain if these breccias were created by a boiling process such as in porphyry systems.

The 2010 prospecting program aimed the up-ice area of Eastmain Resources' soil anomaly. This prospecting has been the most successful program in the area.

2011, IOS services Géoscientifiques

The 2011 prospecting program targeted the north area of the Cheechoo B west property, which was then deficient in exploration credit. A total of 47 grab samples were collected and assayed, without significant results. The only point of worth is the presence of lithofacies suggesting pre-metamorphic alteration, such as silicification and de-alkalinisation (aluminium-rich rocks).

³³ This anomaly is from B horizon, which is partly made of detrital material. Its shape mimic the glacial dispersion, suggesting a source up-ice toward north-east, ie in Cheechoo B. The source of the anomaly never been located by Eastmain, despite their intensive efforts.

STRIPPING AND CHANNELING

No mechanized stripping has ever been attempted on the project.

The 2006 and 2007 field program included the manual stripping of narrow trenches in sub-outcropping area, as well channel samples of the trenches and outcrops (Harnois and Boubakour, 2009) (**table 12**). Most trenches were apparently located with the use of a Beep-mat, as a follow-up of the airborne survey (Smith 2005 a, b). Trenches were hand-dug, typically less than a meter wide and less than 0.5 metres deep, according to photographs in Harnois's report. Samples were collected with the use of a diamond saw, and are indicated as 2 to 4 inches deep. Samples are typically half a metre long in 2006 and one (1) metre long in 2007, and were assayed for gold and trace metals. The author did not visited the trenches and rely solely on Harnois's report.

Six trenches, for 81 meters and 142 samples were excavated in 2006, on various conductive zone not corresponding to subsequent named occurrences. Seven trenches, for 118 metres and 150 samples, were excavated in 2007, scattered upon the various occurrence. Only barely anomalous grades were intercepted in 2006 channels, with a maximum of 0.09 g/t over half a metre. Base metals are not even anomalous. In 2007, a few significant intersections were obtained on Cheechoo A at *Outcrop #150* and *Outcrop #159* occurrences, both located in the Kasak Formation. Important arsenic enrichment is also reported. A significant intercept is also present at Marchand occurrence, with the only sample above 1 g/t Au. No base metal is reported in any samples.

| Property | Occurrence | UTMX | UTMY | Length | Average gold grade |
|------------|-------------|-----------|---------|---------------------|--------------------|
| Cheechoo B | SW #1 | 439610 | 5830470 | 8.5 m | <0.01 g/t |
| Cheechoo B | SW #1 | 439610 | 5830470 | 2.2 m | <0.01 g/t |
| Cheechoo B | SW #1 | 439637 | 5830460 | 2.5 m | <0.01 g/t |
| Cheechoo B | SW #3 | 438540 | 5831212 | 11.5 m | 0.015 g/t |
| Cheechoo B | SW #4 | 440297 | 5829801 | 3.2 m | <0.01 g/t |
| Cheechoo B | SE #1 | 458152 | 5834323 | 2.0 m | 0.021 g/t |
| Cheechoo B | SE#1b | 458152 | 5834323 | 1.8 m | <0.01 g/t |
| Cheechoo B | SE #1 | 458115 | 5834347 | 9.0 m | 0.012 g/t |
| Cheechoo B | SE #1 | 458067 | 5834324 | 5.2 m | <0.01 g/t |
| Cheechoo B | SE #2 | 457217 | 5834090 | 5.1 m | <0.01 g/t |
| Cheechoo B | SE #2 | 457201 | 5834082 | 2.5 m | 0.014 g/t |
| Cheechoo B | SE #2 | 457222 | 5834079 | 0.7 m | <0.01 g/t |
| Sharks | #1 | 447506 | 5842441 | 6.0 m | <0.01 g/t |
| Sharks | #1 | 447486 | 5842428 | 18.5 m | 0.01 g/t |
| Sharks | #1 | 447472 | 5842444 | 2.3 m | 0.01 g/t |
| Cheechoo B | Marchand | 458037 | 5836936 | 6.2 m | 0.01 g/t |
| Cheechoo B | Marchand | 458046 | 5836940 | 6.0 m | 0.01 g/t |
| Cheechoo B | Marchand | 458073 | 5836951 | 27.6 m | 0.07 g/t |
| | | Including | 5.8 m. | 0.30 g/t | |
| | | Including | 1.0 m. | 1.065 g/t | |
| Cheechoo B | Marchand | 458035 | 5836915 | 0.8 m | 0.02 g/t |
| Cheechoo B | Marchand | 458006 | 5836933 | 0.7 m | <0.01 g/t |
| Cheechoo B | Last-Day | 463518 | 5835935 | 6.35 m | <0.01 g/t |
| Cheechoo B | Last-Day | 463552 | 5835950 | 5.82 m | <0.01 g/t |
| Cheechoo B | Last-Day | 463525 | 5835915 | 0.95 m | <0.01 g/t |
| Cheechoo B | Garrioch | 457342 | 5833884 | 7.8 m ³⁴ | 0.03 g/t |
| Cheechoo B | Garrioch | 457330 | 5833881 | 2.4 m | <0.01 g/t |
| Cheechoo B | Garrioch | 457311 | 5833878 | 0.7 m | <0.01 g/t |
| Cheechoo B | Garrioch | 457295 | 5833864 | 0.65 m | 0.05 g/t |
| Cheechoo B | Garrioch | 457349 | 5833883 | 0.5 m | 0.16 g/t |
| Cheechoo A | Out. 150 | 416872 | 5833863 | 9.8 m ³⁵ | 0.06 g/t |
| | | Including | | 0.8 m | 0.23 g/t |
| Cheechoo A | Out. 150 | 416875 | 5833862 | 4.9 m | <0.01 g/t |
| Cheechoo A | Out. 159 | 415487 | 5834966 | 7.0 m | 0.10 g/t |
| | | Including | | 0.8 m | 0.38 g/t |
| Cheechoo A | Trap-Zone | 416394 | 5834339 | 4.7 m | 0.01 g/t |
| Cheechoo A | Trap-Zone | 416394 | 5834334 | 1.2 m | 0.05 g/t |
| Cheechoo A | Trap-Zone | 416397 | 5834329 | 8.7 m | 0.01 g/t |
| Cheechoo A | Trap-Zone | 416394 | 5834324 | 4.5 m | <0.01 g/t |
| Sharks | InEx Ext E. | 443984 | 5843751 | 4.0 m | <0.01 g/t |
| Sharks | InEx Ext E. | 443987 | 5843754 | 3.4 m | 0.02 g/t |
| Sharks | InEx Ext E. | 443989 | 5843757 | 2.2 m | 0.01 g/t |

Table 12: List of the channel sampling conducted on the various occurrences. The indicated width are along the outcrop surface, irrespective of the attitude of the rocks, and are thus apparent thickness likely overestimating the true width.

³⁴ Indicated as 9.8 metres in the report, but do not sum as such in database.

³⁵ Error on length indicated in the report.

INDEPENDANCY

The 2006 and 2007 programs were conducted by Golden Valley staff, and the author is not aware if their personnel received any incentive else than their salary. M. Harnois, who directed the 2007 program, is an associated at *Caracle Creek International Counsulting*, and *de facto* considered as independent.

IOS Services Géoscientifiques conducted or contributed on the 2005, 2010 and 2011 programs for Golden Valley, as well as 2012 program on behalf of Sirios. Neither IOS as a firm or its employees did received any retribution else than its fees and salary, and are considered as independent of both partners.

Fugro Airborne Services, *Abitibi Geophysique* and *Geosig* are independant contractor from Golden Valley as well as Sirios Resources. *ALS-Chemex*³⁶, *Activation Laboratories* and *Laboratoire d'Analyse Bourlamaque* were contracted for assaying and analysis. All three are considered *de facto* as independent.

QUALITY OF SURVEYS

The geophysical surveys commissioned to *Fugro Airborne Surveys*, *Abitibi Géophysique* and *Geosig* were approved by Mr Langis Plante, an experienced geophysicist working for Golden Valley and Canadian Royalties. The author does not have the appropriate expertise to evaluate such survey. However, the author noticed some levelling issues with the measured vertical magnetic gradient done by Abitibi Geophysics.

All the geophysics surveys were conducted by reputable firms and are of acceptable quality. The lake bottom sediment geochemistry as well as the 2010 humus survey were conducted by the author's firm, and a rigid quality control process was implemented.

The lake bottom sediment geochemical survey conducted by IOS included a stringent quality control process, and the author is confident in its quality. However, a batch of gold analyses by ICP-MS shows erratic and abnormally high values, a recurrent problem with this analytical method in 2005. The problem is discussed at length in the reports (Lalancette and Girard, 2006), and dubious samples were reanalyzed or ignored.

The author is skeptical about the analysis method used for the 2007 humus survey, conducted by Golden Valley. Simple fire-assay for gold is likely not sensitive enough for this kind of survey, especially since the high organic matter content may induce

³⁶ Currently ALS Mineralss

emulsion in the crucible. Other trace element shall have been assayed as well. No quality control process was implemented. The seven most anomalous sample site were resampled and re-assayed, without replicating the results. The author is also concerned about the quality of sampling. It is considered that this survey is of little use.

The 2010 humus survey conducted by IOS used a rigorous quality control process, including insertion of 15% of control material. The survey was conducted by specially trained geologist with a master degree in geochemistry. The author is very confident in the quality of the survey, although he recognizes that interpreting such data is a delicate task.

Prospecting programs were systematically conducted by mixed crew from Golden Valley, Sirios Resources, IOS and Caracle Creek. Quality of the work done by individual staff dispatched on traverse is difficult to assess.

The 2005, 2010 and 2011 prospecting program were conducted by geologist from IOS, with the participation of Golden Valley staff. Notes were taken on forms *Géofiches* with all the information coded, and database properly maintained. The quality of the various traverses may differ, considering that the various geologists had diverse experience. Assaying was conducted at ALS Chemex or ALS Minerals, with the insertion of some control material. ALS is reputed as a very reliable and robust laboratory.

The 2006 prospecting program was conducted exclusively by Golden Valley staff, and report was issued 3 years later by different geologist. It is difficult to address the quality of this work, no mentions in this regard being made in Harnois, Boubakour (2009) report. Abundant errors, inconsistencies and omissions were present in the database provided to the authors. Assays were made by *Laboratoire d'Analyse Bourlamaque*, which is a small organization in Val d'Or. No quality control was implemented, and the author can not comment on the reputation of the laboratory.

The 2007 prospecting program was conducted by Golden Valley staff, under the guidance of Caracle Creek International Consulting. Mr. Harnois is a well educated and experienced geologist, and no doubt are raised regarding his work. However, it is noted that the database are incomplete and contain errors. Assaying was conducted by ALS-Chemex, but no quality control was implemented.

ITEM 10: DRILLING

2007 Exploration drilling by Golden Valley

An aggressive drilling program has been conducted in 2007 by Golden Valley, with the goal of testing various anomalies and occurrences throughout the project. A total of 19 exploratory holes were drilled, for 2506 metres, between September 24 and December 20 2007. Drilling was provided by Multi Drilling Inc from Rouyn-Noranda and thoroughly supported by helicopter.

A significant exploration drilling program has been conducted in 2007 by Golden Valley, for a total of 2506 metres and 19 holes. Only marginal grade were intersected and no discovery was made.

The author visited the former site of a few holes (**pictures 18** and **19**). The sites were cleaned properly, and no casing was left in the ground. Coordinates and azimuth were matching the database. Core is NQ in size, and currently store in Golden Valley warehouse in Val d'Or. The author did not exanimate the core. Collars were located with the use of cut grids and hand-held GPS. Deviation tests were made at the end of the holes with acid tubes. Recovery was excellent.

The core has been logged at the camp by Mr. Luc Harnois, from CCIC, according to the usual multi-level method. No indication of the software used is provided. The descriptions are excellently detailed, with mentions of various lithofacies, alteration, mineralogy and core-angles. No RQD were measured, neither is geophysical diagraphy.

The core has selectively been split for sampling, either at the camp or Golden Valley facilities. A total of 682 samples are reported, of typical 0.5 metre length (**table 13**). Samples were shipped to ALS Chemex from Val d'Or. Gold was assayed by conventional fire-assay on one assay-ton, with atomic absorption finishing. Other 27 elements were analyzed by ICP-AES after near-total digestion (**table 14**).

No hole profiles were provided in Harnois's (and Boubakour 2009b) report.



Picture 18: View of drill hole GSHK-07-02 site on Top-Fin occurrence, as visited by the author. Only logs and front sight picket were remaining. The core fragments are from the casing, suggestive of NQ or BTW caliber for the holes.



Picture 19: View of drill hole GCHA-07-01 site, underneath Letang occurrence, as visited by the author. Only a few logs and a front sight picket were visible. The collar is located approximately where the man with a red coat is.

| Hole | Occurrence | Easting | Northing | Azimut | Dip | Lenght |
|-------------|------------|---------|----------|--------|-----|--------|
| GSHK-07-01 | Top-Fin | 443937 | 5844099 | 178 | -50 | 27 |
| GSHK-07-01B | Top-Fin | 443937 | 5844004 | 358 | -48 | 150 |
| GSHK-07-02 | Top-Fin | 444026 | 5843711 | 358 | -50 | 102 |
| GSHK-07-03 | Top-Fin | 444410 | 5843688 | 178 | -50 | 120 |
| GSHK-07-04 | Top-Fin | 446896 | 5843003 | 358 | -50 | 150 |
| GSHK-07-05 | Top-Fin | 447183 | 5842460 | 178 | -50 | 120 |
| GMC-07-01 | Marchand | 458155 | 5836941 | 358 | -50 | 150 |
| GGH-07-01 | Garrioch | 456782 | 5833940 | 178 | -50 | 120 |
| GCHA-07-01 | Letang | 415117 | 5832734 | 320 | -45 | 117 |
| GCHA-07-02 | Out.#150 | 415477 | 5834904 | 39 | -45 | 120 |
| GCHA-07-03 | Out.#150 | 416047 | 5834490 | 39 | -45 | 150 |
| GCHA-07-04 | Out.#150 | 415974 | 5834406 | 39 | -45 | 150 |
| GCHA-07-05 | Out.#150 | 416083 | 5834537 | 39 | -45 | 150 |
| GCHA-07-06 | Out.#150 | 416159 | 5834623 | 39 | -45 | 150 |
| GCHA-07-07 | Out.#150 | 416427 | 5834813 | 39 | -45 | 74.6 |
| GCHA-07-08 | Out#159 | 416716 | 5833755 | 39 | -45 | 170 |
| GCHA-07-09 | Out#159 | 416783 | 5833829 | 39 | -45 | 189 |
| GCHA-07-10 | Out#159 | 416880 | 5833952 | 39 | -45 | 100 |
| GCHA-07-11 | Out#159 | 416525 | 5833666 | 39 | -45 | 100 |
| GCHA-07-12 | Out#159 | 417521 | 5833004 | 39 | -45 | 97.52 |

Table 13: 2007 drill holes location and geometry.

Hole GSHK-07-01b targeted a well defined IP anomaly, expected at 75 metres. It intersected granodiorite and biotite paragneiss. The anomaly was caused by 10-15% pyrite and pyrrhotite at a depth of 102.25-104.64 metres. No significant grade is present.

Hole GSHK-07-02 targeted an IP anomaly, expected at 55 metres. It intersected granodiorite and paragneiss, with minor cordierite and sillimanite. Sulphides are very low, and the anomaly remains unexplained. No significant grade was obtained.

Hole GSHK-07-03 targeted an IP anomaly, expected at 70 metres. It intersected a cordierite-garnet-biotite paragneiss over its entire length, with very little sulphides. The anomaly remains difficultly explained by a 3% disseminated sulphides between 113.1 to 113.4 metres, apparent thickness. No significant grade was intersected.

Hole GSHK-07-04 targeted a strong IP anomaly with a magnetic depression, expected at 80 metres. It intersected dominantly biotite paragneiss and some chlorite-biotite “*mafic tuff*”. Sulphides are locally abundant, up to 20% pyrrhotite and pyrite, which explain the anomaly. No significant grade is reported.

| Hole | Occurrence | From | To | Length ³⁷ | Gold grade | Facies |
|--------------------|------------|-----------------------------|---------|----------------------|----------------------|--------------------|
| GSHK-07-01 | Top-Fin | Aborted | | | | |
| GSHK-07-01B | Top-Fin | 45.5 m | 50.0 m | 0.5 m | 0.01 g/t | Paragneiss |
| GSHK-07-02 | Top-Fin | 10.5 m | 11.0 m | 0.5 m | 0.02 g/t | Paragneiss |
| GSHK-07-03 | Top-Fin | 100.3 m | 100.6 m | 0.3 m | 0.05 g/t | Cd-Gr Paragneiss |
| GSHK-07-04 | Top-Fin | No significant intersection | | | | |
| GSHK-07-05 | Top-Fin | 47.0 m | 48.0 m | 1.0 m | 1 g/t Ag | Metatexite |
| GMC-07-01 | Marchand | 92.4 m | 92.5 m | 0.1 m | 0.03 g/t | Faulted paragneiss |
| GGH-07-01 | Garrioch | 118.0 m | 119.0 m | 1.0 m | 0.225 g/t | Bt-Gr paragneiss |
| GCHA-07-01 | Letang | 45.35 m | 45.85 m | 0.5 m | 0.198 g/t | Qz-Fd vein |
| and | | 83.25 m | 83.75 m | 0.5 m | 0.145 g/t | Qz-Fd vein |
| GCHA-07-02 | Out.#150 | 63.35 m | 64.35 m | 1.0 m | 0.128 g/t | Crystal tuff |
| GCHA-07-03 | Out.#150 | 35.85 m | 36.35 m | 0.5 m | 0.06 g/t | Si+ amphibolite |
| GCHA-07-04 | Out.#150 | 142.4 m | 142.9 m | 0.5 m | 0.01 g/t | Crystal tuff. |
| GCHA-07-05 | Out.#150 | 71.0 m | 72.0 m | 1.0 m | 0.135 g/t | Tuffaceous sed. |
| GCHA-07-06 | Out.#150 | 123.0 m | 124.0 m | 1.0 m | 0.03 g/t | Qz-Cb vein |
| GCHA-07-07 | Out.#150 | 35.0 m | 35.5 m | 0.5 m | 1.3 g/t Ag, 0.12% Cu | |
| GCHA-07-08 | Out#159 | 122.0 m | 123.0 m | 1.0 m | 0.09 g/t | Amphibolite |
| GCHA-07-09 | Out#159 | 79.1 m | 80.1 m | 1.0 m | 0.118 g/t | Volcaniclastics |
| and | | 82.1 m | 83.1 m | 1.0 m | 0.101 g/t | Volcaniclastics |
| GCHA-07-10 | Out#159 | 53.5 m | 54.5 m | 1.0 m | 0.03 g/t | Qz-Cb-Ch vein |
| GCHA-07-11 | Out#159 | 3.5 m | 4.0 m | 0.5 m | 0.06 g/t | Qz vein |
| GCHA-07-12 | Out#159 | 54.0 m | 55.0 m | 1.0 m | 0.01 g/t | Lapilli tuff. |

Table 14: 2007 drill holes results. All the width indicated are measured along the core, and are overestimating the true width of the mineralized interval.

Hole GSHK-07-05 targeted a strong IP anomaly, expected at 30 metres. It intersected biotite paragneiss and migmatite, with low sulphide content. The anomaly remains unexplained. No anomalous gold is reported, although 1 g/t silver is present.

Hole GMC-07-01 targeted a moderate IP anomaly, expected at 55 metres. The hole intersected paragneiss, granite and migmatite, with very low sulphide content. The anomaly remains unaccounted for. No significant gold is reported.

Hole GGH-07-01 targeted a strong IP and slight conductivity anomaly, expected at 80 metres. The hole intersected biotite and biotite-garnet bearing paragneiss, Minutely

³⁷ Intersected length here reported are apparent and along the core. It is expected they overestimate the true thickness by 30% to 50%.

disseminated pyrrhotite was observed, up to 20%, is attributed to cause the anomaly. One assay at 0.255 g/t is reported over a metre interval in apparent thickness.

Hole GCHA-07-01 targeted the quartz veins hosting the Letang occurrence, at a depth of approximately 80 metres. The hole intersected the granodiorite with a few quartz-feldspar veins. Two of these veins returned assays of 0.198 and 0.145 g/t gold over 50 centimetres of apparent thickness.

Hole GCHA-07-02 targeted a strong IP and HLEM anomalies within the Kasak Formation, expected at 70 metres. The hole intersected amphibolites and “*crystal tuff*”. Silicified and carbonatized sections contains up to 60% pyrrhotite. One sample assayed at 0.128 g/t over 1 metre of apparent thickness from a crystal tuff, with accessory amount of silver.

Hole GCHA-07-03 targeted a strong IP and HLEM anomaly within the Kasak formation, expected at a depth of 70 metres. The hole intersected crystal tuff, amphibolites and conglomerate. The rock is locally silicified with local sulphide stringer and quartz-carbonate veins. The anomaly is explained from concentration of pyrrhotite reaching up to 60%. Only marginally anomalous gold and no base metal were assayed, despite the reported presence of chalcopyrite in the core.

Hole GCHA-07-04 targeted a moderate IP anomaly, expected at a depth of 55 metres. The hole intersected foliated granodiorite, crystal tuff and amphibolites with only little disseminated pyrrhotite. The anomaly is tentatively explained by a 2-3% disseminated sulphides. No significant assay results are reported.

Hole GCHA-07-05 targeted a strong IP and HLEM anomaly, expected at a depth of 70 metres. The hole intersected tuffaceous sediments, crystal tuff, conglomerate and amphibolites. Disseminated sulphide and local quartz-carbonate-sulphides veins are reported, and suspected as the cause of the anomaly. One anomalous sample reported 0.135 g/t gold over 1 metre of apparent thickness, associated with adjacent 0.5% arsenic.

Hole GCHA-07-06 targeted a strong IP anomaly, expected at a depth of 75 metres. The hole intersected heterogeneous amphibolites with traces of disseminated sulphides. A fault zone is considered as the cause of the anomaly. No significant assay is reported.

Hole GCHA-07-07 targeted a strong IP and HLEM anomaly, expected at a depth of 35 metres. It intersected foliated amphibolites with little sulphides. Up to 3% chalcopyrite is

described. No significant gold is assayed, although 1.3 g/t silver and 0.12% copper was obtained over half a metre of apparent thickness.

Hole GCHA-07-08 targeted a strong IP anomaly, expected at a depth of 85 metres. The hole intersected a granodiorite, then crystal tuff, lapilli tuff and other felsic pyroclastites. A carbonatized tuff contained 40% pyrrhothite and pyrite, which explained the anomaly. A large halo of anomalous gold is defined between 71.5 and 145.2 metres, with a marginal maximum grade of 0.09 g/t Au over a metre. Some copper, for 0.19% and 0.13%, are also reported on two distinct intervals of 1 metre of apparent thickness each.

