GM 72637

Prospection work, HSP project

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PROSPECTION WORK
HSP PROJECT, QUEBEC
SPRING 2021

Presented to

Scott Scheldon

Go Metals Corporation

By

Hugues Longuépée, P.Geo.

Date: November 29th, 2021
Project: 1418-2021
Numerical copy

Ville de Saguenay

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Introduction

In the spring of 2021, a crew of five (5) persons was sent to Havre Saint-Pierre for a period of 16 days to conduct a prospection/reconnaissance program on the HSP project. The project is located northwest of the La Romaine 4 electric dam and targets Ni-Cu-Co-PGE mineralization hosted in, or related to, the La Romaine anorthosite complex.

Several historic showings were re-sampled and several more occurrences of semi-massive to massive sulphides were found, all related to mafic and ultramafic dykes. The current report provides information regarding the visited locations, assay results and mineralogy of selected massive sulphides samples.

Terms of reference

IOS Services Géoscientifiques Inc. has been contacted by Mr Jacob Verbass, V.P. Exploration, on behalf of Go Metals Corporation, to prepare, manage and execute a prospection program on their HSP property located 140 km north of the town of Havre Saint-Pierre, Quebec. The mandate included all the required logistic (i.e. accommodation, helicopter, meals, etc.), staff and the implementation of quality control for the assays. Supplementary to field work, sulphide mineralogy was also requested for selected samples.

The observations from field work are provided in a series of annexes and assays as certificate provided by the selected lab (ALS). The mineralogy will be presented as ARTSection certificates in the annexed report.

IOS has no interest or partnerships with Go Metals Corp., other than a consulting-contracting agreement. IOS is an independent entity and is not financially involved in the process of acquiring or developing this project. The current report is not written in accordance to NI-43-101 and shall not be used for financial purposes.

Property description

Location and access

The property is located Quebec, more specifically in the Côte-Nord (North Shore) administrative region, 145 km north of the town of Havre Saint-Pierre (NTS Maps 12M05 and 12M12; ***figure 1***). The La Romaine 4 hydro dam is located 17 km southeast of the property. Two relatively large lakes, Garnier and Rougemont, are respectively located in the center and northeast of the property. La Romaine River flows approximately 2 km south and west of the property.

The road leading to the La Romaine 4 dam is the only road located in the vicinity of the property. A trail that roughly follows the hydropower line that connects La Romaine 3 and 4 to the Montagnais transfer station is located approximately 10 km west of the property. However, since both these road and trail are located south and west of the property, the only access is by air. The main airport in the area is located in Havre Saint-Pierre and there is a fueling station for helicopter located at Camp Mista (La Romaine 3). Despite flooding due to the hydro dam, the property cannot be accessed by watercraft.

Land Tenure

The property is composed of 104 contiguous maps designated claims (***appendix 7; figure 2***) and covers a total area of 56.31 km^2. All the claims are 100% owned by Go Metals. The claims are not subjected to any restrictions regarding minerals exploration as they are located just outside the zone designated for the La Romaine hydro complex.

Previous work

The first geological survey in the area dates back to 1949 when Claveau and his crew (Claveau, 1949) mapped the shores of the La Romaine River, some tributaries and major lakes.

A more complete geological map was produced later by Franconi and Sharma (1973) and is still used as the reference geological map for the area.

The potential of Eastern Grenville, an area located north of the St. Lawrence River and East of an imaginary Chibougamau – Quebec City line, for base metals was done by

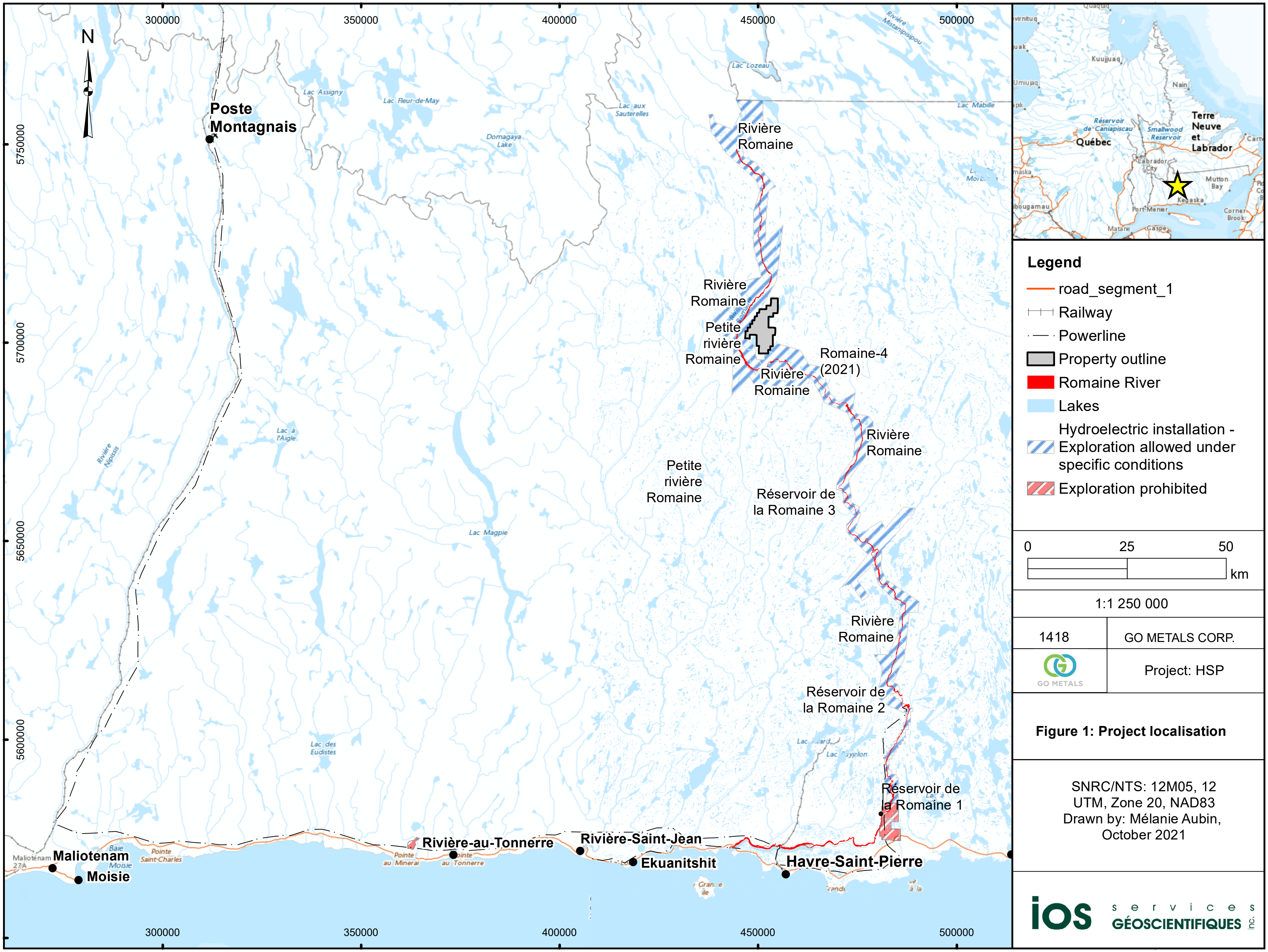
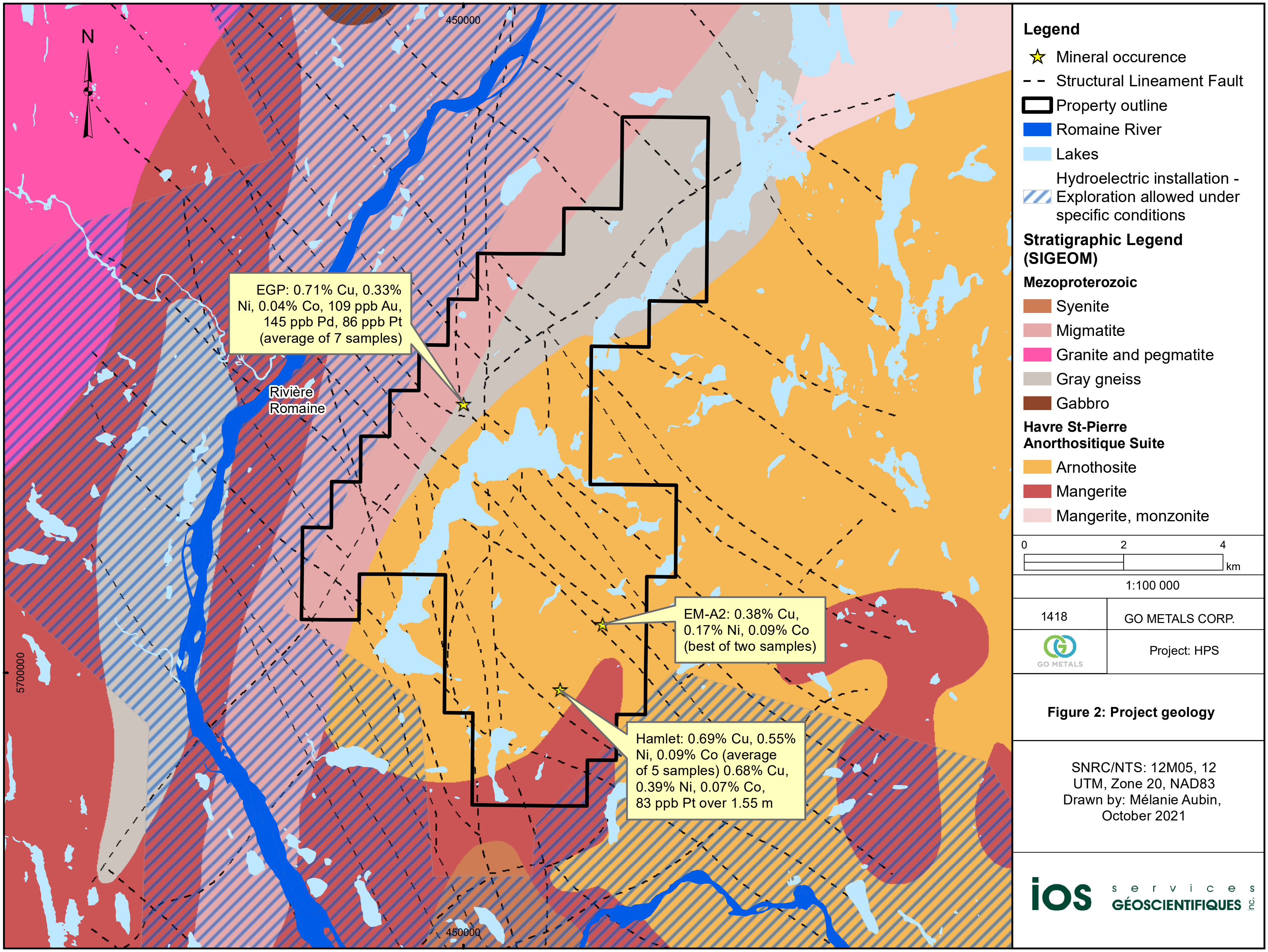


Figure 1: Project localisation



N
450000
5700000
Rivière Romaine
EGP: 0.71% Cu, 0.33% Ni, 0.04% Co, 109 ppb Au, 145 ppb Pd, 86 ppb Pt (average of 7 samples)
EM-A2: 0.38% Cu, 0.17% Ni, 0.09% Co (best of two samples)
Hamlet: 0.69% Cu, 0.55% Ni, 0.09% Co (average of 5 samples) 0.68% Cu, 0.39% Ni, 0.07% Co, 83 ppb Pt over 1.55 m
Legend
Mineral occurence
Structural Lineament Fault
Property outline
Romaine River
Lakes
Hydroelectric installation - Exploration allowed under specific conditions
Stratigraphic Legend (SIGEOM)
Mezoproterozoic
Syenite
Migmatite
Granite and pegmatite
Gray gneiss
Gabbro
Havre St-Pierre Anorthositique Suite
Arnothosite
Mangerite
Mangerite, monzonite
0 2 4 km
1:100 000
1418
GO METALS CORP.
Project: HPS
Figure 2: Project geology
SNRC/NTS: 12M05, 12
UTM, Zone 20, NAD83
Drawn by: Mélanie Aubin, October 2021
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Wilson (1977). Because of the limited access and scarcity of data in the area covered by the HSP property, no real potential was highlighted.

Following the discovery of the Voisey's Bay in the 1990's, Soquem and Tiomin Resources flew Mag-EM surveys to identify mafic-ultrafic intrusions that could host Ni-Cu-PGE mineralization in several areas of the Grenville Province (Woolham, 1996). A few targets were highlighted on the Annic (NTS 12M05) zone which coincides with the current HSP project. Prospection on the target led to the discovery of several Ni-PGE showings (Bissonnette, 1997). These showings were sampled and in some cases soil surveys, trenching and blasting was carried on to evaluate the extents of the hosting mafic intrusions.

In 2019, an airborne magnetic and aeromagnetic survey was flown over the HSP project (Poon *et al.*, 2019). This survey was used to identify the targets that were investigated in the work reported here.

Regional Geology

The HSP project sits in the allochtonous belt of the Grenville Province. The eastern part of the belt is composed of early to mid-proterozoic (1.09 to 0.985 Ga) metamorphosed and intrusive rocks. The most common lithological units are metasedimentary rocks, felsic intrusions, gabbros, gabbronorites and anorthosites.

The HSP property is located at the northwest tip of the Havre Saint-Pierre anorthositic complex. Two third of the property is underlain by an anorthosite and its associated mangerite. To the northwest, the anorthosite is in contact with a sliver of quartz-plagioclase-biotite (+/- hornblende) gneiss. A migmatite is located at the west border of the property. Several small-scale mafic intrusions, likely related to the anorthosite, are noted in geological reports (Franconi and Sharma, 1973; Bissonnette, 1997) but not located on available geological maps.

Mineral occurrences

Only three mineral occurrences were known in the area and they were all found by Soquem and Tiomin in 1996 (Bissonnette, 1997).

The Hamlet showing (***figure 2***) is a 1.5 metre-thick Ni-Cu-Co-EGP bearing massive sulphide vein in a granulitic leucogabbro. The vein has a N320° orientation and is at an angle with the regional foliation. Channel sampling and assays yielded an average of 0.69% Cu, 0.39% Ni, 0.07% Co and 83 ppb over a 1.55 m.

The geometry of the EM-2A showing is undefined. A sample from a gneiss-hosted semi-massive sulphide vein yielded 0.38% Ni, 0.17% Cu and 0.09% Co. Traces of bornite and molybdenite are noted in addition to pyrrhotite (60-75%) and chalcopyrite (up to 2%).

The EGP showing is a series of mineralized pods and veins in a 500 m^2 outcropping area. The sulphides (Po-Cp-Py) are hosted in a gabbroic orthogneiss with some melanocratic parts. The average grade of seven (7) samples is 0.71% Cu, 0.33% Ni, 0.04% Co, 109 ppb Au and 231 ppb PGE (Pd and Pt).

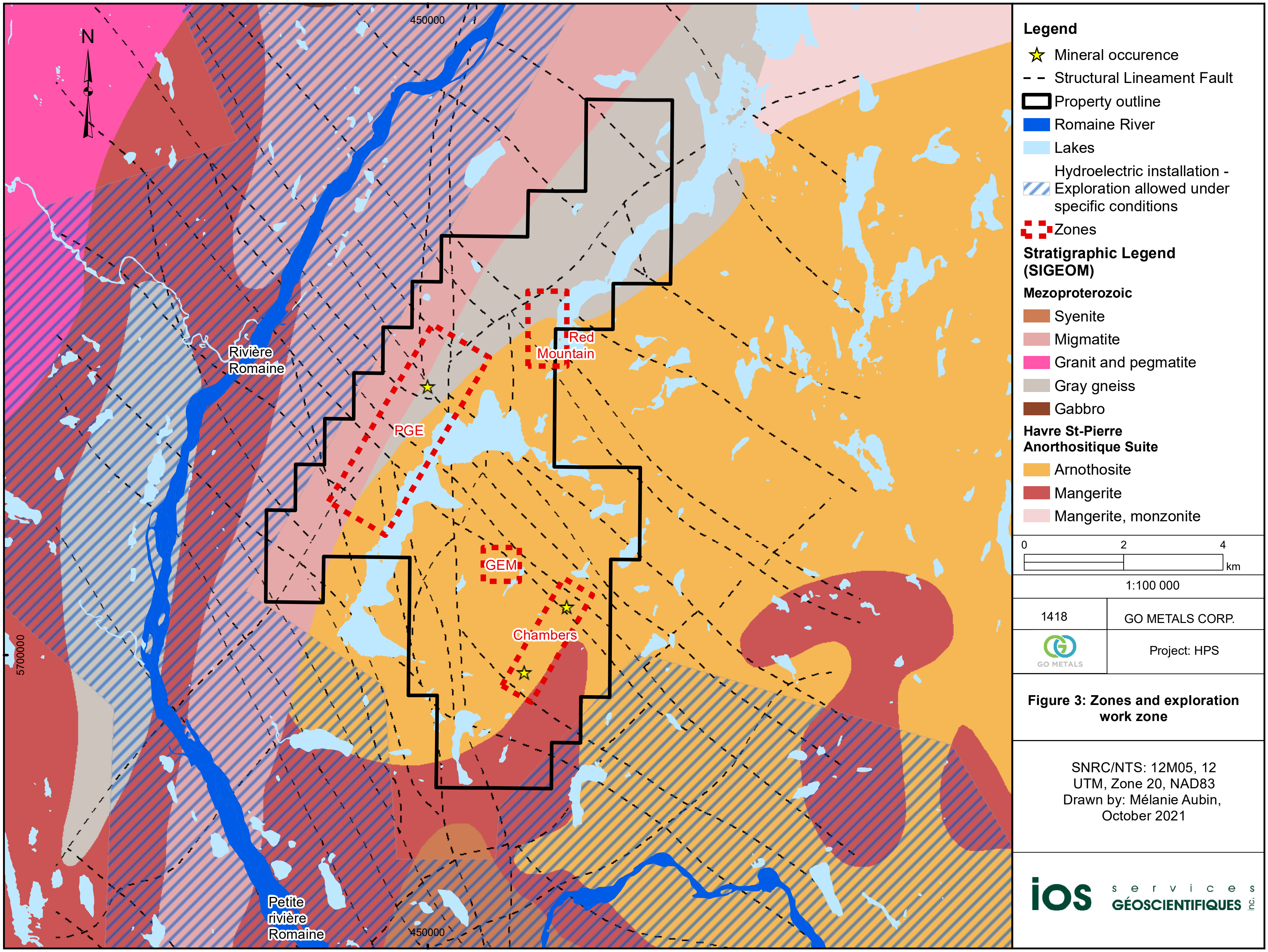
All theses occurrences are interpreted as magmatic sulphides.

Geological mapping 2021

The 2021 mapping work focused on the historic occurrences and on conductors identified on an unpublished 2021 EM Survey. The work covered four (4) broad areas (***figure 3***): the Chamber zone where Hamlet and EM-A2 were found, the PGE zone with the EGP showings, the GEM and Red Mountain zones, both with newly discovered showings. The program was managed by Hugues Longuépée, P.Geo, and executed with the help of Adrien Boucher (G.I.T), Frédéric Lalancette (Eng. student) and Yan Desforges (Eng. student). Harley Slade (Caveman Exploration) acted as the client representative throughout the field work, from May 14th to 31th (see daily reports in ***appendix 1***).

A total of thirty-nine (39) grab samples were collected for assays and sixty-eight (68) mapping stations were described. Of the 39 samples, two (2) samples are boulders and thirty-seven were collected from outcrops or subcrops. Sample descriptions are presented in ***appendix 2, table 1***. Assay results are presented in ***appendix 3, table 1***.

The crew was equipped with IOS FieldNote tablet during their traverses, a device that contained interactive geological files and maps, and allowed the acquisition of georeferenced field description and sample descriptions with minimal errors. When possible, a witness sample was collected in addition to grab and channel samples.


N
450000
Rivière Romaine
Petite rivière Romaine
5700000
Red Mountain
PGE
GEM
Chambers
Legend
Mineral occurence
Structural Lineament Fault
Property outline
Romaine River
Lakes
Hydroelectric installation - Exploration allowed under specific conditions
Zones
Stratigraphic Legend (SIGEOM)
Mezoproterozoic
Syenite
Migmatite
Granit and pegmatite
Gray gneiss
Gabbro
Havre St-Pierre Anorthositique Suite
Arnothosite
Mangerite
Mangerite, monzonite
0 2 4 km
1:100 000
1418
GO METALS CORP.
Project: HPS
Figure 3: Zones and exploration work zone
SNRC/NTS: 12M05, 12
UTM, Zone 20, NAD83
Drawn by: Mélanie Aubin,
October 2021
ios services géoscientifiques inc.

All transportation of the 2021 geological reconnaissance program was done by helicopter.

Sampling method

All samples were collected from outcrops or boulders with a sledge hammer and a chisel. Covered outcrop were clean by hand. At some location, two fragments were collected, one for assay and the other as witness.

The rock samples were put in plastic bags, independently for assay and witness samples. A bar coded tag was insert in each plastic bag with the number corresponding to the bar-coded tags. Samples bags were sealed with a tie-wrap. An orange flag tape with sample number was tied around a rock and left on the sampling site. A second flag with sample and station number was attached on a nearby tree.

IOS numbering methodology (ex.: 14189xxxx) used for rock sample is as followed: the first four digits correspond to the project number (1418), the fifth digit is the material type (9 for rock sample) and the remaining four digits are sequential to the project. The current sample number spanned from ***141890000*** to ***141890039*** more ***141890151***.

The field station terminology for outcrop or boulder sites consists of number of project dash two (2) digits of the current year follow by two (2) letters initials of geologist or engineer and three digits sequential number (ex.: 1418-21HL023).

Samples bags were placed in large rice bags and carried to IOS facility by the crew. Where from there, the samples were shipped to laboratory and the witnesses stored in the IOS warehouse in Saguenay. Thirty-nine (39) samples plus 4 samples for quality control have been shipped for assaying June 14, 2021.

Analytical protocol

Forty-three (43) samples, including four (4) samples for quality control, were shipped to ALS Minerals in Val-d'Or, Québec for three different packages. One package, for twenty five samples plus 4 samples for the QAQC, included analyzes by fire assay for platinum group elements on 30 grams aliquot with ICP-AES finishing (method PGM-ICP23) and for the multi-element spectral analysis by ICP-AES after aqua regia digestion (method ME-ICP41). Samples that graded in excess the ME-ICP41 limit for Ag, Cu, Ni and S were resubmitted for aqua regia digestion with ICP-AES finishing (method Ag-OG46, Cu-OG46 and Ni-OG46) and for S total dosed by induction furnace (IR spectrum, method S-IR08). For the other 14 samples and also the 1 sample for quality control, the package for whole rock chemical analysis by X-ray fluorescence on fused metaborate beads has been used (method ME-XRF26)[1].

Analytical results of rock samples are provided in ***appendix 3,*** the analytical quality control in ***appendix 4*** and certificates in ***appendix 5.***

Analytical quality control

In order to ensure the quality of the analyses, IOS added blank and certified reference materials to the shipment to ALS Minerals in Val-d'Or, Québec. The blanks allow the detection of possible contamination or sample inversion, while the certified reference materials verify the accuracy and precision of the analytical technique.

ALS Minerals applied its own quality control which includes analysis of certified and internal reference material plus replicates. Analytical quality control is detailed in ***appendix 4***.

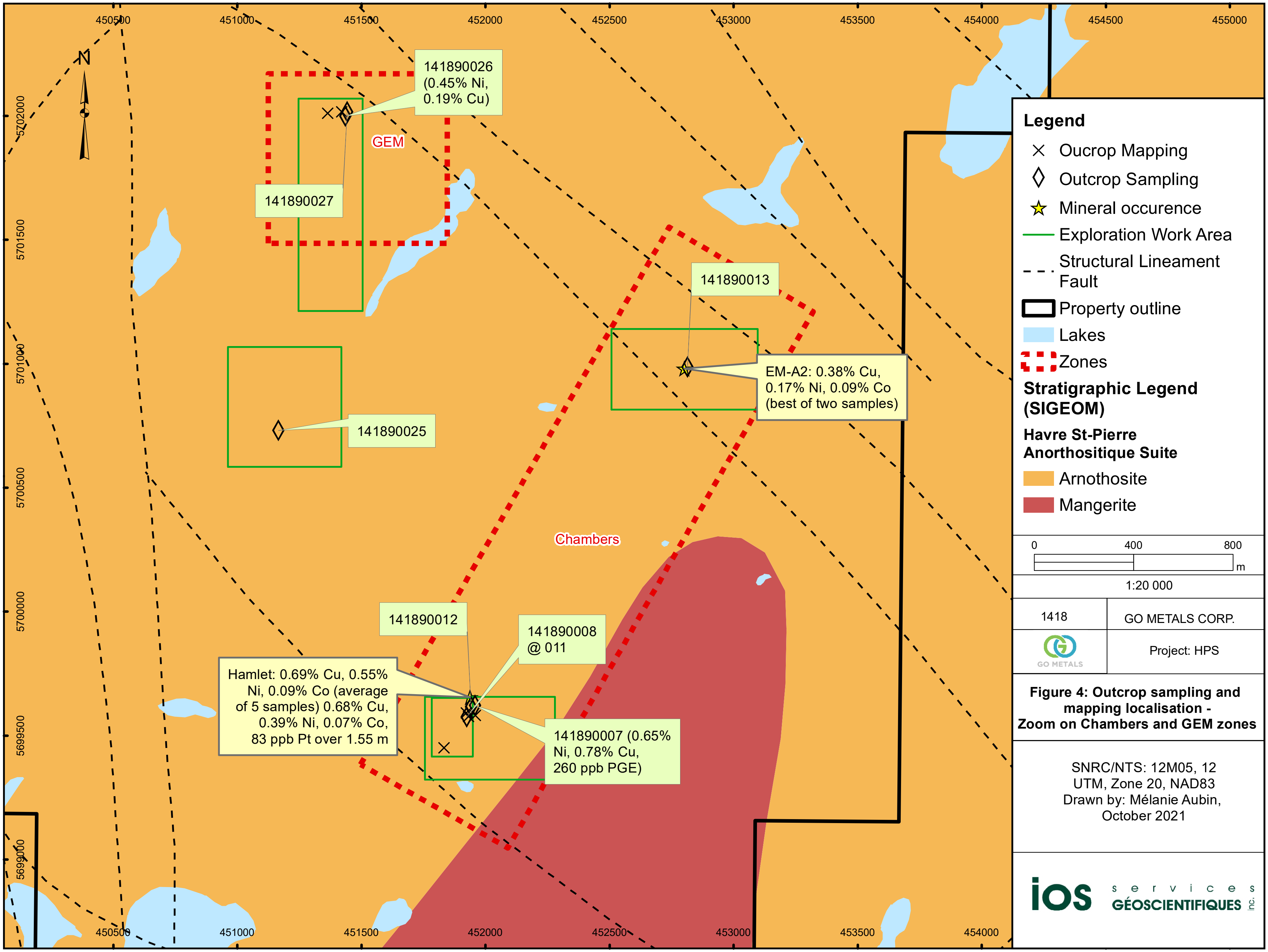
Results

Chamber zone

This zone is located in the anorthosite near a wedge of mangerite to the southeast. It includes the historical Hamlet and EM-2A showings. The zone was visited on two days (May 20th and 21st) (***figure 4***).

The Hamlet showing was found and re-sampled (***table 1***). The showing itself was obviously blasted in 1997 (***photo 1***), but no other outcrop were found in the area. A conductive zone was found 40 m south of Hamlet with the help of the Beep Mat. The bedrock was buried under a thin (< 10 cm) layer of till which is locally hardened and rust-cemented. The outcrop, once cleaned, did not give a conductive signal. Other false

[1] *CERTIFICATE ALS COMMENTS ON ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO_3. SF-Total less than or equal to 100%. ALL:NSS is non-sufficient sample.*



141890026 (0.45% Ni, 0.19% Cu)
GEM
141890027
141890025
141890013
EM-A2: 0.38% Cu, 0.17% Ni, 0.09% Co (best of two samples)
Chambers
141890012
141890008 @ 011
Hamlet: 0.69% Cu, 0.55% Ni, 0.09% Co (average of 5 samples) 0.68% Cu, 0.39% Ni, 0.07% Co, 83 ppb Pt over 1.55 m
141890007 (0.65% Ni, 0.78% Cu, 260 ppb PGE)
Legend
Ocrop Mapping
Outcrop Sampling
Mineral occurence
Exploration Work Area
Structural Lineament Fault
Property outline
Lakes
Zones
Stratigraphic Legend (SIGEOM)
Havre St-Pierre Anorthositique Suite
Arnothosite
Mangerite
0 400 800 m
1:20 000
1418
GO METALS CORP.
Project: HPS
Figure 4: Outcrop sampling and mapping localisation - Zoom on Chambers and GEM zones
SNRC/NTS: 12M05, 12
UTM, Zone 20, NAD83
Drawn by: Mélanie Aubin, October 2021
ios services géoscientifiques inc.

Beep Mat conductors in the area suggest that the gossany till itself is partially conductive.

Sample	Showing	Ni (%)	Cu (%)	Co (%)	PGE (ppb)	Au (ppb)	S%
141890007	Hamlet	0,65	0,78	0,11	260	21	21,5
141890010		0,01	<0,01	<0,01	13	<1	1,12
141890011		0,01	0,02	0,02	85	32	4,95
141890012	*Hamlet*	*0,12*	*0,09*	*0,01*	*33*	*<1*	*3,51*
141890013	EM-A2	0,34	0,17	0,09	19	2	22,5

***Table 1**: Assays of selected grab samples from the Chamber Zone. Sample 141890012 is a boulder (blasted rock?).*

The EM-A2 showing was also found, but the trench was under water and only blocks from an obvious blast were visible and sampled. No other outcrop was found in the area. A fire happened in the area in recent past and, as a result, the numerous fallen trees made Beep Mat survey impossible (Beep Mat off the ground 95% of time).

***Photo 1**: Hamlet Showing.*

***Photo 2**: Trench dug in 1996 over the EM-2A showing. The trench is now completely flooded.*

PGE Zone

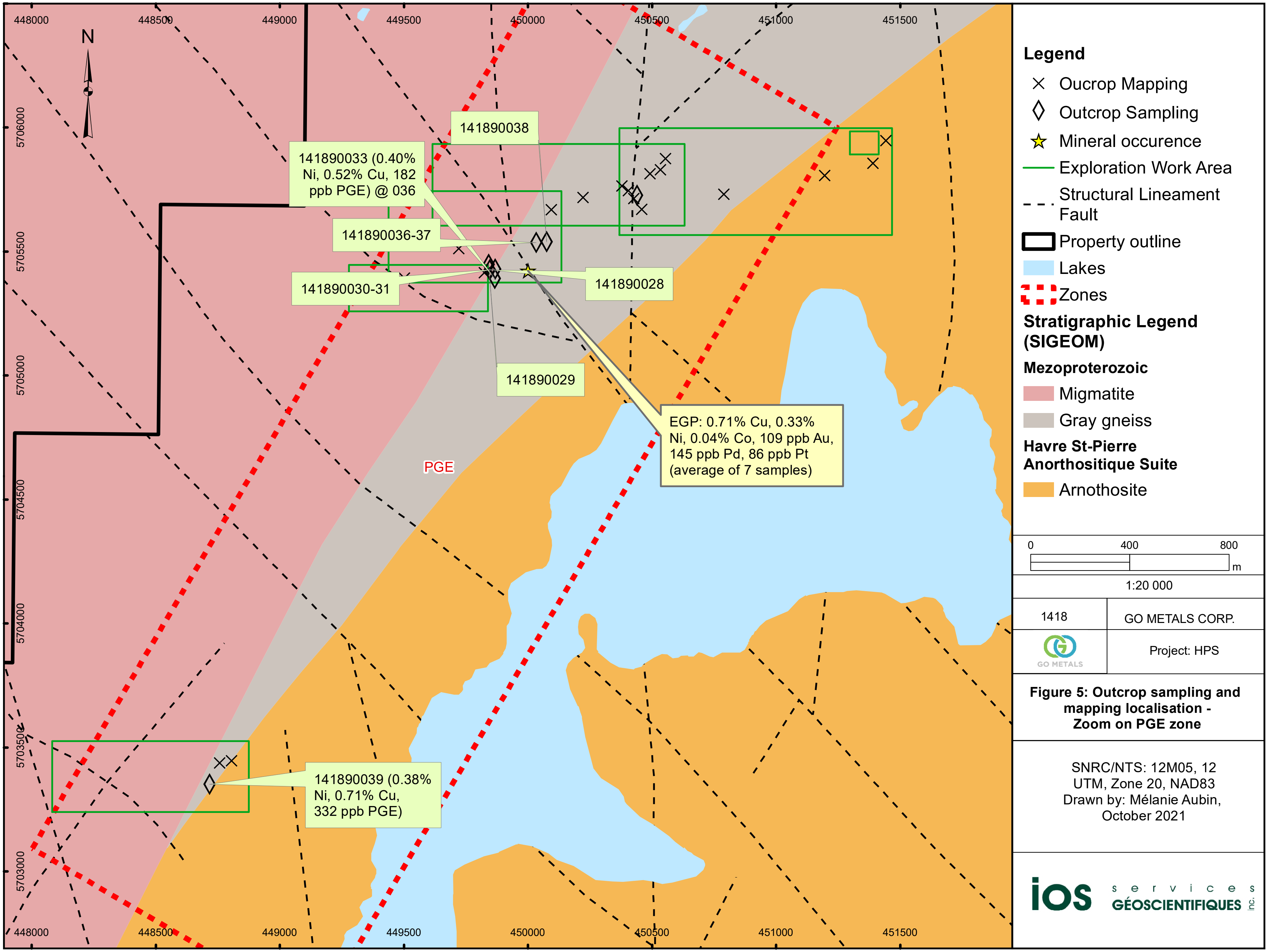
The northwest zone is located along the western contact between the anorthosite and a grey quartz-plagioclase-biotite gneiss. The zone includes the historic EGP showing which was resampled (***table 2***). It was visited on five (5) non-consecutive days.

Several other lenses of massive to semi-massive sulphides were found in the area (***figure 5***) and all are associated with melanocratic (ultramafic?) rocks. The rock exposure is fairly poor (***photo 3***) and it is difficult to assess the geometry and thickness of the sulphide-bearing rocks, but they appear to be parallel to the foliation found in the host rock (220 84). Interestingly, K-spar and quartz bearing anorthositic rock, named *laurinite* by Franconi and Sharma (1973) was found in that area.

A small EM conductor was identified by the airborne EM survey, 2.8 km SSE of the historical EGP zone. The Beep Mat helped found another gabbro (?)-hosted sulphide lens. A sample taken out of a small 20 inches-deep hole yielded 0.71% Cu, 0.38% Ni and 252 ppb Pd (Sample 141890039; ***table 2***).

Sample	Showing	Ni (%)	Cu (%)	Co (%)	PGE (ppb)	Au (ppb)	S%
141890001		<0,01	<,01	<0,01	3	<1	0,06
141890002		0,06	0,16	<0,01	26	84	2,56
141890003		0,01	<,01	0,02	3	<1	0,16
141890004		0,01	0,01	<0,01	2	1	0,42
141890005		0,03	0,04	<0,01	3	20	1,07
141890006		0,03	0,04	0,01	190	40	1,13
141890028	**PGE-CENTER**	0,27	0,37	0,05	127	59	8,55
141890030	**PGE-CENTER**	0,04	0,12	0,01	46	56	1,32
141890032	**PGE-CENTER**	0,19	0,19	0,02	88	61	3,72
141890033	**PGE-CENTER**	0,40	0,52	0,06	182	68	8,69
141890035	**PGE-CENTER**	0,24	0,31	0,03	120	194	6,26
141890036	PGE	0,03	0,02	0,01	14	<1	0,56
141890037	PGE	0,34	0,45	0,05	227	15	8,13
141890038	PGE	0,18	0,71	0,04	222	22	7,19
141890039	**PGE-SOUTH**	0,38	0,71	0,05	332	54	8,75

***Table 2**: Assays from grab samples of the PGE Zone. PGE-Center and PGE-South are newly found occurrences.*



N
141890038
141890033 (0.40% Ni, 0.52% Cu, 182 ppb PGE) @ 036
141890036-37
141890030-31
141890028
141890029
EGP: 0.71% Cu, 0.33% Ni, 0.04% Co, 109 ppb Au, 145 ppb Pd, 86 ppb Pt (average of 7 samples)
PGE
141890039 (0.38% Ni, 0.71% Cu, 332 ppb PGE)
448000
448500
449000
449500
450000
450500
451000
451500
5706000
5705500
5705000
5704500
5704000
5703500
5703000
Legend
Oucrop Mapping
Outcrop Sampling
Mineral occurence
Exploration Work Area
Structural Lineament Fault
Property outline
Lakes
Zones
Stratigraphic Legend (SIGEOM)
Mezoproterozoic
Migmatite
Gray gneiss
Havre St-Pierre Anorthositic Suite
Arnothosite
0
400
800
m
1:20 000
1418
GO METALS CORP.
GO METALS
Project: HPS
Figure 5: Outcrop sampling and mapping localisation - Zoom on PGE zone
SNRC/NTS: 12M05, 12
UTM, Zone 20, NAD83
Drawn by: Mélanie Aubin, October 2021
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Photo 3*: Example of sulphides occurrence in the PGE zone. Sulphides were found using a Beep Pap IV. Here, station 1418-21HL059 (samples 14189032@34). The dark spot is massive pyrrhotite.*

GEM ZONE

A small EM anomaly located at the north end of a drumlin was visited on May 25th.

A Beep Mat survey gave a conductive response over the target. Unfortunately, the bedrock was covered with almost one meter of till and only a narrow trench was dug (***photo 4***). The rock chips indicate a massive sulphide lens (?) associated with a melanocratic rock. Once uncovered the rock was extremely conductive and assays yielded 0.44% Ni and 0.19% Cu (sample 141890026; ***table 3***). Other zones gave positive Beep Mat signal but only one other hole reached the outcrop because of thick till and numerous roots.

Photo 4*: Shovel-dug trench at the GEM Zone.*

Sample	Showing	Ni (%)	Cu (%)	Co (%)	PGE (ppb)	Au (ppb)	S%
141890026	GEM	0,45	0,19	0,03	118	30	6,23
141890027	GEM	0,40	0,24	0,03	158	31	6,58

***Table 3**: Assay from grab samples from the newly discovered Gem Zone.*

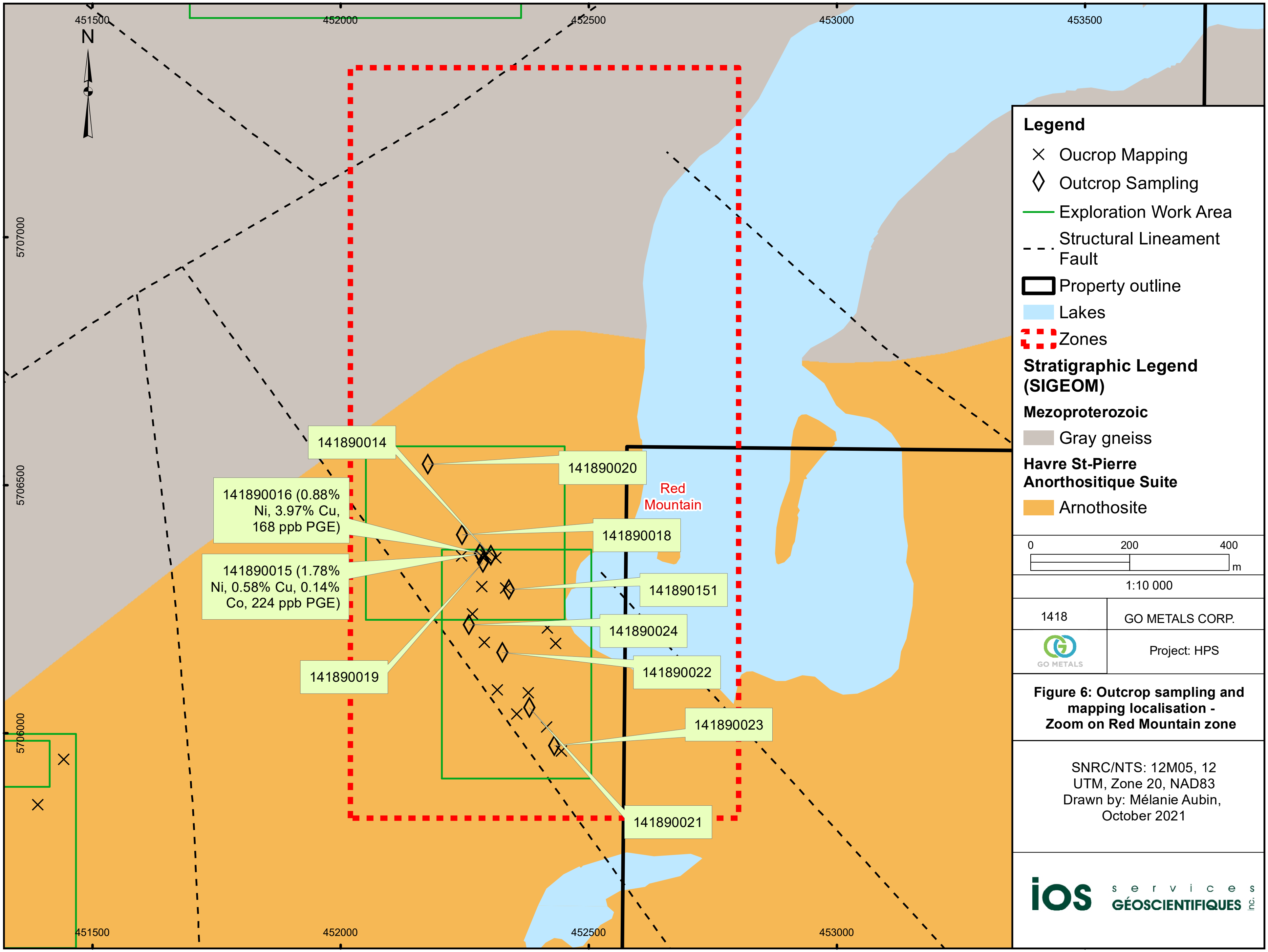
Red Mountain Zone

This zone targeted an EM anomaly located near the south tip of Rougemont Lake (***figure 6***). The area was visited on May 24th and 25th.

Sulphides were found on an N-S ridge. Centimetre-wide pyrrhotite lens were found in the gneiss (***photo 5***) and massive sulphides were found 18 inches below surface, 7 metres NNW from the pyrrhotite-bearing outcrops. Boulder of massive sulphides was also found nearby. Both outcrop and boulder yielded significant values of Ni, Cu and some Co, Au and Ag (***table 4***).

Sample	Showing	Ni (%)	Cu (%)	Co (%)	PGE (ppb)	Au (ppb)	S%
141890014		0,2	0,57	0,04	162	55	5
141890015		*1,78*	*0,58*	*0,14*	*224*	*27*	*26,1*
141890016		0,88	3,97	0,07	168	333	20,3

***Table 4**: Assays of selected grab samples from the Red Mountain Zone. Sample 141890015 is from a boulder.*



451500
452000
452500
453000
453500
N
5707000
5706500
5706000
141890014
141890020
141890016 (0.88% Ni, 3.97% Cu, 168 ppb PGE)
141890018
141890015 (1.78% Ni, 0.58% Cu, 0.14% Co, 224 ppb PGE)
141890151
141890024
141890019
141890022
141890023
141890021
Red Mountain
Legend
Ocurop Mapping
Outcrop Sampling
Exploration Work Area
Structural Lineament Fault
Property outline
Lakes
Zones
Stratigraphic Legend (SIGEOM)
Mezoproterozoic
Gray gneiss
Havre St-Pierre Anorthositique Suite
Arnothosite
0
200
400
m
1:10 000
1418
GO METALS CORP.
GO METALS
Project: HPS
Figure 6: Outcrop sampling and mapping localisation - Zoom on Red Mountain zone
SNRC/NTS: 12M05, 12
UTM, Zone 20, NAD83
Drawn by: Mélanie Aubin, October 2021
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***Photo 5**: Sulphide veins in a grey gneiss at Red Mountain.*

COUNTRY ROCKS

In order to provide a regional background on the country rock chemistry, a series of samples were (randomly) taken and sent for assays (major oxides) and the results were plotted in a TAS diagram (***figure 7***). A series of samples are gabbros and may be the melanocratic rock which host the massive sulphides. The samples that were identified as anorthosite and mangerite during field work plot in the monzodiorite and monzonite fields, as do HSP anorthosite samples from the literature (Bachari, 2004). Three samples from the Red Mountain Zone are located in, or close to, the syenite field. These three samples have been labelled as intermediate intrusive during field work. There is no indication that they are from the grey gneiss and one could argue that they may be a late, less mafic, phase of the anorthosite as they plot on straight line with the (anorthosite related)-gabbro and anorthosite (see arrow; ***figure 7***). They could be equivalent to the *laurinite* of Franconi and Sharma (1973).

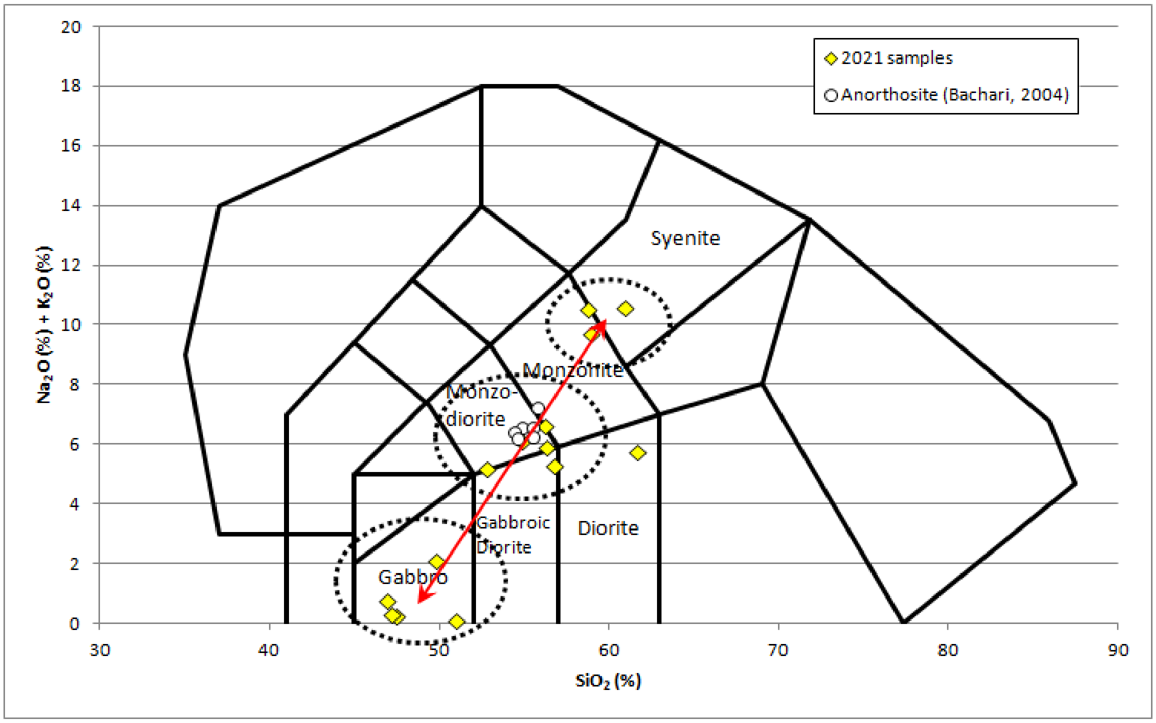

Figure 7*: Total Alkalis vs Silica (TAS) diagram for 14 samples from the HSP project country rock. Data for the La Romaine Anorthosite (Bachari, 2004) are included for comparison.*

Although these results have to be taken with caution when used for targeting, they could be used for the interpretation of magnetic or gravimetric survey.

Ore petrography

Twelve thin sections of sulphide-rich samples were processed with the ARTSection technology in order to 1) determine the nature of the sulphides, 2) the mineral texture which may yield information about the metallogeny and 3) the deportment of nickel (i.e. in pentlandite or in pyrrhotite). The full report is provided in ***appendix 6*** and only the main findings are discussed here.

SULPHIDES MINERALOGY

The main sulphide, regardless of the showing or sample, is pyrrhotite. Sample 141890033, from the PGE zone, has more pyrite and altered pyrrhotite that unaltered pyrrhotite, but there are several indications of a late, likely supergene, alteration that has modified the mineralogy and made the ARTSection differentiation between pyrite and pyrrhotite more difficult. The second most common sulphide is chalcopyrite. Pentlandite is present in all samples, albeit in small proportion (0.01% to 0.36%). Traces of sphalerite were detected in a couple of samples and traces of molybdenite in one. Pyrite is found in nine samples, but its proportion is likely related to alteration intensity. The altered pyrrhotite chemistry suggests that is more likely a mix of Fe-Ni-(Cu) sulphides.

TEXTURES

There are two distinctive textures seen in the samples. The first one is a texture in which silicates minerals (mostly plagioclase) are trapped in sulphides. This texture is visible in massive sulphide samples (141890007 and -13) from the Chamber Zone. In sample 141890012 (boulder (?) from Chamber) the few sulphides (2.52%) are found as small rounded grains in the groundmass or as a relatively large chalcopyrite grains with biotite. There is no evidence that this texture being tectonically induced and it is not a durchbewegung.

The second texture is a cumulate texture which shows interstitial sulphides trapped between pyroxene grains. The average sulphide content is 14% and the silicates indicate an ultramafic (orthopyroxenite) composition of the host rock. This texture is visible in samples from the GEM and PGE zones.

The sample from the Red Mountain Zone (141890014) shows a sulphides-oxides veinlet (?) along a quartz-biotite layer from the grey gneiss. Interestingly, there seems to be a amphibole-rich fragment (?) in the felsic layer. The texture from that sample suggests a complex history of the gneiss but also possible injection (or remobilization) of sulphides in the country rock.

Samples 1490033 and -37 from the PGE zone also suggest a more complex history that settling of sulphides at the bottom of a mafic/ultrmafic magma chamber. Sample 14189033 (PGE – centre; new showing) displays a possible breccias texture, but more importantly a mineralogy indicative of alteration with Fe-oxides, chlorite and altered pyrrhotite. Sample 141890037 (PGE historical showing) also displays a breccia texture with sulphides surrounding amphibolite fragments.

NICKEL DEPORTMENT

The distribution of nickel in massive sulphides is important because it is more readily extractible from pentlandite than from pyrrhotite. The bulk of the nickel is present in pentlandite (28.74% Ni) and its alteration product (bravoite and violarite) and in chalcopyrite (4.27% Ni). The pentlandite also holds an average of 4.76% Co. The pyrrhotite contains, on average, 0.53% Ni.

Only samples 141890012 and 141890033 have Ni-bearing minerals other than sulphides. Nickel is noted in Fe-oxides of sample 141890012. However, the chemistry of the cluster is rather complex which suggest a mix of several fine-grained minerals including pentlandite. Nickel is present in chlorite and biotite of sample 141890033. This sample shows evidences of alteration and brecciation and likely remobilization of metals.

Despite the unusual nickel distribution on the two samples mentioned above, most of the nickel is found in pentlandite as shown in ***figure 8***.

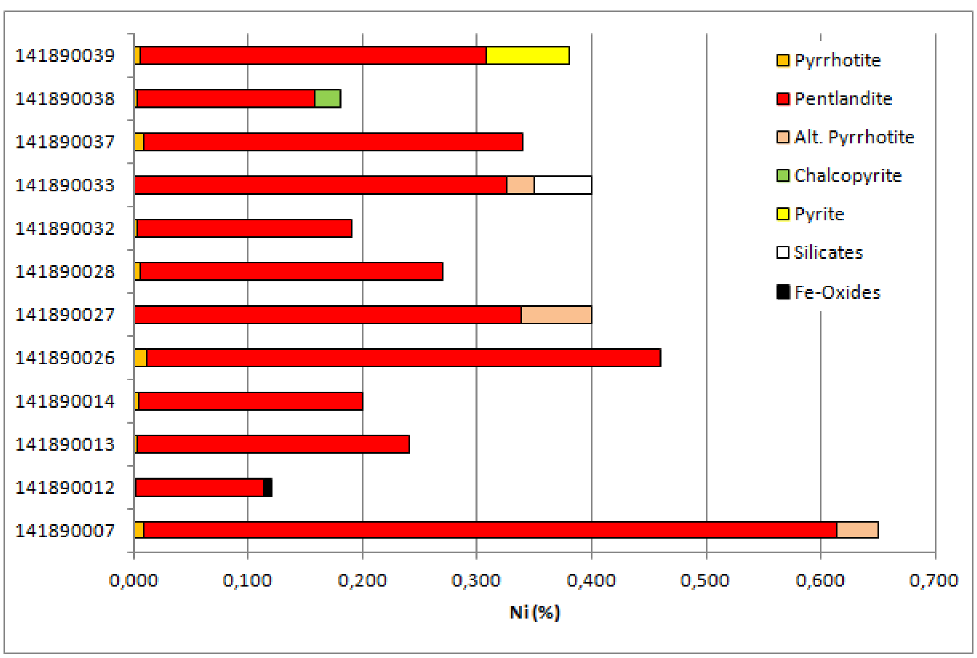

Figure 8*: Total nickel and nickel deportment in the samples from the HSP project.*

The pentlandite (average 0.16%) is small but granular within the pyrrhotite mass or as fracture filling, also in pyrrhotite. Only sample 141890018 has thin flames of pentlandite in pyrrhotite. The bulk of pentlandite shall hence be amenable to beneficiation in order to produce a sulphide concentrate in excess of 12% Ni, as required for smelting.

Other observations

Sample 14189013 (Chamber Zone) has a particular mineralogy. The most common mineral are pyrrhotite (66%) and sapphirine (26%). There is also 4% of graphite. There is almost no plagioclase (0.04%) and other accessory phases include corundum and rutile. This mineralogy suggests an aluminium-rich subsilic, likely reducing, environment. The sample comes from the flooded trench at EM-A2 showing and it is impossible to tell the exact relation between this unusual rock and the anorthosite.

Conclusion and recommendations

The May 2021 prospection work on the HSP project yielded encouraging results. Not only the historical showing were found, but new zones, some with better grades, were discovered in several areas of the property. The nickel being mostly present in pentlandite adds to the property's potential. The Ni# and the (Ni+Co+Cu)# indicate that the MSS (monosulphide solid solution) at GEM was the richest in nickel but that total saleable metals (Ni+Co+Cu) was likely higher at Red Mountain (***table 5***).

	Ni#	Co#	Cu#	(Nio+Co+Cu)#
Chambers	0,98	0,04	5,85	6,87
PGE	1,64	0,10	3,17	4,91
Red	1,14	0,02	14,57	15,73
Gem	2,94	0,12	2,31	5,38
Average	1,65	0,08	4,65	6,38

Table 5*: Ni#, Co#, Cu# and (Ni+Co+Cu)# (saleable metals) for each zones.*

Evidences of magmatic sulphide segregation are preserved in most samples, and tectonometamorphic remobilization seems minimal. Pentlandite is segregated from pyrrhotite, suggesting it shall be amenable to beneficiation.

Since the overall rock exposure is fairly low in the area and that the new showings were sampled in hand-made trenches, it is recommended to bring a small excavator on site to dig longer and wider trenches and to proceed to proper channel sampling. It is also recommended to survey the northwestern anorthosite – gneiss contact with a ground EM survey. This contact holds the PGE and Red Mountain zones. Given the fairly good structural and geological information gathered from good rock exposure at Red Mountain, drilling can be considered. At PGE, the exposure is limited but the structural trend, as seen of the few outcrops and geophysics, is constant and drilling near the showing carries little risks.

The Chamber zone remains of interest but needs some trenching in order to understand the relation between the ore and the host rocks which is still uncertain at this point.

The finding of the Gem zone was somewhat unexpected given the distance with any known geological contact and relatively thick overburden. That zone requires a ground EM survey to better plan future trenching or drilling.

2021-1418_Report
HSP prospection, November 29, 2021

Hugues Longuépée, P. Geo.
OGQ nº 730

Contributions:
Réjean Girard, P.Geo., Scientific review
Karine Desbiens, edition
Mélanie Aubin, GIS Specialist, drafting
Karen Gagné, Chemist, quality control and quality assurance

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APPENDIX 1

DAILY REPORTS

DAILY REPORT	Date : 2021-05-14	PROJECT :1418	LODGE:	WEATHER :
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Mobilization Montreal - Chicoutimi with the client representative (H. Slade)

COMMENTS ABOUT GEOLOGY:

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**Chicoutimi**	8			
2								
3	Harley Slade	Caveman	Client representaive	**Chicoutimi**				
4								
5								
6								
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15								
			TOTAL ON THE FIELD					

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT :		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :	Montreal - Chicoutimi		
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From:	To:	VERIFICATION :	IOS Services Géoscientifiques inc.
BUDGET : 204 860 $	EXPENSES : 7 444,67 $	BILLING :	

DAILY REPORT	Date : 2021-05-14	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER :
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Mobilization Chicoutimi - Havre Saint-Pierre

COMMENTS ABOUT GEOLOGY:

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	8			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	8			
3	Yan Desforges	IOS	Geology Student	**HSP**	8			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	8			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT :	1,1	ACCIDENT :	
TRUCK TRIP :	10	TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :	Chicoutimi-Havre St-Pierre (10 heures)		
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From:	To:	VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 197 415 $	EXPENSES : 5 755,30 $	BILLING :	

DAILY REPORT	Date : 2021-05-15	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Sun and cloud.
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Waiting for Covid testing. Reconnaissance.

COMMENTS ABOUT GEOLOGY:

Mapping over a small mag anomaly. Presence of a magnetic mangerite (more likely anorthositic gabbro).

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 4,0		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 191 660 $	EXPENSES : 11 171,39 $	BILLING :	

DAILY REPORT	Date : 2021-05-16	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Nice weather
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Visit of an anomaly NW of the Garnier Lake

COMMENTS ABOUT GEOLOGY:

Ultramafic rock (?) and sulphides. Poorly developed gossan.

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 1,7		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 180 489 $	EXPENSES : 7 054,69 $	BILLING :	

DAILY REPORT	Date : 2021-05-17	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Rain
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Rain and ceiling too low for flying.

COMMENTS ABOUT GEOLOGY:

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	8			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	8			
3	Yan Desforges	IOS	Geology Student	**HSP**	8			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	8			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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14								
15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT :		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE : 60,94 $			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 173 434 $	EXPENSES : 2 984,05 $	BILLING :	

DAILY REPORT	Date : 2021-05-18	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Rain
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Rain and ceiling too low for flying.

COMMENTS ABOUT GEOLOGY:

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	8			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	8			
3	Yan Desforges	IOS	Geology Student	**HSP**	8			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	8			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT :		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 170 450 $	EXPENSES : 2 755,11 $	BILLING :	

DAILY REPORT	Date : 2021-05-19	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Sunny
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Low ceiling, clearing at 10am. Beepmat prospectiong on the NW anomaly.

COMMENTS ABOUT GEOLOGY:

No outcrop. Few holes enabled the recognition of mafic / ultramafic intrusions.

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 1,8		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 167 695 $	EXPENSES : 7 277,80 $	BILLING :	

DAILY REPORT	Date : 2021-05-20	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Sun and cloud
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Low ceiling with departure at 9am. Visit west of Garnier Lake. Given the amount of snow on the ground, work was moved to the Hamlet showing at 1pm. Beepmat and prospection. Small trecnh dug-out with shovels.

COMMENTS ABOUT GEOLOGY:

No outcrop seen west of Garnier Lake. Hamelt showing is a layer of massive sulphide in a gabbro.

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :	MECHANICAL PROBLEM :
HELICOPTER FLIGHT : 1,7	ACCIDENT :
TRUCK TRIP :	TIMEOUT :
SAMPLE SHIPMENTS	IMPROVEMENT TO DO :
PURCHASE :	
MOBILIZATION :	
DEMOBILIZATION :	DISCIPLINARY ADVISE :
DRILLING From: To:	VERIFICATION :
LEFTOVER BUDGET : 160 417 $ EXPENSES : 6 389,96 $	BILLING :

IOS Services Géoscientifiques inc.

DAILY REPORT	Date : 2021-05-21	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Nice. Clouds in the afternoon.
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Work on the Hamlet Showing (trench, VLF, Beepmat). Move to EM-2A showing in the pm. Trench found, but no outcrop (flooded).Déplacement vers l'anomalie EM-A2. Beepmat impossible to use (fallen trees all over the place). Left field at 3:30pm because of the weather.

COMMENTS ABOUT GEOLOGY:

The Hamlet zone is characterized by sulphides zones associated to gabbro and intermediate intrusive cutting the anorthosite.

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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13								
14								
15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT :	1,7	ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :	7 431,00 $		
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From:	To:	VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 154 027 $	EXPENSES : 7 004,64 $	BILLING :	

DAILY REPORT	**Date :** 2021-05-22	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Covered (low ceiling)	
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :	
		DAILY CALL			

COMMENTS ABOUT THE WORK:

No field work.

COMMENTS ABOUT GEOLOGY:

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	8			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	8			
3	Yan Desforges	IOS	Geology Student	**HSP**	8			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	8			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
10								
11								
12								
13								
14								
15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT :		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 147 022 $	EXPENSES : 2 774,54 $	BILLING :	

DAILY REPORT	**Date :** 2021-05-23	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Cloudy. Snow falling north of Romaine 4.
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Tried to get to the property, but weather was too bad north of Romaine 4.

COMMENTS ABOUT GEOLOGY:

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	8			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	8			
3	Yan Desforges	IOS	Geology Student	**HSP**	8			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	8			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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13								
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15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 1,2		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 144 248 $	EXPENSES : 4 708,04 $	BILLING :	

DAILY REPORT	**Date :** 2021-05-24	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Sun and cloud
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Visit the north anomaly (Rougemont Lake / Red Mountain target).

COMMENTS ABOUT GEOLOGY:

Grey gneiss with severals massive sulphide (and magnetite?) lenses.

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
10								
11								
12								
13								
14								
15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 1,8		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 139 540 $	EXPENSES : 6 986,80 $	BILLING :	

DAILY REPORT	Date : 2021-05-25	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Sunny
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Work at Red Mountain. Early start from work area (3:30pm) due to weather.

COMMENTS ABOUT GEOLOGY:

Anorthosite and small UM dyke with sulphides.

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
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14								
15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 1,8		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 132 553 $	EXPENSES : 6 905,46 $	BILLING :	

DAILY REPORT	Date : 2021-05-26	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Cloud and rain
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

No field work due to bad weather.

COMMENTS ABOUT GEOLOGY:

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	8			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	8			
3	Yan Desforges	IOS	Geology Student	**HSP**	8			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	8			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
10								
11								
12								
13								
14								
15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT :		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 125 648 $	EXPENSES : 2 838,04 $	BILLING :	

DAILY REPORT	Date : 2021-05-27	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Nice
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Laft HSP at 9am. Visit of the center (GEM) target area.

COMMENTS ABOUT GEOLOGY:

Very few outcrop. Large anrthosite outcrop. Sulphides in the anorthosite (?) were found 1 meter below surface using the Beepmat.

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
10								
11								
12								
13								
14								
15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :	MECHANICAL PROBLEM :
HELICOPTER FLIGHT : 1,7	ACCIDENT :
TRUCK TRIP :	TIMEOUT :
SAMPLE SHIPMENTS	IMPROVEMENT TO DO :
PURCHASE :	
MOBILIZATION :	
DEMOBILIZATION :	DISCIPLINARY ADVISE :
DRILLING From: To:	VERIFICATION :
LEFTOVER BUDGET : 122 810 $ EXPENSES : 6 660,04 $	BILLING :

IOS Services Géoscientifiques inc.

DAILY REPORT	**Date :** 2021-05-28	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Snow
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Snow fall. Impossible to get to the property.

COMMENTS ABOUT GEOLOGY:

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	8			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	8			
3	Yan Desforges	IOS	Geology Student	**HSP**	8			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	8			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
10								
11								
12								
13								
14								
15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 1,8		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 116 149 $	EXPENSES : 5 591,93 $	BILLING :	

DAILY REPORT	**Date :** 2021-05-29	PROJECT :1418	LODGE: Auberge Boréale (HSP)
		CLIENT : Go Metals	RESP. : H.Longuépée
		DAILY CALL	
WEATHER : Beau	SIGNATURE :		

COMMENTS ABOUT THE WORK:

Visit of the PGE target area. New mineralized zone found. Historical showing also found.

COMMENTS ABOUT GEOLOGY:

Mafic dykes with sulphides.

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot	**HSP**				
9	Sean Jalbert	Can. Hel.	Mechanics	**HSP**				
10								
11								
12								
13								
14								
15								
			TOTAL ON THE FIELD	7				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 1,8		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 110 558 $	EXPENSES : 7 114,38 $	BILLING :	

DAILY REPORT	**Date :** 2021-05-30	PROJECT :1418	LODGE: Auberge Boréale (HSP)	WEATHER : Sunny	
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :	
		DAILY CALL			

COMMENTS ABOUT THE WORK:

Visit of an EM anomaly SW of the PGE area. Stripping of a mineralized zone. Visit of a small anomaly to the north of the property. Helicopter left at the end of the day.

COMMENTS ABOUT GEOLOGY:

UM dyke with sulphide at PGE. No outcrop to the north.

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**HSP**	11,5			
2	Adrien Boucher	IOS	Geologist in training	**HSP**	11,5			
3	Yan Desforges	IOS	Geology Student	**HSP**	11,5			
4	Frederic Lalancette	IOS	Geology Student	**HSP**	11,5			
5								
6	Harley Slade	Caveman	Client representaive	**HSP**				
7								
8	Gaetan Thibault	Can. Hel.	Pilot					
9	Sean Jalbert	Can. Hel.	Mechanics					
10								
11								
12								
13								
14								
15								
			TOTAL ON THE FIELD	5				

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 2,9		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION :		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 103 443 $	EXPENSES : 8 930,08 $	BILLING :	

DAILY REPORT	Date : 2021-05-31	PROJECT :1418	LODGE:	WEATHER : Sunny.
		CLIENT : Go Metals	RESP. : H.Longuépée	SIGNATURE :
		DAILY CALL		

COMMENTS ABOUT THE WORK:

Demob. Helicopter hours billed to account for the miniumal usage time.