Hole GCHA-07-09 targeted a strong IP anomaly, expected at a depth of 85 metres. The hole intersected alternating tuffaceous sediments, felsic and intermediate volcanics. Sulphides are locally abundant, up to 60% pyrrhotite and pyrite with local graphite, which account for the anomaly. Two small gold bearing intervals were assayed, for 0.118 and 0.101 g/t over 1 metre of apparent thickness each. Anomalous silver (1.3 g/t), arsenic (0.1%) and zinc (0.6%) are also reported.

Hole GCHA-07-10 targeted a moderate IP anomaly, expected at a depth of 75 metres. The hole intersected tuffaceous sediments and felsic to intermediate volcanic with little sulphides. Concentration of 1-2% sulphides are accounted for the anomaly. No significant assay was obtained.

Hole GCHA-07-11 targeted a weak although wide IP anomaly associated with a magnetic anomaly, expected at 70 metres. The hole intersected granodiorite with a few veins. Less than 1% sulphide throughout the hole is considered as the cause of the anomaly. Only one weak assay was obtained for gold.

Hole GCHA-07-12 targeted a moderate IP anomaly associated with a strong magnetic anomaly, expected at 55 metres. The hole intersected amphibolitic tuffaceous sediments and felsic to intermediate volcanics, intruded by granodiorite dykes. Some volcanoclastic layer contains up to 7% disseminated sulphides, which explain the anomaly. No significant assay was obtained.

Discussion on 2007 drilling program

The 2007 program has not been successful in regard of outlying gold bearing mineralization. Holes GCHA-07-02 to GCHA-07-12 were made on the Kasak Formation, which was a legitimate target as source of the dispersed gold-bearing boulders. However, only a small segment of this

Near to all the 2007 holes were guided by geophysics. Eleven out of the 19 holes were drilled on the Kasak Formation, the extent of which within the perimeter of the property is very limited.

formation, and only part of its stratigraphy, are located within Cheechoo-A, and available for drilling. With the extend of drilling, trenching and sampling available, the area shall be considered as “sterilized” in regard of hosting significant mineralization.

Hole GCHA-07-01 targeted the Letang occurrence, which is a high-grade gold quartz veins set in a late fault across a granodiorite. Such type of mineralization is notoriously nuggetty, and a single hole is not conclusive. For example, the Silidor mine, in Rouyn, was a similar quartz vein where only one hole over three reported gold inside the stope! Further work might be warranted.

Holes GSHK-07-01 to GSHK-07-05 targeted the eastward extension of the In-Ex occurrence discovered by Everton. The host lithofacies in this occurrence was a garnet-bearing amphibolite, interpreted as a metamorphic silicate iron formation. This unit is apparently not reported in Top-Fin occurrence, and the lack of significant gold assays do not warrant any further work.

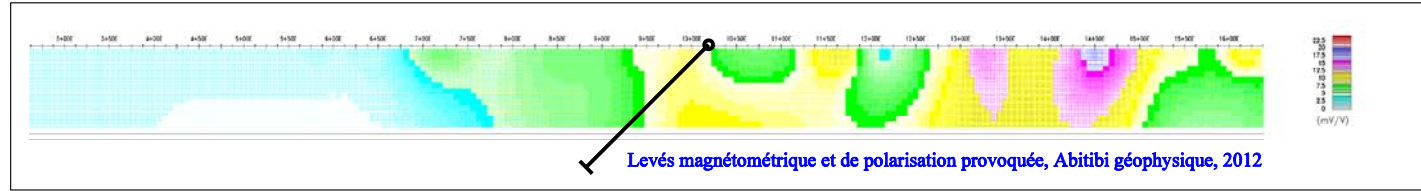
Holes GMC-07-01 and GGC-07-01 are the only ones on Marchand and Garrioch occurrence. However, the lack of favorable host rock and the smallness of gold intersection are not encouraging.

2012 SIRIOS DRILLING PROGRAM

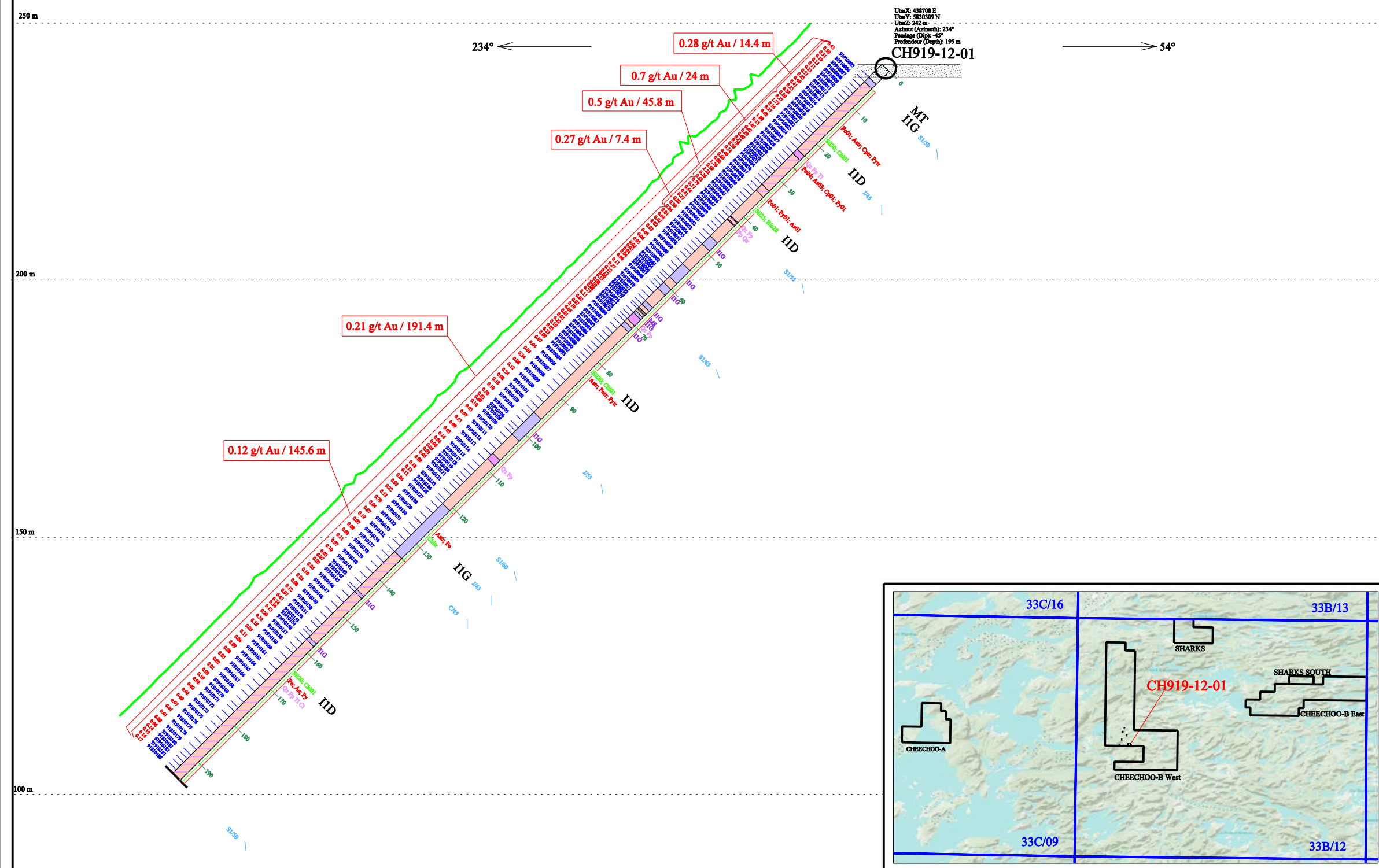
Stimulated by the prospecting results of 2010 program, Sirios Resources conducted a geophysics and drilling program in summer-autumn 2012 in the south of Cheechoo B-west property. The program aimed to test underneath occurrences discovered by prospecting as well as to test chargeability anomalies coherent with a low-sulphide intrusion. Eight (8) holes were drilled, for 938 metres, between October 22 to November 06, 2012 (**sections CH919-12-01 to CH919-12-08**). Drilling services were provided by Forage G4 from Rouyn-Noranda (**picture 21**), and thoroughly supported by helicopter from a camp built near the prospective area. The program was under the guidance of IOS Services Géoscientifiques, directed by Mr Mikaël Block, P.Geo. Mr Philippe Allard, geologist from Sirios has also attended the program and selected drill hole location under supervision of the author and Sirios' president, Mr Dominic Doucet, Eng.

The 2012 drill program, located in the south of Cheechoo-B-west, targeted both to test at depth outcrops where mineralization was revealed and to test various chargeability anomaly.

Chargeability Model
(Modèle de la Chargeabilité)



L10+00S



LEGEND (LÉGENDE)

- OB Overburden (Mort-terrain)
- IID Tonalite
- IIG Pegmatite
- M4 Paragneiss
- M8 Schist (Schiste)
- S3 Wacke
- Qz-Fp Quartz-Feldspar vein (Veine de quart-feldspath)

Mineralization (Minéralisation)

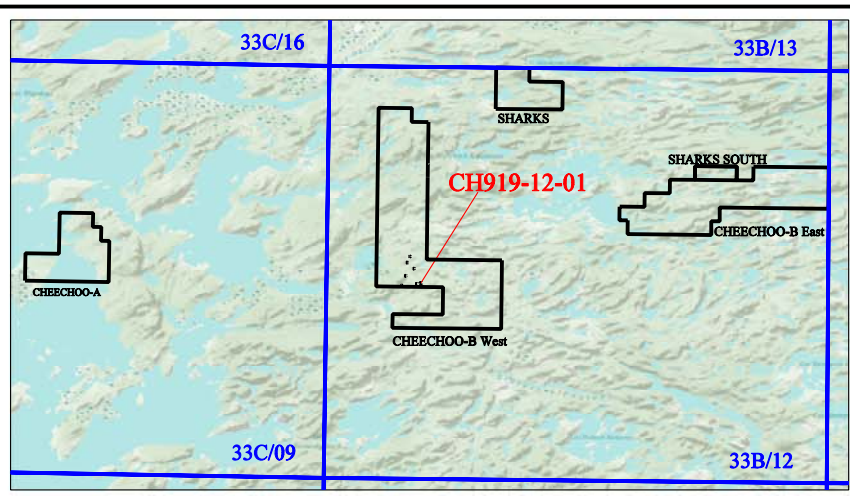
- As: Arsenopyrite (Arsénopyrite)
- Cp: Chalcopyrite
- Po: Pyrrhotite
- Py: Pyrite
- Tr: Trace
- O5: 5%

Alteration (Altération)

- Ank: Ankeritization (Ankératisation)
- Bio: Biotitization (Biotitisation)
- Chl: Chloritization (Chloritisation)
- Dp: Diopside
- Sil: Silicification
- Tr: Trace
- O5: 5%

- S1/45 Foliation/Core ange (Foliation /Angle de la carotte)
- C: Geological contact (Contact géologique)
- F: Fault (Faille)
- J: Fracture

- 9190099 Sample number (Numéro d'échantillon)
- 0.87 Gold value: g/t (Valeur en or: g/t)
- 20 Hole depth in meters (Profondeur en mètre)
- DDH 2012 (Forage 2012)



RESSOURCES SIRIOS INC.

919 Project (Projet): CHEECHOO

Section: CH919-12-01

NTS(SNRC): 33B12
UTM, Zone19, Nad83

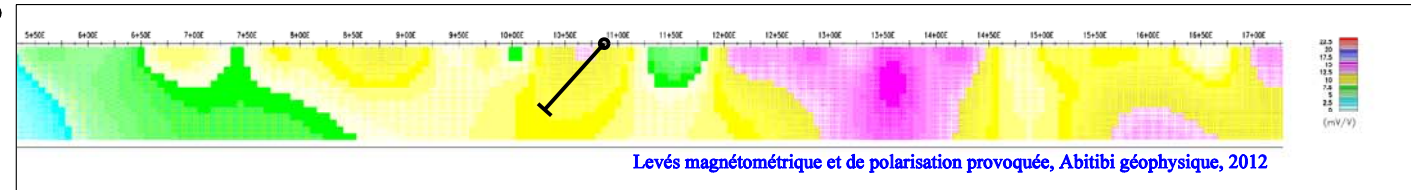
DDH (Forage): Forage G4
Geologist (Géologue): M. Block
Drawing (Dessin): S. Gao
Date: Feb(Fév), 2013

iosservices
GÉOSCIENTIFIQUES



Mikaël Block, Geo.

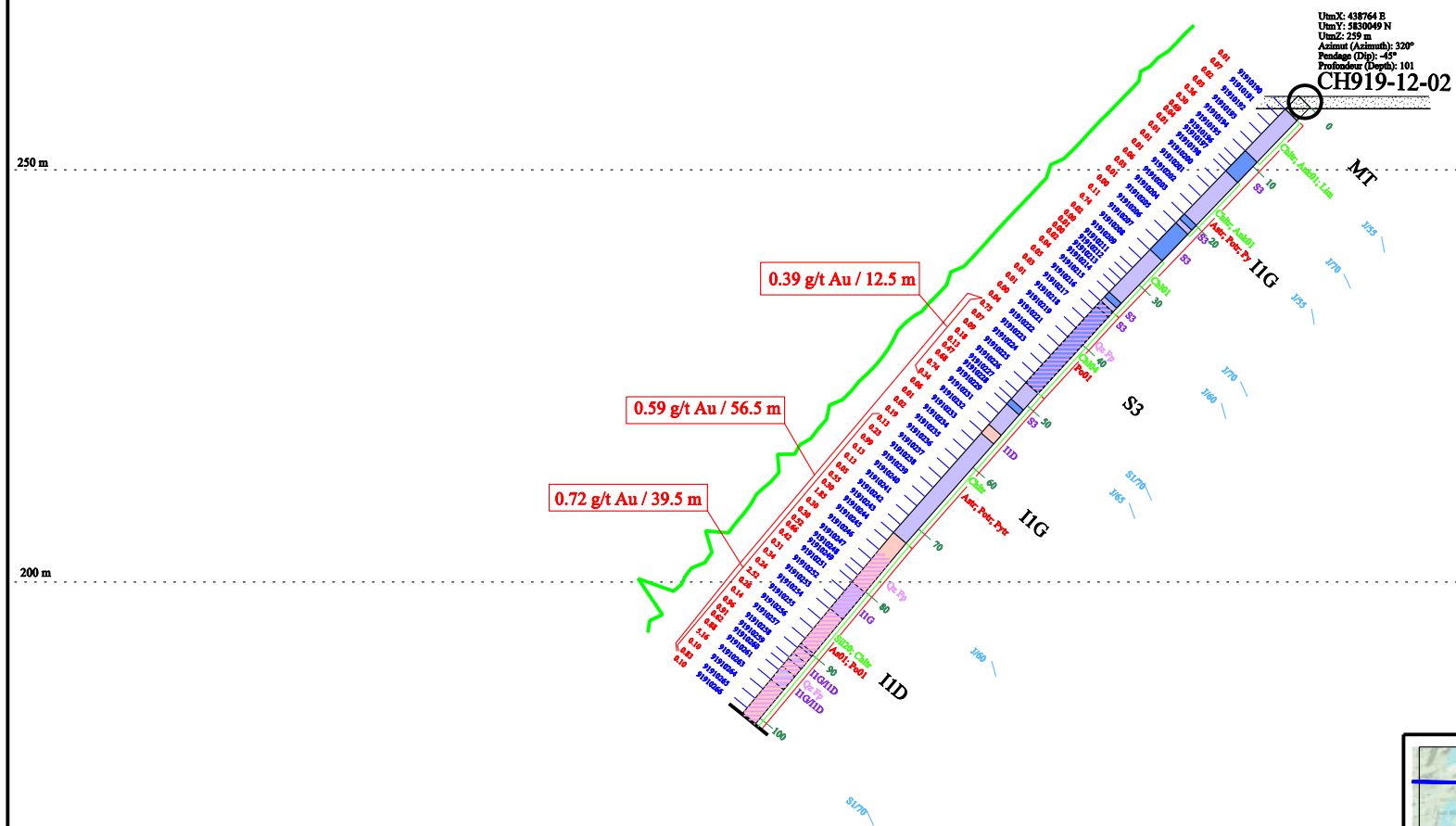
Chargeability Model
(Modèle de la Chargeabilité)



L14+00S

320°

140°



UtmX: 438764 E
UtmY: 5830049 N
UtmZ: 259 m
Azimuth (Azimut): 320°
Pendage (Dip): -43°
Profondeur (Depth): 101

CH919-12-02

LEGEND (LÉGENDE)

- OB Overburden (Mort-terrain)
IID Tonalite
IIG Pegmatite
M4 Paragneiss
M8 Schist (Schiste)
S3 Wacke
Qz-Fp Quartz-Feldspar vein
(Veine de quart-feldspath)

Mineralization (Minéralisation)

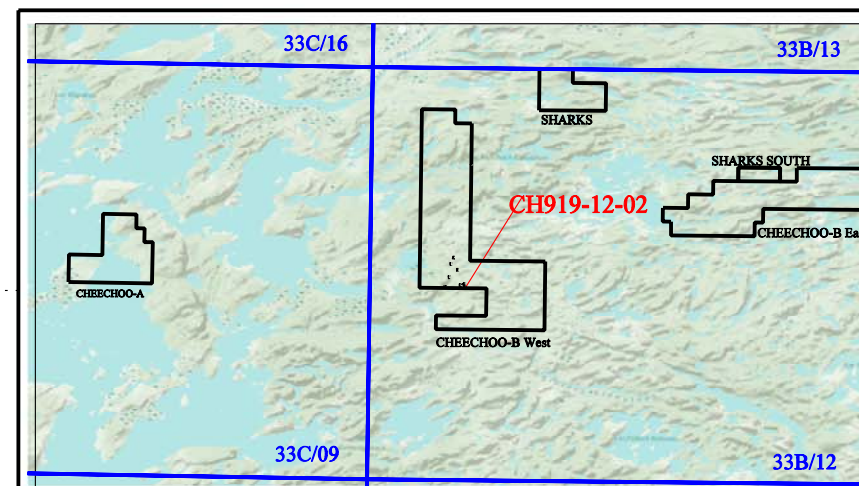
- As: Arsenopyrite (Arsénopyrite)
Cp: Chalcopyrite
Po: Pyrrhotite
Py: Pyrite
Tr: Trace
05: 5 %

Alteration (Altération)

- Ank: Ankeritisation (Ankérítisation)
Bio: Biotitization (Biotitisation)
Chl: Chloritization (Chloritisation)
Dp: Diopside:
Sil: Silicification:
Tr: Trace:
05: 5 %:

- S1/45 Foliation/Core ange (Foliation /Angle de la carotte)
C: Geological contact (Contact géologique)
F: Fault (Faille)
J: Fracture

- 9190099 Sample number (Numéro d'échantillon)
0.87 Gold value: g/t (Valeur en or: g/t)
20 Hole depth in meters (Profondeur en mètre)
DDH 2012 (Forage 2012)



RESSOURCES SIRIOS INC.

919 Project (Projet): CHEECHOO

Section: CH919-12-02

NTS(SNRC): 33B12
UTM, Zone19, Nad83

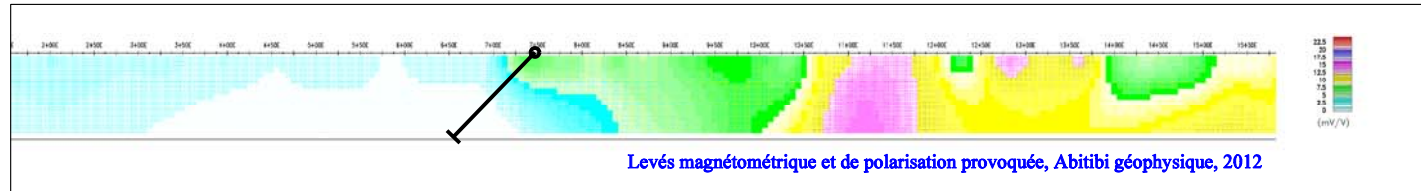
DDH (Forage): Forage G4
Geologist (Géologue): M. Block
Drawing (Dessin): S. Gao
Date: Feb(Fév), 2013

ios services
GÉOSCIENTIFIQUES



Mikaël Block, Geo.