COMMENTS ABOUT GEOLOGY:

	STAFF	Group	Title	Overnight	Time	Out of Camp	Where (if out)	Facture
1	Hugues Longuépée	IOS	Senior Geologist / Project Manager	**Chicoutimi**	8			
2	Adrien Boucher	IOS	Geologist in training		8			
3	Yan Desforges	IOS	Geology Student		8			
4	Frederic Lalancette	IOS	Geology Student		8			
5								
6	Harley Slade	Caveman	Client representaive	**Chicoutimi**				
7								
8								
9								
10								
11								
12								
13								
14								
15								
			TOTAL ON THE FIELD					

SEAPLANE FLIGHT :		MECHANICAL PROBLEM :	
HELICOPTER FLIGHT : 24,1		ACCIDENT :	
TRUCK TRIP :		TIMEOUT :	
SAMPLE SHIPMENTS		IMPROVEMENT TO DO :	
PURCHASE :			
MOBILIZATION :			
DEMOBILIZATION : Havre St-Pierre - Chicoutimi		DISCIPLINARY ADVISE :	
DRILLING From: To:		VERIFICATION :	IOS Services Géoscientifiques inc.
LEFTOVER BUDGET : 94 513 $	EXPENSES : 35 343,29 $	BILLING :	

APPENDIX 2

SAMPLES DESCRIPTION

Table 1: Rock sample and outcrop location and description

Station	Sample number	UTM NAD 83 X	UTM NAD 83 Y	Z (m)	Date	Area	Witness sample	Outcrop / Boulder	Size	Lithology	Colour
1418-21AB001		451389,7	5705855,6		2021-05-16			Outcrop	1 sq.m.	I2O Hyperstene monzonite (mangerite)	Beige
1418-21AB002		451831,9	5699451,3		2021-05-20	Chamber		Outcrop	more than 10 sq. m	I1G Granitic Pegmatite	white to pink
1418-21AB003	141890018	452244,5	5706399,9		2021-05-24	Red Mountain	No	Outcrop	5 m long	I2 Intermediate Intrusive	white with black strips
1418-21AB004	141890020	452175,5	5706541,7		2021-05-24	Red Mountain	No	Outcrop	5 m long	I2 Intermediate Intrusive	white with black strips
1418-21HL001	141890001	451574,0	5705931,0		2021-05-15			Outcrop		I3A Gabbro	
1418-21HL002		451356,0	5705941,0		2021-05-15	PGE		Outcrop		I3H Gabbroic anorthosite	
1418-21HL003		451441,8	5705946,8		2021-05-16	PGE		Outcrop		I2 Intermediate Intrusive	Grey, white, (pink)
1418-21HL004		451194,8	5705805,7		2021-05-16	PGE		Outcrop		I2 Intermediate Intrusive	White and brown
1418-21HL005		450788,9	5705730,5		2021-05-16	PGE		Outcrop		I2 Intermediate Intrusive	White, (pink), (grey)
1418-21HL006	141890002-3	450438,6	5705726,1		2021-05-16	PGE		Subcrop		I4 Ultramafic intrusive	Black, bluish luster
1418-21HL007		450378,4	5705764,1		2021-05-16	PGE		Outcrop		I2O Hyperstene monzonite (mangerite)	White, brown, (pink)
1418-21HL008	141890004	450403,7	5705745,3		2021-05-16	PGE		Subcrop		I4 Ultramafic intrusive	Black
1418-21HL009		450457,5	5705669,4		2021-05-16	PGE		Subcrop		I3G Anorthosite	White
1418-21HL010	141890005-6	450425,5	5705713,3		2021-05-16	PGE		Subcrop		I4 Ultramafic intrusive	Rusty
1418-21HL011		450995,0	5705780,0		2021-05-16	PGE		Subcrop		I3A Gabbro	
1418-21HL012		451303,0	5705819,0		2021-05-16			Subcrop		I3A Gabbro	
1418-21HL013		450491,9	5705813,2		2021-05-19	PGE		Subcrop		I4 Ultramafic intrusive	
1418-21HL014		450554,4	5705874,7	547,3	2021-05-19	PGE		Subcrop		I4 Ultramafic intrusive	Dark Grey
1418-21HL015		450534,2	5705829,7	541,0	2021-05-19	PGE		Subcrop		I4 Ultramafic intrusive	
1418-21HL016		450222,0	5705718,4	562,9	2021-05-19	PGE		Outcrop		I2J Diorite	
1418-21HL017		450093,6	5705668,9		2021-05-19	PGE		Outcrop		I3A Gabbro	
1418-21HL018		449823,9	5705415,0	593,9	2021-05-20	PGE		Subcrop		M1 Gneiss	Grey
1418-21HL019		449501,7	5705391,9	576,4	2021-05-20	PGE		Subcrop		I2 Intermediate Intrusive	
1418-21HL020	141890007	451958,0	5699621,4	528,5	2021-05-20	Chamber	No	Outcrop		I3A Gabbro	
1418-21HL021		451959,1	5699581,3	532,8	2021-05-20	Chamber		Subcrop		I3A Gabbro	
1418-21HL022		451930,8	5699577,0	530,8	2021-05-20	Chamber		Subcrop		I2 Intermediate Intrusive	
1418-21HL023	141890008-11	451924,6	5699574,8	531,3	2021-05-21	Chamber	No	Subcrop		I2 Intermediate Intrusive	White
1418-21HL024		451922,0	5699590,8	530,3	2021-05-21	Chamber		Subcrop		I2 Intermediate Intrusive	
1418-21HL025	141890012	451941,5	5699615,9	531,5	2021-05-21	Chamber	No	Outcrop		I3G Anorthosite	
1418-21HL026	141890013	452813,1	5700986,4	568,5	2021-05-21	Chamber	Yes	Subcrop		I4 Ultramafic intrusive	
1418-21HL027	141890151	452339,0	5706289,8	494,8	2021-05-24	Red Mountain	No	Outcrop		I2 Intermediate Intrusive	
1418-21HL028	141890014	452302,4	5706358,2	500,3	2021-05-24	Red Mountain	No	Subcrop		M1 Gneiss	
1418-21HL029		452332,4	5706292,7	491,0	2021-05-24	Red Mountain		Outcrop		I2 Intermediate Intrusive	
1418-21HL030		452312,8	5706353,2	497,4	2021-05-24	Red Mountain		Outcrop	35 sq.m.	M1 Gneiss	Grey
1418-21HL031		452285,5	5706354,9	502,5	2021-05-24	Red Mountain		Outcrop		M1 Gneiss	
1418-21HL032	141890016	452280,7	5706362,8	502,3	2021-05-24	Red Mountain	No	Subcrop		F2 Semi-massive sulphides	
1418-21HL032b	141890015	452280,6	5706361,2	503,2	2021-05-24	Red Mountain	No	Boulder	20 cm	F2 Semi-massive sulphides	
1418-21HL033		452243,8	5706357,1	501,9	2021-05-24	Red Mountain		Outcrop		I2 Intermediate Intrusive	White
1418-21HL034		452292,3	5706358,1	500,1	2021-05-24	Red Mountain		Subcrop		M1 Gneiss	
1418-21HL035	141890019	452286,3	5706343,9	503,5	2021-05-24	Red Mountain	No	Outcrop		M1 Gneiss	
1418-21HL036		452284,1	5706295,1	503,4	2021-05-24	Red Mountain		Outcrop		M1 Gneiss	Grey
1418-21HL037		452265,6	5706240,0	498,4	2021-05-24	Red Mountain		Outcrop		M1 Gneiss	
1418-21HL038	141890022	452325,5	5706162,2	494,5	2021-05-25	Red Mountain	Yes	Outcrop		I2O Hyperstene monzonite (mangerite)	
1418-21HL039		452289,0	5706183,0	494,9	2021-05-25	Red Mountain		Outcrop		I2O Hyperstene monzonite (mangerite)	
1418-21HL040	141890024	452258,1	5706218,4	497,7	2021-05-25	Red Mountain	Yes	Outcrop		I2 Intermediate Intrusive	
1418-21HL041		452315,1	5706087,3	496,4	2021-05-25	Red Mountain		Outcrop		I3G Anorthosite	White
1418-21HL042		452377,7	5706081,3	492,6	2021-05-25	Red Mountain		Outcrop		I2 Intermediate Intrusive	
1418-21HL043		452444,8	5705963,3	496,2	2021-05-25	Red Mountain		Outcrop		I3G Anorthosite	White
1418-21HL044	141890023	452430,1	5705974,2	494,6	2021-05-25	Red Mountain	Yes	Outcrop		I3G Anorthosite	
1418-21HL045		452414,5	5706012,0	493,8	2021-05-25	Red Mountain		Outcrop		I3H Gabbroic anorthosite	White
1418-21HL046		452354,3	5706038,6	496,0	2021-05-25	Red Mountain		Outcrop		I3H Gabbroic anorthosite	White
1418-21HL047	141890021	452380,1	5706051,1	494,9	2021-05-25	Red Mountain	No	Outcrop		I3H Gabbroic anorthosite	
1418-21HL048		452433,1	5706180,6	497,6	2021-05-25	Red Mountain		Outcrop		I3H Gabbroic anorthosite	
1418-21HL049		452416,0	5706211,7	493,8	2021-05-25	Red Mountain		Outcrop		I3I Gabbro anorthositique	
1418-21HL050	141890025	451165,1	5700730,8	517,9	2021-05-25	Red Mountain	Yes	Outcrop		I3G Anorthosite	
1418-21HL051		451420,1	5702014,7	518,8	2021-05-27	GEM		Subcrop		I3G Anorthosite	
1418-21HL052		451364,4	5702010,1	520,8	2021-05-27	GEM		Outcrop		I3G Anorthosite	White
1418-21HL053	141890026	451434,2	5701998,2	528,5	2021-05-27	GEM	No	Subcrop		I3 Roches intrusives mafiques	Grey
1418-21HL054	141890027	451441,6	5702015,0	519,4	2021-05-27	GEM	No	Subcrop		I3G Anorthosite	

Station	Sample number	Litho texture 1	Litho texture 2	Alteration	Intensity	Mineralization 1	%	Mineralization 2	%	Structure Main	Strike	Dip
1418-21AB001		Equigranular	Homogeneous			PO	2.0					
1418-21AB002		Gradual contact				PO						
1418-21AB003	141890018	Gneissic		Hem						Mineral foliation	80	70
1418-21AB004	141890020			Hem	2					Mineral foliation	238	82
1418-21HL001	141890001											
1418-21HL002												
1418-21HL003		Massive										
1418-21HL004		Pegmatitic	Massive									
1418-21HL005		Massive										
1418-21HL006	141890002-3	Massive				PY	1.0	PO	1.0	Mineralized zone	20	57
1418-21HL007		Massive										
1418-21HL008	141890004	Massive										
1418-21HL009		Foliated								Mineral foliation	252	70
1418-21HL010	141890005-6	Gossan										
1418-21HL011												
1418-21HL012												
1418-21HL013				Lim	4	PO	1.0					
1418-21HL014												
1418-21HL015												
1418-21HL016		Massive										
1418-21HL017												
1418-21HL018		Gneissic										
1418-21HL019												
1418-21HL020	141890007	Massive				PO	60.0	PY	10.0	Mineralized zone	332	0
1418-21HL021												
1418-21HL022												
1418-21HL023	141890008-11	Foliated				PY	5.0					
1418-21HL024		Gossan										
1418-21HL025	141890012	Massive				PO	5.0	MG	25.0			
1418-21HL026	141890013					PY	1.0	MG	40.0			
1418-21HL027	141890151	Foliated								Mineral foliation	210	50
1418-21HL028	141890014					PO	50.0	PO	25.0			
1418-21HL029												
1418-21HL030		Gneissic										
1418-21HL031												
1418-21HL032	141890016											
1418-21HL032b	141890015											
1418-21HL033												
1418-21HL034												
1418-21HL035	141890019											
1418-21HL036		Gneissic										
1418-21HL037												
1418-21HL038	141890022	Massive	Foliated							Mineral foliation	240	72
1418-21HL039		Foliated								Mineral foliation	242	70
1418-21HL040	141890024	Foliated								Mineral foliation	240	66
1418-21HL041		Massive	Foliated									
1418-21HL042		Foliated										
1418-21HL043		Massive										
1418-21HL044	141890023											
1418-21HL045		Foliated								Mineral foliation	254	60
1418-21HL046		Massive										
1418-21HL047	141890021									Dyke	90	74
1418-21HL048												
1418-21HL049										Mineral foliation	270	75
1418-21HL050	141890025	Massive										
1418-21HL051												
1418-21HL052		Massive										
1418-21HL053	141890026					PO				Dyke	340	90
1418-21HL054	141890027					PO						

Station	Sample number	Description
1418-21AB001		
1418-21AB002		
1418-21AB003	141890018	Intermediate intrusive with pyroxene layers. Gneissic.
1418-21AB004	141890020	Could be a boulder
1418-21HL001	141890001	Outcrop NW of a tiny ridge W of a magnetic anomaly. Medium- to fine-grained mafic rock (gabbro). Not magnetic. Massive. A few felsic pods.
1418-21HL002		Medium-grained, rosy white rock. Mangerite ?. A magmatic foliation is highlighted by the aligned pyroxenes. A few mafic fragments (gabbro) are present.
1418-21HL003		Fine- to medium-grained. Magnetic.
1418-21HL004		Medium-grained with coarse plagioclase. Magnetite fragments (mm to cm). Interstitial quartz. Red interstitial mineral in the pegmatitic part of the outcrop. 10-25% mafic (px). 15% K-spars.
1418-21HL005		Intrusive. Intermediate to felsic. Less than 5% mafic minerals. Non magnetic, but presence of small magnetite clusters.
1418-21HL006	141890002-3	Dark and very dense rock. Medium-grained. Labradorite? Little to non magnetic. Ultramafic rock. Thin fractured zone with 10% sulphides (Py-Po). Apple green spot (malachite ?). It is difficult to measure the dip of the fracture, or to define if there are two intersecting fracture sets.
1418-21HL007		Medium-grained with a granitic look. Weathered surface has a pinkish beige color. 30% mafic minerals (+ oxides). Moderately to strongly magnetic.
1418-21HL008	141890004	Dark and very dense rock. Likely ultramafic. Similar to the one at 1418-21HL006. Very few sulphides.
1418-21HL009		Intrusive with a milky grey colour. Grains are poorly defined, but the high proportion of white minerals (>95%) signifies that it is likely plagioclase. Likely fine-grained anorthosite.
1418-21HL010	141890005-6	Thoroughly oxidized rock, likely a gossan. Highly oxidized ultramafic. Ilmenite? One sample is a poorly cohesive (leached) rock.
1418-21HL011		Poorly exposed. Gabbro.
1418-21HL012		Pegmetite. Likely reltaed to the gabbro.
1418-21HL013		Beepmat-detected conductor (18 inches deep). The few recovered fragments suggest a pyrrhotite-rich ultramafic rock.
1418-21HL014		Small fragments from a 12 inches deep hole.
1418-21HL015		Small fragments from a 12 inches deep hole. Labradorite ?
1418-21HL016		Granitic texture. Fine- to medium-grained.
1418-21HL017		Same as 1418-20HL016 but darker.
1418-21HL018		Small hole showing a gneissic rock.
1418-21HL019		Diorite? Gabbro? Gneiss? Slightly magnetic.
1418-21HL020	141890007	Trench with a meter-thick mineralized zone composed of 10% sulphides (Py-Po). This zone is found in an anorthositic gabbro. The gabbro itslef is weakly magnetic.
1418-21HL021		Small granular surface underneath a large boulder. Fine- to medium-grained. Traces of magnetite. Leucograbbro?
1418-21HL022		Small dug-out surface. Light coloured intrusive with 10-15% magnetic clusters (cm-size)
1418-21HL023	141890008-11	Intermediate rock with biotite. Weakly mineralized (Po, Py). Medium-grained. Mafic clusters are a few cm-long and are moderately magnetic. Sulphides are dessiminated or in veinlets. There is a strong sulphides-biotite association. The outcrop is covered with a highly oxidized conductive sand. Several fragments of the outcrop can be cruched by hand suggesting intense leaching.
1418-21HL024		Highly magnetic zone (beepmat). Oxidized crust with a hollow sound. Oxidized crust or boulder.
1418-21HL025	141890012	Old blast showing the contact between the anorthosite and the biotite-bearing intermediate rock. Veinlets and pods of sulphides in the anorthosite. Semi-massives sulphides at the contacts between the two lithologies. Contact at 340 degrees.
1418-21HL026	141890013	Fragments from the EM2 trench.No outcrop nearby. Sample for assay and thin section.
1418-21HL027	141890151	Whte rock both on weathered and fresh surfaces. Granular. Fine-grained. Biotite (5%) and traces of magnetite. It is difficult to measure the foliation due to low proportion of dark minerals.
1418-21HL028	141890014	Trench (3 m long) where the gneiss is cut by a 50 cm-wide lens of pyrrhotite. Traces of chalcopyrite. Strong weathering (oxidation). Lense oriented at 210 degrees.
1418-21HL029		Similar to 1418-21HL027
1418-21HL030		Gneiss. Moderately developped gneissosity. 30% biotite in dark bands and 5% in light bands.
1418-21HL031		Small gneiss outcrop with a cm-wide lens of pyrrhotite at 246 degrees.
1418-21HL032	141890016	Massive sulphides (Po). 18 inches deep hole.
1418-21HL032b	141890015	Rounded bloc of massive sulphides. Grey with coppery luster. Moderately to strongly magnetic.
1418-21HL033		White rock formed of white cm-size lumps surrounded by thin layers of magnetite. Each lumps has a sugary texture and is composed of plagioclase with traces of quartz.
1418-21HL034		Magnetite (?) and sulphides (po) zone.
1418-21HL035	141890019	Strongly weathered grey gneiss. Beepmat gives a conductive signal. Weakly magnetic, very few visible sulphides.
1418-21HL036		Wide gneiss outcrop with few rusty zones and magnetite clusters. Beepmat gives local conductive signal but without massive sulphides.
1418-21HL037		Grey gneiss cut by a medium-grained granite. Contact at 240 degrees. Few sulphide grains in the gneiss.
1418-21HL038	141890022	Intermediate intrusive with 20% pyroxenes. Fine- to medium-grained. Very little magnetite. Few anorthositic (?) bands. Small, coarser-grained, mm-wide dykes cut the intermediate intrusive and are not foliated. Dykes at 206 28 (structure 3).
1418-21HL039		Similar to 1418-21HL038, but with more developed gneissossity.
1418-21HL040	141890024	Strongly foliated intermediate rock similar to what is seen in gneiss. Biotite.
1418-21HL041		Wide outcrop composed of mangerite and anorthosite. The anorthosite is fine-grained, has a granular texture and is barren of mafic minerals. Zone with 20-25% pyroxene are weakly foliated.
1418-21HL042		White rock with 25% mafic minerals (pyroxenes ?) and traces of oxides. Oxides are weakly magnetic (ilmenite?). Felsics form rounded pods with a granular texture.
1418-21HL043		Fine-grained anorthosite. Few mm-size idiomorphic grains.
1418-21HL044	141890023	Granular anorthosite with, locally, 15% mafics.
1418-21HL045		Granular anorthosite with 15-20% deformed pyroxenes. Traces of magnetite.
1418-21HL046		Granular white anorthosite with 20% deformed pyroxenes. Traces of magnetite.
1418-21HL047	141890021	Anorthosite with 20-25% mafics. Cut by a 30 cm-wide mafic dyke with traces of sulphides. It is difficult to trace the contacts possibly because it is ondulating and fairly flat. Sample comes from the dyke.
1418-21HL048		Granular white anorthosite with 5% pyroxenes. Traces of magnetite. Foliated
1418-21HL049		Same as 1418-21HL048 but with up to 30% pyroxenes. Cm-size cluster of ilmenite (?).
1418-21HL050	141890025	Anorthosite. Massive but with subtle compositional changes. A boulder shows dm-size pyroxene with a biotite corona.
1418-21HL051		Poor quality outcrop.
1418-21HL052		Wide outcrop of medium-grained anorthosite. Less than 1% mafic minerals.
1418-21HL053	141890026	Impossible to surely identify the rock but it is not the anorthosite. Blood-coloured oxidation surface. Pyrrhotite with possible bravoite. Beepmat indicates a conductive area (24 000).
1418-21HL054	141890027	Bluish grey, fine-grained anorthosite with 5% sulphides. Dug-out (80 cm deep hole). Beepmat indicates a weak conductive zone (2600) over 100 sq.m.

Station	Sample number	UTM NAD 83 X	UTM NAD 83 Y	Z (m)	Date	Area	Witness sample	Outcrop / Boulder	Size	Lithology	Colour
1418-21HL055		449720,6	5705510,9	593,4	2021-05-29	PGE		Subcrop		I3H Gabbroic anorthosite	
1418-21HL056	141890029	449840,5	5705448,2	591,7	2021-05-29	PGE	No	Subcrop		I3H Gabbroic anorthosite	
1418-21HL057	141890028	449845,6	5705426,6	592,7	2021-05-29	PGE	No	Subcrop		I4 Ultramafic intrusive	Black
1418-21HL058	141890030-31	449867,8	5705429,1	599,5	2021-05-29	PGE	No	Subcrop		I3 Mafic intrusive	Black
1418-21HL059	141890032-35	449866,5	5705390,6	595,2	2021-05-29	PGE	No	Subcrop		I3 Mafic intrusive	
1418-21HL060	141890036-37	450032,7	5705536,0	566,3	2021-05-29	PGE	No	Subcrop		I4 Ultramafic intrusive	Black
1418-21HL061	141890038	450074,8	5705539,5	568,5	2021-05-29	PGE	No	Subcrop		I4 Ultramafic intrusive	
1418-21HL062		448804,5	5703445,7	542,0	2021-05-30	PGE		Subcrop		I3H Gabbroic anorthosite	
1418-21HL063		448757,3	5703436,9	548,1	2021-05-30	PGE		Outcrop		I3H Gabbroic anorthosite	
1418-21HL064	141890039	448715,9	5703351,2	547,0	2021-05-30	PGE		Subcrop		I4 Ultramafic intrusive	

Station	Sample number	Litho texture 1	Litho texture 2	Alteration	Intensity	Mineralization 1	%	Mineralization 2	%	Structure Main	Strike	Dip
1418-21HL055												
1418-21HL056	141890029	Brecciated	Foliated			PO	5.0			Mineral foliation	220	84
1418-21HL057	141890028											
1418-21HL058	141890030-31	Massive										
1418-21HL059	141890032-35											
1418-21HL060	141890036-37											
1418-21HL061	141890038											
1418-21HL062												
1418-21HL063		Foliated								Mineral foliation	226	88
1418-21HL064	141890039											

Station	Sample number	Description
1418-21HL055		Little subcrop of what has been previously mapped as mangerite but is a gabbroic anorthosite. Average 15% mafic. Medium-grained and weakly magnetic.
1418-21HL056	141890029	Complex outcrop with gneiss (or gneiss fragments), dark magnetic layers (UM dykes?) and bands (dykes?) cut by a gabbroic anorthosite. Few sulphides.
1418-21HL057	141890028	Dark magnetic rock (UM) with pods of massive sulphides. Bravoite (?). Beepmat at 12 000.
1418-21HL058	141890030-31	Dark fine-grained rock. Weakly magnetic. Seems to contains 5% of plagioclase in aphanitic clusters. Traces of sulphides. Small pod of sulphides at the edge of the dyke.
1418-21HL059	141890032-35	Conductive subcrop (Beepmat at 13 000). Trenched over 2 meters. On the east side, there is strongly oxidized mafic dyke (?) with 5% sulphides. At the center and west of the trench there are semi-massive sulphides (Po).
1418-21HL060	141890036-37	Mafic to ultramafic intrusive. Magnetic. Fine-grained (acicular pyroxenes). Traces of sulphides with more important concentration along fractures. Appears to be a 15 m-wide dyke oriented at 340 degrees. Historic showing.
1418-21HL061	141890038	Old blast with dark medium-grained rock. Up to 25% sulphides.
1418-21HL062		White sugary rock with 5-10% mafics (pyroxenes, biotite) and oxides. Felsics are plagioclases (traces of labradorite).
1418-21HL063		Gabbroic anorthosite with 15% mafics.
1418-21HL064	141890039	Weakly magnetic dark rock (UM) with sulphides (Po). Small trench, 12 inches deep, under conductive beepmat signal. Signal at 12400 once dug-out.

APPENDIX 3

ROCK ANALYSIS

Table 1: Platinum group elements analysis by fire assay and multi-elements by ICP-AES aqua regia digestion for some samples and whole rock analysis for others selected samples (ALS Minerals)

						ORE GRADE					ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)												
PROJECT NUMBER	SAMPLE	UTMX (nad 83)	UTMY (nad 83)	CERTIFICATE	DATE	Ag	Au	Cu	Ni	Zn	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %
Nb	39				D.L.	(g/t)	(g/t)	(%)	(%)	(%)	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
Compte	Historique					23746	32714	23744	23746	23746	19350	19361	19285	19361	19361	19361	19361	19359	19361	19707	19361	19649	19352
99 Percentile	Historique					10,0	3,825	0,382%	0,237%	0,130%	10,4	5,43	1625	30	510	1,6	9	6,00	6,6	363	527	3170	24,15
Moyenne	Historique					1,6	0,200	0,024%	0,017%	0,014%	0,5	1,74	70	-8	83	-0,3	0	0,93	0,0	31	68	191	4,06
Écart-type	Historique					59,0	2,149	0,202%	0,156%	0,227%	4,6	1,31	464	35	118	0,6	27	1,25	8,7	96	114	647	4,19
Maximum	Historique					7710,0	171,500	24,800%	13,700%	17,500%	100,0	13,20	9990	4360	2480	28,5	2200	21,80	523,0	4130	2040	10000	50,00
Minimum	Historique					0,0	-0,050	0,000%	0,000%	0,000%	-0,2	-0,01	-2	-10	-10	-0,5	-2	-0,01	-0,5	-1	-1	-1	-0,01
Compte	Projet					26	26	26	26	26	25	25	25	25	25	25	25	25	25	25	25	24	25
Moyenne	Projet					0,5	0,046	0,394%	0,271%	0,003%	0,5	0,83	0	-7	47	-0,5	0	0,30	-0,5	359	243	2611	14,81
Écart-type	Projet					0,6	0,071	0,766%	0,380%	0,004%	0,7	0,51	3	7	56	0,2	3	0,42	0,0	359	482	2374	11,38
Maximum	Projet					3,0	0,333	3,970%	1,775%	0,017%	3,0	1,79	8	10	210	0,5	5	1,68	-0,5	1420	2040	7810	37,80
Minimum	Projet					0,0	0,000	0,000%	0,000%	0,000%	-0,2	0,23	-2	-10	10	-0,5	-2	-0,01	-0,5	6	12	10	1,30
1418	141890001	451574	5705931	VO21153815	2021-07-27	0,0	0,00	0,001%	0,001%	0,002%	-0,2	1,56	-2	10	100	-0,5	-2	1,54	-0,5	6	12	10	1,93
1418	141890002	450439	5705726	VO21153815	2021-07-27	0,5	0,08	0,161%	0,064%	0,002%	0,5	0,42	-2	-10	100	-0,5	-2	0,36	-0,5	167	94	1610	7,08
1418	141890003	450439	5705726	VO21153815	2021-07-27	0,0	0,00	0,004%	0,010%	0,002%	-0,2	0,66	-2	-10	30	-0,5	-2	0,46	-0,5	17	75	39	1,30
1418	141890004	450404	5705745	VO21153815	2021-07-27	0,0	0,00	0,011%	0,010%	0,002%	-0,2	0,90	-2	10	170	-0,5	-2	1,68	-0,5	28	21	110	3,71
1418	141890005	450418	5705705	VO21153815	2021-07-27	0,2	0,02	0,036%	0,025%	0,001%	0,2	0,23	-2	-10	10	-0,5	-2	0,08	-0,5	60	21	362	2,42
1418	141890006	450418	5705705	VO21153815	2021-07-27	0,6	0,04	0,042%	0,026%	0,001%	0,6	0,27	3	-10	10	-0,5	4	0,02	-0,5	76	43	421	29,80
1418	141890007	451958	5699621	VO21153815/VO21205018	2021-07-27/2021-08-27	1,2	0,02	0,781%	0,652%	0,016%	1,2	0,71	3	-10	20	-0,5	5	0,16	-0,5	1120	378	7810	37,80
1418	141890008	451925	5699575	VO21153815	2021-07-27																		
1418	141890009	451925	5699575	VO21153815	2021-07-27																		
1418	141890010	451925	5699575	VO21153815	2021-07-27	0,0	0,00	0,047%	0,011%	0,005%	-0,2	1,79	-2	-10	210	-0,5	-2	0,22	-0,5	40	142	467	11,10
1418	141890011	451925	5699575	VO21153815	2021-07-27	1,1	0,03	0,226%	0,007%	0,002%	1,1	0,76	-2	-10	40	-0,5	2	0,10	-0,5	195	253	2260	17,30
1418	141890012	451942	5699616	VO21153815	2021-07-27	0,0	0,00	0,094%	0,120%	0,001%	-0,2	1,72	-2	-10	80	-0,5	-2	0,63	-0,5	142	32	937	6,71
1418	141890013	452813	5700986	VO21153815/VO21205018	2021-07-27/2021-08-27	0,3	0,00	0,172%	0,340%	0,000%	0,3	1,57	4	10	10	-0,5	5	0,10	-0,5	856	120	1720	35,10
1418	141890014	452302	5706358	VO21153815	2021-07-27	0,3	0,06	0,565%	0,196%	0,009%	0,3	1,30	2	-10	50	-0,5	3	0,02	-0,5	362	2040	5650	27,30
1418	141890015	452281	5706361	VO21153815/VO21205018	2021-07-27/2021-08-27	0,9	0,03	0,578%	1,775%	0,005%	0,9	0,28	2	-10	10	-0,5	4	-0,01	-0,5	1420	639	5780	34,30
1418	141890016	452281	5706363	VO21153815/VO21205018	2021-07-27/2021-08-27	3,0	0,33	3,970%	0,877%	0,017%	3	0,84	3	-10	20	-0,5	2	0,01	-0,5	691	1475	>10000	31,30
1418	141890018	452245	5706400	VO21153815	2021-07-27																		
1418	141890019	452286	5706344	VO21153815	2021-07-27																		
1418	141890020	452176	5706542	VO21153815	2021-07-27																		
1418	141890021	452380	5706051	VO21153815	2021-07-27																		
1418	141890022	452326	5706162	VO21153815	2021-07-27																		
1418	141890023	452430	5705974	VO21153815	2021-07-27																		
1418	141890024	452258	5706218	VO21153815	2021-07-27																		
1418	141890025	451165	5700731	VO21153815	2021-07-27																		
1418	141890026	451434	5701998	VO21153815	2021-07-27	0,8	0,03	0,190%	0,445%	0,000%	0,8	1,00	8	-10	10	-0,5	-2	0,41	-0,5	313	33	1900	10,20
1418	141890027	451442	5702015	VO21153815	2021-07-27	0,5	0,03	0,239%	0,400%	0,001%	0,5	1,02	-2	10	10	-0,5	-2	0,40	-0,5	265	29	2390	7,18
1418	141890028	449846	5705427	VO21153815	2021-07-27	0,5	0,06	0,370%	0,273%	0,001%	0,5	0,29	-2	-10	10	-0,5	2	0,15	-0,5	508	27	3700	15,35
1418	141890029	449841	5705448	VO21153815	2021-07-27																		
1418	141890030	449868	5705429	VO21153815	2021-07-27	0,3	0,06	0,118%	0,038%	0,001%	0,3	0,59	-2	-10	40	-0,5	-2	0,23	-0,5	89	69	1180	4,71
1418	141890031	449868	5705429	VO21153815	2021-07-27																		
1418	141890032	449867	5705391	VO21153815	2021-07-27	0,3	0,06	0,186%	0,197%	0,002%	0,3	0,40	-2	-10	10	-0,5	-2	0,18	-0,5	243	70	1860	9,49
1418	141890033	449867	5705391	VO21153815	2021-07-27	0,6	0,07	0,523%	0,404%	0,004%	0,6	0,99	2	-10	40	-0,5	2	0,06	-0,5	596	94	5230	18,75
1418	141890034	449867	5705391	VO21153815	2021-07-27																		
1418	141890035	449867	5705391	VO21153815	2021-07-27	0,5	0,19	0,310%	0,241%	0,003%	0,5	0,37	-2	-10	10	-0,5	-2	0,23	-0,5	322	36	3100	12,30
1418	141890036	450033	5705536	VO21153815	2021-07-27	0,0	0,00	0,018%	0,026%	0,004%	-0,2	1,53	-2	-10	140	0,5	-2	0,06	-0,5	68	107	184	3,86
1418	141890037	450033	5705536	VO21153815	2021-07-27	1,1	0,02	0,452%	0,341%	0,002%	1,1	0,92	3	-10	20	-0,5	2	0,24	-0,5	482	69	4520	16,00
1418	141890038	450075	5705540	VO21153815	2021-07-27	0,5	0,02	0,426%	0,178%	0,002%	0,5	0,34	-2	-10	20	-0,5	-2	0,17	-0,5	457	91	4260	11,85
1418	141890039	448716	5703351	VO21153815	2021-07-27	0,9	0,05	0,717%	0,383%	0,002%	0,9	0,24	-2	-10	10	-0,5	-2	0,09	-0,5	449	108	7170	13,50
1418	141890151	452339	5706290	VO21153815	2021-07-27	0,0	0,00	0,000%	0,000%	0,000%													

		ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																						Xy-OG46		
PROJECT NUMBER	**SAMPLE**	**Ga**	**Hg**	**K**	**La**	**Mg**	**Mn**	**Mo**	**Na**	**Ni**	**P**	**Pb**	**S**	**Sb**	**Sc**	**Sr**	**Th**	**Ti**	**Tl**	**U**	**V**	**W**	**Zn**	**Ag**	**Cu**	**Ni**
		ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Nb	**39**	**10**	**1**	**0.01**	**10**	**0.01**	**5**	**1**	**0.01**	**1**	**10**	**2**	**0.01**	**2**	**1**	**1**	**20**	**0.01**	**10**	**10**	**1**	**10**	**2**	**1**	**0.001**	**0,001**
Compte	Historique	19361	19361	19361	19361	19361	19361	19350	19361	19664	19302	19358	19544	19347	19361	19361	17144	19341	19361	19361	19361	19360	19689	33	65	10
99 Percentile	Historique	20	1	1,92	40	4,50	1730	64	0,55	1965	4040	156	8,11	41	27	197	0	0,48	10	10	264	110	1301	1500	13,02	3,10
Moyenne	Historique	1	-1	0,40	4	1,09	357	14	0,10	124	545	18	0,89	8	6	26	-19	0,13	-10	-10	66	-3	102	595	2,11	2,47
Écart-type	Historique	10	1	0,48	16	1,03	381	253	0,11	490	741	266	1,56	215	6	45	6	0,11	2	3	149	102	520	494	3,03	0,84
Maximum	Historique	100	66	4,15	450	17,95	10700	9580	1,81	10000	9950	10000	10,00	10000	54	2380	320	1,53	20	200	5350	8960	10000	1500,0	24,8	3,1
Minimum	Historique	-10	-1	-0,01	-10	-0,01	-5	-1	-0,01	-1	-10	-2	-0,01	-2	-1	-1	-20	-0,01	-10	-10	-1	-10	-2	88,0	1,1	1,0
Compte	Projet	25	25	25	25	25	25	25	25	24	25	25	21	25	25	25	25	25	25	25	25	25	25	0	1	1
Moyenne	Projet	-5	-1	0,26	-5	0,56	123	3	0,06	2194	146	-1	4,09	-2	2	23	-20	0,11	-10	-10	64	-10	33	#DIV/0!	3,97	1,78
Écart-type	Projet	9	1	0,41	11	0,50	85	4	0,07	2287	259	2	3,17	0	1	31	0	0,11	0	0	77	0	43	#DIV/0!	#DIV/0!	#DIV/0!
Maximum	Projet	10	1	1,38	30	2,10	383	16	0,31	8770	1260	5	8,75	-2	5	112	-20	0,49	-10	-10	331	-10	168	0	3,97	1,78
Minimum	Projet	-10	-1	0,01	-10	0,02	32	-1	-0,01	12	10	-2	0,06	-2	-1	-1	-20	0,01	-10	-10	3	-10	-2	0	3,97	1,78
1418	141890001	-10	1	0,11	-10	0,95	355	1	0,11	12	110	-2	0,06	-2	1	32	-20	0,05	-10	-10	19	-10	16			
1418	141890002	-10	-1	0,04	10	0,68	171	3	0,04	643	190	4	2,56	-2	4	39	-20	0,04	-10	-10	28	-10	18			
1418	141890003	-10	-1	0,07	-10	0,68	192	1	0,05	97	40	-2	0,16	-2	2	12	-20	0,05	-10	-10	19	-10	16			
1418	141890004	-10	1	0,06	10	2,10	383	1	0,07	97	1260	5	0,42	-2	2	112	-20	0,07	-10	-10	45	-10	19			
1418	141890005	-10	-1	0,02	-10	0,51	120	1	-0,01	254	10	4	1,07	-2	3	1	-20	0,02	-10	-10	23	-10	11			
1418	141890006	-10	-1	0,01	-10	0,19	110	10	-0,01	260	100	-2	1,13	-2	3	-1	-20	0,02	-10	-10	22	-10	6			
1418	141890007	10	-1	0,10	-10	0,23	93	2	0,06	6520	30	-2	>10.0	-2	1	24	-20	0,17	-10	-10	331	-10	156			
1418	141890008																									
1418	141890009																									
1418	141890010	10	-1	1,17	30	1,00	97	3	0,14	110	560	3	1,12	-2	3	51	-20	0,29	-10	-10	103	-10	48			
1418	141890011	10	-1	1,38	-10	0,41	69	12	0,05	74	100	-2	4,95	-2	2	15	-20	0,49	-10	-10	251	-10	19			
1418	141890012	-10	-1	0,26	-10	0,29	72	-1	0,31	1200	80	-2	3,51	-2	1	104	-20	0,09	-10	-10	38	-10	10			
1418	141890013	-10	-1	0,11	-10	0,79	32	16	0,03	3400	30	-2	>10.0	-2	2	12	-20	0,02	-10	-10	156	-10	-2			
1418	141890014	10	-1	0,81	20	0,64	179	4	0,01	1960	290	-2	5,00	-2	3	3	-20	0,25	-10	-10	80	-10	90			
1418	141890015	-10	-1	0,01	-10	0,07	51	3	-0,01	>10000	10	-2	>10.0	-2	1	-1	-20	0,03	-10	-10	33	-10	50			1,775
1418	141890016	10	-1	0,38	-10	0,42	138	4	0,01	8770	20	-2	>10.0	-2	3	-1	-20	0,17	-10	-10	70	-10	168		3,97	
1418	141890018																									
1418	141890019																									
1418	141890020																									
1418	141890021																									
1418	141890022																									
1418	141890023																									
1418	141890024																									
1418	141890025																									
1418	141890026	-10	-1	0,03	-10	0,02	64	3	0,16	4450	110	-2	6,23	-2	-1	48	-20	0,01	-10	-10	6	-10	3			
1418	141890027	-10	-1	0,04	-10	0,02	49	1	0,17	4000	70	-2	6,58	-2	-1	53	-20	0,01	-10	-10	3	-10	5			
1418	141890028	-10	-1	0,01	-10	0,31	119	2	0,03	2730	100	-2	8,55	-2	2	2	-20	0,03	-10	-10	13	-10	11			
1418	141890029																									
1418	141890030	-10	-1	0,02	-10	0,29	86	1	0,06	383	70	-2	1,32	-2	2	16	-20	0,05	-10	-10	31	-10	9			
1418	141890031																									
1418	141890032	-10	-1	0,02	-10	0,26	95	2	0,04	1970	60	-2	3,72	-2	3	6	-20	0,13	-10	-10	53	-10	18			
1418	141890033	-10	-1	0,31	10	0,78	85	2	0,03	4040	190	-2	8,69	-2	4	4	-20	0,17	-10	-10	63	-10	39			
1418	141890034																									
1418	141890035	-10	-1	0,01	-10	0,38	135	3	0,03	2410	20	-2	6,25	-2	2	4	-20	0,06	-10	-10	24	-10	28			
1418	141890036	10	-1	1,19	-10	1,82	160	1	0,06	255	90	-2	0,56	-2	5	3	-20	0,24	-10	-10	79	-10	39			
1418	141890037	-10	-1	0,35	-10	0,62	76	2	0,10	3410	60	3	8,13	-2	3	28	-20	0,13	-10	-10	68	-10	23			
1418	141890038	-10	-1	0,02	-10	0,23	72	2	0,05	1780	30	-2	7,19	-2	2	12	-20	0,05	-10	-10	28	-10	18			
1418	141890039	-10	-1	0,01	-10	0,25	74	3	0,02	3830	20	2	8,75	-2	2	3	-20	0,02	-10	-10	17	-10	19			
1418	141890151																									

		ME-XRF26																PGM-23			S-IR08
PROJECT NUMBER	**SAMPLE**	**Al2O3**	**BaO**	**CaO**	**Cr2O3**	**Fe2O3**	**K2O**	**MgO**	**MnO**	**Na2O**	**P2O5**	**SO3**	**SiO2**	**SrO**	**TiO2**	**Total**	**LOI 1000**	**Au**	**Pt**	**Pd**	**S**
		%	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**ppm**	**ppm**	**ppm**	**%**
Nb	**39**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**		**0.01**	**0.001**	**0.005**	**0.001**	**0,01**
Compte	Historique	91	91	58	91	91	91	91	91	91	91	91	91	91	80	91	97	2964	2964	2964	316
99 Percentile	Historique	26,35	2,12	12,11	0,28	80,91	5,46	25,44	0,66	5,62	0,34	3,65	99,35	0,47	9,32	102,79	10,09	0,141	0,173	0,198	26,06
Moyenne	Historique	5,92	0,15	3,31	0,03	17,32	0,49	5,23	0,21	0,87	0,06	0,66	27,69	0,07	1,14	100,07	3,34	0,007	0,014	0,017	11,53
Écart-type	Historique	7,77	0,54	3,86	0,07	22,36	1,04	7,03	0,15	1,55	0,09	0,77	28,21	0,09	2,39	0,76	4,00	0,069	0,203	0,220	7,36
Maximum	Historique	26,50	4,66	12,20	0,44	86,52	5,86	26,70	0,67	6,12	0,34	4,09	99,80	0,48	15,90	103,15	10,41	3,270	7,090	9,930	39,70
Minimum	Historique	0,05	-0,01	-0,01	-0,01	0,20	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	0,15	-0,01	-0,01	98,81	-3,14	-0,001	-0,005	-0,001	-0,01
Compte	Projet	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	25	25	25	4
Moyenne	Projet	15,05	0,12	4,16	0,07	11,13	1,79	8,06	0,17	3,15	0,07	1,02	54,27	0,06	0,74	100,60	0,57	0,048	0,041	0,070	22,60
Écart-type	Projet	8,24	0,16	2,51	0,13	8,78	2,04	8,89	0,18	2,11	0,08	1,25	5,11	0,05	0,42	1,35	0,79	0,072	0,046	0,066	2,50
Maximum	Projet	26,33	0,50	8,79	0,44	25,16	5,86	22,80	0,60	5,56	0,32	4,09	61,68	0,15	1,57	103,15	2,53	0,333	0,178	0,252	26,10
Minimum	Projet	2,01	-0,01	1,27	-0,01	1,11	0,01	0,32	0,01	0,10	0,02	0,13	46,95	-0,01	0,11	98,81	-0,71	-0,001	-0,005	0,002	20,30
1418	141890001																	-0,001	-0,005	0,003	
1418	141890002																	0,084	0,016	0,01	
1418	141890003																	-0,001	-0,005	0,003	
1418	141890004																	0,001	-0,005	0,002	
1418	141890005																	0,02	-0,005	0,003	
1418	141890006																	0,04	0,057	0,133	
1418	141890007																	0,021	0,178	0,082	21,50
1418	141890008	18,64	0,06	5,34	0,01	6,54	1,76	4,79	0,08	3,55	0,06	0,42	56,8	0,08	0,55	99,86	1,04				
1418	141890009	19,48	0,06	5,02	0,02	8,01	1,46	1,75	0,03	4,43	0,08	1,49	56,3	0,09	1,57	101,45	1,49				
1418	141890010																	-0,001	0,005	0,008	
1418	141890011																	0,032	0,025	0,06	
1418	141890012																	-0,001	0,017	0,016	
1418	141890013																	0,002	-0,005	0,019	22,50
1418	141890014																	0,055	0,092	0,07	
1418	141890015																	0,027	0,024	0,18	26,10
1418	141890016																	0,333	0,006	0,162	20,30
1418	141890018	2,01	-0,01	1,35	0,16	21,99	0,01	22,8	0,6	0,1	0,04	0,64	51,03	-0,01	0,29	100,85	-0,43				
1418	141890019	13,9	0,13	2,52	0,26	9,82	2,46	1,47	0,05	3,28	0,13	1,33	61,68	0,05	0,97	101	2,53				
1418	141890020	18,14	0,28	2,9	-0,01	5,01	5,86	1,05	0,12	4,65	0,32	0,13	58,8	0,05	1,1	98,83	0,19				
1418	141890021	4,27	-0,01	1,51	0,02	22,69	0,04	21,3	0,28	0,22	0,02	3,03	47,49	-0,01	0,61	102,75	0,95				
1418	141890022	20,97	0,08	6,85	0,01	7,24	0,93	4,78	0,07	4,26	0,02	0,17	52,78	0,12	1,34	99,87	0,17				
1418	141890023	26,33	0,09	8,79	-0,01	1,11	1,05	0,32	0,01	5,56	0,02	0,13	56,22	0,15	0,11	100,15	0,26				
1418	141890024	19,75	0,42	2,81	0,01	3,55	5,42	0,96	0,05	5,15	0,03	0,17	60,96	0,08	0,82	100,65	0,41				
1418	141890025	26,06	0,05	8,67	0,01	2,03	0,96	1,13	0,03	5,17	0,03	0,2	54,87	0,13	0,17	100,3	0,75				
1418	141890026																	0,03	0,061	0,057	
1418	141890027																	0,031	0,096	0,062	
1418	141890028																	0,059	0,034	0,093	
1418	141890029	6,14	0,03	3,07	0,44	21,79	0,22	18,75	0,35	0,57	0,16	0,22	46,95	0,01	0,84	99,02	-0,71				
1418	141890030																	0,056	0,014	0,032	
1418	141890031	3,89	0,01	1,27	0,04	25,16	0,05	19,55	0,38	0,24	0,02	4,09	47,16	0,01	0,59	103,15	0,43				
1418	141890032																	0,061	0,03	0,058	
1418	141890033																	0,068	0,085	0,097	
1418	141890034	10,92	0,02	4,09	0,02	17,98	0,28	13,15	0,26	1,81	0,03	2,03	49,77	0,05	0,68	101,75	0,45				
1418	141890035																	0,194	0,04	0,08	
1418	141890036																	-0,001	0,005	0,009	
1418	141890037																	0,015	0,095	0,132	
1418	141890038																	0,022	0,084	0,138	
1418	141890039																	0,054	0,08	0,252	
1418	141890151	20,14	0,5	3,98	-0,01	2,94	4,54	0,98	0,04	5,15	0,04	0,21	58,94	0,1	0,77	98,81	0,45				

APPENDIX 4

ROCK ANALYTICAL QUALITY CONTROL

ANALYTICAL QUALITY CONTROL

Quality control of chemical analyses is a complex process that must be adapted to the different projects. As part of the exploration program, quality control was carried out at two levels, by IOS and the ALS Minerals laboratory. This control was done by inserting certified reference materials, blank and analytical replicates.

IOS quality control

Analytical quality control involved the analysis of one certified reference materials and one type of blank that were inserted in the samples sequence before the shipping for analysis at ALS Minerals in Val d'Or, Québec.

The PTM-1a is a Canadian certified reference material of Natural Resources Canada was introduced twice in this project. The PTM-1a is nickel-copper sulphide matte noble metals. It is certified for gold, copper, nickel, palladium and platinum and the certified values are presented in the header of ***appendix 4***, ***table 1*** with the CRM (certified reference material) results. The multi-elements results by aqua regia digestion finishing by ICP-AES shows some deviations in yellow for both reference materials but these are for uncertified items and we have no history for this reference material in the IOS databases. The reference material identified 141890017 did not have sufficient material (NSS) for the methods PGM-ICP23, Ag-OG46 and Cu-OG46 but the other (141890036,1) the results obtained are included in the confidence interval of the certified values.

Two (2) quartz blank in block was inserted among the rock samples for analysis. This material is crushed material from the La Galette quartzite (Sitec Amerique du Nord inc.) which was cleaned prior to insertion for analysis. Analytical results are presented in ***table 2***, ***appendix 4***. Some ICP-AES results (method ME-ICP41) are deviating from the historical average by more than twice (yellow) or three times (orange) the standard deviation (95% and 99.7% confidence intervals). Sample 141890026,1 is slightly contaminated in Cr, Cu and Ni. For the other 2 methods (ME-XRF26, PGM-ICP23) there are no problems detected.

ALS Minerals quality control

Results from the ALS Minerals quality control (blank, reference material and replicates) are listed in ***appendix 4***, ***tables 3*** and ***4***. The results are included in the confidence intervals proposed so no problem detected for all the methods for de ALS Minerals certified reference material. No problem detected for ALS Minerals replicates too.

CHIMISTE Karen Gagné 2003-137

2021-1418_Report
HSP prospection, November 29th, 2021

Karen Gagné, chemist
OCQ nº 2003-137

				ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																		
PROJECT NUMBER	SAMPLE	CERTIFICATE	DATE	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn
				ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm
Nb Analyses:	**2**	**D.L.**		**0.2**	**0.01**	**2**	**10**	**10**	**0.5**	**2**	**0.01**	**0.5**	**1**	**1**	**1**	**0.01**	**10**	**1**	**0.01**	**10**	**0.01**	**5**
Compte	Historique			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Moyenne	Historique			0,0	0,04	2315	-10	-10	-0,5	15	0,01	3,2	0	8	0	1,39	-10	1	0,01	-10	-0,01	0
Écart-type (σ)	Historique			0,0	0,00	134	0	0	0,0	24	0,00	5,2	0	1	0	0,01	0	0	0,00	0	0,00	7
Maximum	Historique			0,0	0,04	2410	-10	-10	-0,5	32	0,01	6,9	0	8	0	1,40	-10	1	0,01	-10	-0,01	5
Minimum	Historique			0,0	0,04	2220	-10	-10	-0,5	-2	0,01	-0,5	0	7	0	1,38	-10	1	0,01	-10	-0,01	-5
X+2σ	Historique			0,0	0,04	2584	-10	-10	-0,5	63	0,01	13,7	0	9	0	1,42	-10	1	0,01	-10	-0,01	14
X-2σ	Historique			0,0	0,04	2046	-10	-10	-0,5	-33	0,01	-7,3	0	6	0	1,36	-10	1	0,01	-10	-0,01	-14
N > X+2σ	Historique			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N < X-2σ	Historique			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Compte	Projet			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Moyenne	Projet			#DIV/0!	0,04	2315	-10	-10	-0,5	15	0,01	3,2	#DIV/0!	8	#DIV/0!	1,39	-10	1	0,01	-10	-0,01	0
Écart-type	Projet			#DIV/0!	0,00	134	0	0	0,0	24	0,00	5,2	#DIV/0!	1	#DIV/0!	0,01	0	0	0,00	0	0,00	7
Maximum	Projet			0,0	0,04	2410	-10	-10	-0,5	32	0,01	6,9	0	8	0	1,40	-10	1	0,01	-10	-0,01	5
Minimum	Projet			0,0	0,04	2220	-10	-10	-0,5	-2	0,01	-0,5	0	7	0	1,38	-10	1	0,01	-10	-0,01	-5
X+2σ	Projet			#DIV/0!	0,04	2584	-10	-10	-0,5	63	0,01	13,7	#DIV/0!	9	#DIV/0!	1,42	-10	1	0,01	-10	-0,01	14
X-2σ	Projet			#DIV/0!	0,04	2046	-10	-10	-0,5	-33	0,01	-7,3	#DIV/0!	6	#DIV/0!	1,36	-10	1	0,01	-10	-0,01	-14
PTM-1	**Limite inférieure (-2σ)**																					
PTM-1	**Valeur certifiée**																					
PTM-1	**Limite supérieure (+2σ)**																					
1418	141890017	VO21153815	2021-07-27	>100	0,04	2410	-10	-10	-0,5	-2	0,01	6,9	>10000	8	>10000	1,40	-10	1	0,01	-10	-0,01	5
1418	141890036,1	VO21153815	2021-07-27	>100	0,04	2220	-10	-10	-0,5	32	0,01	-0,5	>10000	7	>10000	1,38	-10	1	0,01	-10	-0,01	-5

ANALYTICAL QUALITY CONTROL:
PTM-1a CERTIFIED REFERENCE MATERIAL ANALYSIS

ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																PGM-ICP23			Ag-OG46	Cu-OG46
Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Au	Pt	Pd	Ag	Cu
ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
1	0.01	1	10	2	0.01	2	1	1	20	0.01	10	10	1	10	2	0,001	0,005	0,001	1	0.001
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
15	0,00	0	0	328	7,14	2	2	17	-20	-0,01	0	0	1	5	17	1,635	3,545	4,965	65	12
1	0,01	0	14	21	0,04	6	4	25	0	0,00	14	14	0	21	1	2,312	5,013	7,022	92	18
16	0,01	0	10	342	7,16	6	4	34	-20	-0,01	10	10	1	20	17	3,270	7,090	9,930	130	25
14	-0,01	0	-10	313	7,11	-2	-1	-1	-20	-0,01	-10	-10	1	-10	16	3,270	7,090	9,930	130	25
18	0,03	0	28	369	7,21	13	9	66	-20	-0,01	28	28	1	47	18	6,259	13,572	19,008	249	47
12	-0,03	0	-28	286	7,06	-9	-6	-33	-20	-0,01	-28	-28	1	-37	15	-2,989	-6,482	-9,078	-119	-23
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
15	0,00	#DIV/0!	0	328	7,14	2	2	17	-20	-0,01	0	0	1	5	17	3,270	7,090	9,930	130	25
1	0,01	#DIV/0!	14	21	0,04	6	4	25	0	0,00	14	14	0	21	1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
16	0,01	0	10	342	7,16	6	4	34	-20	-0,01	10	10	1	20	17	3,270	7,090	9,930	130	25
14	-0,01	0	-10	313	7,11	-2	-1	-1	-20	-0,01	-10	-10	1	-10	16	3,270	7,090	9,930	130	25
18	0,03	#DIV/0!	28	369	7,21	13	9	66	-20	-0,01	28	28	1	47	18	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
12	-0,03	#DIV/0!	-28	286	7,06	-9	-6	-33	-20	-0,01	-28	-28	1	-37	15	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
																3,10	**7,07**	**9,66**		**24,92**
																3,30	**7,29**	**10,07**		**24,96**
																3,50	**7,51**	**10,48**		**25,00**
16	-0,01	>10000	-10	342	7,11	-2	4	-1	-20	-0,01	10	-10	1	-10	17	NSS	NSS	NSS	NSS	NSS
14	0,01	>10000	10	313	7,16	6	-1	34	-20	-0,01	-10	10	1	20	16	3,27	7,09	9,93	130	24,8

ANALYTICAL QUALITY CONTROL :
QUARTZ ANALYSIS (INTERNAL REFERENCE MATERIAL)

				ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																								
PROJECT NUMBER	SAMPLE	CERTIFICATE	DATE	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S
				ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%
Nb Analyses:	2	D.L.		0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01
Compte	Historique			14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
N > LD	Historique			14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Moyenne	Historique			-0,2	0,03	-1	-10	-10	-0,5	-2	0,00	-0,5	-1	12	2	0,35	-10	-1	-0,01	10	0,00	36	0	-0,01	2	15	-2	0,00
Écart'-type (σ)	Historique			0,0	0,01	3	0	0	0,0	0	0,01	0,0	1	5	1	0,06	0	0	0,01	0	0,01	7	1	0,01	4	5	0	0,02
Maximum	Historique			-0,2	0,04	8	-10	-10	-0,5	-2	0,02	-0,5	1	25	6	0,44	-10	-1	0,01	10	0,02	49	3	0,01	15	20	-2	0,04
Minimum	Historique			-0,2	0,02	-2	-10	-10	-0,5	-2	-0,01	-0,5	-1	6	1	0,24	-10	-1	-0,01	10	-0,01	22	-1	-0,01	-1	10	-2	-0,01
X+2σ	Historique			-0,2	0,04	4	-10	-10	-0,5	-2	0,02	-0,5	0	22	4	0,46	-10	-1	0,01	10	0,02	50	2	0,01	10	25	-2	0,03
X'-2σ	Historique			-0,2	0,01	-7	-10	-10	-0,5	-2	-0,02	-0,5	-2	2	-1	0,23	-10	-1	-0,02	10	-0,02	22	-3	-0,02	-6	5	-2	-0,03
N > X+2σ	Historique			0	0	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	0	1	0	0	1
N < X-2σ	Historique			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Compte	Projet			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Moyenne	Projet			-0,2	0,03	-2	-10	-10	-0,5	-2	0,01	-0,5	0	23	4	0,32	-10	-1	0,00	10	0,00	28	2	0,00	8	10	-2	0,03
Écart-type	Projet			0,0	0,01	0	0	0	0,0	0	0,00	0,0	1	4	3	0,11	0	0	0,01	0	0,01	8	1	0,01	10	0	0	0,01
Maximum	Projet			-0,2	0,03	-2	-10	-10	-0,5	-2	0,01	-0,5	1	25	6	0,40	-10	-1	0,01	10	0,01	34	3	0,01	15	10	-2	0,04
Minimum	Projet			-0,2	0,02	-2	-10	-10	-0,5	-2	0,01	-0,5	-1	20	2	0,24	-10	-1	-0,01	10	-0,01	22	1	-0,01	1	10	-2	0,02
X+2σ	Projet			-0,2	0,04	-2	-10	-10	-0,5	-2	0,01	-0,5	3	30	10	0,55	-10	-1	0,03	10	0,03	45	5	0,03	28	10	-2	0,06
X-2σ	Projet			-0,2	0,01	-2	-10	-10	-0,5	-2	0,01	-0,5	-3	15	-2	0,09	-10	-1	-0,03	10	-0,03	11	-1	-0,03	-12	10	-2	0,00
1418	141890000	VO21153815	2021-07-27	-0,2	0,03	-2	-10	-10	-0,5	-2	0,01	-0,5	-1	20	2	0,24	-10	-1	0,01	10	0,01	22	1	-0,01	1	10	-2	0,02
1418	141890026,1	VO21153815	2021-07-27	-0,2	0,02	-2	-10	-10	-0,5	-2	0,01	-0,5	1	25	6	0,40	-10	-1	-0,01	10	-0,01	34	3	0,01	15	10	-2	0,04

ANALYTICAL QUALITY CONTROL :
QUARTZ ANALYSIS (INTERNAL REFERENCE MATERIAL)

PROJECT NUMBER	SAMPLE	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)									
		Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn
		ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Nb Analyses:	2	2	1	1	20	0.01	10	10	1	10	2
Compte	Historique	14	14	14	14	14	14	14	14	14	14
N > LD	Historique	14	14	14	14	14	14	14	14	14	14
Moyenne	Historique	-2	-1	1	-20	-0,01	-10	-10	1	-10	-2
Écart'-type (σ)	Historique	0	0	1	0	0,01	0	0	1	0	1
Maximum	Historique	-2	-1	2	-20	0,01	-10	-10	2	-10	2
Minimum	Historique	-2	-1	-1	-20	-0,01	-10	-10	-1	-10	-2
X+2σ	Historique	-2	-1	3	-20	0,00	-10	-10	2	-10	0
X'-2σ	Historique	-2	-1	-2	-20	-0,02	-10	-10	0	-10	-4
N > X+2σ	Historique	0	0	0	0	1	0	0	0	0	1
N < X-2σ	Historique	0	0	0	0	0	0	0	1	0	0
Compte	Projet	2	2	2	2	2	2	2	2	2	2
Moyenne	Projet	-2	-1	2	-20	-0,01	-10	-10	1	-10	0
Écart-type	Projet	0	0	1	0	0,00	0	0	0	0	3
Maximum	Projet	-2	-1	2	-20	-0,01	-10	-10	1	-10	2
Minimum	Projet	-2	-1	1	-20	-0,01	-10	-10	1	-10	-2
X+2σ	Projet	-2	-1	3	-20	-0,01	-10	-10	1	-10	6
X-2σ	Projet	-2	-1	0	-20	-0,01	-10	-10	1	-10	-6
1418	141890000	-2	-1	1	-20,0	-0,01	-10	-10	1	-10	-2
1418	141890026,1	-2	-1	2	-20,0	-0,01	-10	-10	1	-10	2

PROJECT NUMBER	SAMPLE	ME-XRF26																PGM-23		
		Al_2O_3	BaO	CaO	Cr_2O_3	Fe_2O_3	K_2O	MgO	MnO	Na_2O	P_2O_5	SO_3	SiO_2	SrO	TiO_2	Total	LOI	Au	Pt	Pd
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm
Nb Analyses:	2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.001	0.005	0.001
Compte	Historique	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
N > LD	Historique	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
Moyenne	Historique	0,23	-0,01	-0,01	0,01	0,32	0,03	-0,01	-0,01	-0,01	0,01	0,02	98,55	-0,01	0,03	99,28	0,08	-0,001	-0,005	-0,001
Écart'-type (σ)	Historique	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0,000	0,000	0,000
Maximum	Historique	0,23	-0,01	-0,01	0,01	0,32	0,03	-0,01	-0,01	-0,01	0,01	0,02	98,55	-0,01	0,03	99,28	0,08	-0,001	-0,005	-0,001
Minimum	Historique	0,23	-0,01	-0,01	0,01	0,32	0,03	-0,01	-0,01	-0,01	0,01	0,02	98,55	-0,01	0,03	99,28	0,08	-0,001	-0,005	-0,001
X+2σ	Historique	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-0,001	-0,005	-0,001
X'-2σ	Historique	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-0,001	-0,005	-0,001
N > X+2σ	Historique	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N < X-2σ	Historique	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Compte	Projet	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
Moyenne	Projet	0,23	-0,01	-0,01	0,01	0,32	0,03	-0,01	-0,01	-0,01	0,01	0,02	98,55	-0,01	0,03	99,28	0,08	-0,001	-0,005	-0,001
Écart-type	Projet	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0,000	0,000	0,000
Maximum	Projet	0,23	-0,01	-0,01	0,01	0,32	0,03	-0,01	-0,01	-0,01	0,01	0,02	98,55	-0,01	0,03	99,28	0,08	-0,001	-0,005	-0,001
Minimum	Projet	0,23	-0,01	-0,01	0,01	0,32	0,03	-0,01	-0,01	-0,01	0,01	0,02	98,55	-0,01	0,03	99,28	0,08	-0,001	-0,005	-0,001
X+2σ	Projet	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-0,001	-0,005	-0,001
X-2σ	Projet	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-0,001	-0,005	-0,001
1418	141890000	0,23	-0,01	-0,01	0,01	0,32	0,03	-0,01	-0,01	-0,01	0,01	0,02	98,55	-0,01	0,03	99,28	0,08	-0,001	-0,005	-0,001
1418	141890026,1																	-0,001	-0,005	-0,001