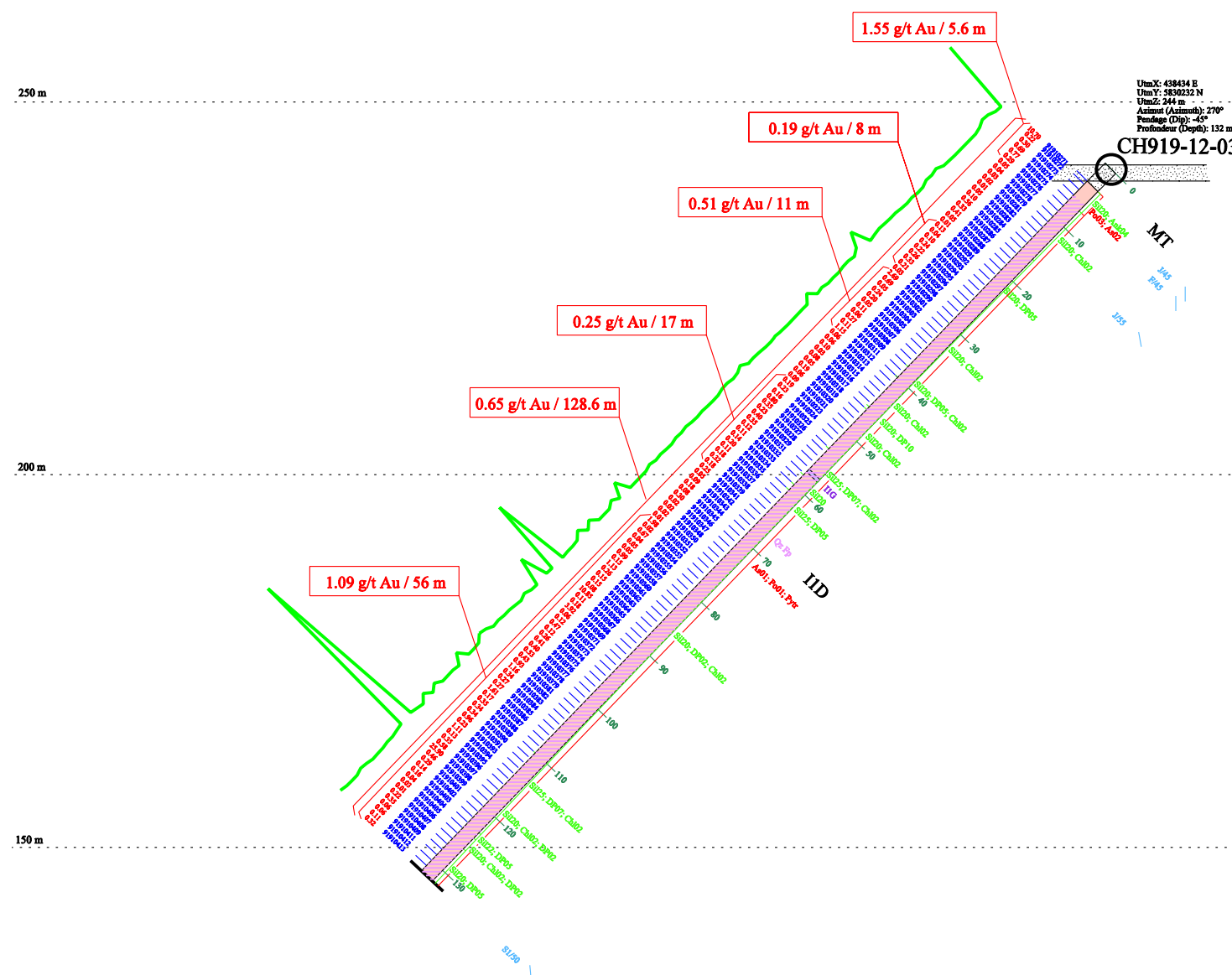
Chargeability Model
(Modèle de la Chargeabilité)



L12+00S

270°

90°



UtmX: 439434 E
UtmY: 3830232 N
UtmZ: 244 m
Azimut (Azimuth): 270°
Pendage (Dip): -45°
Profondeur (Depth): 132 m

CH919-12-03

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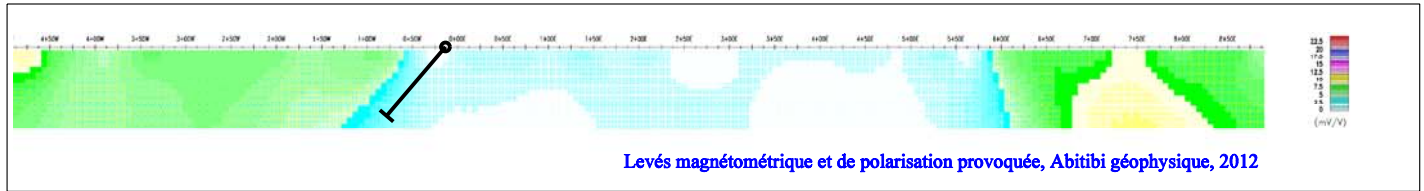
J15

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Chargeability Model
(Modèle de la Chargeabilité)



L6+00S

270° ←

→ 90°

250 m

200 m

150 m

UtmX: 437675 E
UtmY: 5850760 N
UtmZ: 545 m
Azimuth (Azimut): 270°
Polarization (Polar): -45°
Profondeur (Depth): 102 m

CH919-12-04

MT

ID

LEGEND (LÉGENDE)

- OB Overburden (Mort-terrain)
I1D Tonalite
I1G Pegmatite
M4 Paragneiss
M8 Schist (Schiste)
S3 Wacke
Qz-Fp Quartz-Feldspar vein
(Veine de quart-feldspath)

Mineralization (Minéralisation)

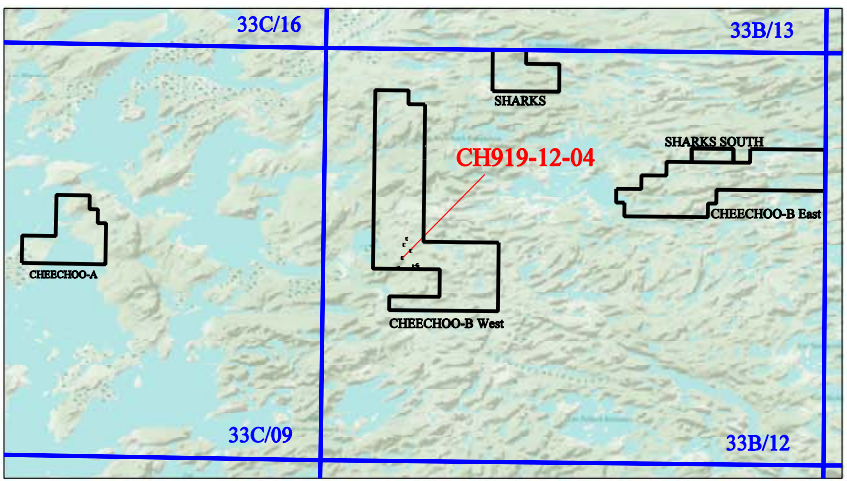
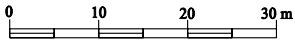
- As: Arsenopyrite (Arsénopyrite)
Cp: Chalcopyrite
Po: Pyrrhotite
Py: Pyrite
Tr: Trace
05: 5 %

Alteration (Altération)

- Ank: Ankeritisation (Ankérítisation)
Bio: Biotitization (Biotitisation)
Chl: Chloritization (Chloritisation)
Dp: Diopside:
Sil: Silicification:
Tr: Trace:
05: 5 %:

- S1/45 Foliation/Core ange (Foliation /Angle de la carotte)
C: Geological contact (Contact géologique)
F: Fault (Faille)
J: Fracture

- 9190099 Sample number (Numéro d'échantillon)
0.87 Gold value: g/t (Valeur en or: g/t)
20 Hole depth in meters (Profondeur en mètre)
DDH 2012 (Forage 2012)



RESSOURCES SIRIOS INC.

919 Project (Projet): CHEECHOO

Section: CH919-12-04

NTS(SNRC): 33B12
UTM, Zone19, Nad83

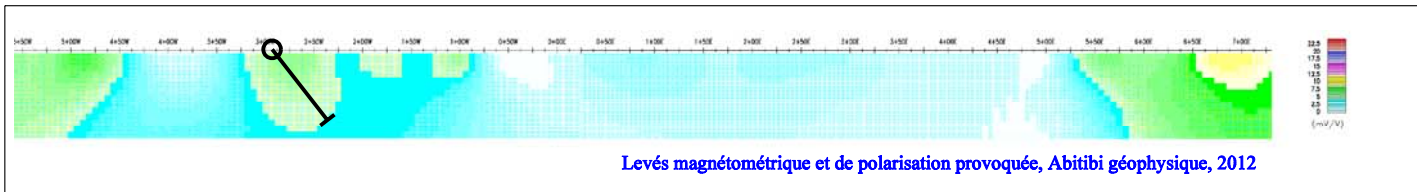
DDH (Forage): Forage G4
Geologist (Géologue): M. Block
Drawing (Dessin): S. Gao
Date: Feb(Fév), 2013

ios services
GÉOSCIENTIFIQUES



Mikaël Block, Geo.

Chargeability Model
(Modèle de la Chargeabilité)



L14+00S

290°

110°

250 m

200 m

150 m

Utm X: 437396 E
Utm Y: 5830117 N
Utm Z: 243 m
Azimuth (Azimut): 110°
Pendage (Dip): -50°
Profondeur (Depth): 102 m

CH919-12-05

MT

I1D

I1G

S1/45

S1/45

S1/45

S1/45

S1/45

S1/45

S1/45

S1/45

S1/45

S1/45

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CH919-12-05

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CH919-12-05

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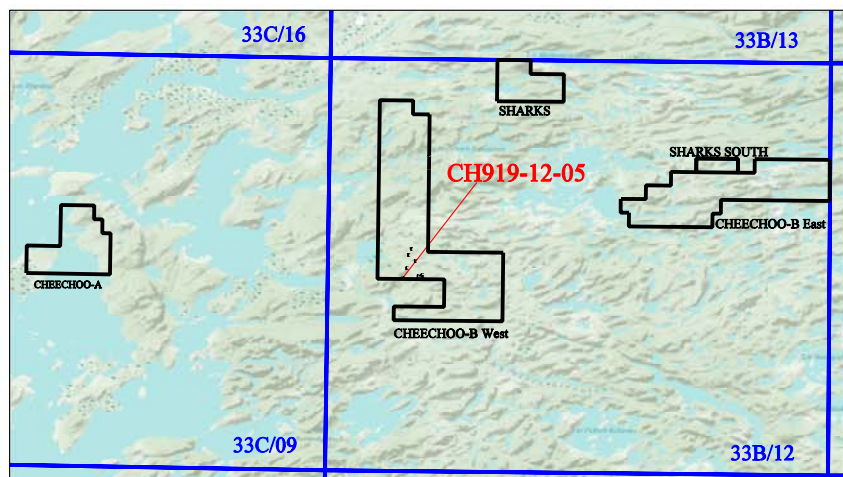
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RESSOURCES SIRIOS INC.


919

Project (Projet): CHEECHOO

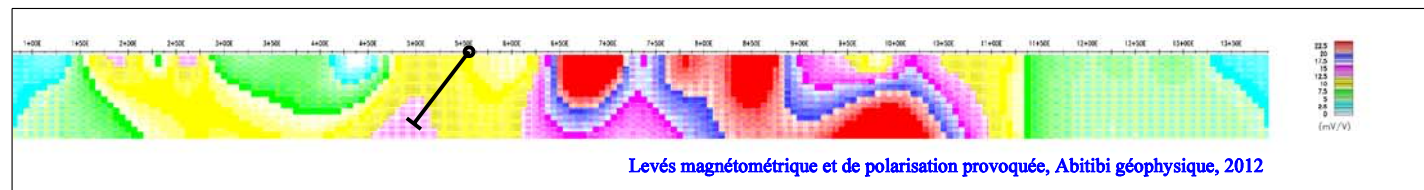
Section: CH919-12-05

NTS(SNRC): 33B12
UTM, Zone19, Nad83

DDH (Forage): Forage G4
Geologist (Géologue): M. Block
Drawing (Dessin): S. Gao
Date: Feb(Fév), 2013



Mikaël Block, Geo.



$\longrightarrow 90^\circ$



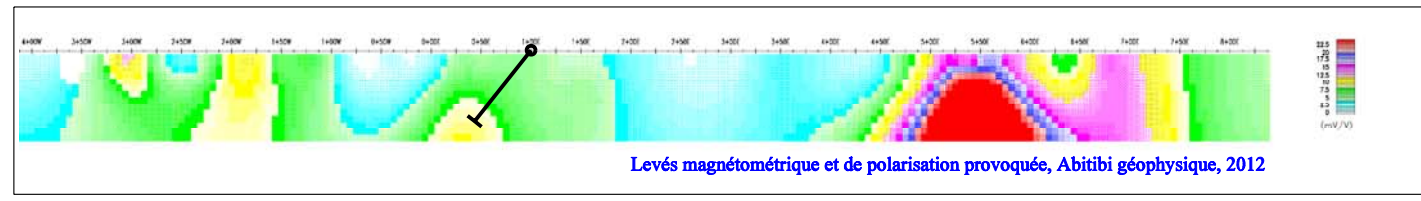
Section: CH919-12-06

DDH (Forage): Forage G4
Geologist (Géologue): M. Block
Drawing (Dessin): S. Gao
Date: Feb(Fév)..
2013



Mikaël Block, Geo.

Chargeability Model
(Modèle de la Chargeabilité)



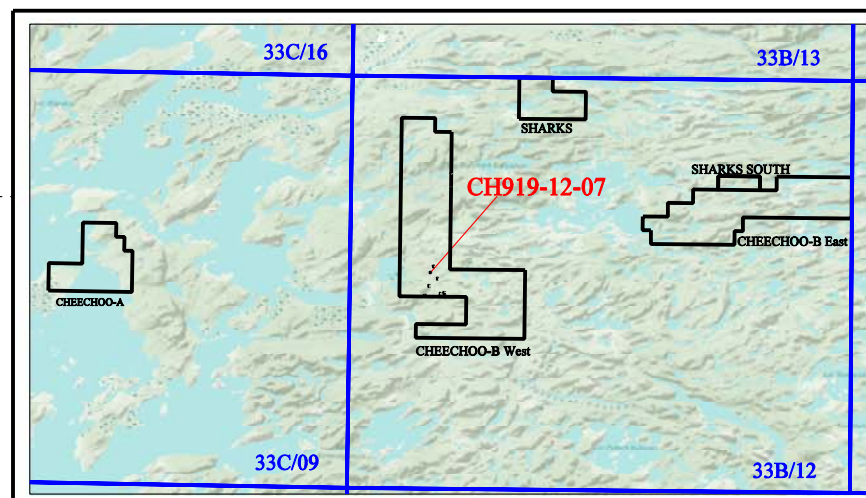
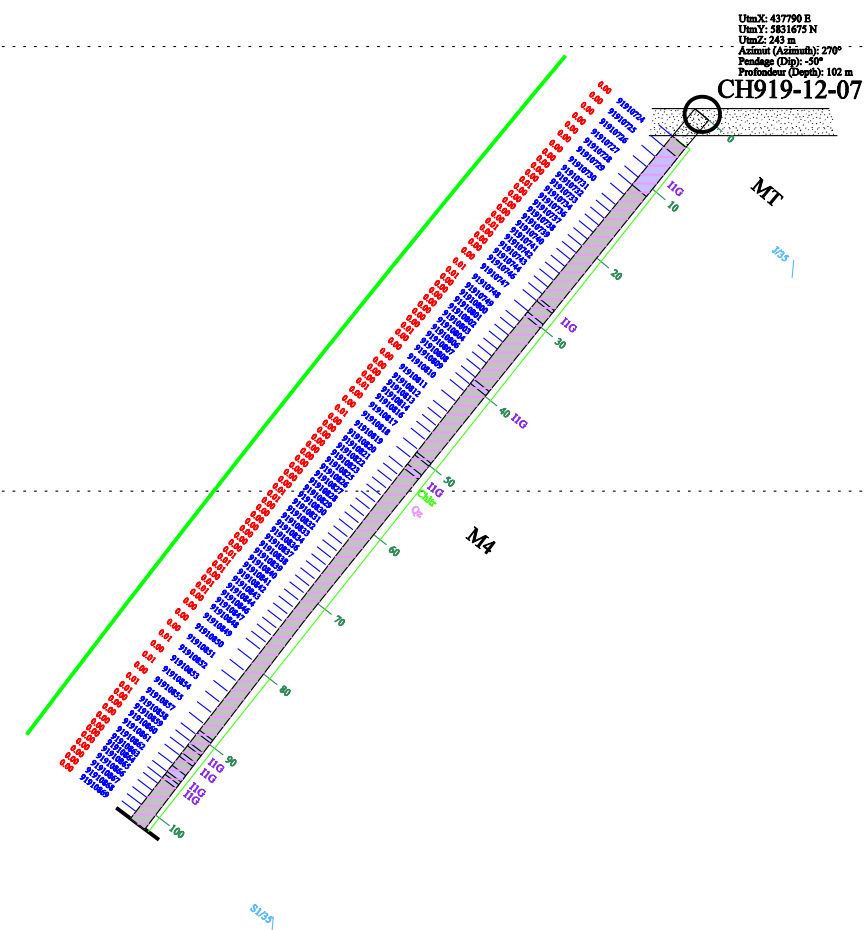
270° ←

→ 90°

250 m

200 m

150 m



LEGEND (LÉGENDE)

- OB Overburden (Mort-terrain)
- IID Tonalite
- IIG Pegmatite
- M4 Paragneiss
- M8 Schist (Schiste)
- S3 Wacke
- Qz-Fp Quartz-Feldspar vein (Veine de quart-feldspath)

Mineralization (Minéralisation)

- As: Arsenopyrite (Arsénopyrite)
- Cp: Chalcopyrite
- Po: Pyrrhotite
- Py: Pyrite
- Tr: Trace
- 05: 5 %

Alteration (Altération)

- Ank: Ankeritisation (Ankérition)
- Bio: Biotitization (Biotitisation)
- Chl: Chloritization (Chloritisation)
- Dp: Diopside
- Sil: Silicification
- Tr: Trace
- 05: 5 %

- S1/45 Foliation/Core ange (Foliation / Angle de la carotte)
- C: Geological contact (Contact géologique)
- F: Fault (Faille)
- J: Fracture

- 9190099 Sample number (Numéro d'échantillon)
- 0.87 Gold value: g/t (Valeur en or: g/t)
- 20 Hole depth in meters (Profondeur en mètre)
- DDH 2012 (Forage 2012)



RESSOURCES SIRIOS INC.

919 | Project (Projet): **CHEECHOO**

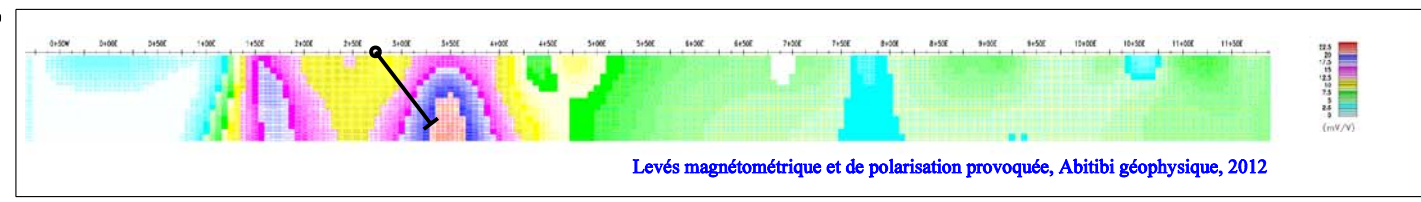
Section: CH919-12-07

NTS(SNRC): 33B12
UTM, Zone19, Nad83

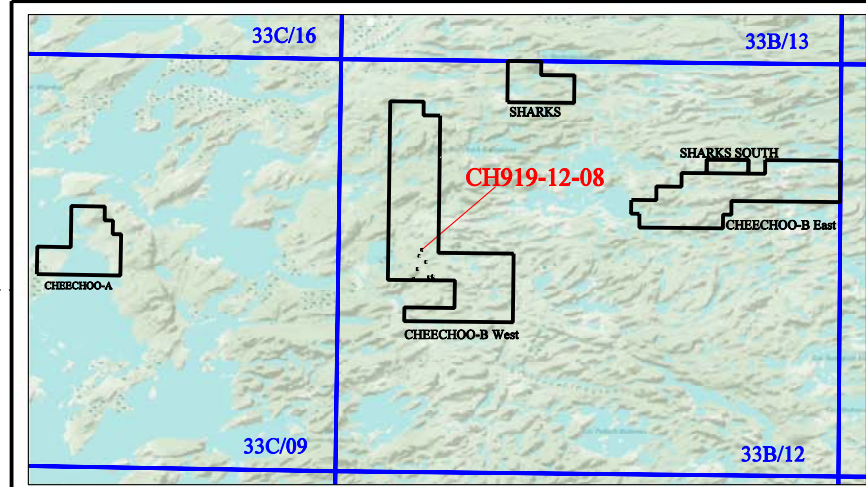
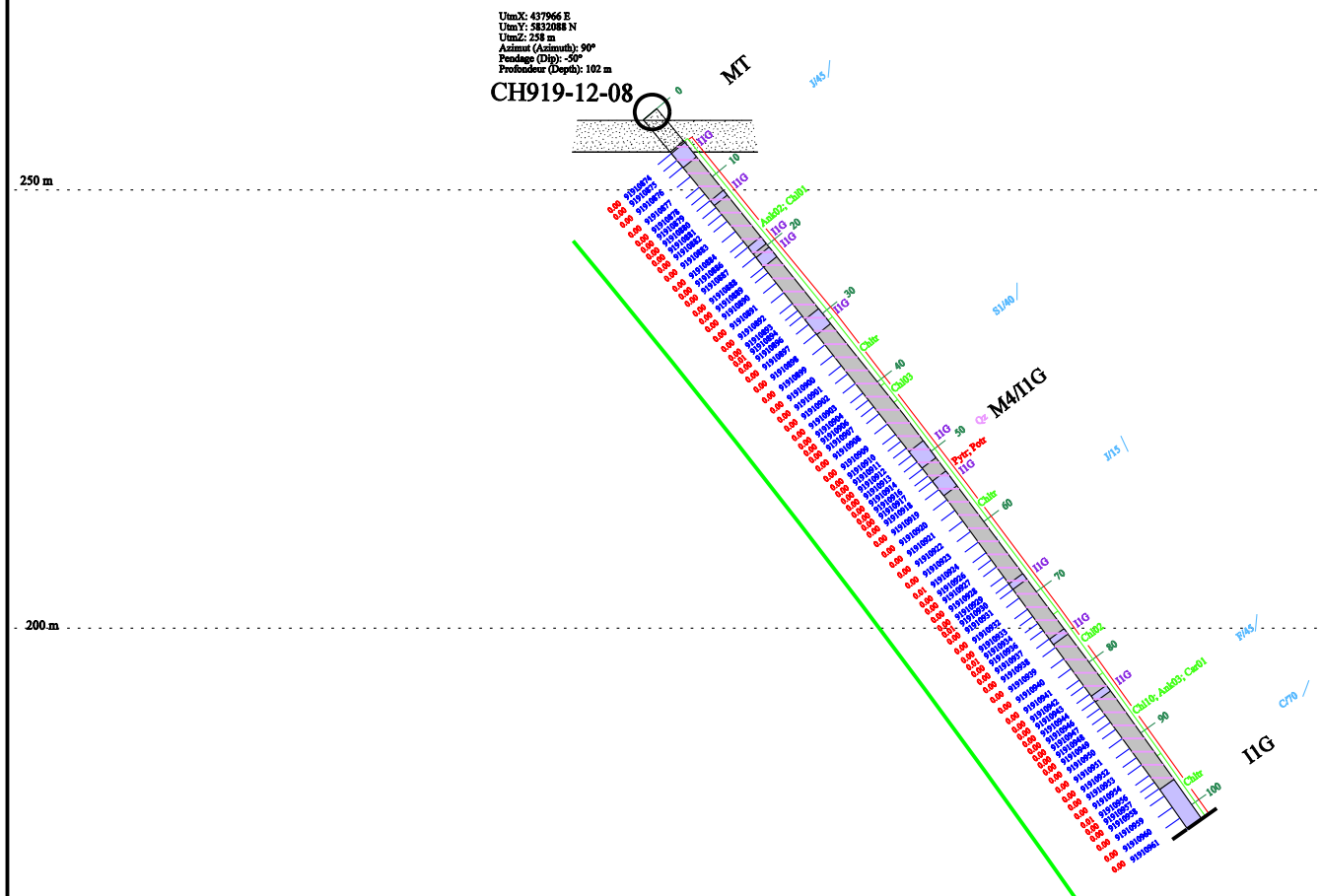
DDH (Forage): Forage G4
Geologist (Géologue): M. Block
Drawing (Dessin): S. Gao
Date: Feb(Fév), 2013

Mikaël Block, Geo.

Chargeability Model
(Modèle de la Chargeabilité)



270° ← → 90°



LEGEND (LÉGENDE)

- OB Overburden (Mort-terrain)
- I1D Tonalite
- I1G Pegmatite
- M4 Paragneiss
- M8 Schist (Schiste)
- S3 Wacke
- Qz-Fp Quartz-Feldspar vein (Veine de quart-feldspath)

Mineralization (Minéralisation)

- As: Arsenopyrite (Arsénopyrite)
- Cp: Chalcopyrite
- Po: Pyrrhotite
- Py: Pyrite
- Tr: Trace
- 05: 5%

Alteration (Altération)

- Ank: Ankeritization (Ankérition)
- Bio: Biotitization (Biotitisation)
- Chl: Chloritization (Chloritisation)
- Dp: Diopside
- Sil: Silicification
- Tr: Trace
- 05: 5%

- S1/45 Foliation/Core ange (Foliation /Angle de la carotte)
- C: Geological contact (Contact géologique)
- F: Fault (Faille)
- J: Fracture

- 9190099 Sample number (Numéro d'échantillon)
- 0.87 Gold value: g/t (Valeur en or: g/t)
- 20 Hole depth in meters (Profondeur en mètre)
- DDH 2012 (Forage 2012)



RESSOURCES SIRIOS INC.

919 | Project (Projet): **CHEECHOO**

Section: CH919-12-08

NTS(SNRC): 33B12
UTM, Zone19, Nad83

DDH (Forage): Forage G4
Geologist (Géologue): M. Block
Drawing (Dessin): S. Gao
Date: Feb(Fév), 2013

Mikaël Block, Geo.

Holes were short, typically 100 metres in length. They were oriented toward the west, aiming to be perpendicular to foliation as measured in neighboring outcrops, causing the azimuth not being constant.

The author visited the sites of the four most significant holes, which were cleaned properly, and no casing was left in the ground (**picture 20**). Coordinates and azimuth were matching the database. Core is NQ in size, and currently store in IOS warehouse in Saguenay. The author did examine the core in numerous occasions. Collars were located with the use of cut grids and hand-held GPS. Casing were removed, but no poles were left in the holes. Deviation tests were made every 50 metres and at the end of the holes with acid tubes. Recovery was excellent.

The core has been logged at the camp by Mr Mikaël Block, from IOS, according to the usual multi-level method, using Geotic V.6 software. Descriptions are detailed, with mentions of various lithofacies, mineralogy, core-angles and special attention to minute alteration (**table 15**). RQD were measured on site. No geophysical diagraphy was made.

The core has almost thoroughly been saw in half for sampling, in IOS secured facilities. A total of 792 samples for 900.4 metres of core were extracted, typically 1.0 metre length. Samples comminution was conducted in IOS facility, and aliquots of samples were shipped to ALS Chemex from Val d'Or. Gold was assayed by conventional fire-assay on one assay-ton, with atomic absorption finishing. Multi-element analysis and coarse-grain gold assaying by metallic sieve are waiting funding to be processed.



Picture 20: View of collar 919-12-02 with GPS coordinates, as visited by the author. The pole inserted in the hole is behind the GPS.



Picture 21: View of the Mancore drill used by G4 Drilling set in its plywood shack, ready to run.

| Hole number | UTMX | UTMY | Line | Station | Altitude | Azimut (°) | Plunge (°) | End of hole (m) |
|-------------|--------|---------|--------|---------|----------|------------|------------|-----------------|
| CH919-12-01 | 438708 | 5830309 | 10+70S | 10+20E | 242 | 234 | -45 | 195 |
| CH919-12-02 | 438764 | 5830049 | 14+00S | 10+75E | 259 | 320 | -45 | 101 |
| CH919-12-03 | 438434 | 5830232 | 12+00S | 7+40E | 244 | 270 | -45 | 132 |
| CH919-12-04 | 437675 | 5830780 | 6+70S | 0+13W | 245 | 270 | -45 | 102 |
| CH919-12-05 | 437396 | 5830117 | 13+32S | 2+92W | 243 | 110 | -50 | 102 |
| CH919-12-06 | 438246 | 5831267 | 2+00S | 5+55E | 252 | 270 | -50 | 102 |
| CH919-12-07 | 437790 | 5831675 | 2+00N | 1+00E | 243 | 270 | -50 | 102 |
| CH919-12-08 | 437966 | 5832088 | 6+34N | 2+72E | 258 | 90 | -50 | 102 |
| Total | | | | | | | | 938 metres |

Table 15: 2012 drill holes locations and statistics.

Holes 919-12-01, 919-12-02 and 919-12-03 are tightly grouped in the south-east area of the grid, on lines 10+00S to 14+00S, between stations 7+40E and 10+75E, where abundant outcrops of trondhjemite revealed gold grades. Holes were directed to test directly underneath these outcrops, without aiming specific geophysical targets. Prospecting of this area yielded 31 samples grading between 0 and 2.58 g/t, for an average of 0.32 g/t. Holes 919-12-01 and 03 were thoroughly in the trondhjemite, while 919-12-02 was collared in paragneiss, traversing the contact with the trondhjemite at a depth of approximately 50 metres. All three holes intersected broad and continuous mineralized zones. Hole 919-12-01 was drilled in an area lacking any chargeability signature. Hole 919-12-02 intersected a faint superficial chargeability anomaly, explained by the disseminated sulphides. Hole 919-12-03 is drilled at the limit of the huge resistivity low, interpreted by Dubois (2012) as the signature of paragneiss, but as caused by Tyrrel Sea clays by the author. This phenomenon mask the underlying bedrock geophysical signature.

Hole 919-12-04 was drilled further northwest on line 6+70S, on the a small hill composed of trondhjemite. It aimed to drill underneath mineralized trondhjemite outcrops, from which 15 samples were collected and graded between 0 and 0.926 g/t, with an average of 0.121 g/t. It intersected unmineralized trondhjemite for its complete length. The hole is located on the west side of the strong conductivity anomaly, likely caused by Tyrrel marine clay. This interface likely mask the underlying basement signature.

The three first 2012 holes intersected broad low-grade mineralization in a silicified thronthjemite. The two subsequent one intersected broad anomalous gold, while the three last drilled in paragneiss were barren.

Hole 919-12-5 was drilled near line 14+00S, on the south of the grid, on the west side of a marsh area separating the mineralized trondhjemite of holes 01 to 03. About 20 grab samples were collected in this area dominated by trondhjemite, which revealed grades between 0 and 2.44 g/t and an average of 0.31 g/t. The hole also aimed to test IP anomaly CC-07 associated with resistivity and magnetic depression which could suggest silicification. This hole intersected trondhjemite for its entire length, with only a very narrow mineralized interval. This hole is drilled underneath a strong and superficial conductivity anomaly, likely related to the Tyrrell marine clays and which anomaly mask the basement signature underneath.

Holes 919-12-06, located on line 2+00S, aimed at testing CC-23A anomaly, a weak chargeability zone at depth associated with resistivity. It intersected alternating

paragneiss and pegmatite over its complete length, without any trondhjemite. No gold mineralization was intercepted. The chargeability anomaly remains unexplained.

Hole 919-12-07, located on line 2+00N, aimed at testing CC-16b anomaly, which is a weak chargeability anomaly caught between two zones of high conductivity related to the Tyrrell marine clays. This hole intersected unaltered and unmineralized paragneiss over its entire length, without any gold values. The chargeability anomaly remains unaccounted for.

Hole 919-12-08, located further north 6+00N, aimed at testing IP anomaly CC-28A, which is highly chargeable and moderately conductive. This hole intersected not significantly altered or mineralized paragneiss over its entire length, without any gold value. The chargeability anomaly remains unaccounted for, despite its intensity.

Mineralized intersections, as calculated by the author and publicized in press-releases of Sirios (February 12, 2013), are compile in **table 16**. High grade samples were not capped.

| Hole | From | To | Length | Au g/t |
|-----------|---|--------------------------|-----------------|-------------------|
| 919-12-01 | 3.6 m. | 195 m. EOH ³⁸ | 191.4 m. | 0.21 g/t |
| Including | 3.6 m. | 49.4 m. | 45.8 m. | 0.50 g/t |
| Including | 18.0 m. | 42.0 m. | 24.0 m. | 0.70 g/t |
| 919-12-02 | 43.5 m. | 100.0 m. EOH | 56.5 m. | 0.59 g/t |
| Including | 43.5 m. | 56.0 m. | 12.5 m. | 0.39 g/t |
| Including | 60.5 m. | 100.0 m. EOH | 39.5 m. | 0.72 g/t |
| 919-12-03 | 3.4 m. | 132.0 m. EOH | 128.6 m. | 0.65 g/t |
| Including | 3.4 m. | 4.0 m. | 0.6 m. | 10.70 g/t |
| Including | 76.0 m. | 132 m. EOH | 56.0 m. | 1.09 g/t |
| Including | 89.0 m. | 90.0 m. | 1.0 m. | 10.85 g/t |
| Including | 119.0 m. | 120.0 m. | 1.0 m. | 25.90 g/t |
| 919-12-04 | 2.8 m. | 102 m. | 99.4 m. | NSV ³⁹ |
| Including | 58.0 m. | 64.0 m. | 6.0 m. | 0.17 g/t |
| 919-12-05 | Anomalous, but no significant intercept | | | |
| 919-12-06 | Barren | | | |
| 919-12-07 | Barren | | | |
| 919-12-08 | Barren | | | |

Table 16: 2012 drill results, as disclosed in February 2013 press release. Note the intersection lengths are measured along the core axis, and thus exaggerate the true width of the mineralized zone by approximately 40%.

³⁸ EOH: End of the hole.

³⁹ NSV: Not a significant value

The 2012 drill program enables to conclude the following points:

- Mineralization is finely disseminated over wide intercepts. Such intercepts were obtained from three hole, in each of them, the hole was halted in mineralization. This suggest that the trondhjemite massive is pervasively mineralized.
- Mineralization is associated with diffuse quartz veining. However, it is estimated that only 50% of the mineralization is hosted in such altered rocks, the rest being in the apparently pristine trondhjemite.
- Alteration is limited to high temperature minerals, likely late-magmatic. From what is currently known⁴⁰, it is dominated by silicification, either as diffuse veining or pervasive. Ferromagnesian minerals are restricted to tourmaline and diopside. No phyllosilicates were noted, such as sericite, with the exception of a little biotite and chlorite suggesting the lack of hydrolysis. Microcline alteration is also possible, since it has been described in number of other occurrences and it might be difficultly discernible from silicification.
- Sulphides, either pyrrhotite, pyrite or arsenopyrite, are very minutely disseminated in the trondhjemite. Grain are submillimetric, and in very low abundance, rarely reaching 2-3%.
- There is apparently no structural control on the mineralization, else that the proximity of the trondhjemite-paragneiss contact. The rocks are barely foliated, and its orientation in not constant. The quartz veining is an anisotropic strockwerk, but is not a planar structure. No stretching lineation was noted.
- The low abundance of sulphides is reflected by the lack of obvious geophysical signature, either in regard of chargeability or conductivity.
- The host paragneiss that were drilled are rigorously barren. Similarly, the trondhjemite massive outside of the mineralized zone is strictly barren. It is uncertain if an anomalous halo developed around the mineralized core. Inversely, it is unknown if the mineralized area intersected in the three first holes represent itself the halo surrounding a higher-grade core.
- The presence of a few high grade gold interval in 919-12-03 is indicative that the system is capable to create high grade gold rocks.

⁴⁰ No petrographic examination or detail chemistry is available, thus the alteration assemblage remains to be confirmed.

ITEM 11: SAMPLE PREPARATION, ANALYSIS AND SECURITY

ROCK SAMPLING FROM PROSPECTING AND MAPPING

Grab samples were collected from outcrops and boulders in the course of the various prospecting program. In every cases, grab samples were selectively collected and shall no be considered as representative of the whole outcrop. Each of the successive programs were directed by a different project geologist, so sample processing changed accordingly. In every phase of the project, samples were:

- Numbered according to sequences from ticket booklets.
- Located with the use of GPS, using UTM coordinated in NAD-84 system.
- Had their lithofacies described and coded.

CHANNEL SAMPLING

Channel sampling has been conducted in 2006 and 2007, and the process is described in fair details in report (Harnois et Boubakour 2009). Samples were extracted with the use of a diamond saw, as continuous channels, typically 0.5 or 1 metre in length. Samples were bagged and ship to the laboratory along with the other grab samples, and were processed and assayed with the same methods.

2006, 2007 and 2010 field program were directed by Golden Valley staff, therefore no chain of custody was implemented with the laboratory.

2005-IOS

In 2005, grab samples , for a total of 422, were collected by the various geologists with the use of a sledge and chisel, cleaned if possible, put in a bag with a sample tag, and queued for shipping at the camp. A numbered flag tape was left on the sampling site. Witness samples were not collected. Samples were expedited directly from the field to Laboratoire Expert in Rouyn-Noranda through commercial road carrier (Girard et al 2006, a to d). No chain of custody was implemented.

At Laboratoire Expert, samples were prepared by conventional crushing and grinding, the details of the protocol not being available. Usually, Laboratoire Expert first use a jaw crusher to reduce the material to ¼ inch, then a roll crusher to obtain 90% <2 mm. The sample is aliquoted to 300 grams with a Jones splitter. The aliquot is pulverized with a steel ring-mill to 90% <75 microns. Gold was assayed by fire-assay on one assay-ton and atomic absorption finishing. Assays exceeding 1 g/t were requested to be reassayed

by gravimetric fire-assay, as well as by neutronic activation at Activation Laboratories form Ancaster, Ontario. No coarse-grain analysis after metallic sieve has been requested. An aliquot of the pulp was imparted to Activation Laboratoires for ICP-OES analysis after Aqua-Regia digestion.

Quality control was limited to the insertion of blank samples every 10-20 samples. No severe issues were detected, although Laboratoire Expert usually has a recurrent low grade contamination issues. Results were provided by the laboratory in numerical format and integrated into the database.

Laboratoire Expert is not an ISO-9000 or ISO-17025 accredited organization.

2006-Golden Valley

In 2006, grab and channel samples, for a total of 499 samples, were collected by the various geologists and prospectors, but no detail of the procedure is reported (Harnois et Boubakour 2009). Samples were expedited directly from the field to *Laboratoire Bourlamaque* from Val d'Or. No chain of custody was implemented and no detail on the preparation protocol is available. Gold was assayed by conventional fire-assay upon one assay-ton with atomic absorption finishing (code AU020). Platinum and palladium were added to this method for a few samples. The reported detection limit of 10 ppb is different from other laboratoires. One single sample, (#313468) has been re-assayed using gravimetric finish due to its high grade. Copper, silver, nickel, zinc, molybdenum and arsenic were also assayed, likely by atomic absorption after Aqua-Regia digestion. Arsenic exceeded the upper limit of the linearity range of the method in numerous samples, and was reassayed by atomic absorption and "total digestion". It is uncertain if results were electronically transferred or had transcript. No quality control protocol was implemented by Golden Valley, only the laboratory introduced quality checks. The author is not familiar with Bourlamaque Laboratory and never evaluated the quality of their work. Bourlamaque Laboratory conduct a lot a assaying for local mines, and the processing or mine-grade samples is always a concern when it come to contamination of exploration samples.

Samples collected in 2005 and 2006 were submitted to Laboratoire Expert and Laboratoire Bourlamaque respectively. These are well established regional outfits, the integrity of which is not questionable. Low-grade gold contamination issues require monitoring.

Bourlamaque Laboratory is not an ISO-9000 or ISO-17025 accredited organization.

2007-CCIC- Golden Valley

Grab and channel samples collected in 2007 by Golden Valley and Caracle Creek crew, for a total of 206 samples, were sent to ALS Chemex for analysis (Harnois et Boubakour 2009). It is unlikely that a chain of custody being implemented. Sample preparation protocol is not reported, but likely follows the usual ALS protocol. Samples were crushed at 70% <2 mm (CRU-31), aliquoted to 250 grams and pulverized with a ring mill to 85% <75 microns (PUL-31). Gold was analyzed by conventional fire-assay on one assay-ton, with atomic absorption finishing (Au-AA23). Remaining 33 elements were analyzed by ICP-AES after four acid near-total digestion (ME-ICP61). There is no mention in the report of a Quality control protocol, else than the one implemented by the laboratory. Results were transmitted electronically and transferred into the database.

ALS Chemex is a fully ISO 9000 and ISO17025 accredited organization.

2010-IOS-Golden Valley-Sirios

Grab samples collected in 2010 by Golden Valley-Sirios and IOS crew, for a total of 161 samples, were sent to ALS Chemex for assaying, after transiting through Golden Valley office in Val d'Or. No chain of custody was implemented. Samples were crushed at 70% <2 mm (CRU-31), aliquoted to 250 grams and pulverized with a ring mill to 85% <75 microns (PUL-31), according to usual ALS protocol. Gold was analyzed by conventional fire-assay on one assay-ton, with atomic absorption finishing (Au-AA23). Remaining 33 elements were analyzed by ICP-AES after four acid near-total digestion (ME-ICP61). Blank samples, made of grenvillian pure quartz, were introduced every 10-20 samples in order to control contamination, and no issue was detected. No reference material was inserted. ALS conducted its usual quality control process. Results were transmitted electronically and transferred into the database.

2007, 2010 and 2011 samples were assayed by ALS Chemex, which is a global organization, the integrity of which is not questionable. ALS is a ISO-900 and IOS-17025 accredited laboratory.

2011-IOS-Golden Valley-Sirios

Grab samples collected in 2011 by Golden Valley-Sirios and IOS crew, for 48 samples, were sent to ALS Chemex for assaying, after transiting through IOS chain of custody. Samples were crushed at 70% <2 mm (CRU-31), aliquoted to 250 grams and pulverized with a ring mill to 85% <75 microns (PUL-31), according to usual ALS protocol. Gold was analyzed by conventional fire-assay on one assay-ton, with atomic absorption finishing (Au-AA23). Remaining 33 elements were analyzed by ICP-AES after four acid near-total

digestion (ME-ICP61). Blank samples, made of grenvillian pure quartz, were introduced every 10-20 samples in order to control contamination and no issue was detected. No reference material was inserted. ALS conducted its usual quality control process. Results were transmitted electronically to Golden Valley and transferred into the database.

DRILL CORE SAMPLES

2007 Golden Valley drilling

Drill core sample from the 2007 program, for 682 samples, were shipped by Golden Valley to ALS Chemex facility in Val d'Or (Harnois et Boubakour 2009). No chain of custody was apparently implemented. ALS prepared the sample according to their usual protocol. Samples were crushed at 70% <2 mm (CRU-31), aliquoted to 250 grams and pulverized with a ring mill to 85% <75 microns (PUL-31). Gold was analyzed by conventional fire-assay on one assay-ton, with atomic absorption finishing (Au-AA23). No gravimetric finishing has been required considering the absence of high-grade samples. Remaining 33 elements were analyzed by ICP-AES after four acid near-total digestion (ME-ICP61) in their Vancouver facility.

Samples from the 2007 drill program were assayed at ALS Chemex in Val d'Or. No quality control procedure was implemented, which is not of a concern since no significant results were obtained from this program.

There is no mention in the report that a quality control protocol being implemented. No control material or blank samples were apparently inserted in the sequence. The lack of quality control protocol happened not to be critical considering that no significantly mineralized intersection were obtained, but would be detrimental in the event of a discovery.

2012 Sirios drilling

Considering that significant broad and low grade mineralization could be intersected, IOS implemented a chain of custody, an in-house sampling and assaying protocol, along with a rigorous quality control protocol.

Core boxes, once the core was logged, were strapped and stored in secured trailer-truck near Eleonore mine, and expedited to IOS warehouse at the end of the drilling program. The core had been saw in half in a secured facility, and remaining half core stored in covered boxes strapped on pallets. Samples were dried in a forced air geothermic

dryer, and submitted to systematic density measurement according to water displacement on surface-dried samples. They were then thoroughly dried, and queued for processing. The complete sample is then crushed with a *chipmunk* jaw crusher, down to 80% <2 mm, and aliquoted to 1 kilogram with a riffle splitter. The split was then thoroughly pulverized to 85% < 70 microns, and aliquoted to 100 grams. Fineness of the pulp was controlled every 10 sample with the use of a Fritsch laser dispersion granulometer, to ensure compliance with specification. The 100 gram aliquot was then stored in a bag with bar-coded, to be expedited to ALS Minerals in Val d'Or for assaying. Excess of pulps and coarse rejects were stored in drums filled with inert nitrogen atmosphere to avoid oxidation.

Assaying for gold at ALS Minerals was done using conventional fire-assay on one assay-ton and atomic absorption finishing. Assays in excess of 1 gram per ton gold were re-assayed by fire-assay and gravimetric finishing. IOS chemist, Mme Karen Gagné, controlled quality of results. ALS Minerals is a fully ISO-9000 and ISO-17025 accredited organisation.

Trace element analysis, coarse gold metallic sieve assays and inter laboratory check were not performed due to lack of financing, and are awaiting shipping.

Quality control included processing and assaying of 62 grenvillian quartz blanks and 51 aliquots of SE29 certified reference. Typically, samples from each holes were considered as a single shipment. Each shipment started with a blank, a certified material and a second blank, and then with the insertion of a control material every 12-15 samples. No quality issues were detected which were not corrected.

Samples from 2012 drill program were prepared by IOS and submitted to ALS Minerals with a rigorous quality control procedure, with the insertion of 15% blank and certified reference material.

Assay results were transmitted electronically, and pasted into the database once quality was approved.

QUALITY CONTROL ON ESSAYING

With the exception of the 2012 Sirios drilling program, no rigorous quality control procedure has been implemented in any of the program. Blank samples were introduced in prospecting programs where IOS has been involved. The blanks are fragments of high purity quartz veins from the Lac Bouchette deposit, which were clean in oxalic acid to remove any traces of iron staining. IOS maintain a database on this material, which has been assayed thousands of time with various protocols from various laboratory, and

which is certified as blank. There is no mention of any analytical quality control implemented by Golden Valley, neither blank samples, reference material or duplicates. Laboratories usually implement and disclose their own quality control protocol, which includes insertion of reference material. No statistics were maintained in this regard.

INDEPENDANCY OF THE ASSAYERS

ALS Chemex or ALS Minerals is a global organisation, the independency of which is not questionable. Laboratoire Expert and Laboratoire Bourlamaque are smaller regional organisation with a “less rigorous-more friendly” attitude, who are in business since decades⁴¹, and the author do not have reasons to doubt of their independency and integrity.