PROJECT NUMBER	SAMPLE	CERTIFICATE	DATE	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																							
				Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb
				ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm
	D.L.			**0.2**	**0.01**	**2**	**10**	**10**	**0.5**	**2**	**0.01**	**0.5**	**1**	**1**	**1**	**0.01**	**10**	**1**	**0.01**	**10**	**0.01**	**5**	**1**	**0.01**	**1**	**10**	**2**
.	Compte	Historique		969	969	969	969	969	969	969	971	969	984	969	982	969	969	969	969	969	969	969	969	971	982	969	969
.	Moyenne	Historique		-0,2	-0,01	-2	-10	-10	-0,5	-2	-0,01	-0,5	-1	-1	-1	-0,01	-10	-1	-0,01	-10	-0,01	-5	-1	-0,01	-1	-9	-2
.	Écart-type	Historique		0,0	0,00	1	1	2	0,0	1	0,04	0,2	1	0	0	0,00	0	0	0,00	0	0,00	1	1	0,05	1	4	1
.	Maximum	Historique		0,2	0,01	4	10	10	-0,5	4	0,01	0,9	2	3	2	0,01	-10	1	0,01	-10	0,02	10	2	1,00	2	10	4
.	Minimum	Historique		-0,2	-0,01	-2	-10	-10	-0,5	-2	-1,00	-0,5	-1	-1	-1	-0,01	-10	-1	-0,01	-10	-0,01	-5	-1	-1,00	-1	-10	-2
.	Compte	Projet		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
.	Moyenne	Projet		-0,2	-0,01	-2	-10	-10	-0,5	-2	-0,01	-0,5	-1	-1	-1	-0,01	-10	-1	-0,01	-10	-0,01	-5	-1	-0,01	-1	-10	-2
.	Écart-type	Projet		0,0	0,00	0	0	0	0,0	0	0,00	0,0	0	0	0	0,00	0	0	0,00	0	0,00	0	0	0,00	0	0	0
.	Maximum	Projet		-0,2	-0,01	-2	-10	-10	-0,5	-2	-0,01	-0,5	-1	-1	-1	-0,01	-10	-1	-0,01	-10	-0,01	-5	-1	-0,01	-1	-10	-2
.	Minimum	Projet		-0,2	-0,01	-2	-10	-10	-0,5	-2	-0,01	-0,5	-1	-1	-1	-0,01	-10	-1	-0,01	-10	-0,01	-5	-1	-0,01	-1	-10	-2
1418	BLANK	VO21153815	2021-07-27																								
1418	BLANK	VO21153815	2021-07-27																								
1418	BLANK	VO21153815	2021-07-27																								
1418	BLANK	VO21153815	2021-07-27																								
1418	BLANK	VO21153815	2021-07-27																								
1418	BLANK	VO21153815	2021-07-27	-0,2	-0,01	-2	-10	-10	-0,5	-2	-0,01	-0,5	-1	-1	-1	-0,01	-10	-1	-0,01	-10	-0,01	-5	-1	-0,01	-1	-10	-2
1418	BLANK	VO21153815	2021-07-27	-0,2	-0,01	-2	-10	-10	-0,5	-2	-0,01	-0,5	-1	-1	-1	-0,01	-10	-1	-0,01	-10	-0,01	-5	-1	-0,01	-1	-10	-2
1418	BLANK	VO21153815	2021-07-27	-0,2	-0,01	-2	-10	-10	-0,5	-2	-0,01	-0,5	-1	-1	-1	-0,01	-10	-1	-0,01	-10	-0,01	-5	-1	-0,01	-1	-10	-2
1418	BLANK	VO21153815	2021-07-27																								
1418	BLANK	VO21153815	2021-07-27																								
1418	BLANK	VO21205018	2021-08-26																								
1418	BLANK	VO21205018	2021-08-26																								
.	Compte	Historique		180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
.	Moyenne	Historique		4,5	2,69	33	-10	429	0,8	-1	1,08	2,1	18	91	632	3,59	10	-1	1,25	30	1,15	418	14	0,34	672	1015	1026
.	Écart-type	Historique		0,2	0,10	2	3	20	0,0	2	0,04	0,5	1	3	22	0,10	0	1	0,04	2	0,03	14	1	0,02	26	32	44
.	Maximum	Historique		4,9	2,98	37	10	520	0,9	5	1,21	8,2	23	99	707	3,92	10	1	1,37	40	1,27	458	15	0,39	746	1110	1160
.	Minimum	Historique		3,8	2,49	27	-10	390	0,7	-2	1,00	1,4	16	85	576	3,38	10	-1	1,18	30	1,09	386	12	0,31	611	930	939
.	Compte	Projet		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
.	Moyenne	Projet		4,7	2,61	33	-10	435	0,8	-2	1,09	2,0	19	90	620	3,54	10	0	1,26	30	1,13	414	13	0,35	701	975	1080
.	Écart-type	Projet		0,2	0,10	0	0	7	0,1	0	0,03	0,1	1	3	1	0,08	0	1	0,03	0	0,01	4	0	0,01	25	49	0
.	Maximum	Projet		4,8	2,68	33	-10	440	0,8	-2	1,11	2,1	19	92	620	3,60	10	1	1,28	30	1,13	416	13	0,35	718	1010	1080
.	Minimum	Projet		4,5	2,54	33	-10	430	0,7	-2	1,07	1,9	18	88	619	3,48	10	-1	1,24	30	1,12	411	13	0,34	683	940	1080
.	**MRGeo08**	**Limite inférieure**		**3,7**	**2,44**	**27**	**-10**	**360**	**-0,5**	**-2**	**1,00**	**1,5**	**17**	**84**	**582**	**3,38**	**-10**	**-1**	**1,17**	**20**	**1,03**	**398**	**12**	**0,31**	**622**	**900**	**957**
.	**MRGeo08**	**Valeur certifiée**		**4,4**	**2,72**	**32**	**0**	**435**	**0,5**	**1**	**1,12**	**2,3**	**20**	**94**	**648**	**3,77**	**5**	**1**	**1,31**	**35**	**1,16**	**448**	**15**	**0,36**	**691**	**1015**	**1066**
.	**MRGeo08**	**Limite supérieure**		**5,0**	**3,00**	**37**	**10**	**510**	**1,4**	**4**	**1,24**	**3,0**	**22**	**104**	**714**	**4,15**	**20**	**2**	**1,45**	**50**	**1,29**	**498**	**17**	**0,40**	**760**	**1130**	**1175**
1418	MRGeo08	VO21153815	2021-07-27	4,8	2,68	33	-10	440	0,8	-2	1,11	2,1	19	92	620	3,60	10	-1	1,28	30	1,13	416	13	0,34	718	1010	1080
1418	MRGeo08	VO21153815	2021-07-27	4,5	2,54	33	-10	430	0,7	-2	1,07	1,9	18	88	619	3,48	10	1	1,24	30	1,12	411	13	0,35	683	940	1080
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**GBM903-13**	**Limite inférieure**																									
.	**GBM903-13**	**Valeur certifiée**																									
.	**GBM903-13**	**Limite supérieure**																									
1418	GBM903-13	VO21205018	2021-08-26																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**MA-1b**	**Limite inférieure**																									
.	**MA-1b**	**Valeur certifiée**																									
.	**MA-1b**	**Limite supérieure**																									
1418	MA-1b	VO21205018	2021-08-26																								
1418	MA-1b	VO21205018	2021-08-26																								

SAMPLE	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41) S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Xy-OG46 Ag	Cu	Ni	PGM-ICP23 Au	Pt	Pd
	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm
D.L.	**0.01**	**2**	**1**	**1**	**20**	**0.01**	**10**	**10**	**1**	**10**	**2**	**1**	**0.001**	**0,001**	**0.001**	**0.005**	**0.001**
Compte	984	969	969	969	847	969	969	969	969	969	985	19	48	7	163	163	163
Moyenne	-0,01	-2	-1	-1	-20	-0,02	-10	-10	-1	-10	-2	-1	-0,005	-0,001	0,001	-0,005	-0,001
Écart-type	0,01	1	0	1	1	0,32	0	0	0	0	1	1	0,005	0,000	0,001	0,000	0,001
Maximum	0,05	3	-1	2	0	0,02	-10	-1	1	-2	4	1	0,001	-0,001	0,003	-0,005	0,002
Minimum	-0,01	-2	-1	-1	-20	-10,00	-10	-10	-10	-10	-2	-1	-0,010	-0,001	-0,001	-0,005	-0,001
Compte	3	3	3	3	3	3	3	3	3	3	3	1	2	1	3	3	3
Moyenne	0,01	-2	-1	0	-20	-0,01	-10	-10	-1	-10	-2	-1	-0,001	-0,001	0,002	-0,005	0,000
Écart-type	0,03	0	0	1	0	0,00	0	0	0	0	0	#DIV/0!	0,000	#DIV/0!	0,001	0,000	0,001
Maximum	0,05	-2	-1	1	-20	-0,01	-10	-10	-1	-10	-2	-1	-0,001	-0,001	0,002	-0,005	0,001
Minimum	-0,01	-2	-1	-1	-20	-0,01	-10	-10	-1	-10	-2	-1	-0,001	-0,001	0,001	-0,005	-0,001
BLANK															0,002	-0,005	0,001
BLANK															0,002	-0,005	0,001
BLANK															0,001	-0,005	-0,001
BLANK																	
BLANK																	
BLANK	0,05	-2	-1	-1	-20	-0,01	-10	-10	-1	-10	-2						
BLANK	-0,01	-2	-1	1	-20	-0,01	-10	-10	-1	-10	-2						
BLANK	-0,01	-2	-1	1	-20	-0,01	-10	-10	-1	-10	-2						
BLANK												-1	-0,001				
BLANK													-0,001				
BLANK														-0,001			
BLANK																	
Compte	180	180	180	180	180	180	180	180	180	180	180						
Moyenne	0,31	3	7	82	20	0,38	-10	-10	101	-9	790						
Écart-type	0,01	2	0	4	2	0,01	0	3	3	5	176						
Maximum	0,36	8	8	95	30	0,43	-10	10	109	10	3110						
Minimum	0,28	-2	6	75	20	0,35	-10	-10	94	-10	713						
Compte	2	2	2	2	2	2	2	2	2	2	2						
Moyenne	0,32	2	7	79	20	0,38	-10	-10	98	-10	777						
Écart-type	0,04	0	1	3	0	0,02	0	0	3	0	35						
Maximum	0,34	2	7	81	20	0,39	-10	-10	100	-10	801						
Minimum	0,29	2	6	77	20	0,36	-10	-10	96	-10	752						
MRGeo08	**0,29**	**-2**	**6**	**75**	**-20**	**0,35**	**-10**	**-10**	**93**	**-10**	**701**						
MRGeo08	**0,33**	**2**	**8**	**84**	**10**	**0,40**	**0**	**5**	**105**	**5**	**781**						
MRGeo08	**0,37**	**5**	**10**	**93**	**40**	**0,44**	**10**	**20**	**116**	**20**	**861**						
MRGeo08	0,34	2	7	81	20	0,39	-10	-10	100	-10	801						
MRGeo08	0,29	2	6	77	20	0,36	-10	-10	96	-10	752						
Compte													9	7			
Moyenne													2,868	2,41			
Écart-type													0,043	0,06			
Maximum													2,940	2,51			
Minimum													2,820	2,35			
Compte													0	1			
Moyenne													#DIV/0!	2,39			
Écart-type													#DIV/0!	#DIV/0!			
Maximum													0,000	2,39			
Minimum													0,000	2,39			
GBM903-13													**2,790**	**2,35**			
GBM903-13													**2,895**	**2,43**			
GBM903-13													**3,000**	**2,52**			
GBM903-13														2,39			
Compte														1,000			
Moyenne														#DIV/0!			
Écart-type														#DIV/0!			
Maximum														-0,001			
Minimum														-0,001			
Compte														1,000			
Moyenne														-0,001			
Écart-type														#DIV/0!			
Maximum														-0,001			
Minimum														-0,001			
MA-1b																	
MA-1b																	
MA-1b																	
MA-1b																	
MA-1b														-0,001			

SAMPLE	ME-XRF26 Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SO3	SiO2	SrO	TiO2	Total	LOI 1000	S-IR08 S
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
D.L.	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**		**0.01**	**0,01**
Compte	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
Moyenne	-0,01	-0,006	-0,006	-0,01	-0,006	-0,01	0,008	-0,01	0,004	-0,006	0,002	99,714	-0,01	-0,01	99,748	0,004	
Écart-type	0	0,0089	0,0089	0	0,0089	0	0,011	0	0,0134	0,0089	0,011	0,1752	0	0	0,1831	0,0114	
Maximum	-0,01	0,01	0,01	-0,01	0,01	-0,01	0,02	-0,01	0,02	0,01	0,01	100	-0,01	-0,01	100,05	0,02	
Minimum	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	99,52	-0,01	-0,01	99,55	-0,01	
Compte	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Moyenne	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	0,01	-0,01	-0,01	0,01	0,01	99,68	-0,01	-0,01	99,71	0,01	
Écart-type	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	0,01	-0,01	-0,01	0,01	0,01	99,68	-0,01	-0,01	99,71	0,01	
Minimum	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	0,01	-0,01	-0,01	0,01	0,01	99,68	-0,01	-0,01	99,71	0,01	
BLANK																	
BLANK																	
BLANK																	
BLANK	-0,01	-0,01	-0,01	-0,01	-0,01	-0,01	0,01	-0,01	-0,01	0,01	0,01	99,68	-0,01	-0,01	99,71		
BLANK																0,01	
BLANK																	
BLANK																	
BLANK																	
BLANK																	
BLANK																	
BLANK																	
BLANK																	-0,01
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
MRGeo08																	
MRGeo08																	
MRGeo08																	
MRGeo08																	
MRGeo08																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
GBM903-13																	
GBM903-13																	
GBM903-13																	
GBM903-13																	
Compte																	7
Moyenne																	#DIV/0!
Écart-type																	0,04
Maximum																	1,22
Minimum																	1,13
Compte																	1
Moyenne																	1,14
Écart-type																	#DIV/0!
Maximum																	1,14
Minimum																	1,14
MA-1b																	**1,12**
MA-1b																	
MA-1b																	**1,22**
MA-1b																	1,14
MA-1b																	

				ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																							
PROJECT NUMBER	**SAMPLE**	**CERTIFICATE**	**DATE**	**Ag ppm**	**Al %**	**As ppm**	**B ppm**	**Ba ppm**	**Be ppm**	**Bi ppm**	**Ca %**	**Cd ppm**	**Co ppm**	**Cr ppm**	**Cu ppm**	**Fe %**	**Ga ppm**	**Hg ppm**	**K %**	**La ppm**	**Mg %**	**Mn ppm**	**Mo ppm**	**Na %**	**Ni ppm**	**P ppm**	**Pb ppm**
	D.L.			**0.2**	**0.01**	**2**	**10**	**10**	**0.5**	**2**	**0.01**	**0.5**	**1**	**1**	**1**	**0.01**	**10**	**1**	**0.01**	**10**	**0.01**	**5**	**1**	**0.01**	**1**	**10**	**2**
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**NCSDC70006**	**Limite inférieure**																									
.	**NCSDC70006**	**Valeur certifiée**																									
.	**NCSDC70006**	**Limite supérieure**																									
1418	NCSDC70006	VO21153815	2021-07-27																								
1418	NCSDC70006	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**GS310-10**	**Limite inférieure -2xσ**																									
.	**GS310-10**	**Valeur certifiée**																									
.	**GS310-10**	**Limite supérieure+2xσ**																									
1418	GS310-10	VO21205018	2021-08-26																								
.	Compte	Historique		4,0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
.	Moyenne	Historique		0,5	1	34	-10	243	1	5	0	-1	13	17	1556	3	10	-1	0	40	0	343	3	0	9	235	17
.	Écart-type	Historique		0,1	0	1	0	5	0	2	0	0	0	1	8	0	0	0	0	0	0	8	0	0	1	6	1
.	Maximum	Historique		0,6	1	34	-10	250	1	6	0	-1	13	18	1565	4	10	-1	0	40	0	352	3	0	10	240	17
.	Minimum	Historique		0,4	1	33	-10	240	1	3	0	-1	13	16	1550	3	10	-1	0	40	0	333	3	0	9	230	16
.	Compte	Projet		1,0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
.	Moyenne	Projet		0,4	1	33	-10	240	1	3	0	-1	13	17	1550	3	10	-1	0	40	0	341	3	0	10	230	17
.	Écart-type	Projet		#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
.	Maximum	Projet		0,4	1	33	-10	240	1	3	0	-1	13	17	1550	3	10	-1	0	40	0	341	3	0	10	230	17
.	Minimum	Projet		0,4	1	33	-10	240	1	3	0	-1	13	17	1550	3	10	-1	0	40	0	341	3	0	10	230	17
.	**OREAS 905**	**Limite inférieure -2xσ**		**-0,2**	**0,73**	**26**	**-10**	**200**	**-0,5**	**-2**	**0,29**	**-0,5**	**11**	**15**	**1450**	**3,14**	**-10**	**-1**	**0,28**	**20**	**0,13**	**310**	**-1**	**0,07**	**6**	**200**	**12**
.	**OREAS 905**	**Valeur certifiée**		**0,4**	**0,82**	**32**	**5**	**250**	**0,8**	**4**	**0,34**	**0,5**	**14**	**18**	**1560**	**3,50**	**10**	**1**	**0,32**	**40**	**0,16**	**350**	**2**	**0,10**	**9**	**230**	**17**
.	**OREAS 905**	**Limite supérieure+2xσ**		**0,9**	**0,91**	**37**	**20**	**300**	**2,0**	**10**	**0,38**	**1,4**	**17**	**20**	**1670**	**3,86**	**30**	**2**	**0,36**	**60**	**0,19**	**390**	**5**	**0,12**	**11**	**260**	**22**
1418	OREAS 905	VO21153815	2021-07-27	0,4	0,78	33	-10	240	0,9	3	0,33	-0,5	13	17	1550	3,32	10	-1	0,31	40	0,15	341	3	0,10	10	230	17
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**CCU-1e**	**Limite inférieure -2xσ**																									
.	**CCU-1e**	**Valeur certifiée**																									
.	**CCU-1e**	**Limite supérieure+2xσ**																									
1418	CCU-1e	VO21205018	2021-08-26																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS 621**	**Limite inférieure -2xσ**																									
.	**OREAS 621**	**Valeur certifiée**																									
.	**OREAS 621**	**Limite supérieure+2xσ**																									
1418	OREAS 621	VO21205018	2021-08-26																								

	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)											Xy-OG46			PGM-ICP23			ME-XRF26																S-IR08
SAMPLE	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Ni	Au	Pt	Pd	Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SO3	SiO2	SrO	TiO2	Total	LOI 1000	S
	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
D.L.	0.01	2	1	1	20	0.01	10	10	1	10	2	1	0.001	0,001	0.001	0.005	0.001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0,01
Compte												1	2,000																					
Moyenne												-1	0,010																					
Écart-type												#DIV/0!	0,001																					
Maximum												-1	0,010																					
Minimum												-1	0,009																					
Compte												1	2,000																					
Moyenne												-1	0,010																					
Écart-type												#DIV/0!	0,001																					
Maximum												-1	0,010																					
Minimum												-1	0,009																					
NCSDC70006																																		
NCSDC70006																																		
NCSDC70006																																		
NCSDC70006													0,010																					
NCSDC70006												-1	0,009																					
Compte																																		2
Moyenne																																		0,27
Écart-type																																		0,01
Maximum																																		0,27
Minimum																																		0,26
Compte																																		1
Moyenne																																		0,27
Écart-type																																		#DIV/0!
Maximum																																		0,27
Minimum																																		0,27
GS310-10																																		**0,25**
GS310-10																																		
GS310-10																																		**0,29**
GS310-10																																		0,27
Compte	4	4	4	4	4	4	4	4	4	4	4																							
Moyenne	0	-1	2	13	-20	0	-10	-10	6	-10	65																							
Écart-type	0	2	1	1	0	0	0	0	1	0	2																							
Maximum	0	2	2	14	-20	0	-10	-10	6	-10	66																							
Minimum	0	-2	1	13	-20	0	-10	-10	5	-10	63																							
Compte	1	1	1	1	1	1	1	1	1	1	1																							
Moyenne	0	-2	1	13	-20	0	-10	-10	5	-10	63																							
Écart-type	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####																							
Maximum	0	-2	1	13	-20	0	-10	-10	5	-10	63																							
Minimum	0	-2	1	13	-20	0	-10	-10	5	-10	63																							
OREAS 905	**0,04**	**-2**	**-1**	**10**	**-20**	**-0,01**	**-10**	**-10**	**4**	**-10**	**58**																							
OREAS 905	**0,07**	**2**	**2**	**13**	**15**	**0,02**	**5**	**5**	**6**	**5**	**67**																							
OREAS 905	**0,09**	**5**	**4**	**15**	**50**	**0,04**	**20**	**20**	**8**	**20**	**76**																							
OREAS 905	0,07	-2	1	13	-20	0,02	-10	-10	5	-10	63																							
Compte														1																				
Moyenne														0,002																				
Écart-type														#DIV/0!																				
Maximum														0,002																				
Minimum														0,002																				
Compte														1																				
Moyenne														0,002																				
Écart-type														#DIV/0!																				
Maximum														0,002																				
Minimum														#DIV/0!																				
CCU-1e																																		
CCU-1e																																		
CCU-1e																																		
CCU-1e														0,002																				
Compte													2	1																				
Moyenne													0,358	0,003																				
Écart-type													0,003	#DIV/0!																				
Maximum													0,360	0,003																				
Minimum													0,356	0,003																				
Compte													0	1																				
Moyenne													#DIV/0!	0,003																				
Écart-type													#DIV/0!	#DIV/0!																				
Maximum													0,000	0,003																				
Minimum													#DIV/0!	#DIV/0!																				
OREAS 621														**<0.001**																				
OREAS 621																																		
OREAS 621														**0,005**																				
OREAS 621														0,003																				

PROJECT NUMBER	SAMPLE	CERTIFICATE	DATE	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																							
				Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb
				ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm
	D.L.			0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS 932**	**Limite inférieure -2xσ**																									
.	**OREAS 932**	**Valeur certifiée**																									
.	**OREAS 932**	**Limite supérieure+2xσ**																									
1418	OREAS 932	VO21153815	2021-07-27																								
1418	OREAS 932	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS-134b**	**Limite inférieure -2xσ**																									
.	**OREAS-134b**	**Valeur certifiée**																									
.	**OREAS-134b**	**Limite supérieure+2xσ**																									
1418	OREAS-134b	VO21153815	2021-07-27																								
1418	OREAS-134b	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS 220**	**Limite inférieure -2xσ**																									
.	**OREAS 220**	**Valeur certifiée**																									
.	**OREAS 220**	**Limite supérieure+2xσ**																									
1418	OREAS 220	VO21153815	2021-07-27																								
.	Compte	Historique		11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
.	Moyenne	Historique		67,5	1,56	584	-6	39	-0,5	7	0,97	19,7	750	46	8444	4,67	-6	0	1	20	0,79	637	1059	0,17	7715	759	7243
.	Écart-type	Historique		1,9	0,06	15	8	9	0,0	2	0,03	0,5	20	1	162	0,12	8	1	0	0	0,03	22	33	0,01	209	24	156
.	Maximum	Historique		70,5	1,67	618	10	50	-0,5	10	1,02	20,7	798	49	8650	4,83	10	1	1	20	0,82	670	1135	0,18	8080	800	7610
.	Minimum	Historique		64,2	1,48	567	-10	30	-0,5	2	0,92	19	733	44	8010	4,36	-10	-1	1	20	0,75	606	1020	0,15	7350	730	7050
.	Compte	Projet		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
.	Moyenne	Projet		70,3	1,62	585	-10	50	-0,5	2	1,01	19,7	779	47	8440	4,74	10	1	0,69	20	0,81	664	1090	0,17	7960	760	7330
.	Écart-type	Projet		#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
.	Maximum	Projet		70,3	1,62	585	-10	50	-0,5	2	1,01	19,7	779	47	8440	4,74	10	1	0,69	20	0,81	664	1090	0,17	7960	760	7330
.	Minimum	Projet		0,2	0,07	5	-10	5	-0,5	-2	0,01	-0,5	1	5	4	0,05	-10	-1	0,00	-10	0,02	5	-1	0,00	5	4	2
.	**EMOG-17**	**Limite inférieure -2xσ**		**59,3**	**1,45**	**503**	**-10**	**30**	**-0,5**	**-2**	**0,87**	**17,9**	**679**	**42**	**7780**	**4,18**	**-10**	**-1**	**0,60**	**-10**	**0,73**	**598**	**1015**	**0,15**	**6930**	**680**	**6500**
.	**EMOG-17**	**Valeur certifiée**		**66,1**	**1,62**	**561**	**5**	**55**	**0,5**	**4**	**0,98**	**20,4**	**756**	**48**	**8370**	**4,66**	**10**	**1**	**0,68**	**15**	**0,82**	**670**	**1130**	**0,18**	**7700**	**765**	**7225**
.	**EMOG-17**	**Limite supérieure+2xσ**		**72,9**	**1,79**	**619**	**20**	**80**	**1,5**	**10**	**1,09**	**22,9**	**833**	**54**	**8960**	**5,14**	**30**	**3**	**0,76**	**40**	**0,91**	**742**	**1245**	**0,20**	**8470**	**850**	**7950**
1418	EMOG-17	VO21153815	2021-07-27																								
1418	EMOG-17	VO21153815	2021-07-27																								
1418	EMOG-17	VO21153815	2021-07-27	70,3	1,62	585	-10	50	-0,5	2	1,01	19,7	779	47	8440	4,74	10	1	0,69	20	0,81	664	1090	0,17	7960	760	7330
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**PMP-18**	**Limite inférieure -2xσ**																									
.	**PMP-18**	**Valeur certifiée**																									
.	**PMP-18**	**Limite supérieure+2xσ**																									
1418	PMP-18	VO21153815	2021-07-27																								
1418	PMP-18	VO21153815	2021-07-27																								

SAMPLE	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)											Xy-OG46			PGM-ICP23		
	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Ni	Au	Pt	Pd
	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm
D.L.	0.01	2	1	1	20	0.01	10	10	1	10	2	1	0.001	0,001	0.001	0.005	0.001
Compte												1	2				
Moyenne												21	6,120				
Écart-type												#DIV/0!	0,014				
Maximum												21	6,130				
Minimum												21	6,110				
Compte												1	2				
Moyenne												21	6,120				
Écart-type												#DIV/0!	0,014				
Maximum												21	6,130				
Minimum												21	6,110				
OREAS 932													**5,900**				
OREAS 932																	
OREAS 932													**6,320**				
OREAS 932													6,110				
OREAS 932												21	6,130				
Compte												1	2				
Moyenne												205	0,134				
Écart-type												#DIV/0!	0,000				
Maximum												205	0,134				
Minimum												205	0,134				
Compte												1	2				
Moyenne												205	0,134				
Écart-type												#DIV/0!	0,000				
Maximum												205	0,134				
Minimum												#DIV/0!	#DIV/0!				
OREAS-134b												**196**	**0,131**				
OREAS-134b																	
OREAS-134b												**212**	**0,142**				
OREAS-134b													0,134				
OREAS-134b												205	0,134				
Compte													0				
Moyenne													#DIV/0!				
Écart-type													#DIV/0!				
Maximum													0,000				
Minimum													0,000				
Compte													0				
Moyenne													#DIV/0!				
Écart-type													#DIV/0!				
Maximum													0,000				
Minimum													#DIV/0!				
OREAS 220																	
OREAS 220																	
OREAS 220																	
OREAS 220																	
Compte	11	11	11	11	11	11	11	11	11	11	11	1	2				
Moyenne	3,15	681	4	52	-20	0,21	-6	-10	63	-5	7394	67	0,839				
Écart-type	0,07	19	1	2	0	0,01	8	0	2	10	121	#DIV/0!	0,006				
Maximum	3,29	707	5	55	-20	0,22	10	-10	67	20	7610	67	0,843				
Minimum	3,08	657	4	49	-20	0,20	-10	-10	61	-10	7200	67	0,835				
Compte	1	1	1	1	1	1	1	1	1	1	1	1	2				
Moyenne	3,19	704	5	55	-20	0,22	-10	-10	64	-10	7420	67	0,839				
Écart-type	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#DIV/0!	0,006				
Maximum	3,19	704	5	55	-20	0,22	-10	-10	64	-10	7420	67	0,843				
Minimum	0,01	-2	1	1	-20	0,00	-10	-10	2	-10	#####	67	0,835				
EMOG-17	**2,90**	**572**	**3**	**47**	**-20**	**0,18**	**-10**	**-10**	**58**	**-10**	**6780**	**64**	**0,807**				
EMOG-17	**3,23**	**675**	**5**	**53**	**15**	**0,22**	**5**	**5**	**66**	**5**	**7535**						
EMOG-17	**3,56**	**778**	**7**	**59**	**50**	**0,25**	**20**	**20**	**74**	**20**	**8290**	**70**	**0,867**				
EMOG-17													0,843				
EMOG-17												67	0,835				
EMOG-17	3,19	704	5	55	-20	0,22	-10	-10	64	-10	7420						
Compte													0		2	2	2
Moyenne													#DIV/0!		0,300	-0,005	0,002
Écart-type													#DIV/0!		0,001	0,000	0,001
Maximum													0,000		0,300	-0,005	0,002
Minimum													0,000		0,299	-0,005	0,001
Compte													0		2	2	2
Moyenne													#DIV/0!		0,300	-0,005	0,002
Écart-type													#DIV/0!		0,001	0,000	0,001
Maximum													0,000		0,300	-0,005	0,002
Minimum													0,000		#DIV/0!	#DIV/0!	#DIV/0!
PMP-18															**0,289**	**-0,005**	**-0,001**
PMP-18																	
PMP-18															**0,327**	**0,010**	**0,002**
PMP-18															0,300	-0,005	0,002
PMP-18															0,299	-0,005	0,001

SAMPLE	ME-XRF26																S-IR08
	Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SO3	SiO2	SrO	TiO2	Total	LOI 1000	S
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
D.L.	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0,01
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
OREAS 932																	
OREAS 932																	
OREAS 932																	
OREAS 932																	
OREAS 932																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
OREAS-134b																	
OREAS-134b																	
OREAS-134b																	
OREAS-134b																	
OREAS-134b																	
Compte	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	
Moyenne	13,58	0,025	9,67	0,04	11,405	0,46	7,22	0,17	2,76	0,18	0,365	50,315	0,03	1,285	97,645	#DIV/0!	
Écart-type	0,0141	0,0071	0,0283	0	0,0354	0	0,0141	0	0,0141	0	0,0071	0,0071	0	0,0071	0,0212	#DIV/0!	
Maximum	13,59	0,03	9,69	0,04	11,43	0,46	7,23	0,17	2,77	0,18	0,37	50,32	0,03	1,29	97,66	0	
Minimum	13,57	0,02	9,65	0,04	11,38	0,46	7,21	0,17	2,75	0,18	0,36	50,31	0,03	1,28	97,63	0	
Compte	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
Moyenne	13,59	0,02	9,69	0,04	11,38	0,46	7,23	0,17	2,77	0,18	0,37	50,31	0,03	1,28	97,66	#DIV/0!	
Écart-type	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum	13,59	0,02	9,69	0,04	11,38	0,46	7,23	0,17	2,77	0,18	0,37	50,31	0,03	1,28	97,66	0	
Minimum	13,59	0,02	9,69	0,04	11,38	0,46	7,23	0,17	2,77	0,18	0,37	50,31	0,03	1,28	97,66	0	
OREAS 220	**13,12**	**-0,01**	**9,28**	**0,02**	**11,00**	**0,42**	**6,92**	**0,14**	**2,60**	**0,15**	**0,31**	**49,10**	**-0,01**	**1,19**	**-0,01**		
OREAS 220	**13,58**	**0,02**	**9,64**	**0,04**	**11,40**	**0,47**	**7,21**	**0,17**	**2,75**	**0,18**	**0,36**	**50,30**	**0,02**	**1,28**	**0,01**		
OREAS 220	**14,04**	**0,05**	**10,00**	**0,06**	**11,80**	**0,51**	**7,50**	**0,20**	**2,90**	**0,21**	**0,41**	**51,50**	**0,05**	**1,37**	**0,02**		
OREAS 220	13,59	0,02	9,69	0,04	11,38	0,46	7,23	0,17	2,77	0,18	0,37	50,31	0,03	1,28	97,66		
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
EMOG-17																	
EMOG-17																	
EMOG-17																	
EMOG-17																	
EMOG-17																	
EMOG-17																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
PMP-18																	
PMP-18																	
PMP-18																	
PMP-18																	
PMP-18																	

PROJECT NUMBER	SAMPLE	CERTIFICATE	DATE	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																							
				Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb
				ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm
	D.L.			0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS-45e**	**Limite inférieure -2xσ**																									
.	**OREAS-45e**	**Valeur certifiée**																									
.	**OREAS-45e**	**Limite supérieure+2xσ**																									
1418	OREAS-45e	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**AMIS0547**	**Limite inférieure -2xσ**																									
.	**AMIS0547**	**Valeur certifiée**																									
.	**AMIS0547**	**Limite supérieure+2xσ**																									
1418	AMIS0547	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**GPP-14**	**Limite inférieure -2xσ**																									
.	**GPP-14**	**Valeur certifiée**																									
.	**GPP-14**	**Limite supérieure+2xσ**																									
1418	GPP-14	VO21153815	2021-07-27																								
1418	GPP-14	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**KIP-19**	**Limite inférieure -2xσ**																									
.	**KIP-19**	**Valeur certifiée**																									
.	**KIP-19**	**Limite supérieure+2xσ**																									
1418	KIP-19	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS 684**	**Limite inférieure -2xσ**																									
.	**OREAS 684**	**Valeur certifiée**																									
.	**OREAS 684**	**Limite supérieure+2xσ**																									
1418	OREAS 684	VO21153815	2021-07-27																								

	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)											Xy-OG46			PGM-ICP23		
SAMPLE	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Ni	Au	Pt	Pd
	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm
D.L.	0.01	2	1	1	20	0.01	10	10	1	10	2	1	0.001	0,001	0.001	0.005	0.001
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
OREAS-45e																	
OREAS-45e																	
OREAS-45e																	
OREAS-45e																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
AMIS0547																	
AMIS0547																	
AMIS0547																	
AMIS0547																	
Compte															2	2	2
Moyenne															0,915	0,503	0,483
Écart-type															0,001	0,006	0,004
Maximum															0,916	0,507	0,486
Minimum															0,914	0,499	0,480
Compte															2	2	2
Moyenne															0,915	0,503	0,483
Écart-type															0,001	0,006	0,004
Maximum															0,916	0,507	0,486
Minimum															0,914	0,499	0,480
GPP-14															**0,853**	**0,468**	**0,451**
GPP-14																	
GPP-14															**0,965**	**0,538**	**0,511**
GPP-14															0,916	0,507	0,486
GPP-14															0,914	0,499	0,480
Compte															1	1	1
Moyenne															2,440	-0,005	0,001
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!
Maximum															2,440	-0,005	0,001
Minimum															2,440	-0,005	0,001
Compte															1	1	1
Moyenne															2,440	-0,005	0,001
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!
Maximum															2,440	-0,005	0,001
Minimum															2,440	-0,005	0,001
KIP-19															**2,280**	**-0,005**	**-0,001**
KIP-19																	
KIP-19															**2,580**	**0,010**	**0,002**
KIP-19															2,440	-0,005	0,001
Compte															1	1	1
Moyenne															0,259	4,010	1,780
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!
Maximum															0,259	4,010	1,780
Minimum															0,259	4,010	1,780
Compte															1	1	1
Moyenne															0,259	4,010	1,780
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!
Maximum															0,259	4,010	1,780
Minimum															0,259	4,010	1,780
OREAS 684															**0,232**	**3,630**	**1,615**
OREAS 684																	
OREAS 684															**0,264**	**4,110**	**1,825**
OREAS 684															0,259	4,010	1,780

	ME-XRF26																S-IR08
SAMPLE	Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SO3	SiO2	SrO	TiO2	Total	LOI 1000	S
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
D.L.	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0,01
Compte																2	
Moyenne																8,58	
Écart-type																0,07071	
Maximum																8,63	
Minimum																8,53	
Compte																1	
Moyenne																8,53	
Écart-type																#DIV/0!	
Maximum																8,53	
Minimum																8,53	
OREAS-45e																**8,11**	
OREAS-45e																**8,55**	
OREAS-45e																**8,99**	
OREAS-45e																8,53	
Compte																2	
Moyenne																38,1	
Écart-type																0,11314	
Maximum																38,18	
Minimum																38,02	
Compte																1	
Moyenne																38,02	
Écart-type																#DIV/0!	
Maximum																38,02	
Minimum																38,02	
AMIS0547																**36,19**	
AMIS0547																**38,11**	
AMIS0547																**40,02**	
AMIS0547																38,02	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
GPP-14																	
GPP-14																	
GPP-14																	
GPP-14																	
GPP-14																	
Compte	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Moyenne	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Minimum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Compte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moyenne	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Minimum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
KIP-19																	
KIP-19																	
KIP-19																	
KIP-19																	
Compte	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Moyenne	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Minimum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Compte	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Moyenne	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Minimum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
OREAS 684																	
OREAS 684																	
OREAS 684																	
OREAS 684																	

				ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																							
PROJECT NUMBER	**SAMPLE**	**CERTIFICATE**	**DATE**	**Ag**	**Al**	**As**	**B**	**Ba**	**Be**	**Bi**	**Ca**	**Cd**	**Co**	**Cr**	**Cu**	**Fe**	**Ga**	**Hg**	**K**	**La**	**Mg**	**Mn**	**Mo**	**Na**	**Ni**	**P**	**Pb**
				ppm	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**%**	**ppm**	**%**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**ppm**
	D.L.			**0.2**	**0.01**	**2**	**10**	**10**	**0.5**	**2**	**0.01**	**0.5**	**1**	**1**	**1**	**0.01**	**10**	**1**	**0.01**	**10**	**0.01**	**5**	**1**	**0.01**	**1**	**10**	**2**
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS-45h**	**Limite inférieure -2xσ**																									
.	**OREAS-45h**	**Valeur certifiée**																									
.	**OREAS-45h**	**Limite supérieure+2xσ**																									
1418	OREAS-45h	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS-133a**	**Limite inférieure -2xσ**																									
.	**OREAS-133a**	**Valeur certifiée**																									
.	**OREAS-133a**	**Limite supérieure+2xσ**																									
1418	OREAS-133a	VO21153815	2021-07-27																								
1418	OREAS-133a	VO21153815	2021-07-27																								
.	Compte	Historique		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
.	Moyenne	Historique		22,0	1,36	278	-10	76	-0,5	-1	0,39	0,7	58	675	211	3,52	-10	-1	0	10	1,50	571	1	0,17	428	132	77
.	Écart-type	Historique		0,2	0,07	8	0	5	0,0	2	0,01	0,1	1	17	4	0,05	0	1	0	0	0,02	26	0	0,00	19	4	2
.	Maximum	Historique		22,4	1,45	291	-10	80	-0,5	2	0,41	0,8	60	695	216	3,61	-10	1	0	10	1,52	603	1	0,18	451	140	79
.	Minimum	Historique		21,8	1,30	273	-10	70	-0,5	-2	0,38	1	57	660	206	3,46	-10	-1	0	10	1,48	547	1	0,17	410	130	74
.	Compte	Projet		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
.	Moyenne	Projet		22,1	1,45	280	-10	80	-0,5	-2	0,40	0,6	60	691	213	3,50	-10	1	0,19	10	1,52	603	1	0,17	442	130	77
.	Écart-type	Projet		#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
.	Maximum	Projet		22,1	1,45	280	-10	80	-0,5	-2	0,40	0,6	60	691	213	3,50	-10	1	0,19	10	1,52	603	1	0,17	442	130	77
.	Minimum	Projet		22,1	1,45	280	-10	80	-0,5	-2	0,40	0,6	60	691	213	3,50	-10	1	0,19	10	1,52	603	1	0,17	442	130	77
.	**GBM303-4**	**Limite inférieure -2xσ**		**19,0**	**1,28**	**246**	**-10**	**50**	**-0,5**	**-2**	**0,34**	**-0,5**	**53**	**621**	**198**	**3,08**	**-10**	**-1**	**0,16**	**-10**	**1,33**	**542**	**-1**	**0,13**	**382**	**100**	**74**
.	**GBM303-4**	**Valeur certifiée**		**21,3**	**1,43**	**276**	**10**	**75**	**0,5**	**2**	**0,39**	**0,7**	**61**	**691**	**214**	**3,43**	**10**	**1**	**0,19**	**10**	**1,49**	**608**	**1**	**0,16**	**426**	**130**	**84**
.	**GBM303-4**	**Limite supérieure+2xσ**		**23,6**	**1,58**	**306**	**30**	**100**	**1,5**	**6**	**0,44**	**1,8**	**68**	**761**	**230**	**3,78**	**30**	**3**	**0,22**	**30**	**1,65**	**674**	**3**	**0,19**	**469**	**160**	**94**
1418	GBM303-4	VO21153815	2021-07-27	22,1	1,45	280	-10	80	-0,5	-2	0,40	0,6	60	691	213	3,50	-10	1	0,19	10	1,52	603	1	0,17	442	130	77

SAMPLE	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)											Xy-OG46			PGM-ICP23		
	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Ni	Au	Pt	Pd
	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm
D.L.	**0.01**	**2**	**1**	**1**	**20**	**0.01**	**10**	**10**	**1**	**10**	**2**	**1**	**0.001**	**0,001**	**0.001**	**0.005**	**0.001**
Compte															1	1	1
Moyenne															0,042	0,090	0,131
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!
Maximum															0,042	0,090	0,131
Minimum															0,042	0,090	0,131
Compte															1	1	1
Moyenne															0,042	0,090	0,131
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!
Maximum															0,042	0,090	0,131
Minimum															0,042	0,090	0,131
OREAS-45h															**0,038**	**0,076**	**0,119**
OREAS-45h																	
OREAS-45h															**0,044**	**0,098**	**0,137**
OREAS-45h															0,042	0,090	0,131
Compte												1	2				
Moyenne												100	0,033				
Écart-type												#DIV/0!	0,000				
Maximum												100	0,033				
Minimum												100	0,033				
Compte												1	2				
Moyenne												100	0,033				
Écart-type												#DIV/0!	0,000				
Maximum												100	0,033				
Minimum												100	0,033				
OREAS-133a												**93**	**0,030**				
OREAS-133a																	
OREAS-133a												**101**	**0,034**				
OREAS-133a												100	0,033				
OREAS-133a													0,033				
Compte	5	5	5	5	5	5	5	5	5	5	5						
Moyenne	0,17	3	13	25	-20	0,04	-10	-10	66	-10	194						
Écart-type	0,01	3	1	1	0	0,00	0	0	2	0	7						
Maximum	0,18	5	14	26	-20	0,04	-10	-10	69	-10	201						
Minimum	0,16	-2	13	24	-20	0,04	-10	-10	64	-10	187						
Compte	1	1	1	1	1	1	1	1	1	1	1						
Moyenne	0,17	3	13	26	-20	0,04	-10	-10	68	-10	199						
Écart-type	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####						
Maximum	0,17	3	13	26	-20	0,04	-10	-10	68	-10	199						
Minimum	0,17	3	13	26	-20	0,04	-10	-10	68	-10	#####						
GBM303-4	**0,14**	**-2**	**11**	**21**	**-20**	**0,02**	**-10**	**-10**	**61**	**-10**	**176**						
GBM303-4	**0,17**	**3**	**14**	**25**	**20**	**0,04**	**5**	**10**	**69**	**5**	**198**						
GBM303-4	**0,20**	**7**	**17**	**28**	**60**	**0,06**	**20**	**30**	**77**	**20**	**220**						
GBM303-4	0,17	3	13	26	-20	0,04	-10	-10	68	-10	199						

SAMPLE	ME-XRF26																S-IR08
	Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SO3	SiO2	SrO	TiO2	Total	LOI 1000	S
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
D.L.	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**		**0.01**	**0,01**
Compte	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Moyenne	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Minimum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Compte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moyenne	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Minimum	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
OREAS-45h																	
OREAS-45h																	
OREAS-45h																	
OREAS-45h																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
OREAS-133a																	
OREAS-133a																	
OREAS-133a																	
OREAS-133a																	
OREAS-133a																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
Compte																	
Moyenne																	
Écart-type																	
Maximum																	
Minimum																	
GBM303-4																	
GBM303-4																	
GBM303-4																	
GBM303-4																	

PROJECT NUMBER	SAMPLE	CERTIFICATE	DATE	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																							
				Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb
				ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm
	D.L.			0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**G919-10**	**Limite inférieure -2xσ**																									
.	**G919-10**	**Valeur certifiée**																									
.	**G919-10**	**Limite supérieure+2xσ**																									
1418	G919-10	VO21153815	2021-07-27																								
1418	G919-10	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**AMIS0281**	**Limite inférieure -2xσ**																									
.	**AMIS0281**	**Valeur certifiée**																									
.	**AMIS0281**	**Limite supérieure+2xσ**																									
1418	AMIS0281	VO21153815	2021-07-27																								
1418	AMIS0281	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**AMIS0571**	**Limite inférieure -2xσ**																									
.	**AMIS0571**	**Valeur certifiée**																									
.	**AMIS0571**	**Limite supérieure+2xσ**																									
1418	AMIS0571	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS 252b**	**Limite inférieure -2xσ**																									
.	**OREAS 252b**	**Valeur certifiée**																									
.	**OREAS 252b**	**Limite supérieure+2xσ**																									
1418	OREAS 252b	VO21153815	2021-07-27																								
.	Compte	Historique																									
.	Moyenne	Historique																									
.	Écart-type	Historique																									
.	Maximum	Historique																									
.	Minimum	Historique																									
.	Compte	Projet																									
.	Moyenne	Projet																									
.	Écart-type	Projet																									
.	Maximum	Projet																									
.	Minimum	Projet																									
.	**OREAS-76a**	**Limite inférieure -2xσ**																									
.	**OREAS-76a**	**Valeur certifiée**																									
.	**OREAS-76a**	**Limite supérieure+2xσ**																									
1418	OREAS-76a	VO21205018	2021-08-26																								

SAMPLE	ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)											Xy-OG46			PGM-ICP23			ME-XRF26																S-IR08
	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Ni	Au	Pt	Pd	Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SO3	SiO2	SrO	TiO2	Total	LOI 1000	S
	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
D.L.	0.01	2	1	1	20	0.01	10	10	1	10	2	1	0.001	0,001	0.001	0.005	0.001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0,01
Compte															2	2	2																	
Moyenne															7,670	-0,005	0,001																	
Écart-type															0,071	0,000	0,002																	
Maximum															7,720	-0,005	0,002																	
Minimum															7,620	-0,005	-0,001																	
Compte															2	2	2																	
Moyenne															7,670	-0,005	0,001																	
Écart-type															0,071	0,000	0,002																	
Maximum															7,720	-0,005	0,002																	
Minimum															7,620	-0,005	-0,001																	
G919-10															**7,120**																			
G919-10																																		
G919-10															**8,040**																			
G919-10															7,620	-0,005	0,002																	
G919-10															7,720	-0,005	-0,001																	
Compte											0				2	2	2																	
Moyenne											#####				0,227	0,543	1,488																	
Écart-type											#####				0,001	0,004	0,004																	
Maximum											0				0,228	0,546	1,490																	
Minimum											0				0,226	0,540	1,485																	
Compte											0				2	2	2																	
Moyenne											#####				0,227	0,543	1,488																	
Écart-type											#####				0,001	0,004	0,004																	
Maximum											0				0,228	0,546	1,490																	
Minimum											0				0,226	0,540	1,485																	
AMIS0281															**0,206**	**0,503**	**1,410**																	
AMIS0281																																		
AMIS0281															**0,234**	**0,577**	**1,590**																	
AMIS0281															0,228	0,540	1,485																	
AMIS0281															0,226	0,546	1,490																	
Compte															0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
Moyenne															#DIV/0!	#DIV/0!	#DIV/0!	10,34	0,02	6,91	0,15	9,51	1,34	8,87	0,19	2,17	0,11	0,95	56,02	0,01	0,77	97,61	#DIV/0!	
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum															0,000	0,000	0,000	10,34	0,02	6,91	0,15	9,51	1,34	8,87	0,19	2,17	0,11	0,95	56,02	0,01	0,77	97,61	0	
Minimum															0,000	0,000	0,000	10,34	0,02	6,91	0,15	9,51	1,34	8,87	0,19	2,17	0,11	0,95	56,02	0,01	0,77	97,61	0	
Compte															0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
Moyenne															#DIV/0!	#DIV/0!	#DIV/0!	10,34	0,02	6,91	0,15	9,51	1,34	8,87	0,19	2,17	0,11	0,95	56,02	0,01	0,77	97,61	#DIV/0!	
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum															0,000	0,000	0,000	10,34	0,02	6,91	0,15	9,51	1,34	8,87	0,19	2,17	0,11	0,95	56,02	0,01	0,77	97,61	0	
Minimum															#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
AMIS0571																		**9,95**	**-0,01**	**6,62**	**0,12**	**9,14**	**1,24**	**8,53**	**0,16**	**2,05**	**0,07**	**0,84**	**54,70**	**-0,01**	**0,71**	**97,99**		
AMIS0571																																		
AMIS0571																		**10,69**	**0,03**	**7,18**	**0,18**	**9,84**	**1,42**	**9,21**	**0,22**	**2,29**	**0,13**	**1,05**	**57,30**	**0,03**	**0,83**	**102,00**		
AMIS0571																		10,34	0,02	6,91	0,15	9,51	1,34	8,87	0,19	2,17	0,11	0,95	56,02	0,01	0,77	97,61		
Compte															1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moyenne															0,819	-0,005	0,002	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum															0,819	-0,005	0,002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Minimum															0,819	-0,005	0,002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Compte															1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moyenne															0,819	-0,005	0,002	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type															#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum															0,819	-0,005	0,002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Minimum															0,819	-0,005	0,002	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
OREAS 252b															**0,786**																			
OREAS 252b																																		
OREAS 252b															**0,888**																			
OREAS 252b															0,819	-0,005	0,002																	
Compte														1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moyenne														7,21	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type														#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum														7,21	0,000	0,000	0,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Minimum														7,21	0,000	0,000	0,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Compte														1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Moyenne														7,21	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Écart-type														#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Maximum														7,21	0,000	0,000	0,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Minimum														7,21	0,000	0,000	0,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OREAS-76a														**6,850**																				
OREAS-76a																																		
OREAS-76a														**7,350**																				
OREAS-76a														7,210																				

				ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)																			
PROJECT NUMBER	SAMPLE	CERTIFICATE	DATE	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo
				ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm
Nb Analyses:	6	D.L.		0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10	1	0.01	10	0.01	5	1
1418	141890003	VO21153815	2021-07-27																				
1418	141890003	VO21153815	2021-07-27																				
1418	141890014	VO21153815	2021-07-27	0,3	1,30	2	-10	50	-0,5	3	0,02	-0,5	362	2040	5650	27,30	10	-1	0,81	20	0,64	179	4
1418	141890014	VO21153815	2021-07-27	0,3	1,32	3	-10	50	-0,5	3	0,02	-0,5	363	2050	5730	28,00	10	-1	0,82	20	0,63	179	5
1418	141890026	VO21153815	2021-07-27																				
1418	141890026	VO21153815	2021-07-27																				

		ICP-AES AQUA REGIA ANALYSIS (ME-ICP41)															PGM-23		
PROJECT NUMBER	SAMPLE	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Au	Pt	Pd
		%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Nb Analyses:	6	0.01	1	10	2	0.01	2	1	1	20	0.01	10	10	1	10	2	0.001	0.005	0.001
1418	141890003																-0,001	-0,005	0,003
1418	141890003																-0,001	-0,005	0,003
1418	141890014	0,01	1960	290	-2	5,00	-2	3	3	-20	0,25	-10	-10	80	-10	90			
1418	141890014	0,01	1990	290	-2	5,08	-2	3	4	-20	0,25	-10	-10	81	-10	87			
1418	141890026																0,030	0,061	0,057
1418	141890026																0,032	0,065	0,055

APPENDIX 5

CERTIFICATE OF ANALYSIS

Table 1: Certificate of analysis for rock samples (ALS Minerals)

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Téléphone: +1 604 984 0221 Télécopieur: +1 604 984 0218
www.alsglobal.com/geochemistry

À: IOS SERVICES GEOSCIENTIFIQUES INC.
1319 BOUL ST-PAUL
CHICOUTIMI QC G7J 3Y2

Finalisée date: 27-JUIL-2021
Compte: NMQ

CERTIFICAT VO21153815

Projet: 2020-1418
Bon de commande #: 18726
Ce rapport s'applique à 43 échantillons de Roche soumis à notre laboratoire de Val d'Or, QC, Canada le 16-JUIN-2021.
Les résultats sont transmis à:

KAREN GAGNE	RÉJEAN GIRARD	

PRÉPARATION ÉCHANTILLONS

CODE ALS	DESCRIPTION
WEI-21	Poids échantillon reçu
LOG-21	Entrée échantillon - Code barre client
LOG-23	Entrée pulpe - Reçu avec code barre
CRU-31	Granulation - 70 % <2 mm
CRU-QC	Test concassage QC
PUL-QC	Test concassage QC
OA-HSUL10	Manipulation des échantillons de sulfure
SPL-21	Échant. fractionné - div. riffles
PUL-31	Pulvérisé à 85 % <75 um

PROCÉDURES ANALYTIQUES

CODE ALS	DESCRIPTION	INSTRUMENT
ME-XRF26	Whole Rock By Fusion/XRF	XRF
OA-GRA05x	LOI at 1000C for XRF	WST-SEQ
ME-ICP41	Aqua regia ICP-AES 35 éléments	ICP-AES
Ag-OG46	Teneur marchande Ag - Aqua regia	
ME-OG46	Teneur marchandes éléments - Aqua regia	ICP-AES
Cu-OG46	Teneur marchande Cu - Aqua regia	
PGM-ICP23	Pt, Pd et Au 30 g FA ICP	ICP-AES

Ce rapport est final et remplace tout autre rapport préliminaire portant ce numéro de certificat.Les résultats s'appliquent aux échantillons soumis.Toutes les pages de ce rapport ont été vérifiées et approuvées avant publication.

***** Voir la page d'annexe pour les commentaires en ce qui concerne ce certificat *****

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

Signature:
Saa Traxler, General Manager, North Vancouver

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Téléphone: +1 604 984 0221 Télécopieur: +1 604 984 0218
www.alsglobal.com/geochemistry

À: IOS SERVICES GEOSCIENTIFIQUES INC.
1319 BOUL ST-PAUL
CHICOUTIMI QC G7J 3Y2

Finalisée date: 27-JUIL-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE VO21153815

Méthode / élément / unités / LDI	WEI-21	PGM-ICP23	PGM-ICP23	PGM-ICP23	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26
	Poids reçu	Au	Pt	Pd	Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SO3
	kg	ppm	ppm	ppm	%	%	%	%	%	%	%	%	%	%	%
Description échantillon	0.02	0.001	0.005	0.001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
141890000	0.51	<0.001	<0.005	<0.001	0.23	<0.01	<0.01	0.01	0.32	0.03	<0.01	<0.01	<0.01	0.01	0.02
141890001	1.35	<0.001	<0.005	0.003											
141890002	1.57	0.084	0.016	0.010											
141890003	1.75	<0.001	<0.005	0.003											
141890004	1.65	0.001	<0.005	0.002											
141890005	1.03	0.020	<0.005	0.003											
141890006	0.42	0.040	0.057	0.133											
141890007	1.40	0.021	0.178	0.082											
141890008	0.67				18.64	0.06	5.34	0.01	6.54	1.76	4.79	0.08	3.55	0.06	0.42
141890009	1.24				19.48	0.06	5.02	0.02	8.01	1.46	1.75	0.03	4.43	0.08	1.49
141890010	1.12	<0.001	0.005	0.008											
141890011	0.55	0.032	0.025	0.060											
141890012	0.91	<0.001	0.017	0.016											
141890013	1.44	0.002	<0.005	0.019											
141890014	1.84	0.055	0.092	0.070											
141890015	1.64	0.027	0.024	0.180											
141890016	0.37	0.333	0.006	0.162											
141890017	0.07	NSS	NSS	NSS											
141890018	0.86				2.01	<0.01	1.35	0.16	21.99	0.01	22.8	0.60	0.10	0.04	0.64
141890019	1.03				13.90	0.13	2.52	0.26	9.82	2.46	1.47	0.05	3.28	0.13	1.33
141890020	2.25				18.14	0.28	2.90	<0.01	5.01	5.86	1.05	0.12	4.65	0.32	0.13
141890021	1.88				4.27	<0.01	1.51	0.02	22.69	0.04	21.3	0.28	0.22	0.02	3.03
141890022	0.50				20.97	0.08	6.85	0.01	7.24	0.93	4.78	0.07	4.26	0.02	0.17
141890023	0.88				26.33	0.09	8.79	<0.01	1.11	1.05	0.32	0.01	5.56	0.02	0.13
141890024	1.44				19.75	0.42	2.81	0.01	3.55	5.42	0.96	0.05	5.15	0.03	0.17
141890025	1.26				26.06	0.05	8.67	0.01	2.03	0.96	1.13	0.03	5.17	0.03	0.20
141890026	1.64	0.030	0.061	0.057											
141890026.1	0.50	<0.001	<0.005	<0.001											
141890027	2.57	0.031	0.096	0.062											
141890028	1.37	0.059	0.034	0.093											
141890029	2.80				6.14	0.03	3.07	0.44	21.79	0.22	18.75	0.35	0.57	0.16	0.22
141890030	2.60	0.056	0.014	0.032											
141890031	1.08				3.89	0.01	1.27	0.04	25.16	0.05	19.55	0.38	0.24	0.02	4.09
141890032	1.19	0.061	0.030	0.058											
141890033	2.08	0.068	0.085	0.097											
141890034	1.93				10.92	0.02	4.09	0.02	17.98	0.28	13.15	0.26	1.81	0.03	2.03
141890035	0.25	0.194	0.040	0.080											
141890036	2.21	<0.001	0.005	0.009											
141890036.1	0.07	3.27	7.09	9.93											
141890037	3.18	0.015	0.095	0.132											

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Finalisée date: 27-JUIL-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE VO21153815

Description échantillon	Méthode	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	OA-GRA05x	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	élément	SiO2	SrO	TiO2	Total	LOI 1000	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co
	unités	%	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
	LDI	0.01	0.01	0.01	0.01	0.01	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1
141890000		98.55	<0.01	0.03	99.28	0.08	<0.2	0.03	<2	<10	<10	<0.5	<2	0.01	<0.5	<1
141890001							<0.2	1.56	<2	10	100	<0.5	<2	1.54	<0.5	6
141890002							0.5	0.42	<2	<10	100	<0.5	<2	0.36	<0.5	167
141890003							<0.2	0.66	<2	<10	30	<0.5	<2	0.46	<0.5	17
141890004							<0.2	0.90	<2	10	170	<0.5	<2	1.68	<0.5	28
141890005							0.2	0.23	<2	<10	10	<0.5	<2	0.08	<0.5	60
141890006							0.6	0.27	3	<10	10	<0.5	4	0.02	<0.5	76
141890007							1.2	0.71	3	<10	20	<0.5	5	0.16	<0.5	1120
141890008		56.80	0.08	0.55	99.86	1.04										
141890009		56.30	0.09	1.57	101.45	1.49										
141890010							<0.2	1.79	<2	<10	210	<0.5	<2	0.22	<0.5	40
141890011							1.1	0.76	<2	<10	40	<0.5	2	0.10	<0.5	195
141890012							<0.2	1.72	<2	<10	80	<0.5	<2	0.63	<0.5	142
141890013							0.3	1.57	4	10	10	<0.5	5	0.10	<0.5	856
141890014							0.3	1.30	2	<10	50	<0.5	3	0.02	<0.5	362
141890015							0.9	0.28	2	<10	10	<0.5	4	<0.01	<0.5	1420
141890016							3.0	0.84	3	<10	20	<0.5	2	0.01	<0.5	691
141890017							>100	0.04	2410	<10	<10	<0.5	<2	0.01	6.9	>10000
141890018		51.03	<0.01	0.29	100.85	-0.43										
141890019		61.68	0.05	0.97	101.00	2.53										
141890020		58.80	0.05	1.10	98.83	0.19										
141890021		47.49	<0.01	0.61	102.75	0.95										
141890022		52.78	0.12	1.34	99.87	0.17										
141890023		56.22	0.15	0.11	100.15	0.26										
141890024		60.96	0.08	0.82	100.65	0.41										
141890025		54.87	0.13	0.17	100.30	0.75										
141890026							0.8	1.00	8	<10	10	<0.5	<2	0.41	<0.5	313
141890026.1							<0.2	0.02	<2	<10	<10	<0.5	<2	0.01	<0.5	1
141890027							0.5	1.02	<2	10	10	<0.5	<2	0.40	<0.5	265
141890028							0.5	0.29	<2	<10	10	<0.5	2	0.15	<0.5	508
141890029		46.95	0.01	0.84	99.02	-0.71										
141890030							0.3	0.59	<2	<10	40	<0.5	<2	0.23	<0.5	89
141890031		47.16	0.01	0.59	103.15	0.43										
141890032							0.3	0.40	<2	<10	10	<0.5	<2	0.18	<0.5	243
141890033							0.6	0.99	2	<10	40	<0.5	2	0.06	<0.5	596
141890034		49.77	0.05	0.68	101.75	0.45										
141890035							0.5	0.37	<2	<10	10	<0.5	<2	0.23	<0.5	322
141890036							<0.2	1.53	<2	<10	140	0.5	<2	0.06	<0.5	68
141890036.1							>100	0.04	2220	<10	<10	<0.5	32	0.01	<0.5	>10000
141890037							1.1	0.92	3	<10	20	<0.5	2	0.24	<0.5	482

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CERTIFICAT D'ANALYSE VO21153815

Description échantillon / Méthode élément unités LDI	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01
141890000	20	2	0.24	<10	<1	0.01	10	0.01	22	1	<0.01	1	10	<2	0.02
141890001	12	10	1.93	<10	1	0.11	<10	0.95	355	1	0.11	12	110	<2	0.06
141890002	94	1610	7.08	<10	<1	0.04	10	0.68	171	3	0.04	643	190	4	2.56
141890003	75	39	1.30	<10	<1	0.07	<10	0.68	192	1	0.05	97	40	<2	0.16
141890004	21	110	3.71	<10	1	0.06	10	2.10	383	1	0.07	97	1260	5	0.42
141890005	21	362	2.42	<10	<1	0.02	<10	0.51	120	1	<0.01	254	10	4	1.07
141890006	43	421	29.8	<10	<1	0.01	<10	0.19	110	10	<0.01	260	100	<2	1.13
141890007	378	7810	37.8	10	<1	0.10	<10	0.23	93	2	0.06	6520	30	<2	>10.0
141890008															
141890009															
141890010	142	467	11.10	10	<1	1.17	30	1.00	97	3	0.14	110	560	3	1.12
141890011	253	2260	17.30	10	<1	1.38	<10	0.41	69	12	0.05	74	100	<2	4.95
141890012	32	937	6.71	<10	<1	0.26	<10	0.29	72	<1	0.31	1200	80	<2	3.51
141890013	120	1720	35.1	<10	<1	0.11	<10	0.79	32	16	0.03	3400	30	<2	>10.0
141890014	2040	5650	27.3	10	<1	0.81	20	0.64	179	4	0.01	1960	290	<2	5.00
141890015	639	5780	34.3	<10	<1	0.01	<10	0.07	51	3	<0.01	>10000	10	<2	>10.0
141890016	1475	>10000	31.3	10	<1	0.38	<10	0.42	138	4	0.01	8770	20	<2	>10.0
141890017	8	>10000	1.40	<10	1	0.01	<10	<0.01	5	16	<0.01	>10000	<10	342	7.11
141890018															
141890019															
141890020															
141890021															
141890022															
141890023															
141890024															
141890025															
141890026	33	1900	10.20	<10	<1	0.03	<10	0.02	64	3	0.16	4450	110	<2	6.23
141890026.1	25	6	0.40	<10	<1	<0.01	10	<0.01	34	3	0.01	15	10	<2	0.04
141890027	29	2390	7.18	<10	<1	0.04	<10	0.02	49	1	0.17	4000	70	<2	6.58
141890028	27	3700	15.35	<10	<1	0.01	<10	0.31	119	2	0.03	2730	100	<2	8.55
141890029															
141890030	69	1180	4.71	<10	<1	0.02	<10	0.29	86	1	0.06	383	70	<2	1.32
141890031															
141890032	70	1860	9.49	<10	<1	0.02	<10	0.26	95	2	0.04	1970	60	<2	3.72
141890033	94	5230	18.75	<10	<1	0.31	10	0.78	85	2	0.03	4040	190	<2	8.69
141890034															
141890035	36	3100	12.30	<10	<1	0.01	<10	0.38	135	3	0.03	2410	20	<2	6.25
141890036	107	184	3.86	10	<1	1.19	<10	1.82	160	1	0.06	255	90	<2	0.56
141890036.1	7	>10000	1.38	<10	1	0.01	<10	<0.01	<5	14	0.01	>10000	10	313	7.16
141890037	69	4520	16.00	<10	<1	0.35	<10	0.62	76	2	0.10	3410	60	3	8.13

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Finalisée date: 27-JUIL-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE VO21153815

Description échantillon / Méthode élément unités LDI	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Ag-OG46 Ag ppm 1	Cu-OG46 Cu % 0.001
141890000	<2	<1	1	<20	<0.01	<10	<10	1	<10	<2		
141890001	<2	1	32	<20	0.05	<10	<10	19	<10	16		
141890002	<2	4	39	<20	0.04	<10	<10	28	<10	18		
141890003	<2	2	12	<20	0.05	<10	<10	19	<10	16		
141890004	<2	2	112	<20	0.07	<10	<10	45	<10	19		
141890005	<2	3	1	<20	0.02	<10	<10	23	<10	11		
141890006	<2	3	<1	<20	0.02	<10	<10	22	<10	6		
141890007	<2	1	24	<20	0.17	<10	<10	331	<10	156		
141890008												
141890009												
141890010	<2	3	51	<20	0.29	<10	<10	103	<10	48		
141890011	<2	2	15	<20	0.49	<10	<10	251	<10	19		
141890012	<2	1	104	<20	0.09	<10	<10	38	<10	10		
141890013	<2	2	12	<20	0.02	<10	<10	156	<10	<2		
141890014	<2	3	3	<20	0.25	<10	<10	80	<10	90		
141890015	<2	1	<1	<20	0.03	<10	<10	33	<10	50		
141890016	<2	3	<1	<20	0.17	<10	<10	70	<10	168		3.97
141890017	<2	4	<1	<20	<0.01	10	<10	1	<10	17	NSS	NSS
141890018												
141890019												
141890020												
141890021												
141890022												
141890023												
141890024												
141890025												
141890026	<2	<1	48	<20	0.01	<10	<10	6	<10	3		
141890026.1	<2	<1	2	<20	<0.01	<10	<10	1	<10	2		
141890027	<2	<1	53	<20	0.01	<10	<10	3	<10	5		
141890028	<2	2	2	<20	0.03	<10	<10	13	<10	11		
141890029												
141890030	<2	2	16	<20	0.05	<10	<10	31	<10	9		
141890031												
141890032	<2	3	6	<20	0.13	<10	<10	53	<10	18		
141890033	<2	4	4	<20	0.17	<10	<10	63	<10	39		
141890034												
141890035	<2	2	4	<20	0.06	<10	<10	24	<10	28		
141890036	<2	5	3	<20	0.24	<10	<10	79	<10	39		
141890036.1	6	<1	34	<20	<0.01	<10	10	1	20	16	130	24.8
141890037	<2	3	28	<20	0.13	<10	<10	68	<10	23		

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE VO21153815

Description échantillon	Méthode élément unités LDI	WEI-21 Poids reçu kg 0.02	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001	ME-XRF26 Al2O3 % 0.01	ME-XRF26 BaO % 0.01	ME-XRF26 CaO % 0.01	ME-XRF26 Cr2O3 % 0.01	ME-XRF26 Fe2O3 % 0.01	ME-XRF26 K2O % 0.01	ME-XRF26 MgO % 0.01	ME-XRF26 MnO % 0.01	ME-XRF26 Na2O % 0.01	ME-XRF26 P2O5 % 0.01	ME-XRF26 SO3 % 0.01
141890038		1.09	0.022	0.084	0.138											
141890039		1.71	0.054	0.080	0.252											
141890151		2.05				20.14	0.50	3.98	<0.01	2.94	4.54	0.98	0.04	5.15	0.04	0.21

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE VO21153815

Description échantillon	Méthode élément unités LDI	ME-XRF26 SiO2 % 0.01	ME-XRF26 SrO % 0.01	ME-XRF26 TiO2 % 0.01	ME-XRF26 Total % 0.01	OA-GRA05x LOI 1000 % 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1
141890038							0.5	0.34	<2	<10	20	<0.5	<2	0.17	<0.5	457
141890039							0.9	0.24	<2	<10	10	<0.5	<2	0.09	<0.5	449
141890151		58.94	0.10	0.77	98.81	0.45										

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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141890038		91	4260	11.85	<10	<1	0.02	<10	0.23	72	2	0.05	1780	30	<2	7.19
141890039		108	7170	13.50	<10	<1	0.01	<10	0.25	74	3	0.02	3830	20	2	8.75
141890151																

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE VO21153815

Description échantillon	Méthode élément unités LDI	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Ag-OG46 Ag ppm 1	Cu-OG46 Cu % 0.001
141890038		<2	2	12	<20	0.05	<10	<10	28	<10	18		
141890039		<2	2	3	<20	0.02	<10	<10	17	<10	19		
141890151													

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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À: IOS SERVICES GEOSCIENTIFIQUES INC.
1319 BOUL ST-PAUL
CHICOUTIMI QC G7J 3Y2

Finalisée date: 27-JUIL-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE VO21153815

COMMENTAIRE DE CERTIFICAT

COMMENTAIRES ANALYTIQUES

	NSS est échantillon insuffisant.			
Applique à la Méthode:	TOUTES MÉTHODES			

ADRESSE DE LABORATOIRE

	Traité à ALS Thunder Bay, 645 Norah Crescent, Thunder Bay, ON, Canada			
Applique à la Méthode:	CRU-31	CRU-QC	LOG-21	LOG-23
	OA-HSUL10	PUL-31	PUL-QC	SPL-21
	WEI-21			
	Traité à ALS Vancouver, 2103 Dollarton Hwy, North Vancouver, BC, Canada.			
Applique à la Méthode:	Ag-OG46	Cu-OG46	ME-ICP41	ME-OG46
	ME-XRF26	OA-GRA05x	PGM-ICP23	

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CERTIFICAT CQ VO21153815

Projet: 2020-1418
Bon de commande #: 18726
Ce rapport s'applique à 43 échantillons de Roche soumis à notre laboratoire de Val d'Or, QC, Canada le 16-JUIN-2021.
Les résultats sont transmis à:

KAREN GAGNE	RÉJEAN GIRARD	

PRÉPARATION ÉCHANTILLONS

CODE ALS	DESCRIPTION
WEI-21	Poids échantillon reçu
LOG-21	Entrée échantillon - Code barre client
LOG-23	Entrée pulpe - Reçu avec code barre
CRU-31	Granulation - 70 % <2 mm
CRU-QC	Test concassage QC
PUL-QC	Test concassage QC
OA-HSUL10	Manipulation des échantillons de sulfure
SPL-21	Échant. fractionné - div. riffles
PUL-31	Pulvérisé à 85 % <75 um

PROCÉDURES ANALYTIQUES

CODE ALS	DESCRIPTION	INSTRUMENT
ME-XRF26	Whole Rock By Fusion/XRF	XRF
OA-GRA05x	LOI at 1000C for XRF	WST-SEQ
ME-ICP41	Aqua regia ICP-AES 35 éléments	ICP-AES
Ag-OG46	Teneur marchande Ag - Aqua regia	
ME-OG46	Teneur marchandes éléments - Aqua regia	ICP-AES
Cu-OG46	Teneur marchande Cu - Aqua regia	
PGM-ICP23	Pt, Pd et Au 30 g FA ICP	ICP-AES

Ce rapport est final et remplace tout autre rapport préliminaire portant ce numéro de certificat.Les résultats s'appliquent aux échantillons soumis.Toutes les pages de ce rapport ont été vérifiées et approuvées avant publication.