⁴¹ Lab Expert, which exists only since about 10-15 years, is operated by the former X-Ral personnel from Rouyn.

ITEM 12: DATA VERIFICATION

As IOS was involved in 2005, 2010, 2011 and 2012 field and drilling programs, all data were readily available in IOS master database, which were thoroughly tested prior to be stored. Minimal verification were required by the author.

Results from 2006 and 2007 programs, including the humus geochemistry survey, were provided in digital format by Golden Valley. These data were in different format, and required manipulation by the author prior to be concatenated and plotted on GIS. A fair number of errors, omission and discrepancies were noted, which were corrected to the best of the author capability. Assay results from the database were compared to certificated in a random manner, and corrected if possible. Discrepant data were discarded.

Excepted the 2006 and 2007 programs, all work were conducted with the participation of IOS staff who implemented rigorous procedures, and minimal data verification was required by the author.

Drilling results from 2007 program has been provided only as *.pdf format, and were not reconstituted into a database.

ITEM 13: METALLURGICAL TESTING

No metallurgical testing has never been conducted on samples from Cheechoo project.

ITEM 14: MINERAL RESOURCE ESTIMATE

No mineral resource has ever been calculated on Cheechoo project.

ITEMS 15 TO 22: ADDITIONAL REQUIREMENTS REGARDING ADVANCE STAGE PROJECT.

Cheechoo project not being in an advanced stage of development, these items are not required.

ITEM 23: ADJACENT PROPERTIES

LAND AVAILABILITY

The neighboring area to Cheechoo and Shark property are near to thoroughly staked, and no land is currently left for staking. The only area which is not currently stake is located north and east of Shark and Cheechoo B-East, and not considered valuable (*map 9*).

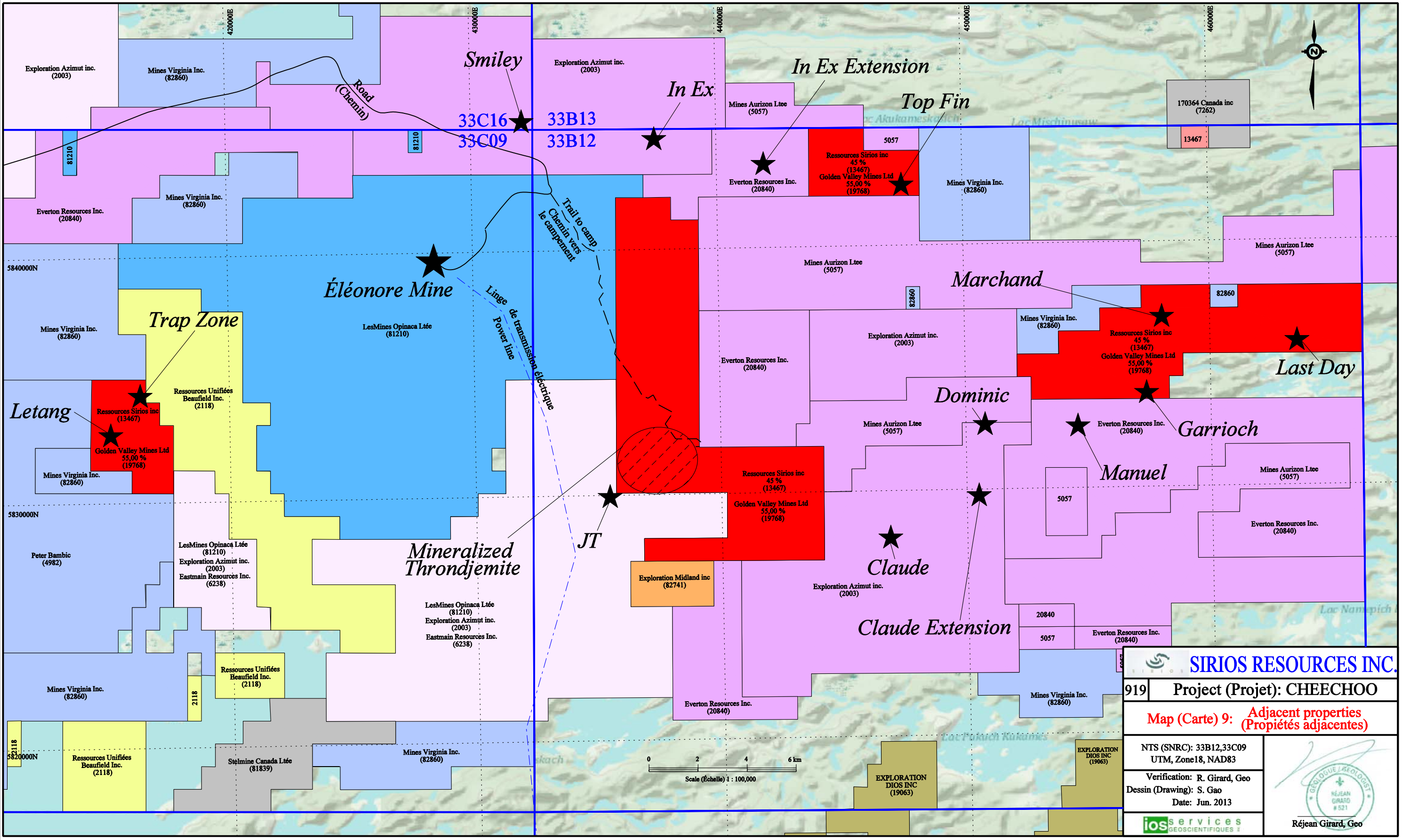
Cheechoo and Shark properties are locked in a puzzle of third parties properties and no land is available for expanding Sirios position in the strategic area.

LES MINES OPINACA LTÉE

Les Mines Opinaca Ltée is the fully owned subsidiary of Goldcorp Canada current developing the Eleonore mine. This large property encompass most of the Opinaca Reservoir, between Cheechoo B-West and Cheechoo A properties. The Eleonore mine is currently under construction, and production start-up is expected in late 2014, for an expected 600,000 ounces per year. According to Goldcorp website, probable resources currently stand at 12.48 million tons at 7.56 grams of gold per ton, for a total of 3.03 million ounces. The author is not aware if Goldcorp maintains an active exploration program outside the mining lease.

HECLA MINING

Through its recent take over upon *Les Mines Aurizon*, Hecla Mining acquired their Opinaca project, which includes properties optioned from Azimut Exploration, Everton Resources as well as claims acquired by Aurizon themselves. These properties are interlocked with Sirios-Golden Valley properties, extending mostly toward the east and the north, within the LaGuiche Complex. These partner deployed intensive exploration efforts since 2005, which lead to the discovery of numerous prospects. Inex, Claude and Manuel occurrences, in between the actual Cheechoo B-east and B-west, were drilled and yielded significant intersects, but none of these can currently be considered as a deposit. According to Aurizon web site, a total of \$2.3 million was spent in expenditures in 2012 on these properties, the details and result of which is not publically available yet. The most update information on the project is still the NI-43-101 report written by the author in regard of Aurizon acquisition of the project (Girard et Ivanov 2011), and no relevant information has been released since.



EASTMAIN RESOURCES

In early 2005, Eastmain Resources acquired through option the Opinaca C and Opinaca D properties from Azimut Exploration, south and northwest of Eleonore discovery. Later that year, the acquired by staking their Dyna property, north of Opinaca C. The Opinaca C property, renamed *Eleonore South*, was then re-optioned to Goldcorp Exploration, in a tri-partite structure, with Eastmain remaining the operator. A significant amount of exploration has been conducted, including airborne geophysics, soil geochemistry, prospecting, ground geophysics, trenching and drilling. The only significant occurrence remain the “JR” occurrence, adjacent to the west of Sirios’s Cheechoo-B-west occurrence. A large gold in soil anomaly was discovered in this area, which justified the subsequent expenditures, but the source of which remained elusive, but likely located in Cheechoo-B-west.

The exploration results published by Eastmain Resources on the adjacent Eleonore-south project has been decisive in the process of discovering Cheechoo-B-west mineralized thronjemitite.

VIRGINIA MINES

Since the acquisition of the Eleonore project by Goldcorp, and its restructuring in 2005, Virginia Mines has maintained a sustained exploration activity in the area. Their property portfolio in the area is in constant evolution, and the author did not attempted to track their detailed status and results. To the author’s knowledge, no significant occurrences were discovered and no drilling was conducted in vicinities of Sirios-Golden Valley positions.

CONSOLIDATED BEAUFIELD RESOURCES

Consolidated Beaufield acquired their Opinaca property in 2004, covering the Kasak Formation, between Cheechoo A and Goldcorp’s. This acquisition predate the release of the Eleonore discovery. The last exploration work conducted on this property apparently date back to 2010, and the only mineral occurrence discovered is the Vortex zone, in 2005. However, Beaufield recently announced a \$900,000 drilling program to be conducted in summer 2013 (press release of May 1st, 2013). The source of the mineralized blocks found in Cheechoo-A is likely originating from Beaufield property.

MIDLAND EXPLORATION

Midland Exploration acquired in 2010 a small property just south of Cheechoo B-west. Midland conducted only limited prospecting work and no significant results are reported. They do not mention this property on their web site, and it shall not be confused with their Eleonore-Centre property where more significant results were found.

DIOS EXPLORATION AND OSISKO EXPLORATION

In 2004, Dios Exploration and Sirios Resources conducted a till sampling programs which lead to the detection of a faint kimberlitic indicator mineral dispersion train. Subsequent up-ice sampling by Dios leads to the discovery of a gold dispersion train in the till, which culminate in the Eastmain River area, about 40 kilometres southwest of Cheechoo B-west (Villeneuve et Fournier 2011). Prospecting in summer 2010 enable the discovery of 5 mineralized boulders, tonalitic in composition, which graded between 0.21 to 2.31 g/t gold (Aubin et Girard 2011). In early 2011,

In the same period that Sirios discovered the Cheechoo-B-west occurrence, Dios Exploration, a former spin-off company from Sirios, did a similar discovery on their Au-33 project to the south. Involvement of the same professional staff was instrumental in both discoveries.

the property was granted for option to Osisko Exploration, who conducted important exploration work. The Huberto occurrence, among other, includes a surface channel intersect at 5.0 g/t gold over 5.5 metres in apparent thickness (press release March 1st, 2013). Numerous selected samples yielded gold assays in the 0.5-2 g/t, with erratic values of 12.65 g/t, 17.3 and 23.6 g/t Au. The mineralization is hosted in a very slightly mineralized tonalite. Similarities with Cheechoo B-west occurrence are striking. It shall be considered that both occurrences were discovered within weeks, both by the same geologist (A. Aubin).

INDEPENDANCY OF INFORMATION ISSUER

All information relating to the properties surrounding Cheechoo project was extracted from websites, press-releases and personal communication. This information may be incomplete or biased, in such a manner that errors and omission may have eluded the author, despite his diligent verifications. The author did not personally validate the technical information relating to these projects, with the exception of the work which was conducted by his own firms or the other NI-43-101 technical reports he personally wrote.

LIMITATIONS UPON SIMILARITIES

The Cheechoo projects was explored based on geological similarities with the other more-advanced projects in the region or elsewhere. There is no guarantee that a deposit equivalent to these compared to being present within the Cheechoo properties. The comparisons made neither with Eleonore or Fort Knox mines nor with various occurrences described in the report do not conclusively suggest that an equivalent system is or is not present within the Cheechoo properties. Only systematic exploration efforts within the Cheechoo properties will establish this with confidence.

FISCAL UNCERTAINTIES

The current Québec' government indicated their firm intent to modify the actual mining law in which they wish to include a more stringent approbation process of the exploration and mining project. They indicated as well as their intent to modify the mining fiscal regime for the province, passing from profit based taxation to a hybrid regime including an *ad valorem* 1% royalty plus or income based taxation regime. These proposals of law are not yet voted by the *Assemblée Nationale*, and their outcomes bring uncertainties in the execution and financing of projects.

ITEM 24: OTHER RELEVANT INFORMATION

The author considers that all relevant information has been disclosed in previous items and that nothing has been omitted in regard of the technical aspect of the current project, which could be misleading for the reader.

The royalty granted by Sirios to Golden Valley is of a concern, if added to the *ad valorem* royalty which might be required by the provincial government.

ITEM 25: CONCLUSION AND INTERPRETATION

The discovery of a broad low-grade mineralization, pervasive in a large trondhjemite intrusive, in the course of the 2012 drilling program (**figure 4**) shall be considered as the most significant discovery in the area after Eleonore mine. It is the only gold occurrence which show some continuity and a potential of tonnage in this area. This type of mineralization, referred as *Reduced Intrusion Related* in the literature is capable to produce world class deposit, such as *Fort Knox* in Alaska. The attribution of the Cheechoo-B-west prospect to *Reduced Intrusion Related* class, mesothermal sub-class of deposit is based upon the following:

1. The mineralization is gold-only broadly disseminated and ubiquitous in the trondhjemite,
2. There is very minute amount of sulfides, which includes pyrite and pyrrhotite, but also a fair amount of arsenopyrite. However, base metal sulphides, such as chalcopyrite, sphalerite, galena or silver minerals seems absent.
3. The alteration mineralogy is uniquely of high temperature minerals such as quartz, possible microcline, plus very limited tourmaline and diopside. There is almost no phyllosilicates in the assemblage, which would be suggestive of hydrolysis and lower temperature.
4. The mineralization is hosted both in the silicified rocks or the “pristine” thondjemitic matrix.
5. The mafic mineral assemblage is composed uniquely of mineral stable under low oxygen fugacity, lacking epidote and with very little hornblende or biotite.
6. The ore assemblage is composed uniquely of minute sulphide, without traces of iron or iron-titanium oxides.
7. The host to the trondhjemite intrusion is a thick paragneiss sequence derived from reduced silicoclastic sediments such as wackes and mudstones.
8. There is no structural control upon the mineralization, at the least not at mesoscopic scale.

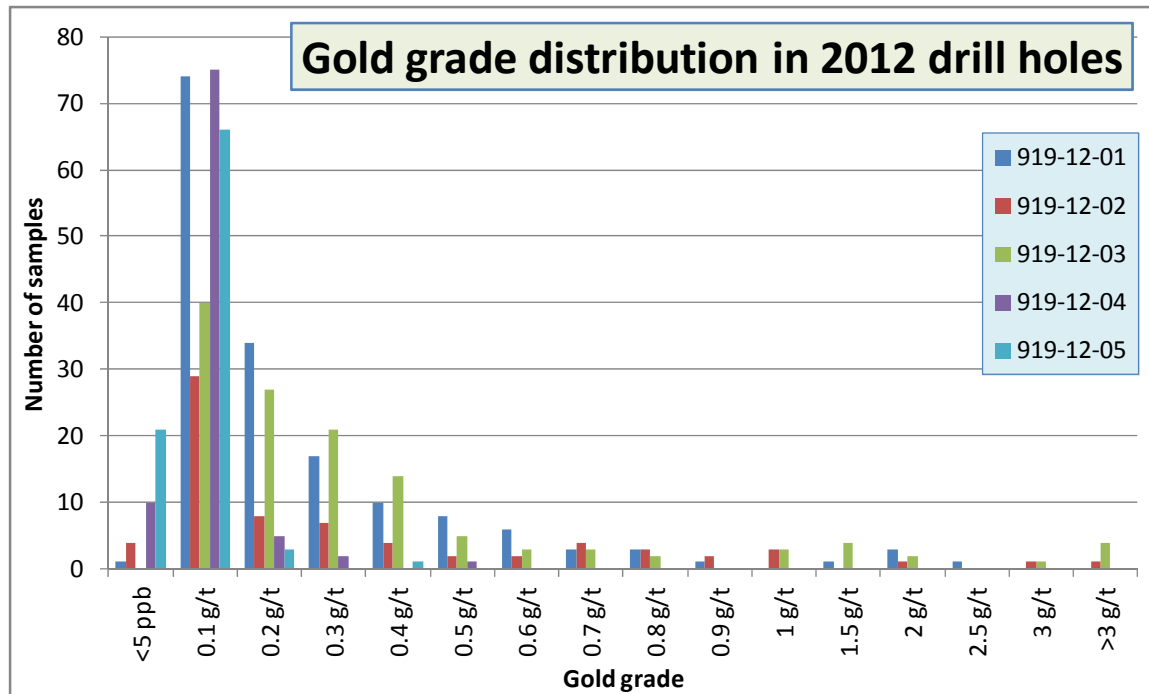


Figure 4: Gold grade distribution in 2012 drill holes.

Most of the significant *reduced intrusion related* deposits are located in the Pacific Cordillera, inland from the suture between the North-American Craton and the Pacific plate subduction. The age of these intrusions are dominantly Mesozoic. The author is unaware if there is known Archean equivalent to these deposits, although the Tarmoola deposit in the Yilgarn craton, Western Australia, shows similarities (Duuring *et al* 2004, 2001). By comparison, the bulk of the porphyry copper-gold deposits are Mesozoic in age as well. Despite numerous Archean porphyries are known, the author is not aware of none of which being significant enough and been put into production in the Canadian Shield.

The Cheechoo-B-west prospect is likely the source of the gold in soil anomaly discovered on Eleonore-South by Eastmain Resources and partners. This anomaly is developed in the B horizon, which includes a significant detrital component, and is plurikilometric in length aligned according to the ice-flow direction. It is located directly down ice from Cheechoo-B-west, which, despite its low grade, is large enough to cause a massive contamination of the till derived from. Although small gold occurrences were discovered by Eastmain, such as the JT occurrence, they are not sufficient to generate the size of anomaly they found. Similarly, Everton Resources explored for the source of this anomaly on their Wildcat-3 property, up-ice of Cheechoo-B-west, without success.

In 2010, the author visited the *Claude prospect*, discovered by Everton Resources on their Opinaca-B property, about 10 kilometres to the east of Cheechoo-B-west. A drill intersect (OP-06-07) on this occurrence yielded 0.197 g/t Au over 186.8 metres, including 1.05 g/t over 15.5 metres. This hole shows numerous similarities with Cheechoo-B-west, such as:

- broad low-grade intercept with near to no high grade core
- low abundance of sulfides, dominated by arsenopyrite
- hosted in *tonalitic-like* rocks, pervasively silicified.
- Low abundance of phyllosilicates and hydrolysis.

Claude occurrence has been drilled extensively, and no other similar intercepts were obtained. Since the tonalite are pervasively sheared, the occurrence was considered as orogenic and shear related. It is uncertain how Cheechoo-B-west and Claude may be related but similarities shall be investigated.

Other gold occurrences were recently discovered in the area which are hosted in *looks-like-nothing* tonalite, such as Au-33-west by Dios Exploration and other that are not yet disclosed. The reconnaissance of this metallotect may outline a type of occurrence throughout the LaGrande sub-provinces. Exploration for this type of mineralization requires new paradigms, since they are barely undetectable by geophysics and remains elusive to conventional prospecting. Till geochemistry seems the most robust approach.

Cheechoo A property may present some potential for orogenic gold, hosted in the Kasak Formation. Evidences from dispersed boulders are legions. However, the property do not covers an area large enough of this formation to enable intelligent exploration program. The late quartz-veins system hosting the Letang occurrence is another target, which shall not be prioritized.

Cheechoo-B-East and Shark properties host small erratic gold occurrences. They are located well into the Opinaca sub-province, characterized by migmatites and anatexic granitoids. Everton Resources, and subsequently Hecla Mining, carried extensive exploration in this terrain, which lead to the discovery of prospect of interest. Although these prospects contain spectacular gold grades, the lack of continuity of the mineralization is a severe drawback to the exploration. Similar issues are to be expected in Cheechoo-B-east and Sharks.

The author therefore recommended that Sirios keep its focus strictly on Cheechoo-B-west occurrence and its vicinities.

ITEM 26: RECOMMENDATIONS AND BUDGETS

Considering all the aforementioned information, the author consider that the property is of merit, and its potential fully justify the \$4.2 million expenditure commitment indicated in the June 12 2012 agreement, and thus the Author recommend Sirios to proceed with such expenditure.

The merit of the property is almost exclusively located in the Cheechoo B-west prospect, and all efforts shall be dedicated into drilling of this occurrence in order to calculate a NI-43-101 resources by the completion of the agreement. Only minor efforts, such a local prospecting and spot-checks shall be dedicated to the other properties and occurrences. Drilling, on a systematic grid, shall proceed as swiftly as possible, within budgetary constrain. The author estimates that, according to current market prices, about 10,000 metres of drilling would be feasible with such budgets. According to the known extent of the mineralized trondhjemite, an area of 1 kilometre in length and 600 metres wide is to be drilled systematically, with a 100 metres spacing along profile, 200 metres between profiles and 200 metres depth, minus the already made holes. A total of 30 holes, 300 metres longs, inclined at 45°, for 9000 metres is needed to provide a grid sufficient dense to enable indicated resources. About 1000 metres of drilling shall also be devoted to exploration in the vicinities of the known extent.

Considering the extent of drilling required, it will be fully justified to open a temporary road from the bridge on Opinaca River to the project, for a distance of about 15 kilometres. The road has been scouted by the author, and is feasible at reasonable cost, including installation of four (4) temporary bridges. The foundations of the 2012 camps are intact, and re-installing the camp is not a complex task.

Sirios indicated the author their intent to raise approximately 500 k\$ for a drilling program for summer 2013 (**table 17**). It is estimated that about 1000 metres of drilling is feasible, including completion of assaying of 2012 samples, opening of the road and camp as well as mobilisation of the equipment. It is recommended that this drilling proceed on a 200 metres spacing in the core of the occurrence.

Monies shall also be allocated for resources estimation and bench-scale metallurgical testing.

| ITEM | UNIT | UNIT COST | TOTAL |
|-------------------|-------------|--------------|--------------------|
| Road and camp | 28 days | \$2500/day | \$ 72,000 |
| 2012 Assaying | 700 samples | \$40/samples | \$ 28,000 |
| 2013 Drilling | 1000 metres | \$400/metres | \$ 400,000 |
| Total 2013 | | | \$ 500,000 |
| 2014 drilling | 9000 metres | \$400/metres | \$3,600,000 |
| Resource estimate | | | \$ 100,000 |
| Total | | | \$4,200,000 |

Table 17: Budget.

According to the author's experience, the budgets and the targets presented here are realistic and legitimate. If properly managed, the proposed drilling program will have a reasonable chance to allow for collection of sufficient drill data for a first NI 43-101 compliant resource estimate on the project, notwithstanding the risks associated with any exploration project.

Signed in Saguenay on June 28, 2013

Effective date of the report: June 14, 2013



Réjean Girard, P. Geo., OGQ n°521

IOS Services Géoscientifiques inc.

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ITEM 28: QUALIFICATION CERTIFICATE

RÉJEAN GIRARD, PROFESSIONNAL GEOLOGIST

I, Réjean GIRARD, P.Geo., do hereby certify that:

I am currently employed as a professional geologist by:

IOS Services Géoscientifiques inc.
1319, boul. St-Paul
Chicoutimi (Québec) G7J 3Y2

I graduated with a degree in geology from the Université Laval in Ste-Foy, Québec in 1985. In addition, I completed 5 years of graduate studies in mineral resources at the Université du Québec à Chicoutimi.

I am a member in good standing of the *Ordre des géologues du Québec*, n° 521.

I have worked as a geologist for a total of 28 years since my graduation from university.

I have read the definition of “qualified person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

I am responsible for the content of every item of the technical report entitled *Cheechoo project: a gold exploration project near Opinaca Reservoir, James Bay, Québec, Ni-43-101 technical report*, effective on June 14th, 2013, relating to the Pontax-Lithium property. I visited the property with the purpose of certify its status on June 5th, 2013, and no material changes occurred since that visit.

Prior to 2005, when I directed initial prospecting on the Cheechoo project, I had no involvement directly related to the property that is the subject of the Technical Report. Since that date, I have been personally involved in exploration work on the current property as well as on numerous neighboring properties.

In the course of my professional carrier, I have been involved in a multitude of projects related to gold exploration in Archean terrain, as well as I have been involved as exploration geologist or project manager in the Opinaca Reservoir area since 1995.

I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that, at the effective date of the technical report, to the best of the qualified person's knowledge, information, and belief, the technical report, or part that the qualified person is responsible for, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

I am independent of the issuer as well as of the property owner applying all of the tests in section 1.5 of National Instrument 43-101.

I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication of the Technical Report in the public company files on their website accessible to the public.

Dated this June 28th, 2013



A circular professional seal for a geologist in Québec. The outer ring contains the text "GÉOLOGUE / GÉOLOGIST" at the top and "QUÉBEC" at the bottom, separated by two small stars. The center of the seal features a fleur-de-lis symbol above the name "RÉJEAN GIRARD" and the number "# 521". A handwritten signature in blue ink is written over the seal.

Réjean Girard, P. Geo., OGQ n°521

APPENDIX 1

CLAIM LIST

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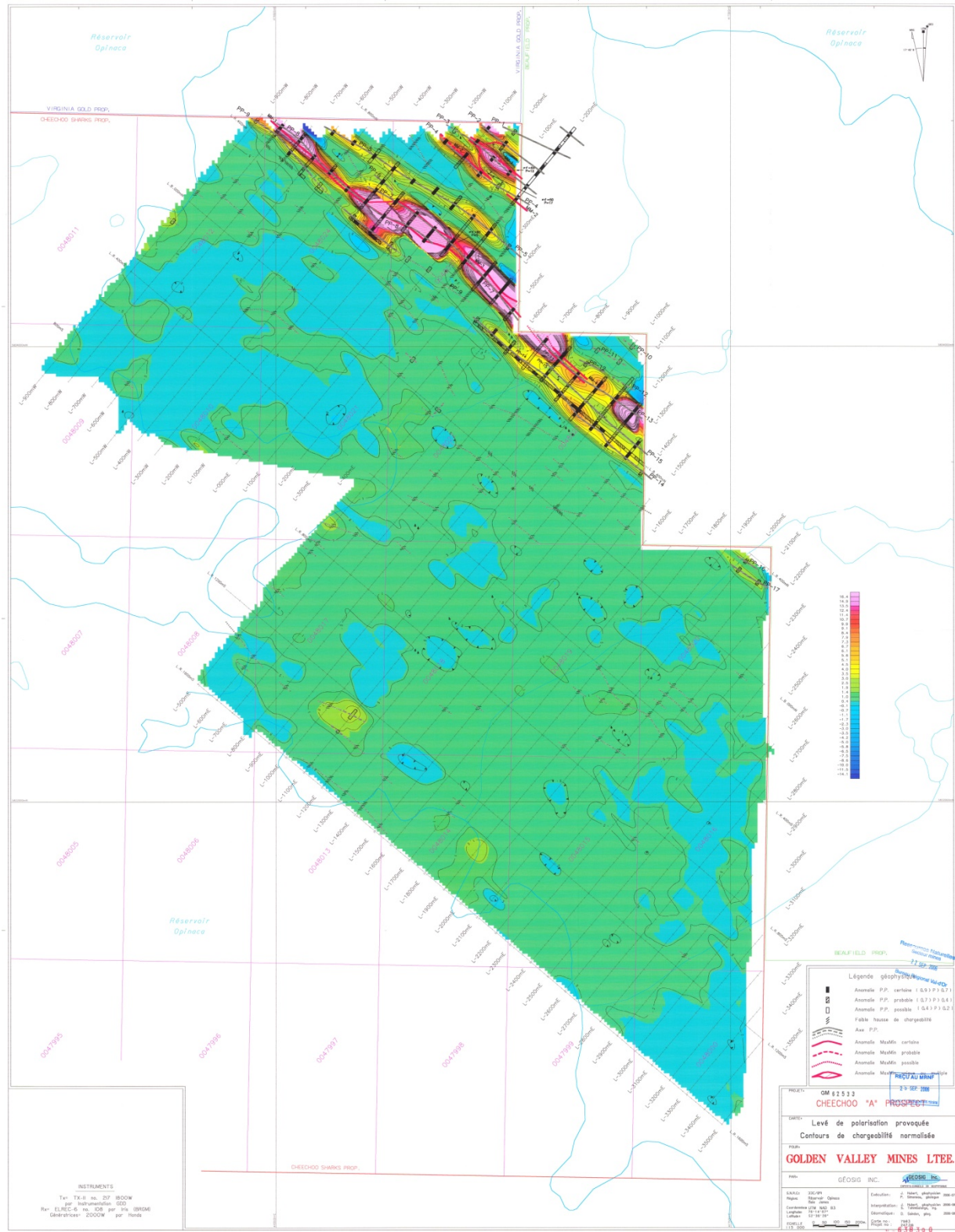
Project 2012-919: Appendix 1: Page 2 of 4

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| NTS Sheet | Township / Seigneurie | Row/Block | Column / Lot | Area Polygon | Type of title | Title N° | Status | Date of Registration | Expiry Date | Instruments or other | Excess Work | Required Work | Required Fees | Titleholder(s) (Name, Number and percentage) | Renewal File Being |
|------------|--------------------------|-----------|-----------------|-----------------|------------------|----------|--------|-------------------------|------------------|-------------------------|----------------|------------------|------------------|--|-----------------------|
| SNRC 33B12 | Shark | 28 | 24 | 52,17 | CDC | 51650 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 10255,53 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 28 | 25 | 52,17 | CDC | 51651 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 10349,95 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 28 | 26 | 52,17 | CDC | 51652 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 10510,77 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 28 | 27 | 52,17 | CDC | 51653 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 103734,62 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 28 | 28 | 52,17 | CDC | 51654 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 10538,79 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 29 | 21 | 52,16 | CDC | 51655 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 91803,31 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 29 | 22 | 52,16 | CDC | 51656 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 105202,25 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 29 | 23 | 52,16 | CDC | 51657 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 10869,25 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 29 | 24 | 52,16 | CDC | 51658 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 9708,2 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 29 | 25 | 52,16 | CDC | 51659 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 10113,9 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 29 | 26 | 52,16 | CDC | 51660 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 126738,14 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 29 | 27 | 52,16 | CDC | 51661 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 9566,57 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 29 | 28 | 52,16 | CDC | 51662 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 9122,49 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 30 | 21 | 52,15 | CDC | 51663 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 149167,56 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 30 | 22 | 52,15 | CDC | 51664 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 11077,28 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 30 | 23 | 52,15 | CDC | 51665 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 10982,86 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33B12 | Shark | 30 | 24 | 52,15 | CDC | 51666 | Actif | 2005-01-27 00:00 | 2015-01-26 23:59 | Non | 8339,11 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 15 | 32 | 52,3 | CDC | 47998 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 0 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 15 | 33 | 52,3 | CDC | 47999 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 0 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 15 | 34 | 52,3 | CDC | 48000 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 4863,24 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 16 | 29 | 52,29 | CDC | 48005 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 0 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 16 | 30 | 52,29 | CDC | 48006 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 0 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 16 | 31 | 52,29 | CDC | 48013 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 0 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 16 | 32 | 52,29 | CDC | 48014 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 5555,66 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 16 | 33 | 52,29 | CDC | 48015 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 10079,63 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 16 | 34 | 52,29 | CDC | 48016 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 9290,95 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 17 | 29 | 52,28 | CDC | 48007 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 0 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 17 | 30 | 52,28 | CDC | 48008 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 86705,42 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 17 | 31 | 52,28 | CDC | 48017 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 10130,52 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 17 | 32 | 52,28 | CDC | 48018 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 10946,99 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 17 | 33 | 52,28 | CDC | 48019 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 13351,02 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 17 | 34 | 52,28 | CDC | 48020 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 91285,07 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 18 | 29 | 52,27 | CDC | 48009 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 610,47 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 18 | 30 | 52,27 | CDC | 48010 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 5551,97 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 18 | 31 | 52,27 | CDC | 48021 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 10639,61 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 18 | 32 | 52,27 | CDC | 48022 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 93931,08 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 18 | 33 | 52,27 | CDC | 48023 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 377032,98 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 19 | 29 | 52,26 | CDC | 48011 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 0 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 19 | 30 | 52,26 | CDC | 48012 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 10626,28 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 19 | 31 | 52,26 | CDC | 48024 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 227993,22 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |
| SNRC 33C09 | Cheechoo A | 19 | 32 | 52,26 | CDC | 48025 | Actif | 2004-12-10 00:00 | 2014-12-09 23:59 | Non | 426162,73 | 1800 | 126 | Ressources Sirios inc (13467) 45 % (responsable) | Non |

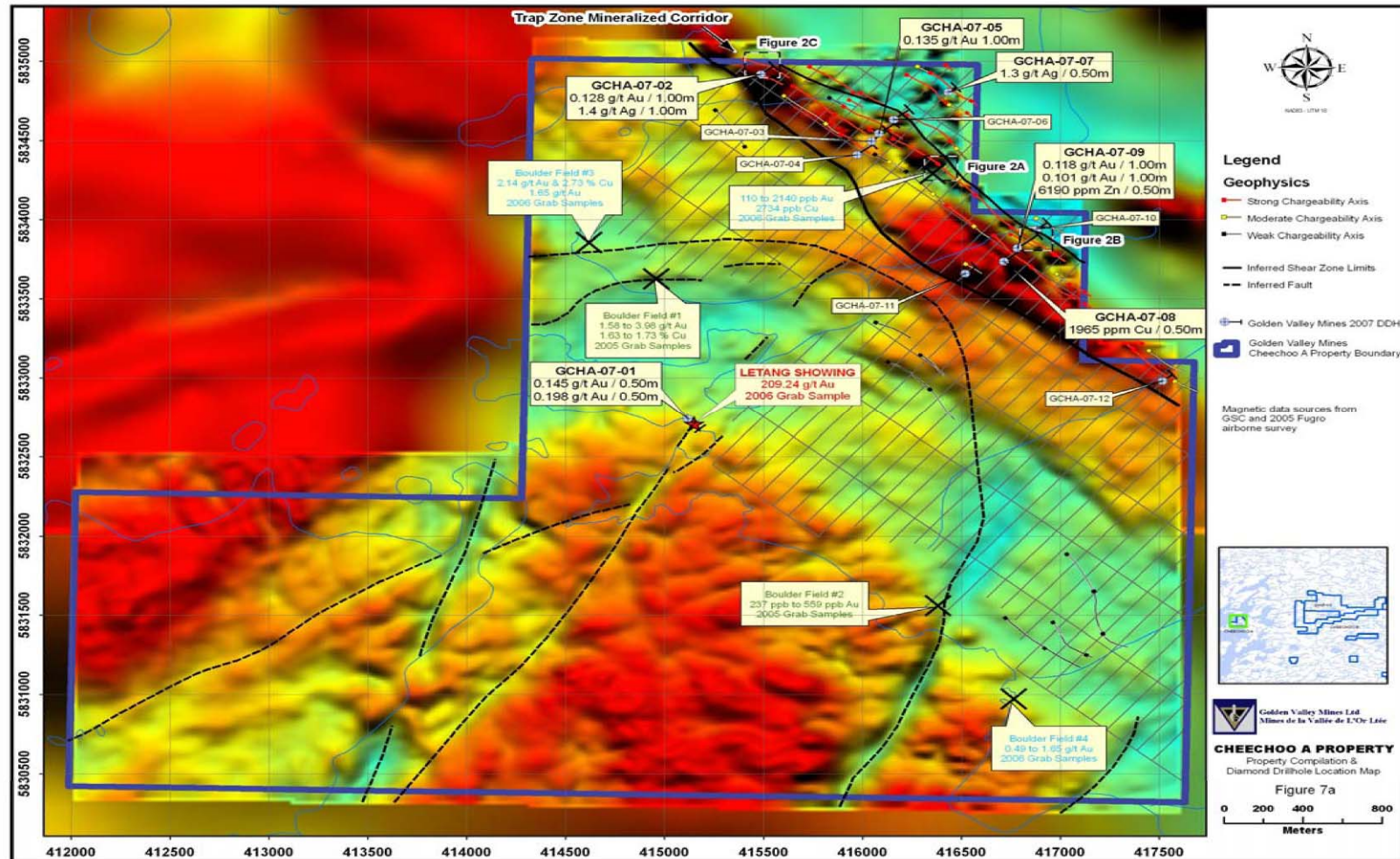
APPENDIX 2

FIGURES EXTRACTED FROM VARIOUS GOLDEN VALLEY AND
SIRIOS REPORTS



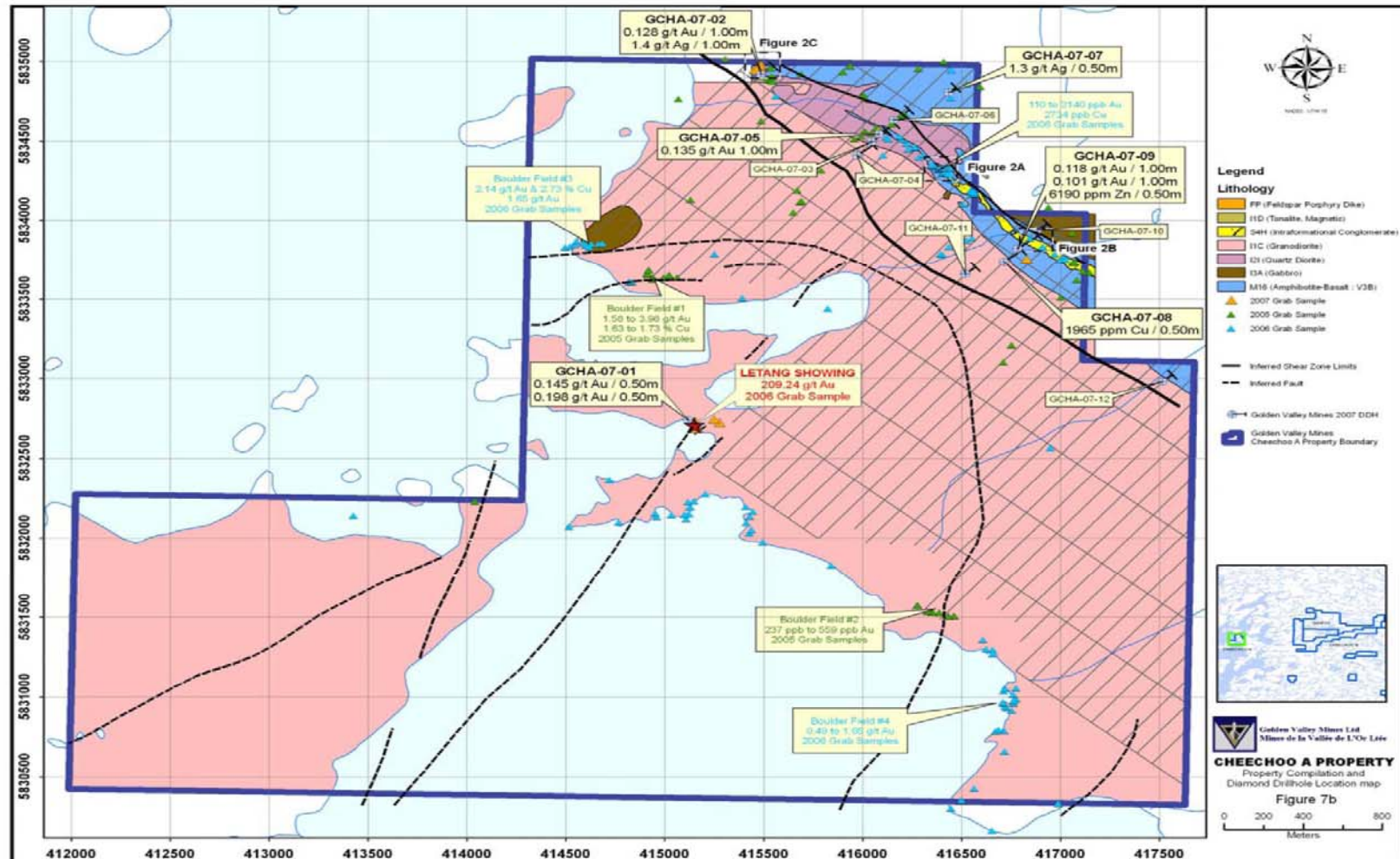
From: HUBERT, J.-M. (2006). *Levés de polarisation provoquée, d'électromagnétisme EMH et de gradient magnétique, propriété Cheechoo, région de la Baie-James, Québec*, Geosig inc., 26 p. [GM 62533], plan C00051

Figure 5: Cheechoo A - Property Compilation: Geophysics



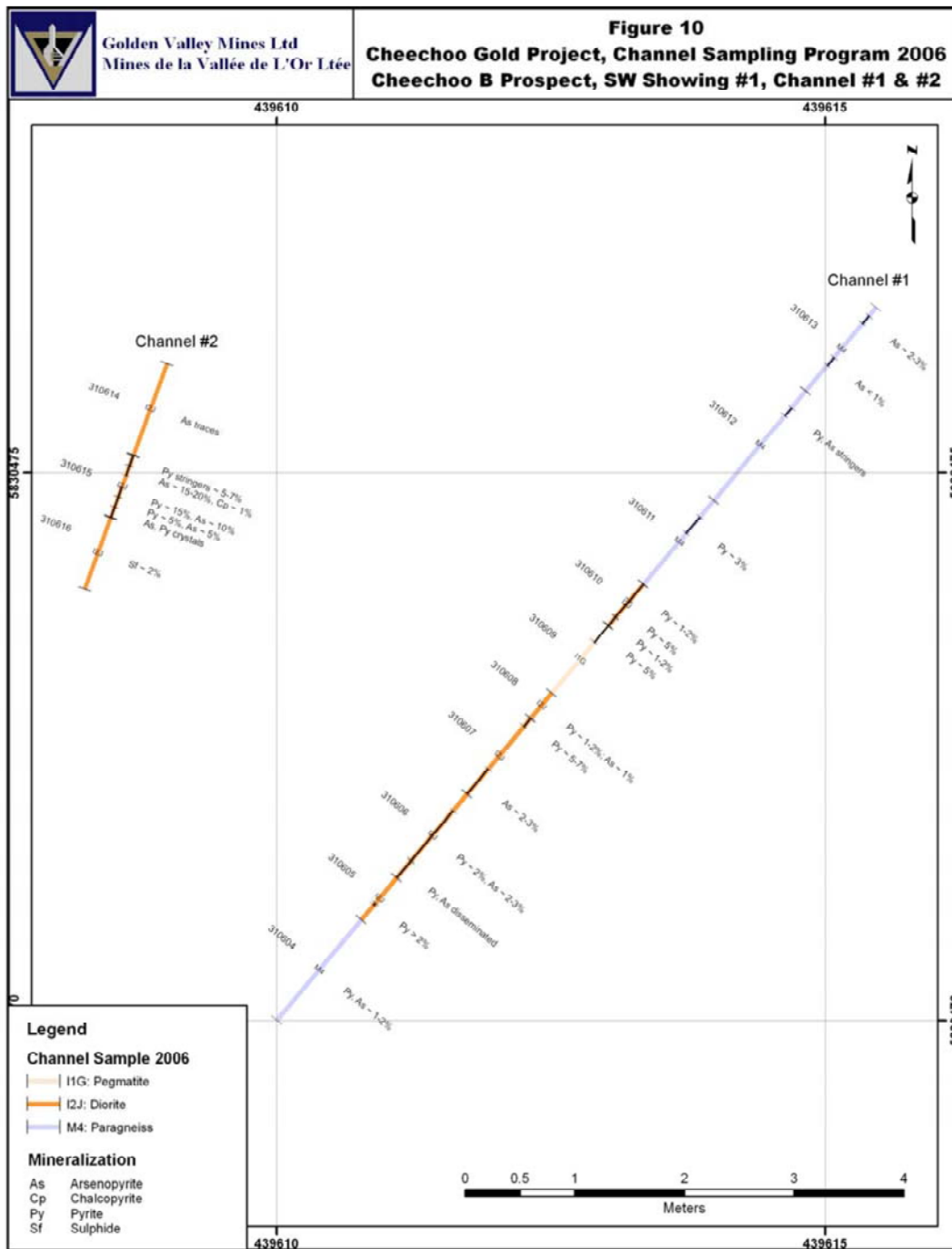
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09, Golden Valley Mines, 153 p.* [GM 65272]