Signature:
Saa Traxler, General Manager, North Vancouver

***** Voir la page d'annexe pour les commentaires en ce qui concerne ce certificat *****

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode élément unités LDI	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001	ME-XRF26 Al2O3 % 0.01	ME-XRF26 BaO % 0.01	ME-XRF26 CaO % 0.01	ME-XRF26 Cr2O3 % 0.01	ME-XRF26 Fe2O3 % 0.01	ME-XRF26 K2O % 0.01	ME-XRF26 MgO % 0.01	ME-XRF26 MnO % 0.01	ME-XRF26 Na2O % 0.01	ME-XRF26 P2O5 % 0.01	ME-XRF26 SO3 % 0.01	ME-XRF26 SiO2 % 0.01
CONTRÔLE DE LA QUALITÉ															
AMIS0281	0.226	0.546	1.490												
AMIS0281	0.228	0.540	1.485												
Plage d'acceptance - limite inférieure	0.206	0.503	1.410												
limite supérieure	0.234	0.577	1.590												
AMIS0547															
Plage d'acceptance - limite inférieure															
limite supérieure															
AMIS0571				10.34	0.02	6.91	0.15	9.51	1.34	8.87	0.19	2.17	0.11	0.95	56.02
Plage d'acceptance - limite inférieure				9.95	<0.01	6.62	0.12	9.14	1.24	8.53	0.16	2.05	0.07	0.84	54.70
limite supérieure				10.69	0.03	7.18	0.18	9.84	1.42	9.21	0.22	2.29	0.13	1.05	57.30
EMOG-17															
EMOG-17															
Plage d'acceptance - limite inférieure															
limite supérieure															
EMOG-17															
Plage d'acceptance - limite inférieure															
limite supérieure															
G919-10	7.62	<0.005	0.002												
G919-10	7.72	<0.005	<0.001												
Plage d'acceptance - limite inférieure	7.12														
limite supérieure	8.04														
GBM303-4															
Plage d'acceptance - limite inférieure															
limite supérieure															
GPP-14	0.914	0.499	0.480												
GPP-14	0.916	0.507	0.486												
Plage d'acceptance - limite inférieure	0.853	0.468	0.451												
limite supérieure	0.965	0.538	0.511												
KIP-19	2.44	<0.005	0.001												
Plage d'acceptance - limite inférieure	2.28	<0.005	<0.001												
limite supérieure	2.58	0.010	0.002												
MRGeo08															
MRGeo08															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode / élément / unités / LDI	ME-XRF26 SrO % 0.01	ME-XRF26 TiO2 % 0.01	ME-XRF26 Total % 0.01	OA-GRA05x LOI 1000 % 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1
CONTRÔLE DE LA QUALITÉ															
AMIS0281															
AMIS0281															
Plage d'acceptance - limite inférieure															
limite supérieure															
AMIS0547				38.02											
Plage d'acceptance - limite inférieure				36.19											
limite supérieure				40.02											
AMIS0571	0.01	0.77	97.61												
Plage d'acceptance - limite inférieure	<0.01	0.71	97.99												
limite supérieure	0.03	0.83	102.00												
EMOG-17															
EMOG-17															
Plage d'acceptance - limite inférieure															
limite supérieure															
EMOG-17					70.3	1.62	585	<10	50	<0.5	2	1.01	19.7	779	47
Plage d'acceptance - limite inférieure					60.1	1.45	520	<10	30	<0.5	<2	0.87	17.9	679	42
limite supérieure					73.9	1.79	640	20	80	1.5	10	1.09	22.9	833	54
G919-10															
G919-10															
Plage d'acceptance - limite inférieure															
limite supérieure															
GBM303-4					22.1	1.45	280	<10	80	<0.5	<2	0.40	0.6	60	691
Plage d'acceptance - limite inférieure					19.0	1.28	246	<10	50	<0.5	<2	0.34	<0.5	53	621
limite supérieure					23.6	1.58	306	30	100	1.5	6	0.44	1.8	68	761
GPP-14															
GPP-14															
Plage d'acceptance - limite inférieure															
limite supérieure															
KIP-19															
Plage d'acceptance - limite inférieure															
limite supérieure															
MRGeo08					4.8	2.68	33	<10	440	0.8	<2	1.11	2.1	19	92
MRGeo08					4.5	2.54	33	<10	430	0.7	<2	1.07	1.9	18	88
Plage d'acceptance - limite inférieure					3.8	2.44	27	<10	370	<0.5	<2	1.00	1.1	16	81
limite supérieure					5.1	3.00	39	20	530	1.9	5	1.24	3.4	22	102

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon	Méthode / élément / unités / LDI	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2
CONTRÔLE DE LA QUALITÉ																
AMIS0281																
AMIS0281																
Plage d'acceptance - limite inférieure																
limite supérieure																
AMIS0547																
Plage d'acceptance - limite inférieure																
limite supérieure																
AMIS0571																
Plage d'acceptance - limite inférieure																
limite supérieure																
EMOG-17																
EMOG-17																
Plage d'acceptance - limite inférieure																
limite supérieure																
EMOG-17		8440	4.74	10	1	0.69	20	0.81	664	1090	0.17	7960	760	7330	3.19	704
Plage d'acceptance - limite inférieure		7780	4.18	<10	<1	0.60	<10	0.69	598	970	0.15	6930	680	6500	2.90	572
limite supérieure		8960	5.14	30	3	0.76	40	0.87	742	1190	0.20	8470	850	7950	3.56	778
G919-10																
G919-10																
Plage d'acceptance - limite inférieure																
limite supérieure																
GBM303-4		213	3.50	<10	1	0.19	10	1.52	603	1	0.17	442	130	77	0.17	3
Plage d'acceptance - limite inférieure		198	3.08	<10	<1	0.16	<10	1.33	542	<1	0.13	382	100	74	0.14	<2
limite supérieure		230	3.78	30	3	0.22	30	1.65	674	3	0.19	469	160	94	0.20	7
GPP-14																
GPP-14																
Plage d'acceptance - limite inférieure																
limite supérieure																
KIP-19																
Plage d'acceptance - limite inférieure																
limite supérieure																
MRGeo08		620	3.60	10	<1	1.28	30	1.13	416	13	0.34	718	1010	1080	0.34	2
MRGeo08		619	3.48	10	1	1.24	30	1.12	411	13	0.35	683	940	1080	0.29	2
Plage d'acceptance - limite inférieure		586	3.22	<10	<1	1.12	20	1.03	378	12	0.30	621	900	957	0.27	<2
limite supérieure		676	3.96	30	2	1.40	60	1.29	473	17	0.39	761	1130	1175	0.35	8

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ V021153815

Description échantillon / Méthode élément unités LDI	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Ag-OG46 Ag ppm 1	Cu-OG46 Cu % 0.001
CONTRÔLE DE LA QUALITÉ											
AMIS0281											
AMIS0281											
Plage d'acceptance - limite inférieure											
limite supérieure											
AMIS0547											
Plage d'acceptance - limite inférieure											
limite supérieure											
AMIS0571											
Plage d'acceptance - limite inférieure											
limite supérieure											
EMOG-17											0.843
EMOG-17										67	0.835
Plage d'acceptance - limite inférieure										64	0.807
limite supérieure										70	0.867
EMOG-17	5	55	<20	0.22	<10	<10	64	<10	7420		
Plage d'acceptance - limite inférieure	3	47	<20	0.18	<10	<10	58	<10	6780		
limite supérieure	7	59	50	0.25	20	20	74	20	8290		
G919-10											
G919-10											
Plage d'acceptance - limite inférieure											
limite supérieure											
GBM303-4	13	26	<20	0.04	<10	<10	68	<10	199		
Plage d'acceptance - limite inférieure	11	21	<20	0.02	<10	<10	61	<10	176		
limite supérieure	17	28	60	0.06	20	30	77	20	220		
GPP-14											
GPP-14											
Plage d'acceptance - limite inférieure											
limite supérieure											
KIP-19											
Plage d'acceptance - limite inférieure											
limite supérieure											
MRGeo08	7	81	20	0.39	<10	<10	100	<10	801		
MRGeo08	6	77	20	0.36	<10	<10	96	<10	752		
Plage d'acceptance - limite inférieure	5	71	<20	0.33	<10	<10	90	<10	708		
limite supérieure	10	89	60	0.43	20	30	112	20	870		

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode élément unités LDI	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001	ME-XRF26 Al2O3 % 0.01	ME-XRF26 BaO % 0.01	ME-XRF26 CaO % 0.01	ME-XRF26 Cr2O3 % 0.01	ME-XRF26 Fe2O3 % 0.01	ME-XRF26 K2O % 0.01	ME-XRF26 MgO % 0.01	ME-XRF26 MnO % 0.01	ME-XRF26 Na2O % 0.01	ME-XRF26 P2O5 % 0.01	ME-XRF26 SO3 % 0.01	ME-XRF26 SiO2 % 0.01
						CONTRÔLE DE LA QUALITÉ									
NCSDC70006															
NCSDC70006															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS 220				13.59	0.02	9.69	0.04	11.38	0.46	7.23	0.17	2.77	0.18	0.37	50.31
Plage d'acceptance - limite inférieure				13.12	<0.01	9.28	0.02	11.00	0.42	6.92	0.14	2.60	0.15	0.31	49.10
limite supérieure				14.04	0.05	10.00	0.06	11.80	0.51	7.50	0.20	2.90	0.21	0.41	51.50
OREAS 252b	0.819	<0.005	0.002												
Plage d'acceptance - limite inférieure	0.786														
limite supérieure	0.888														
OREAS 684	0.259	4.01	1.780												
Plage d'acceptance - limite inférieure	0.232	3.63	1.615												
limite supérieure	0.264	4.11	1.825												
OREAS 905															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS 932															
OREAS 932															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-133a															
OREAS-133a															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-134b															
OREAS-134b															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-45e															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-45h	0.042	0.090	0.131												
Plage d'acceptance - limite inférieure	0.038	0.076	0.119												
limite supérieure	0.044	0.098	0.137												
PMP-18	0.300	<0.005	0.002												
PMP-18	0.299	<0.005	0.001												
Plage d'acceptance - limite inférieure	0.289	<0.005	<0.001												
limite supérieure	0.327	0.010	0.002												

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Description échantillon / Méthode élément unités LDI	ME-XRF26 SrO % 0.01	ME-XRF26 TiO2 % 0.01	ME-XRF26 Total % 0.01	OA-GRA05x LOI 1000 % 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1
CONTRÔLE DE LA QUALITÉ															
NCSDC70006															
NCSDC70006															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS 220	0.03	1.28	97.66												
Plage d'acceptance - limite inférieure	<0.01	1.19	<0.01												
limite supérieure	0.05	1.37	0.02												
OREAS 252b															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS 684															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS 905					0.4	0.78	33	<10	240	0.9	3	0.33	<0.5	13	17
Plage d'acceptance - limite inférieure					<0.2	0.73	26	<10	200	<0.5	<2	0.29	<0.5	11	15
limite supérieure					0.9	0.91	37	20	300	2.0	10	0.38	1.4	17	20
OREAS 932															
OREAS 932															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-133a															
OREAS-133a															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-134b															
OREAS-134b															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-45e				8.53											
Plage d'acceptance - limite inférieure				8.11											
limite supérieure				8.99											
OREAS-45h															
Plage d'acceptance - limite inférieure															
limite supérieure															
PMP-18															
PMP-18															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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À: IOS SERVICES GEOSCIENTIFIQUES INC.
1319 BOUL ST-PAUL
CHICOUTIMI QC G7J 3Y2

Finalisée date: 27-JUIL-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon — Méthode / élément / unités / LDI	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2
CONTRÔLE DE LA QUALITÉ															
NCSDC70006															
NCSDC70006															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS 220															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS 252b															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS 684															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS 905	1550	3.32	10	<1	0.31	40	0.15	341	3	0.10	10	230	17	0.07	<2
Plage d'acceptance - limite inférieure	1450	3.14	<10	<1	0.28	20	0.13	310	<1	0.07	6	200	12	0.04	<2
limite supérieure	1670	3.86	30	2	0.36	60	0.19	390	5	0.12	11	260	22	0.09	5
OREAS 932															
OREAS 932															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-133a															
OREAS-133a															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-134b															
OREAS-134b															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-45e															
Plage d'acceptance - limite inférieure															
limite supérieure															
OREAS-45h															
Plage d'acceptance - limite inférieure															
limite supérieure															
PMP-18															
PMP-18															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Finalisée date: 27-JUIL-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode / élément / unités / LDI	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Ag-OG46 Ag ppm 1	Cu-OG46 Cu % 0.001
CONTRÔLE DE LA QUALITÉ											
NCSDC70006											0.010
NCSDC70006										<1	0.009
Plage d'acceptance - limite inférieure											
limite supérieure											
OREAS 220											
Plage d'acceptance - limite inférieure											
limite supérieure											
OREAS 252b											
Plage d'acceptance - limite inférieure											
limite supérieure											
OREAS 684											
Plage d'acceptance - limite inférieure											
limite supérieure											
OREAS 905	1	13	<20	0.02	<10	<10	5	<10	63		
Plage d'acceptance - limite inférieure	<1	10	<20	<0.01	<10	<10	4	<10	58		
limite supérieure	4	15	50	0.04	20	20	8	20	76		
OREAS 932											6.11
OREAS 932										21	6.13
Plage d'acceptance - limite inférieure											5.90
limite supérieure											6.32
OREAS-133a											0.033
OREAS-133a										100	0.033
Plage d'acceptance - limite inférieure										93	0.030
limite supérieure										101	0.034
OREAS-134b											0.134
OREAS-134b										205	0.134
Plage d'acceptance - limite inférieure										196	0.131
limite supérieure										212	0.142
OREAS-45e											
Plage d'acceptance - limite inférieure											
limite supérieure											
OREAS-45h											
Plage d'acceptance - limite inférieure											
limite supérieure											
PMP-18											
PMP-18											
Plage d'acceptance - limite inférieure											
limite supérieure											

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode élément unités LDI	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001	ME-XRF26 Al2O3 % 0.01	ME-XRF26 BaO % 0.01	ME-XRF26 CaO % 0.01	ME-XRF26 Cr2O3 % 0.01	ME-XRF26 Fe2O3 % 0.01	ME-XRF26 K2O % 0.01	ME-XRF26 MgO % 0.01	ME-XRF26 MnO % 0.01	ME-XRF26 Na2O % 0.01	ME-XRF26 P2O5 % 0.01	ME-XRF26 SO3 % 0.01	ME-XRF26 SiO2 % 0.01
BLANCS															
BLANK															
BLANK															
Plage d'acceptance - limite inférieure															
limite supérieure															
BLANK															
BLANK															
BLANK															
Plage d'acceptance - limite inférieure															
limite supérieure															
BLANK				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.01	0.01	99.68
Plage d'acceptance - limite inférieure				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	97.99
limite supérieure				0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	100.00
BLANK															
Plage d'acceptance - limite inférieure															
limite supérieure															
BLANK	0.002	<0.005	0.001												
BLANK	0.002	<0.005	0.001												
BLANK	0.001	<0.005	<0.001												
Plage d'acceptance - limite inférieure	<0.001	<0.005	<0.001												
limite supérieure	0.002	0.010	0.002												
DUPLICATA															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode élément unités LDI	ME-XRF26 SrO % 0.01	ME-XRF26 TiO2 % 0.01	ME-XRF26 Total % 0.01	OA-GRA05x LOI 1000 % 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1
BLANCS															
BLANK															
BLANK															
Plage d'acceptance - limite inférieure															
limite supérieure															
BLANK					<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1
BLANK					<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1
BLANK					<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1
Plage d'acceptance - limite inférieure					<0.2	<0.01	<2	<10	<10	<0.5	<2	<0.01	<0.5	<1	<1
limite supérieure					0.4	0.02	4	20	20	1.0	4	0.02	1.0	2	2
BLANK	<0.01	<0.01	99.71												
Plage d'acceptance - limite inférieure	<0.01	<0.01	<0.01												
limite supérieure	0.02	0.02	0.02												
BLANK				0.01											
Plage d'acceptance - limite inférieure				<0.01											
limite supérieure				0.02											
BLANK															
BLANK															
BLANK															
Plage d'acceptance - limite inférieure															
limite supérieure															
DUPLICATA															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ   VO21153815

Description échantillon / Méthode élément unités LDI	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2
BLANCS															
BLANK															
BLANK															
Plage d'acceptance - limite inférieure															
limite supérieure															
BLANK	<1	<0.01	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2
BLANK	<1	<0.01	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	0.05	<2
BLANK	<1	<0.01	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2
Plage d'acceptance - limite inférieure	<1	<0.01	<10	<1	<0.01	<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<2
limite supérieure	2	0.02	20	2	0.02	20	0.02	10	2	0.02	2	20	4	0.02	4
BLANK															
Plage d'acceptance - limite inférieure															
limite supérieure															
BLANK															
Plage d'acceptance - limite inférieure															
limite supérieure															
BLANK															
BLANK															
BLANK															
Plage d'acceptance - limite inférieure															
limite supérieure															
DUPLICATA															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode élément unités LDI	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Ag-OG46 Ag ppm 1	Cu-OG46 Cu % 0.001
BLANCS											
BLANK											<0.001
BLANK										<1	<0.001
Plage d'acceptance - limite inférieure										<1	<0.001
limite supérieure										2	0.002
BLANK	<1	1	<20	<0.01	<10	<10	<1	<10	<2		
BLANK	<1	<1	<20	<0.01	<10	<10	<1	<10	<2		
BLANK	<1	1	<20	<0.01	<10	<10	<1	<10	<2		
Plage d'acceptance - limite inférieure	<1	<1	<20	<0.01	<10	<10	<1	<10	<2		
limite supérieure	2	2	40	0.02	20	20	2	20	4		
BLANK											
Plage d'acceptance - limite inférieure											
limite supérieure											
BLANK											
Plage d'acceptance - limite inférieure											
limite supérieure											
BLANK											
BLANK											
BLANK											
Plage d'acceptance - limite inférieure											
limite supérieure											
DUPLICATA											
ORIGINAL										3	0.269
DUP										3	0.269
Plage d'acceptance - limite inférieure										2	0.261
limite supérieure										4	0.277
ORIGINAL											0.538
DUP											0.549
Plage d'acceptance - limite inférieure											0.529
limite supérieure											0.558

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode élément unités LDI	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001	ME-XRF26 Al2O3 % 0.01	ME-XRF26 BaO % 0.01	ME-XRF26 CaO % 0.01	ME-XRF26 Cr2O3 % 0.01	ME-XRF26 Fe2O3 % 0.01	ME-XRF26 K2O % 0.01	ME-XRF26 MgO % 0.01	ME-XRF26 MnO % 0.01	ME-XRF26 Na2O % 0.01	ME-XRF26 P2O5 % 0.01	ME-XRF26 SO3 % 0.01	ME-XRF26 SiO2 % 0.01
						DUPLICATA									
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL	0.006	<0.005	0.001												
DUP	0.007	<0.005	<0.001												
Plage d'acceptance - limite inférieure	0.005	<0.005	<0.001												
limite supérieure	0.008	0.010	0.002												
ORIGINAL	0.012	<0.005	0.001												
DUP	0.013	<0.005	0.001												
Plage d'acceptance - limite inférieure	0.011	<0.005	<0.001												
limite supérieure	0.014	0.010	0.002												
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL	<0.001	<0.005	0.001												
DUP	<0.001	<0.005	0.002												
Plage d'acceptance - limite inférieure	<0.001	<0.005	<0.001												
limite supérieure	0.002	0.010	0.002												
ORIGINAL	0.004	<0.005	<0.001												
DUP	<0.001	<0.005	<0.001												
Plage d'acceptance - limite inférieure	<0.001	<0.005	<0.001												
limite supérieure	0.004	0.010	0.002												
ORIGINAL				10.00	0.01	0.78	<0.01	8.68	0.94	1.80	0.17	0.46	0.04	2.41	72.08
DUP				10.03	0.01	0.78	<0.01	8.72	0.94	1.80	0.17	0.46	0.04	2.45	72.12
Plage d'acceptance - limite inférieure				9.85	<0.01	0.76	<0.01	8.56	0.91	1.76	0.16	0.44	0.03	2.30	71.01
limite supérieure				10.18	0.02	0.80	0.02	8.84	0.97	1.84	0.18	0.48	0.05	2.56	73.19
ORIGINAL	0.010	0.017	0.011												
DUP	0.009	0.014	0.012												
Plage d'acceptance - limite inférieure	0.008	0.010	0.010												
limite supérieure	0.011	0.021	0.013												

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode	ME-XRF26	ME-XRF26	ME-XRF26	OA-GRA05x	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
élément	SrO	TiO2	Total	LOI 1000	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr
unités	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
LDI	0.01	0.01	0.01	0.01	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1
DUPLICATA															
ORIGINAL					5.7	0.12	28	<10	50	<0.5	<2	0.03	0.9	6	17
DUP					5.6	0.13	29	<10	50	<0.5	<2	0.03	0.8	6	18
Plage d'acceptance - limite inférieure					5.2	0.11	25	<10	40	<0.5	<2	0.02	<0.5	5	16
limite supérieure					6.1	0.14	32	20	60	1.0	4	0.04	1.0	7	19
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL					<0.2	0.69	4	<10	40	<0.5	<2	1.81	<0.5	8	2
DUP					<0.2	0.71	4	<10	40	<0.5	<2	1.88	<0.5	8	2
Plage d'acceptance - limite inférieure					<0.2	0.66	<2	<10	30	<0.5	<2	1.74	<0.5	7	<1
limite supérieure					0.4	0.75	6	20	50	1.0	4	1.95	1.0	9	3
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL	0.01	0.20	101.75	3.40											
DUP	<0.01	0.20	101.85	3.32											
Plage d'acceptance - limite inférieure	<0.01	0.19	100.75	3.27											
limite supérieure	0.02	0.22	102.85	3.45											
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Téléphone: +1 604 984 0221 Télécopieur: +1 604 984 0218
www.alsglobal.com/geochemistry

À: IOS SERVICES GEOSCIENTIFIQUES INC.
1319 BOUL ST-PAUL
CHICOUTIMI QC G7J 3Y2

Finalisée date: 27-JUIL-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode / élément / unités / LDI	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2
							DUPLICATA								
ORIGINAL	5700	4.20	<10	<1	0.10	<10	0.01	52	12	0.01	16	120	14	4.25	3
DUP	5810	4.26	<10	<1	0.10	<10	0.01	53	11	0.01	1	120	13	4.30	<2
Plage d'acceptance - limite inférieure	5550	4.01	<10	<1	0.09	<10	<0.01	45	10	<0.01	7	100	11	4.05	<2
limite supérieure	5960	4.45	20	2	0.12	20	0.02	60	13	0.02	10	140	16	4.50	4
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL	15	2.30	<10	<1	0.15	20	0.49	287	<1	0.04	8	480	<2	0.12	<2
DUP	17	2.37	<10	1	0.16	20	0.50	293	<1	0.04	10	500	<2	0.12	<2
Plage d'acceptance - limite inférieure	14	2.21	<10	<1	0.14	<10	0.46	271	<1	0.03	8	460	<2	0.10	<2
limite supérieure	18	2.46	20	2	0.17	30	0.53	310	2	0.05	10	520	4	0.14	4
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode / élément / unités / LDI	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Ag-OG46 Ag ppm 1	Cu-OG46 Cu % 0.001
DUPLICATA											
ORIGINAL	<1	2	<20	<0.01	<10	<10	5	<10	38		
DUP	<1	3	<20	<0.01	<10	<10	5	<10	39		
Plage d'acceptance - limite inférieure	<1	<1	<20	<0.01	<10	<10	4	<10	35		
limite supérieure	2	4	40	0.02	20	20	6	20	42		
ORIGINAL											
DUP											
Plage d'acceptance - limite inférieure											
limite supérieure											
ORIGINAL											
DUP											
Plage d'acceptance - limite inférieure											
limite supérieure											
ORIGINAL	1	23	<20	0.01	<10	<10	10	<10	32		
DUP	1	24	<20	0.01	<10	<10	10	<10	33		
Plage d'acceptance - limite inférieure	<1	21	<20	<0.01	<10	<10	9	<10	29		
limite supérieure	2	26	40	0.02	20	20	12	20	36		
ORIGINAL											
DUP											
Plage d'acceptance - limite inférieure											
limite supérieure											
ORIGINAL											
DUP											
Plage d'acceptance - limite inférieure											
limite supérieure											
ORIGINAL											
DUP											
Plage d'acceptance - limite inférieure											
limite supérieure											
ORIGINAL											
DUP											
Plage d'acceptance - limite inférieure											
limite supérieure											

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CHICOUTIMI QC G7J 3Y2

Finalisée date: 27-JUIL-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode élément unités LDI	PGM-ICP23 Au ppm 0.001	PGM-ICP23 Pt ppm 0.005	PGM-ICP23 Pd ppm 0.001	ME-XRF26 Al2O3 % 0.01	ME-XRF26 BaO % 0.01	ME-XRF26 CaO % 0.01	ME-XRF26 Cr2O3 % 0.01	ME-XRF26 Fe2O3 % 0.01	ME-XRF26 K2O % 0.01	ME-XRF26 MgO % 0.01	ME-XRF26 MnO % 0.01	ME-XRF26 Na2O % 0.01	ME-XRF26 P2O5 % 0.01	ME-XRF26 SO3 % 0.01	ME-XRF26 SiO2 % 0.01
	DUPLICATA														
ORIGINAL	<0.001	<0.005	<0.001												
DUP	<0.001	<0.005	<0.001												
Plage d'acceptance - limite inférieure	<0.001	<0.005	<0.001												
limite supérieure	0.002	0.010	0.002												
141890003	<0.001	<0.005	0.003												
DUP	<0.001	<0.005	0.003												
Plage d'acceptance - limite inférieure	<0.001	<0.005	0.002												
limite supérieure	0.002	0.010	0.004												
141890014															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
141890026	0.030	0.061	0.057												
DUP	0.032	0.065	0.055												
Plage d'acceptance - limite inférieure	0.028	0.055	0.052												
limite supérieure	0.034	0.071	0.060												

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Finalisée date: 27-JUIL-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon / Méthode élément unités LDI	ME-XRF26 SrO % 0.01	ME-XRF26 TiO2 % 0.01	ME-XRF26 Total % 0.01	OA-GRA05x LOI 1000 % 0.01	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1
DUPLICATA															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
141890003															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
141890014					0.3	1.30	2	<10	50	<0.5	3	0.02	<0.5	362	2040
DUP					0.3	1.32	3	<10	50	<0.5	3	0.02	<0.5	363	2050
Plage d'acceptance - limite inférieure					<0.2	1.23	<2	<10	40	<0.5	<2	<0.01	<0.5	343	1940
limite supérieure					0.4	1.39	4	20	60	1.0	4	0.03	1.0	382	2150
141890026															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ V021153815

Description échantillon / Méthode / élément / unités / LDI	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2
DUPLICATA															
ORIGINAL															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
141890003															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															
141890014	5650	27.3	10	<1	0.81	20	0.64	179	4	0.01	1960	290	<2	5.00	<2
DUP	5730	28.0	10	<1	0.82	20	0.63	179	5	0.01	1990	290	<2	5.08	<2
Plage d'acceptance - limite inférieure	5490	26.3	<10	<1	0.76	<10	0.59	165	3	<0.01	1875	270	<2	4.78	<2
limite supérieure	5890	29.0	20	2	0.87	30	0.68	193	6	0.02	2070	310	4	5.30	4
141890026															
DUP															
Plage d'acceptance - limite inférieure															
limite supérieure															

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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CERTIFICAT D'ANALYSE CQ VO21153815

Description échantillon	Méthode / élément / unités / LDI	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Ag-OG46	Cu-OG46
	élément	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu
	unités	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
	LDI	1	1	20	0.01	10	10	1	10	2	1	0.001
DUPLICATA												
ORIGINAL												
DUP												
Plage d'acceptance - limite inférieure												
limite supérieure												
141890003												
DUP												
Plage d'acceptance - limite inférieure												
limite supérieure												
141890014		3	3	<20	0.25	<10	<10	80	<10	90		
DUP		3	4	<20	0.25	<10	<10	81	<10	87		
Plage d'acceptance - limite inférieure		2	2	<20	0.23	<10	<10	75	<10	82		
limite supérieure		4	5	40	0.27	20	20	86	20	95		
141890026												
DUP												
Plage d'acceptance - limite inférieure												
limite supérieure												

Commentaire: ME-XRF26: High total was obtained due to sulphides being reported twice (in the LOI value and retained in the fusion adding to the XRF total).The sulfur-free total calculation is the Total minus SO3. SF-Total less than or equal to 100%.

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Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21153815

COMMENTAIRE DE CERTIFICAT

COMMENTAIRES ANALYTIQUES

NSS est échantillon insuffisant.