Figure 6: Cheechoo A - Property Compilation: Geology



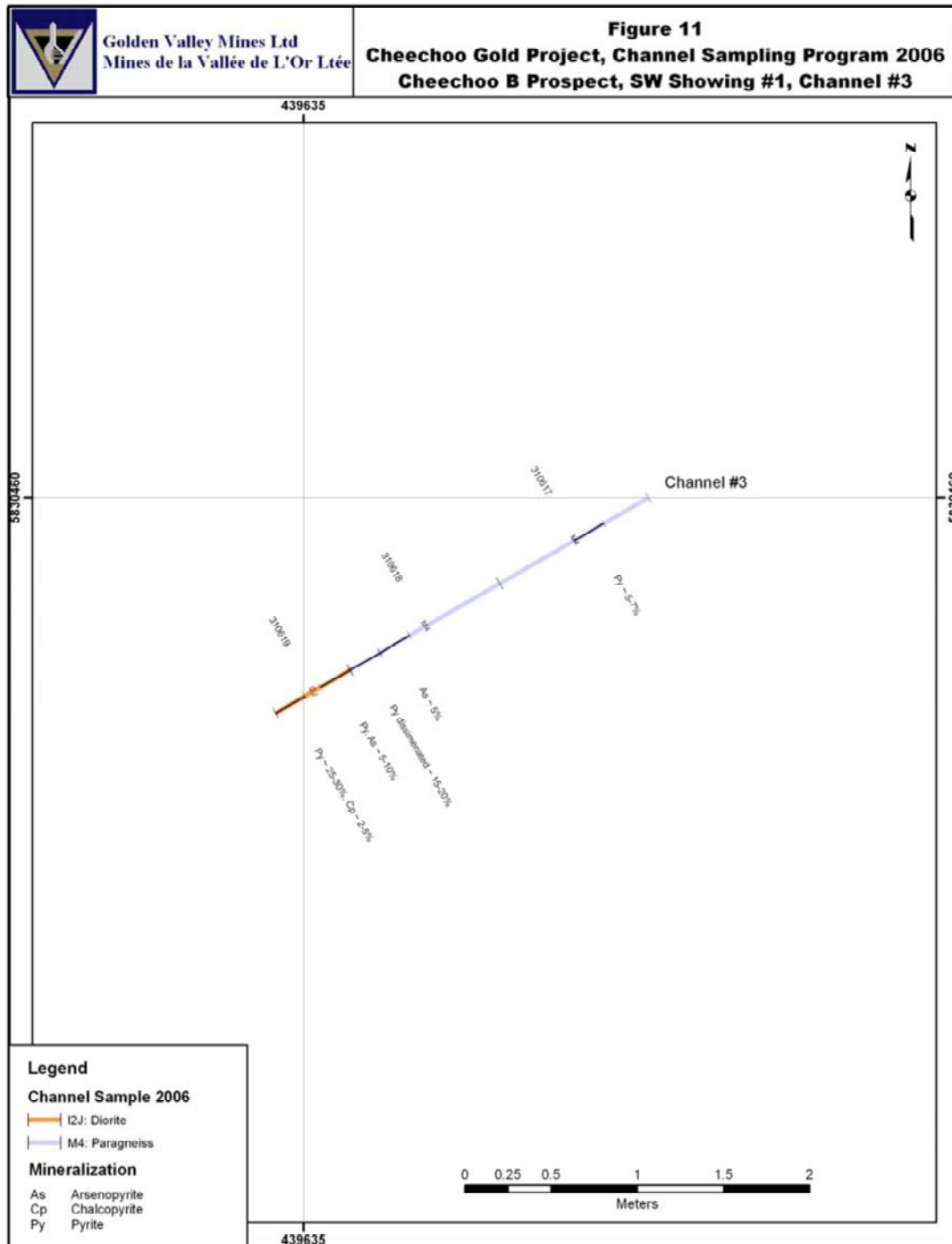
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 7: Channel Sampling Map (2006), Cheechoo B SW, Showing #1, Channels #1 & 2



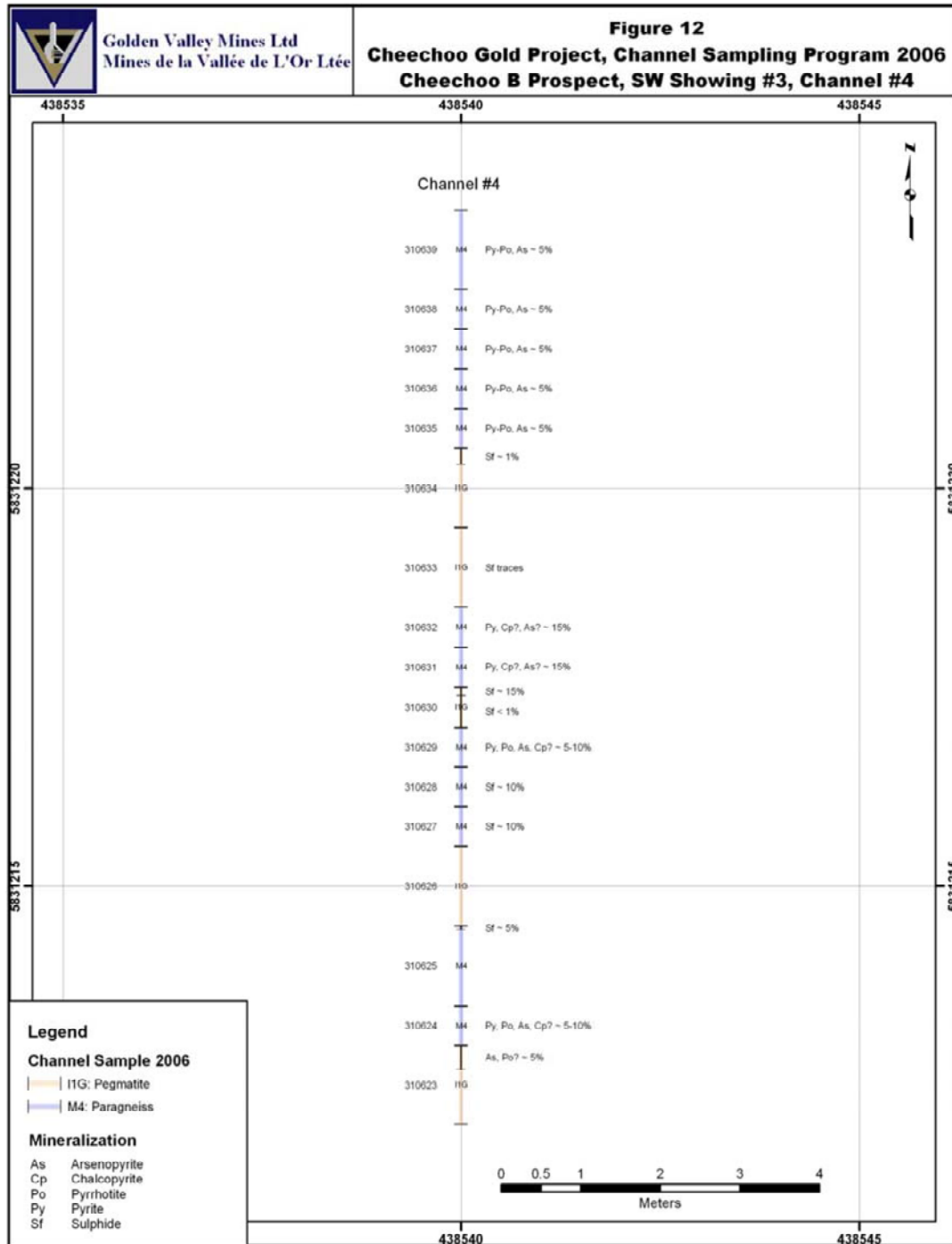
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 8: Channel Sampling Map 2006, Cheechoo B SW, Showing #1, Channel #3



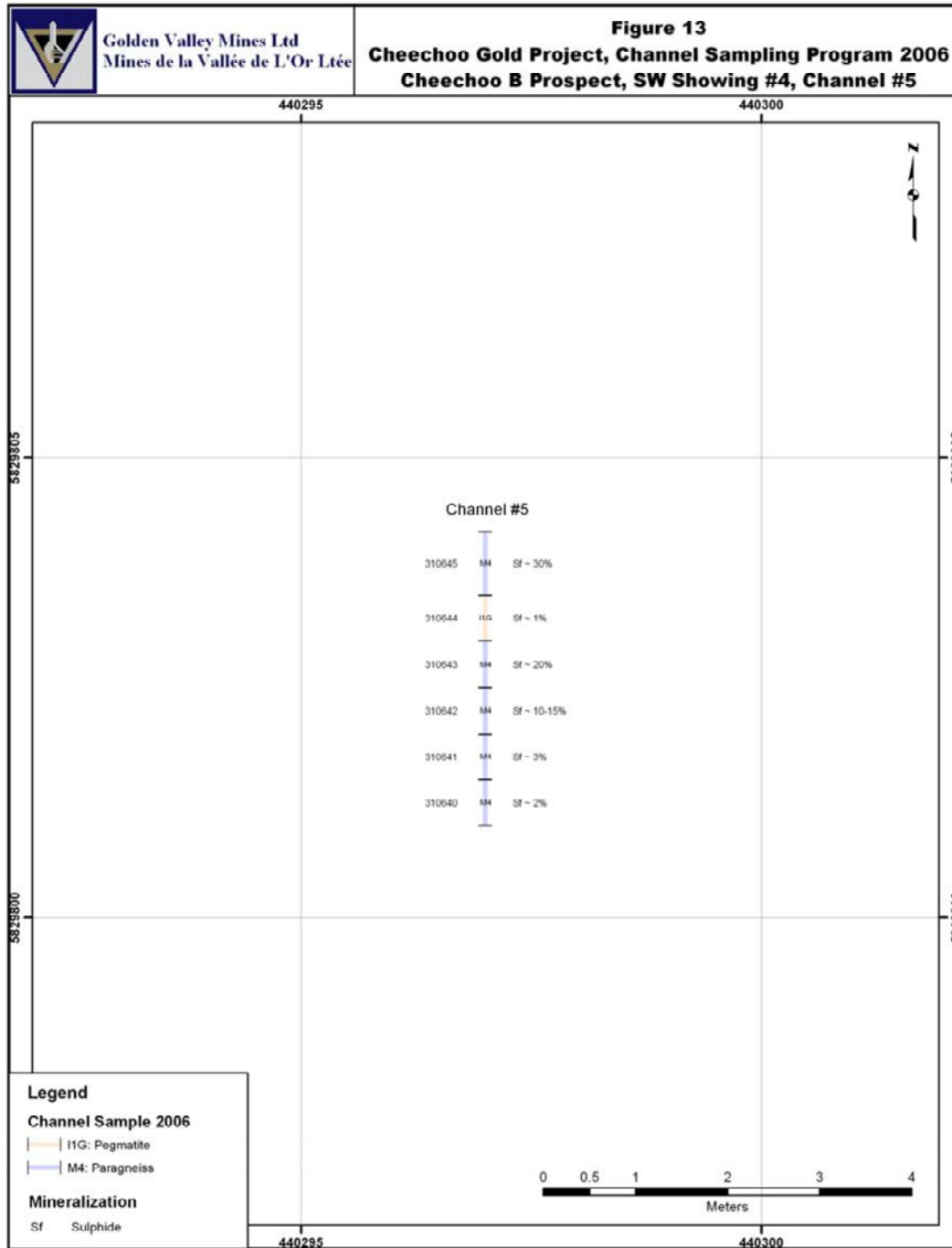
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 9: Channel Sampling Map 2006, Cheechoo B SW, Showing #3, Channel #4



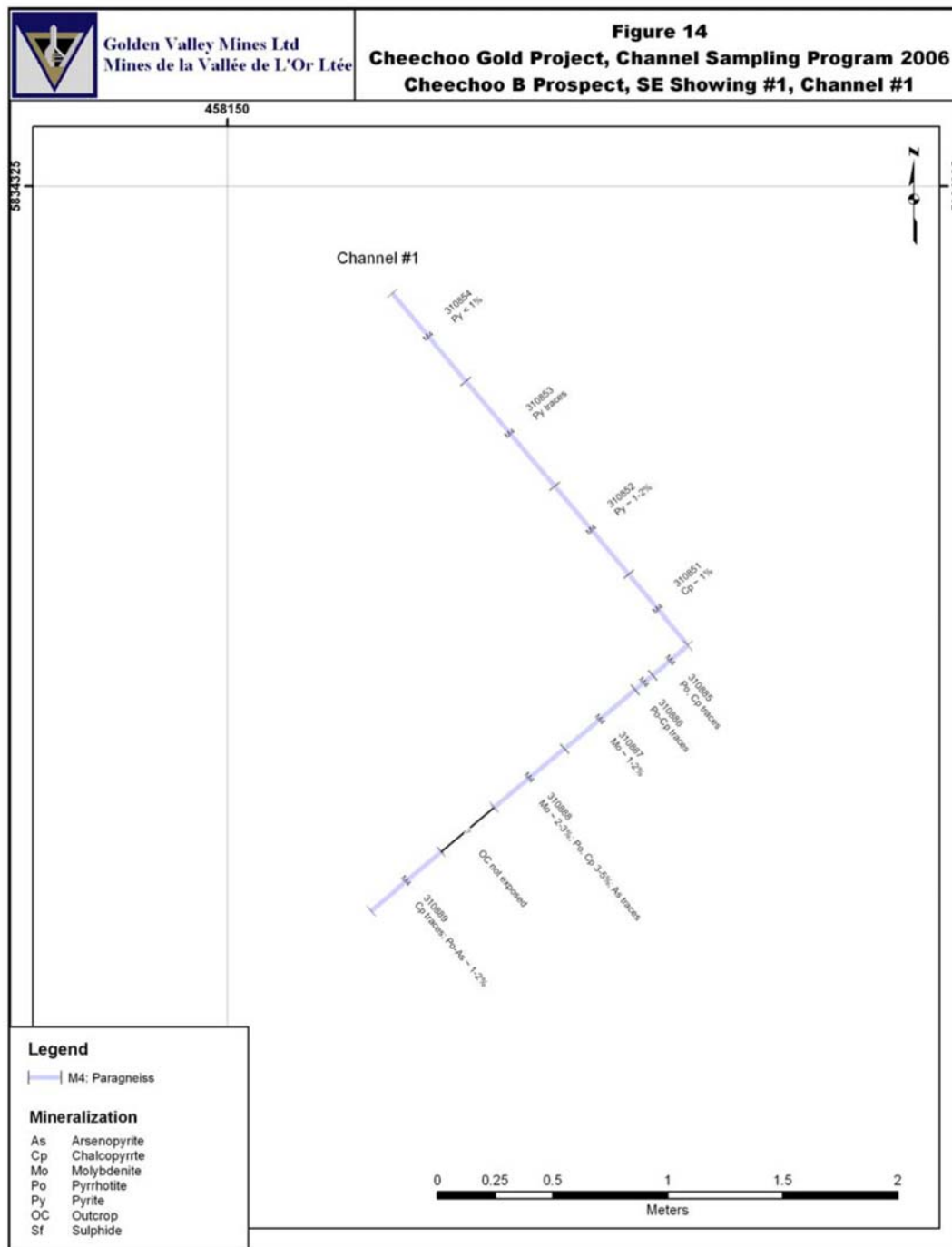
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 10: Channel Sampling Map 2006, Cheechoo B SW, Showing #4, Channel #5



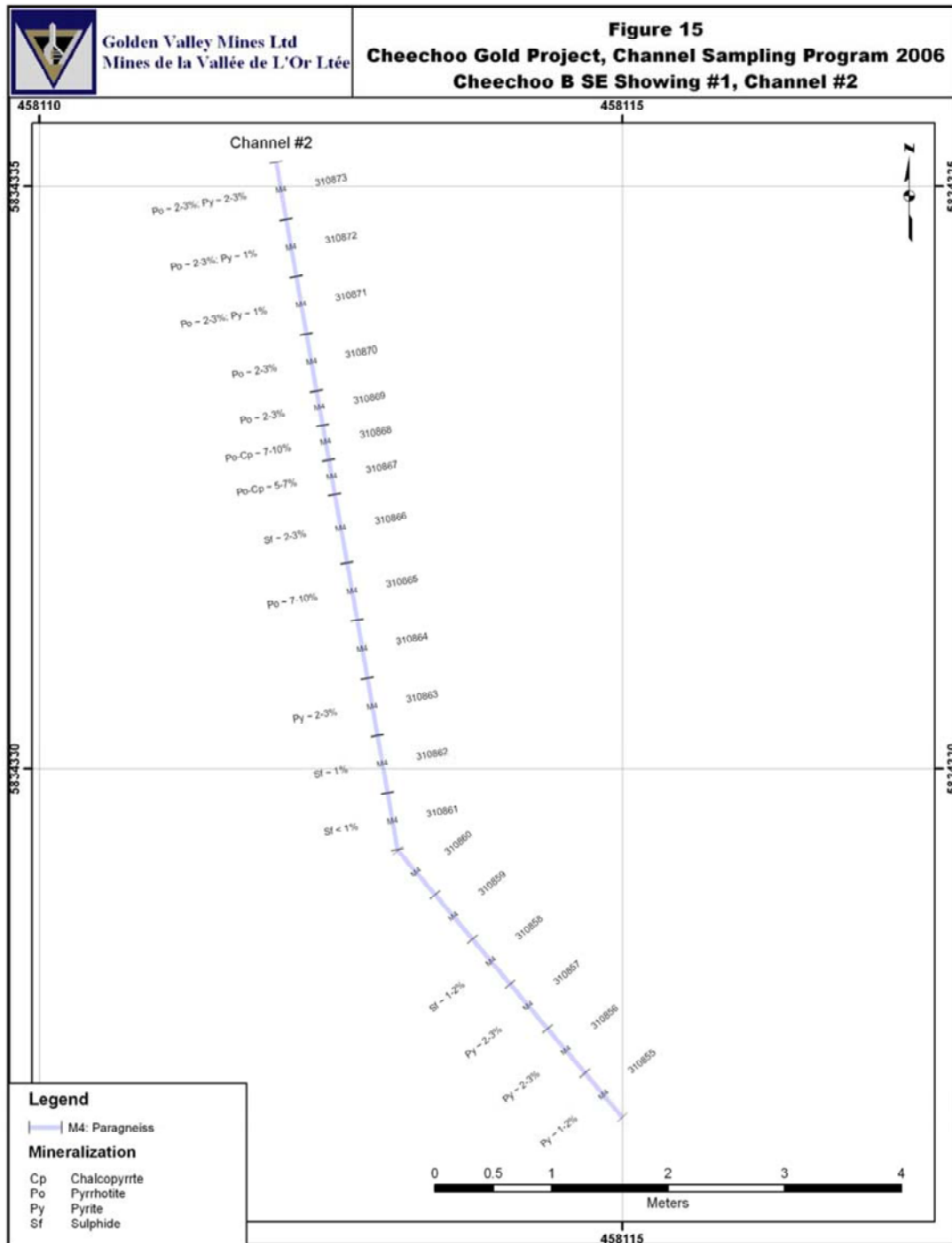
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 11: Channel Sampling Map 2006, Cheechoo B SE, Showing #1, Channel #1



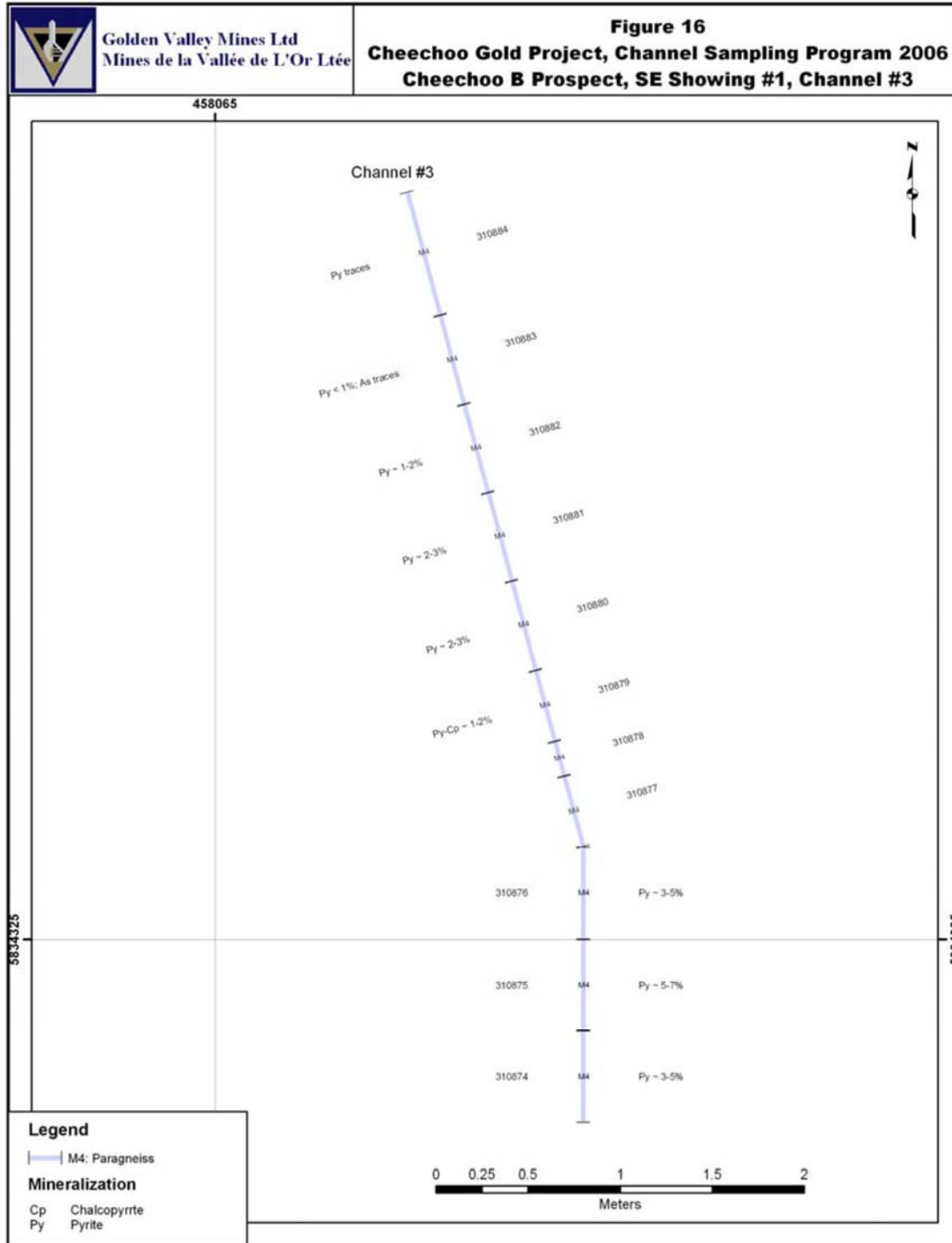
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 12: Channel Sampling Map 2006, Cheechoo B SE, Showing #1, Channel #2



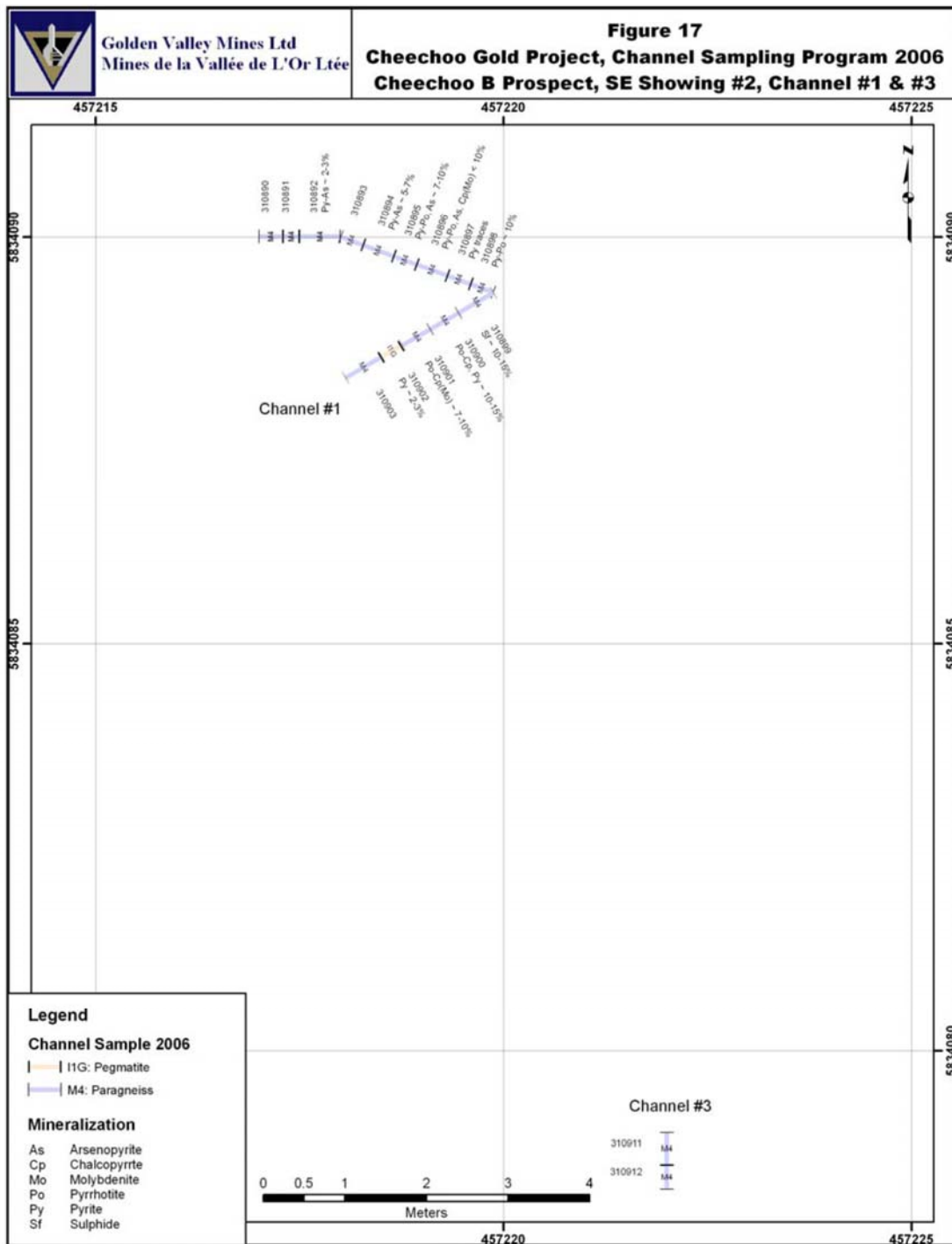
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 13: Channel Sampling Map 2006, Cheechoo B SE, Showing #1, Channel #3



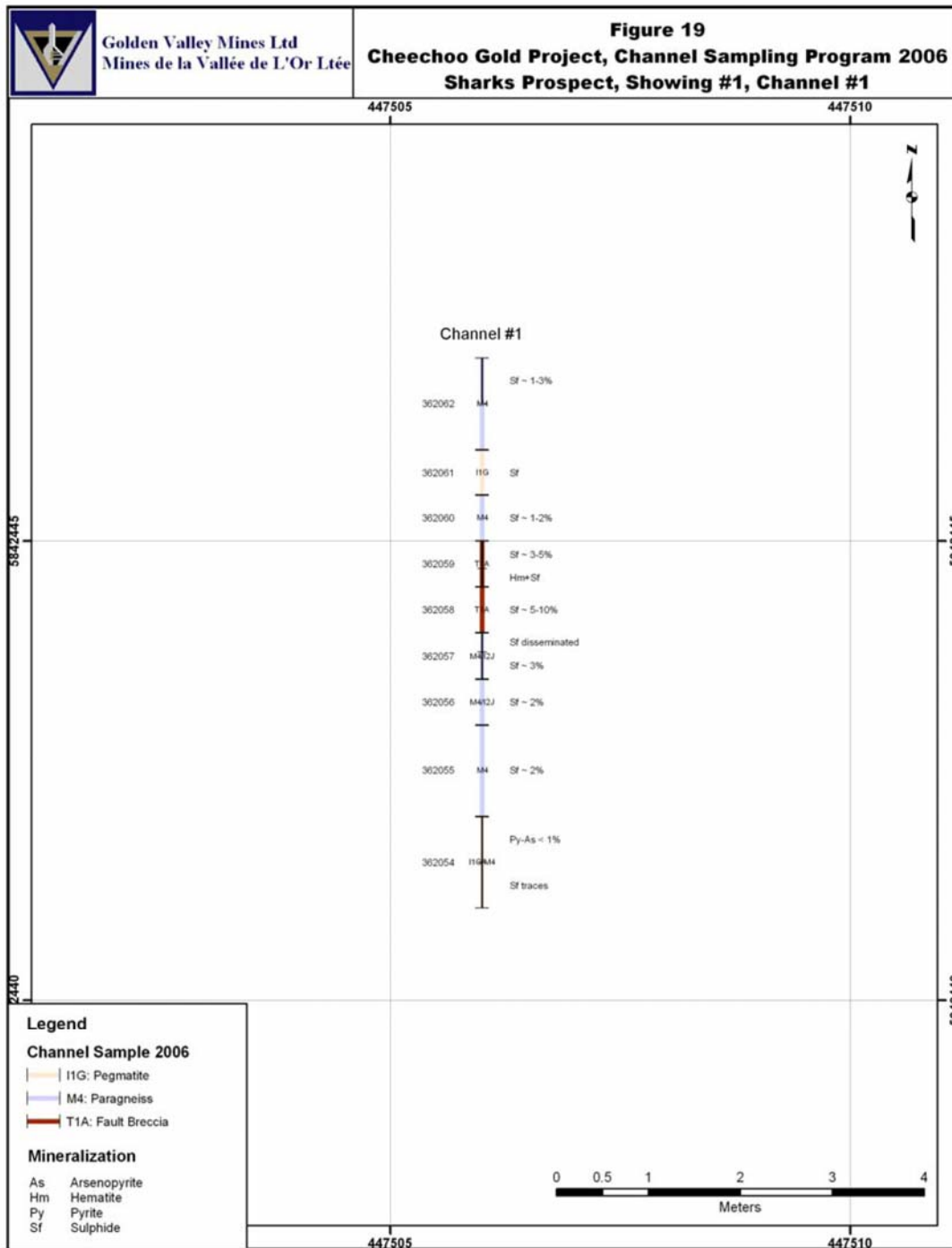
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 14: Channel Sampling Map 2006, Cheechoo B SE, Showing #2, Channels #1&3



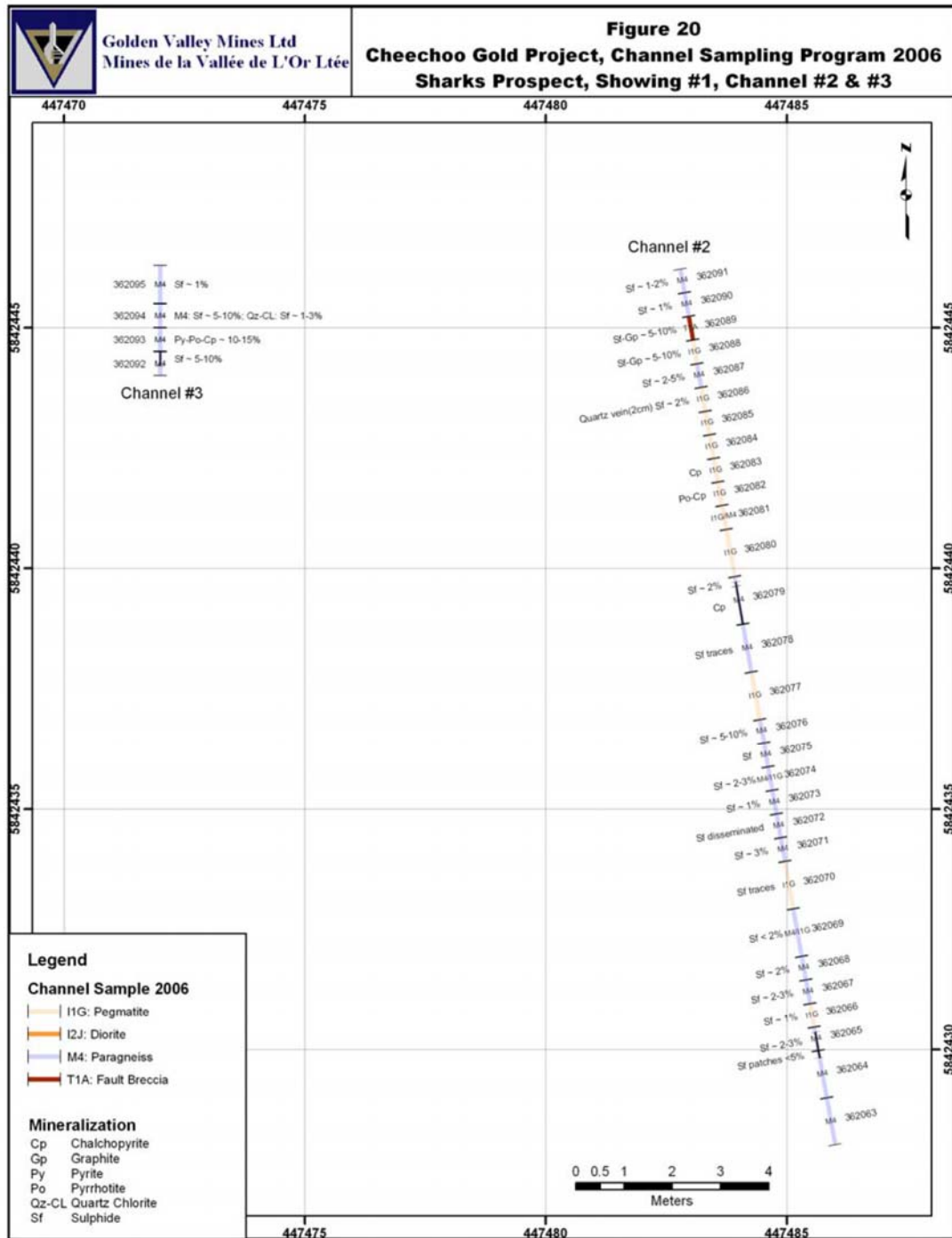
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 16: Channel Sampling Map 2006, Sharks, Showing #1, Channel #1



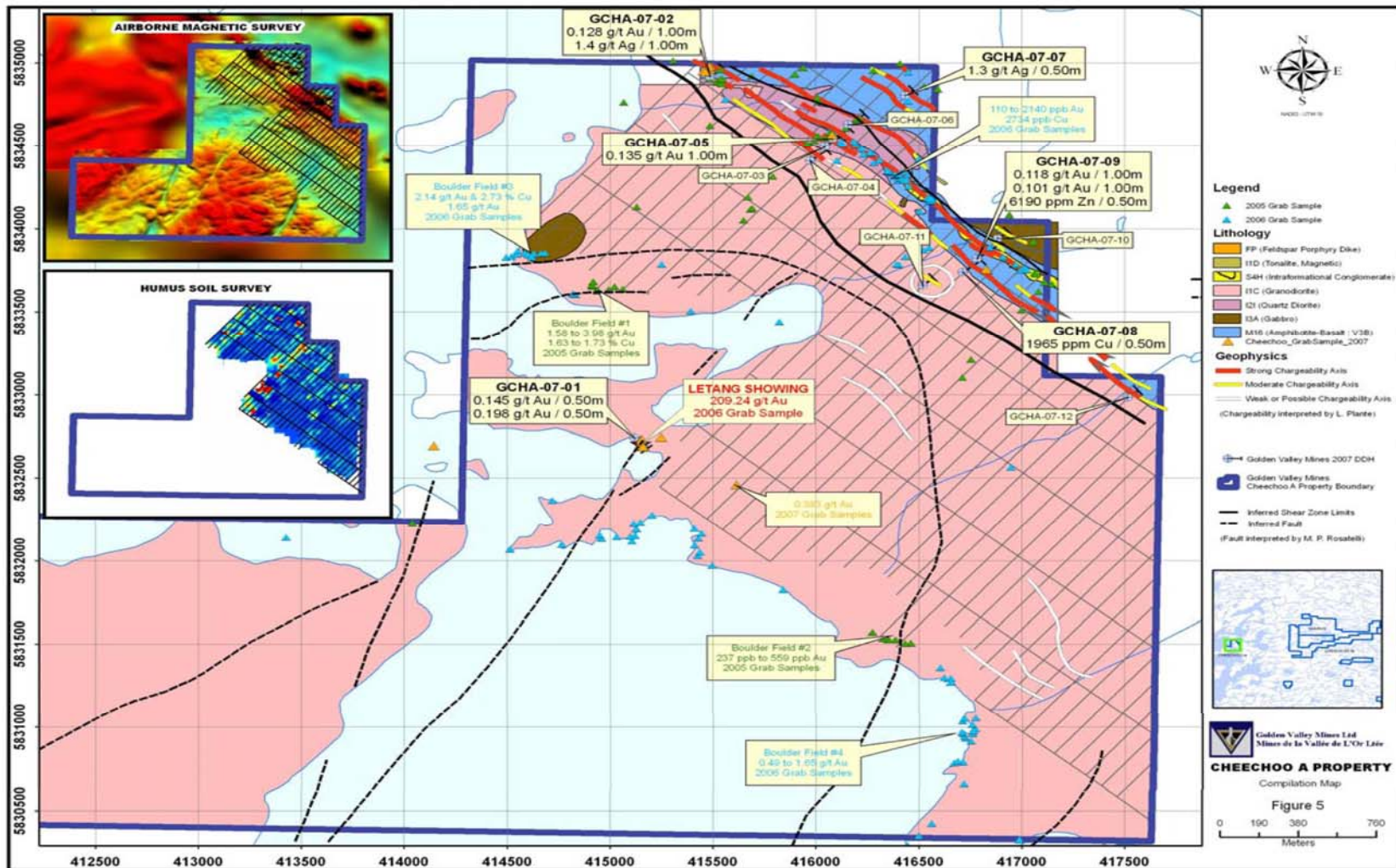
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 17: Channel Sampling Map 2006, Sharks, Showing #1, Channels # 2 & 3



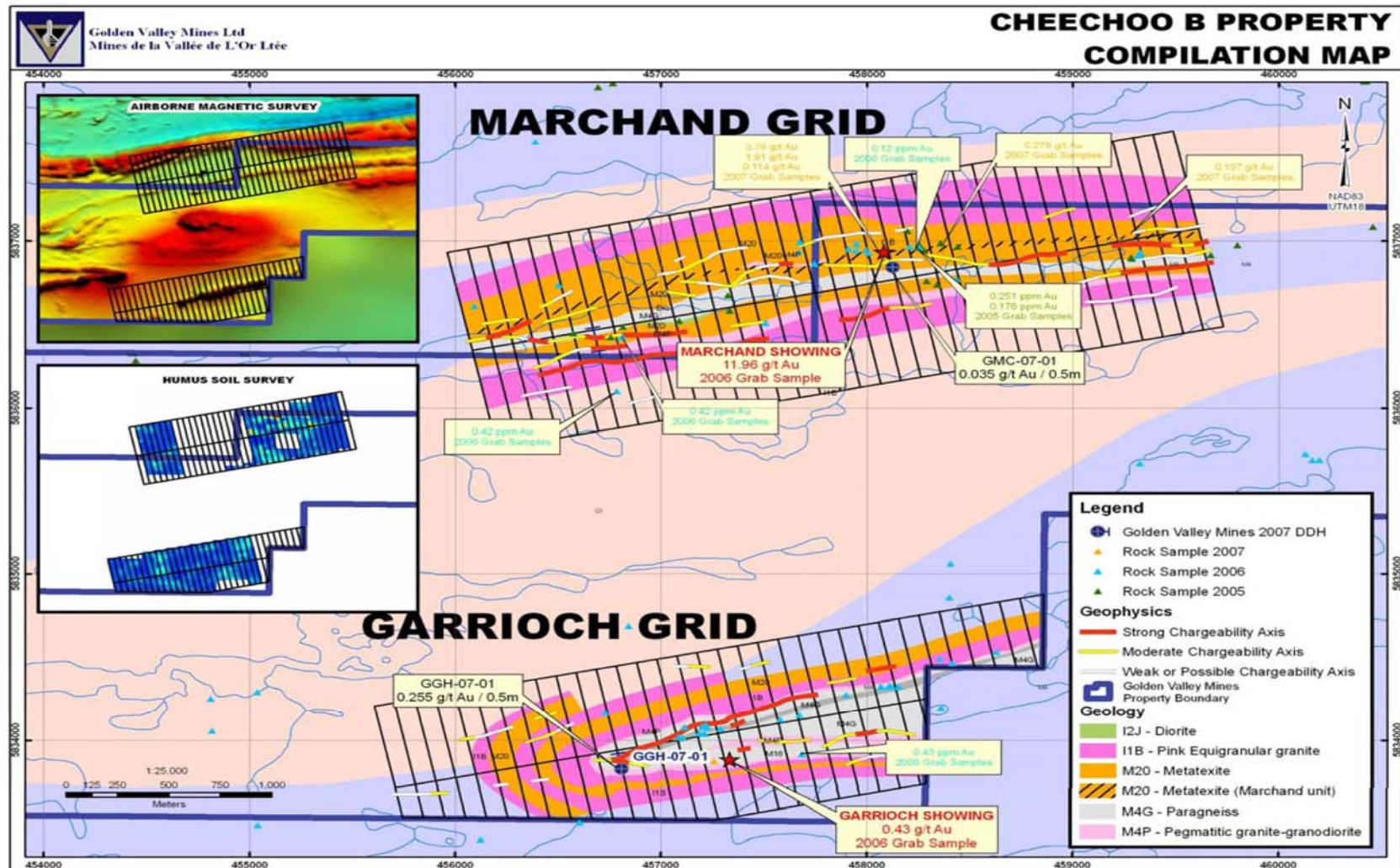
From: HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33B/11, 33B/12, 33B/13, 33C/09*, Golden Valley Mines, 153 p. [GM 65272]

Figure 5: Cheechoo A Property Compilation Map



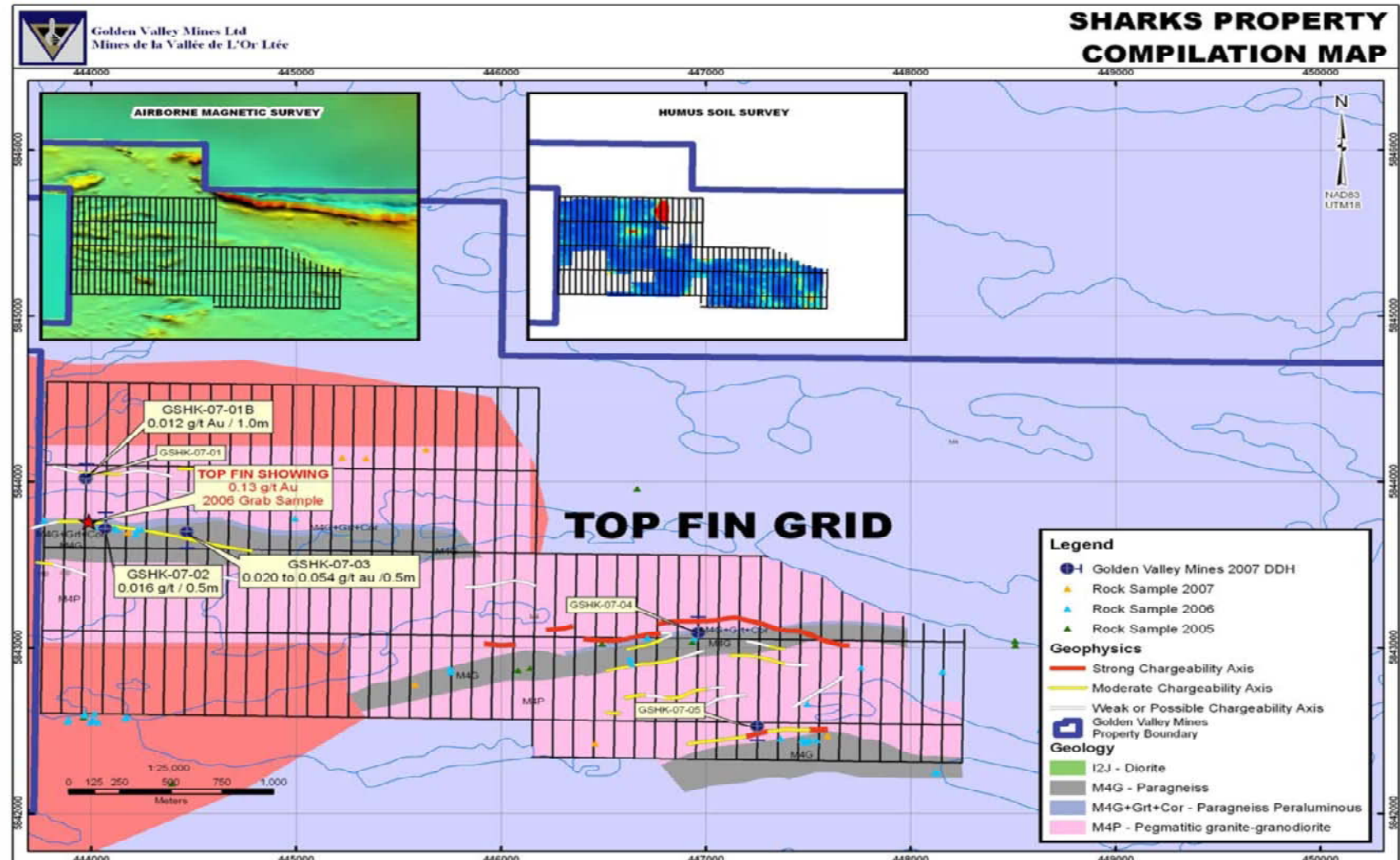
HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33C/04, 33B/12*, Golden Valley Mines, 153 p. [GM 65271]

Figure 6: Cheechoo B Property Compilation Map



HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33C/04, 33B/12*, Golden Valley Mines, 153 p. [GM 65271]

Figure 7: Sharks Property Compilation Map



HARNOIS, L., et M. BOUBAKOUR (2009). *Cheechoo Prospect, Cheechoo A, B and Sharks Properties, Report on the 2007 Diamond Drilling Program, James Bay Area, NTS 33C/04, 33B/12*, Golden Valley Mines, 153 p. [GM 65271]