Applique à la Méthode: TOUTES MÉTHODES

ADRESSE DE LABORATOIRE

Traité à ALS Thunder Bay, 645 Norah Crescent, Thunder Bay, ON, Canada

Applique à la Méthode:

CRU-31	CRU-QC	LOG-21	LOG-23
OA-HSUL10	PUL-31	PUL-QC	SPL-21
WEI-21			

Traité à ALS Vancouver, 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applique à la Méthode:

Ag-OG46	Cu-OG46	ME-ICP41	ME-OG46
ME-XRF26	OA-GRA05x	PGM-ICP23	

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À: IOS SERVICES GEOSCIENTIFIQUES INC.
1319 BOUL ST-PAUL
CHICOUTIMI QC G7J 3Y2

Finalisée date: 26-AOUT-2021
Compte: NMQ

CERTIFICAT VO21205018

Projet: 2020-1418
Bon de commande #: 18726
Ce rapport s'applique à 4 échantillons de Roche soumis à notre laboratoire de Val d'Or, QC, Canada le 6-AOUT-2021.

Les résultats sont transmis à:

KAREN GAGNE	R. GIRARD	

PRÉPARATION ÉCHANTILLONS

CODE ALS	DESCRIPTION
FND-02a	Localiser échantillon au laboratoire subsidiair

PROCÉDURES ANALYTIQUES

CODE ALS	DESCRIPTION	INSTRUMENT
ME-OG46	Teneur marchandes éléments - Aqua regia	ICP-AES
Ni-OG46	Teneur Marchande Ni - Agua Regia	
S-IR08	Soufre total (IR Spec)	LECO

Ce rapport est final et remplace tout autre rapport préliminaire portant ce numéro de certificat.Les résultats s'appliquent aux échantillons soumis.Toutes les pages de ce rapport ont été vérifiées et approuvées avant publication.

***** Voir la page d'annexe pour les commentaires en ce qui concerne ce certificat *****

Signature:
Saa Traxler, General Manager, North Vancouver

ALS Canada Ltd.

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À: IOS SERVICES GEOSCIENTIFIQUES INC.
1319 BOUL ST-PAUL
CHICOUTIMI QC G7J 3Y2

Finalisée date: 26-AOUT-2021
Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE VO21205018

Description échantillon	Méthode élément unités LDI	Ni-OG46 Ni % 0.001	S-IR08 S % 0.01
141890007			21.5
141890013			22.5
141890015		1.775	26.1
141890016			20.3

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CERTIFICAT D'ANALYSE VO21205018

COMMENTAIRE DE CERTIFICAT

	ADRESSE DE LABORATOIRE
	Traité à ALS Vancouver, 2103 Dollarton Hwy, North Vancouver, BC, Canada.
Applique à la Méthode:	FND-02a ME-OG46 Ni-OG46 S-IR08

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FND-02a	Localiser échantillon au laboratoire subsidiair

PROCÉDURES ANALYTIQUES

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Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21205018

Description échantillon / Méthode élément unités LDI	Ni-OG46 Ni % 0.001	S-IR08 S % 0.01
CONTRÔLE DE LA QUALITÉ		
CCU-1e	0.002	
Plage d'acceptance - limite inferieure		
limite supérieure		
GBM903-13	2.39	
Plage d'acceptance - limite inferieure	2.34	
limite supérieure	2.52	
GS310-10		0.27
Plage d'acceptance - limite inferieure		0.25
limite supérieure		0.29
MA-1b		1.14
Plage d'acceptance - limite inferieure		1.12
limite supérieure		1.22
MP-1b	<0.001	
Plage d'acceptance - limite inferieure	<0.001	
limite supérieure	0.002	
OREAS 621	0.003	
Plage d'acceptance - limite inferieure	<0.001	
limite supérieure	0.005	
OREAS-76a	7.21	
Plage d'acceptance - limite inferieure	6.85	
limite supérieure	7.35	
BLANCS		
BLANK	<0.001	
Plage d'acceptance - limite inferieure	<0.001	
limite supérieure	0.002	
BLANK		<0.01
Plage d'acceptance - limite inferieure		<0.01
limite supérieure		0.02

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Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21205018

Description échantillon	Méthode élément unités LDI	Ni-OG46 Ni % 0.001	S-IR08 S % 0.01
DUPLICATA			
ORIGINAL			0.14
DUP			0.15
Plage d'acceptance - limite inferieure			0.13
limite superieure			0.16

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Compte: NMQ

Projet: 2020-1418

CERTIFICAT D'ANALYSE CQ VO21205018

COMMENTAIRE DE CERTIFICAT

ADRESSE DE LABORATOIRE

Traité à ALS Vancouver, 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applique à la Méthode:	FND-02a	ME-OG46	Ni-OG46	S-IR08

APPENDIX 6

PETROGRAPHY

IOS Services Géoscientifiques inc.

NUMERICAL PETROGRAPHY OF TWELVE (12) ROCK SAMPLES USING THE ARTSECTION TECHNOLOGY

HSP PROJECT

Presented to

Mr. Scott Sheldon

Go Metals Corp.

By

Marie-Odile Chartier, P.Geo.

and

Hugues Longuépée, P.Geo., Ph.D.

Ville de Saguenay

Date: November 29th, 2021
Project: 2021-1418
1st copy

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INTRODUCTION

IOS Services Géoscientifiques Inc. has been contacted by Mr Jacob Verbass, V.P. Exploration, on behalf of Go Metals Corporation, to prepare, manage and execute a prospection program on their HSP property located 140 km north of the town of Havre Saint-Pierre, Quebec. Twelve (12) rock sample collected during field work were selected for petrographic study to characterize the nature of their host rocks or sulphide mineralogy and to evaluate their amenability to pentlandite separation though quantitative mineralogy based on ARTSection technology. The list of sample and corresponding polished thin section (PTS) number are presented in ***table 1***.

Sample No.	PTS No.
141890007	1418-1
141890012	1418-2
141890013	1418-12
141890014	1418-3
141890026	1418-4
141890027	1418-5
141890028	1418-6
141890032	1418-7
141890033	1418-8
141890037	1418-9
141890038	1418-10
141890039	1418-11

Table 1*: List of samples.*

TERMS OF REFERENCES

The main objective of the study is to accurately identify the sulphides, to evaluate the nickel deportment and to provide preliminary metallogenic interpretation from a series of samples coming from the 2021 HSP exploration work. Detailed description of silicates (nature and texture) was not required beyond their relation with the sulphides.

The samples were chosen by IOS according to their location and estimated sulphide content.

OBJECTIVES

The main objective of the study is to accurately quantify the nickel bearing sulphides, to determine deportment of this metal and to provide modal proportions and chemistry of the gangue minerals to assess their metallogenic relationships. The study was achieved using ARTSection technology which consists to **i)** acquire transmitted light images with a motorized optical microscope, **ii)** acquire backscattered images (BSE) with a scanning electron microscope (SEM) and **iii)** provide a map of mineral phases with their chemical analysis based on X-ray maps (*Energy Dispersive Spectrometry* - EDS).

Methodology

Sample preparation

Rock samples were examined by the project manager to select site for thin section manufacturing in order to maximize sulphide abundance. Thin sections were manufactured through standard cutting, milling, lapping down to a thickness of 30 µm, and polished with a 0.2 µm diamond polishing suspension.

Prior the SEM acquisition, polished thin sections are sputtered with a 7 nanometre carbon layer to allow electron dispersion using a Leica EM ACE600 coater coupled with a rotating plate.

Acquisition

Mosaics of transmitted light images are acquired with a Zeiss Axio Zoom.V16 coupled with an automated motorized stage and focus, a PlanNeoFluar Z 2.3x/0.57 objective and a 6 megapixels Zeiss AxioCam 506 Colour camera. The mosaics are obtained by the *Tiles* module of the ZEN Pro (Zeiss) software with an optical magnification of 40x, which corresponds to a field of view of 5 mm, a resolution of 1.8 µm, and a depth of field of 62 µm. An overlap between tiles of 10% is used to limit shadowing on the edges of the images. Numerous focusing points are automatically performed on every section to ensure a constant focus. Images are aligned, and merged together using a linear fusion to lower the chromatic aberration.

Backscattered images and X-ray maps were acquired with a Zeiss Sigma 300 VP field emission gun scanning electron microscope (FE-SEM). This fully-automated state of the art instrument is equipped with the latest Oxford Instruments Ultim-Max 170 mm^2 EDS-SDD detector; a 5 sectors HDBSD backscattered electron detector (BSE), as well as three secondary electron detectors (VPSE, SE and InLens). The main benefit of a FE-SEM is the near perfect stability of the current over time. The EDS-SDD detector is equipped with the latest *Silicon Drift Detector* technology allowing the rapid detection of all elements except hydrogen, helium and lithium, capable to process more than 200,000 counts per second while maintaining high spectral resolution.

Acquisition was performed at 20 kV, under deep vacuum, with a collimator aperture of 60 µm (high current) and a working distance of ≈ 10 mm. The detector processes approximately 220,000 effective counts per second (output), divided into 2048 channels. The AZtec software, developed by Oxford Instruments, is used to control the detector, acquire X-Ray maps, cluster maps into phases and export data. Backscattered electron images were acquired independently from the X-ray maps, with a dwell time of 5 µs/pixel, for an image width of 2.1 mm (1024 x 768 pixels; 2.1 µm/pixel). X-ray maps are normalized and the deconvolution into chemical analyses use the factory settings, meaning no calibration on standards were performed prior the ARTSection technology. X-ray maps were acquired with a resolution of 7 µm/pixel, for an image width of 1.79 mm (256 x 192 pixels).

POST-PROCESSING

Mineral phases are defined from the X-ray maps using a clustering algorithm from the AZtec 4.2 software. This algorithm discriminates mineral phases based on chemical variations of a few weight percent abundance. The optimal parameters of the algorithm were selected during the ARTSection-II routine development in order to maximize phase discrimination, but lowering the probability of generating mixes and boundaries. Phases, representing clusters of similar pixels, are discriminated from the chemical signature, but no mineral name is assigned by AZtec, which only provides chemical analyses and modal abundances. EDS spectra of each phase is then reviewed by a professional to detect any automated misinterpretation or false peak labelling. Mineral names are determined from the chemical analyses of the phases by the professional, and MinIdent (Smith and Leibovitz, 1986, a charityware) is used for unusual or uncertain phases.

A phase map in false colours is generated and exported into ZEN. Registration of the BSE and optical images, both of which using different resolutions, is done using affine transformation with 3 fiducial markers. Minor discrepancies between images are locally present, these being acquired with different equipment at different magnifications and resolutions. Modal abundances, as well as chemical analyses deconvoluted from the spectrum representing the sum of similar pixels within the reconstructed phase, are calculated by the software.

Conventional petrography was done on the same thin sections (once the carbon coating was removed) to validate some of the ARTSection interpretations. Particular attention was given to the possible pyrite-pyrrhotite confusion and to the Ni-sulphides nature and distribution.

LIMITATIONS

- A series of limitations shall be discussed prior to interpretation of the results. Some of them are intrinsic to the acquisition parameters and the use of an EDS detector.
- Samples were coated with carbon, adding a carbon signal to every mineral phase and distorting the radiation of light energies, such as O, F, Cl and Na and Al to some extent.
- The chemical analyses are semi-quantitative since the method cannot measure hydrogen, and oxygen is calculated from oxide proportion instead of measured. Consequently, some minerals and their alteration products can be clustered into one single phase. Backscattered imaging is capable to discriminate olivine from its alteration products, but further image processing would be required to quantify their proportions.
- All phyllosilicate can be tricky to discriminate, despite their varying chemistry. Electron diffraction (EBSD) is needed to properly identify the type of minerals.
- The less abundant is a mineral specie in a sample, the lower is its signal. The spectrum is noisy and some elements cannot be deconvoluted to a concentration. Those values are “0” in the list of the elements, even if a peak was visible. Hafnium in zircon, fluorine in apatite or rare earth elements in monazite are examples.
- The mix of the various minerals in the matrix provides peak patterns on the EDS spectra similar to the one from certain amphiboles, which results into false mineral classification.

Most of those limitations listed above are amplified for altered rocks, such as chloritization, oxidation of iron sulphides, etc.

RESULTS

For each thin section, the following files are provided:

- Aligned images of the thin section, including a mineral classification map, all merged into a .czi file that can be opened by ZEN Lite (free software) or any other image processing software;
- An Excel file with the identified mineral, modal proportions and chemical compositions.

A summary of identified mineral phases is presented in ***table 2***.

Low resolution images (optical, BSE and phases in false colours) accompanied by their respective table containing the identified minerals with their modal proportions and their average chemistries are presented in ***appendix 1***.

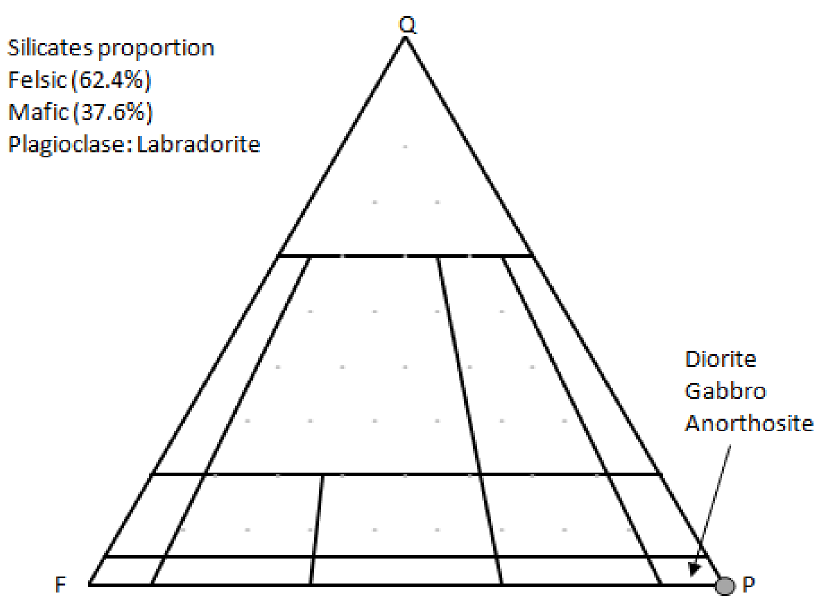
Textural, chemical and classification (name) information are provided in the following pages.

	1418-1	1418-2	1418-12	1418-3	1418-4	1418-5	1418-6	1418-7	1418-8	1418-9	1418-10	1418-11
Mineral	**141890007**	**141890012**	**141890013**	**141890014**	**141890026**	**141890027**	**141890028**	**141890032**	**141890033**	**141890037**	**141890038**	**141890039**
Actinolite				17.58								0.02
Albite	0.0003	0.132				0.054						
Aluminosilicate	0.01								0.0001			
Anorthite	0.13	0.06	0.04		0.11						0.02	1.05
Apatite	0.001	0.004	0.003	0.05	0.004	0.006	0.12	0.009	0.0001	0.07	0.001	0.008
Barite		0.01										
Biotite	2.08	2.59	1.22	25.79	0.002	0.12	0.04		1.94	4.03	0.0004	0.02
Calcite	0.004	0.001										
Chalcopyrite	4.45	0.51	0.22	1.99	0.03	0.69	0.15	0.09	0.64	1.01	1.01	2.18
Chamosite	1.82	1.48	0.11		0.21	2.22			18.06			
Clay			0.04		0.0003							
Clinochlore	0.004		0.004	4.76								
Corundum	0.07		0.61									
Diopside							0.001	0.57	0.008		0.34	0.11
Enstatite							0.03	0.008			84.22	80.44
Enstatite-Fe									17.15			
Enstatite-Ferrosilite							71.57	88.61				
Epidote		0.06			0.31	0.39						
Feldspar-K	0.001	2.175			4.14	3.63			0.003		0.000	
Gedrite	5.85									37.93		
Graphite			4.38									
Hercynite-Mg	0.13							0.0001				
Hornblende						0.49	4.44	5.40			5.59	
Hornblende + Actinolite												5.09
Ilmenite	5.57	0.32		0.005	0.03		0.63	0.35	0.55	1.78	0.41	0.20
Ilmenite-Mn						0.04						
Magnesite-Siderite							0.006	0.02			0.0005	0.15
Molybdenite			0.003									
Monazite										0.0001		
Muscovite		0.007		0.0003	0.005							0.15
Oxide-Fe	6.38	0.09	0.14	4.89	0.01		0.23	0.12	39.58	0.63	0.15	
Oxide-Fe + Siderite												0.55
Oxide-FeCr				1.28								0.04
Oxide-FeTi	0.88	0.16			0.01			0.10				
Oxide-MgFe										0.0001		
Pargasite					0.29				1.34			
Pargasite-Tschermakite												
Pentlandite	0.61	0.01	0.10	0.04	0.07	0.16	0.05	0.07	0.17	0.36	0.14	0.14
Plagioclase	16.05	88.66			91.85	79.13	2.98	0.85	3.18	15.38		0.02
Pyrite	0.03				0.04	0.002	0.70	0.16	10.14	0.91	0.03	0.21
Pyrrhotite	50.23	2.00	66.38	6.26	1.44	9.55	17.72	3.62		27.26	7.99	9.54
Pyrrhotite (altered)	5.68					2.32			5.38			
Quartz	0.02	1.69		37.36	1.36	1.18	1.07	0.02	1.86	0.84	0.10	0.05
Rutile	0.006	0.04	0.48	0.0003	0.001		0.01		0.001	0.001		0.02
Sapphirine			26.26									
Sphalerite	0.0004			0.004								
Spinel-Fe			0.001									
Sylvialite										0.03		
Titanite					0.11				0.0001			
Tremolite-Actinolite							0.25					
Tschermakite										9.75		
Xenotime				0.006								
Zircon	0.002	0.0002	0.0005	0.005			0.000	0.000	0.004	0.004	0.001	0.001
Zoisite			0.002									

***Table 2**: Summary of identified minerals and their abundances measured on the sections.*

Sample 141890007

Sample number	141890007
Thin section	1418-1
Name	Massive sulphides (with anorthosite)
Texture	Rounded silicates in massive pyrrhotite (primary texture)
Sulphides (%)	61.00
Alteration	Oxidation (moderate), chloritization (moderate)
Silicates (%)	25.97
Oxides (%)	12.90
Mg# (silicates)	31.98
Ni# (sulphides)	1.57



This sample is mostly composed of partially altered pyrrhotite. The alteration is localised at the boundaries of grains and within fractures. Grains of rutile are small and its signal is therefore mixed with ilmenite and other surrounding phases. The gedrite is chloritized and is fastidious to identify even under the optical microscope. It could be an orthopyroxene. The conventional petrography indicates an overestimation of the pyrrhotite (confusion with pyrite). The alteration that affects pyrrhotite is also seen in pentlandite which is replaced by violarite/bravoite (***photo 1***).

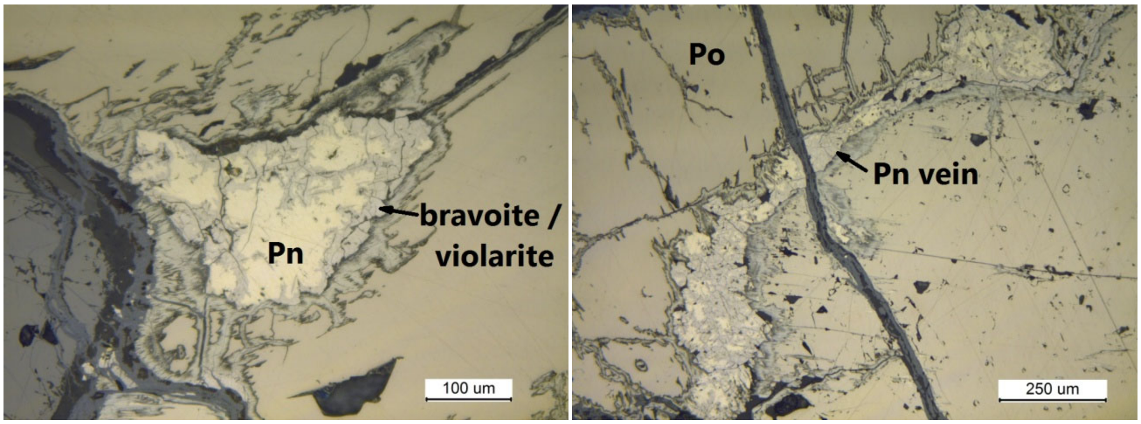
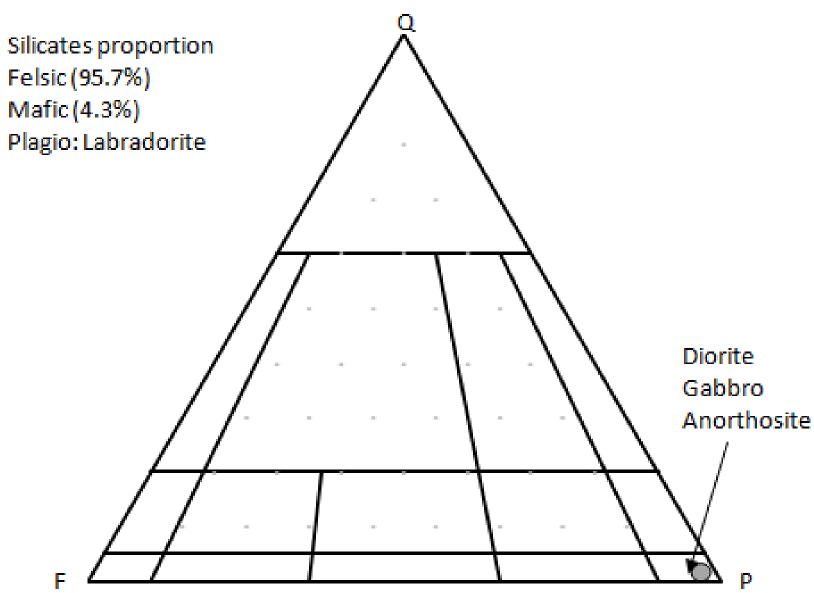


Photo 1: *Left: Pentlandite being replaced by a bravoite ($(Fe,Ni,Co)S_2$) – violarite (Ni_2FeS_4) assemblage in partially altered pyrrhotite. Sample 141890007 (section 1418-1) (RL 200x). Right: Pentlandite vein altered into bravoite-violarite. Sample 141890007 (section 1418-1) (RL 100x).*

SAMPLE 141890012

Sample number	141890012
Thin section	1418-2
Name	Anorthosite
Texture	Massive. Sulphide-biotite cluster
Alteration	Chloritization (moderate)
Sulphides (%)	2.52
Silicates (%)	96.86
Oxides (%)	0.61
Mg# (silicates)	17.46
Ni# (sulphides)	0.9



Sample **141890012** is mostly composed of plagioclase, feldspar-K and biotite. The biotite is partially chloritized into chamosite (iron-rich chlorite) and fine epidote grains can be observed associated with chamosite locally. The epidote signal is mixed with chamosite due to the small grain size. The generic name epidote is therefore given, but could also be pumpellyite, which uncertainty was not resolved under the optical microscope. The fine lamellar Oxide-FeTi is strongly linked to ilmenite and rutile, so the signal of Oxide-FeTi is mixed with these latter.

SAMPLE 141890013

Sample number	141890013
Thin section	1418-12
Name	Massive Sulphide
Texture	Coarse sulphides with silicates droplet (primary)
Alteration	None
Sulphides (%)	66.70
Silicates (%)	27.68
Oxides (%)	1.12
Mg# (silicates)	65.59
Ni# (sulphides)	0.58

Sample **141890013** is mostly composed of pyrrhotite, sapphirine and graphite. The proportion of sapphirine (24%) is extremely unusual and its grey colour uncharacteristic but the chemical composition and stoichiometry point to this mineral. Conventional microscopy confirmed the nature of the mineral. Magnesium-rich sapphirine tends to be grey (as observed here) rather than the typical blue.

The mineralogy of this sample can be considered as an oddity with sapphirine and graphite as minerals with the second and third highest proportions. This and the fact that there are more than 66% sulphides suggest a subsilic, oxygen-depleted magma.

Sample 141890014

Sample number	141890014
Thin section	1418-3
Name	Gneiss with sulphide vein (?)
Texture	Gneissic
Alteration	Chloritization (moderate)
Sulphides (%)	8.29
Silicates (%)	85.49
Oxides (%)	6.17
Mg# (silicates)	48.96
Ni# (sulphides)	1.14

Sample **141890014** is mostly composed of quartz, biotite, actinolite, pyrrhotite, oxide-Fe and clinochlore. Several voids partly filled with oxides are observed throughout the section and are not properly distinguished due to the mixed signal between those voids and the various minerals within. Also, the clinochlore is not stoichiometric due to a slight mixed signal with surrounding phases. There is an obvious confusion between pyrite and pyrrhotite.

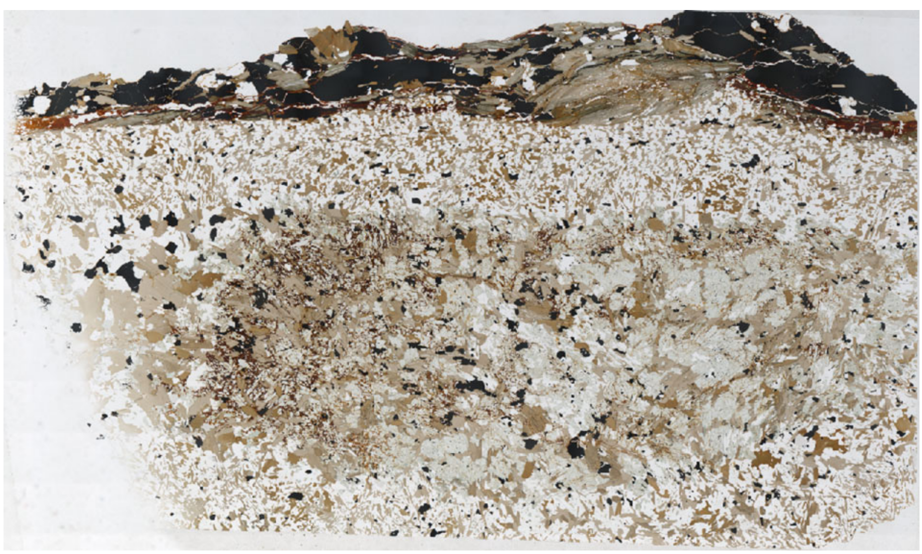
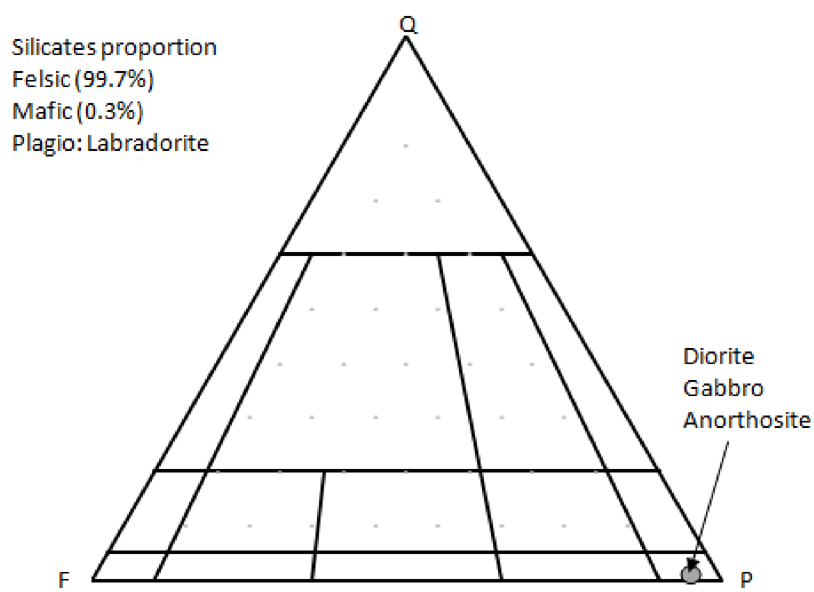


Figure 1*: Thin section of sample141890014 under natural light. The lighter part is quartz-rich, the greenish medium grey is actinolite-rich and the black edge is sulphide-rich vein.*

The texture/structure clearly shows a quartz-biotite layer with a rounded actinolite-rich fragment (?) (***figure 1***). The quartz-biotite layer is bordered by a biotite-sulphide-oxide vein (?). This sample was taken from the grey gneiss.

SAMPLE 141890026

Sample number	141890026
Thin section	1418-4
Name	Anorthosite
Texture	Massive with interstitial sulphides and few isolated sulphides grains
Alteration	Chloritization (weak)
Sulphides (%)	1.57
Silicates (%)	98.26
Oxides (%)	0.05
Mg# (silicates)	4.39
Ni# (sulphides)	3.00



Sample **141890026** is mostly composed of plagioclase, feldspar-K, pyrrhotite and quartz. The pargasite is chloritized. The signal of anorthite is mixed with the one from less calcic plagioclase, falsely increasing its measured Na content. The algorithm has difficulty to make distinction between contiguous phases of similar major elements on very fast analysis per pixel. Those mixed signals are observed with the rutile mixed with titanite, as well as the titanite mixed with fine ilmenite. Pentlandite is found with pyrrhotite and almost completely altered in bravoite (***photo 2***).

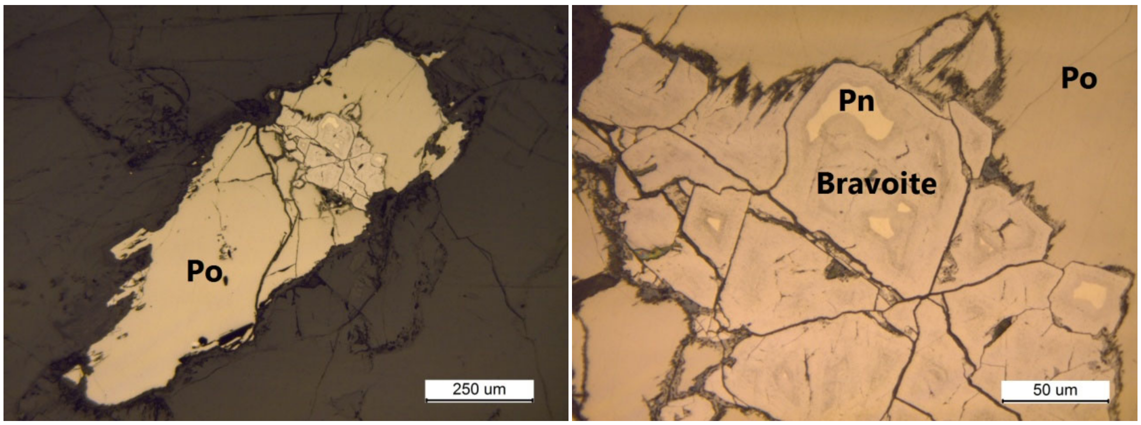
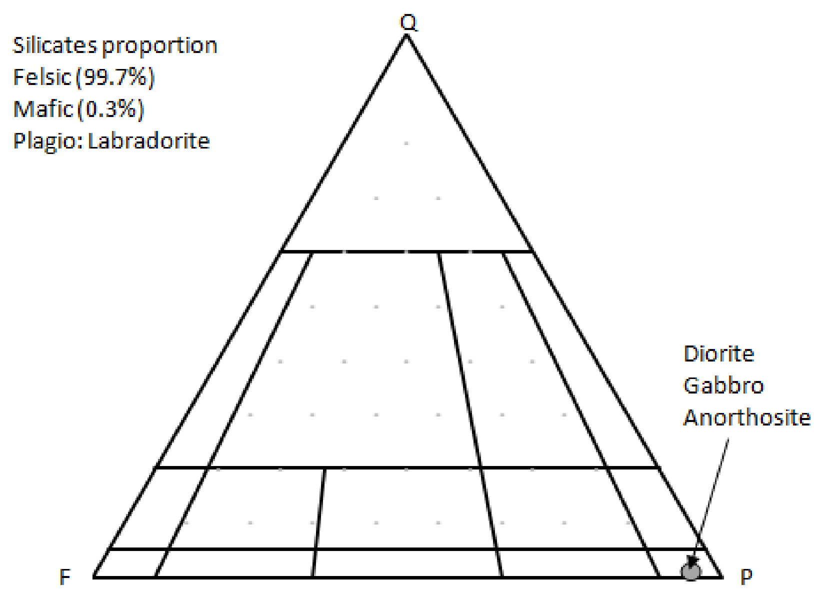


Photo 2*: Left: Pentlandite grains within pyrrhotite. Sample 141890026 (thin section 1418-4) (RL, 100x). Right: Close-up showing replacement of pentlandite by bravoite (RL, 500x).*

SAMPLE 141890027

Sample number	141890027
Thin section	1418-5
Name	Anorthosite
Texture	Massive with large clusters of interstitial sulphides
Alteration	Chloritization (moderate)
Sulphides (%)	12.73
Silicates (%)	87.23
Oxides (%)	0.04
Mg# (silicates)	8.19
Ni# (sulphides)	2.89



Sample **141890027** is mostly composed of plagioclase, pyrrhotite and feldspar-K. The algorithm does not make the difference between pyrite and pyrrhotite when they are contiguous. The same issue is observed for chamosite and hornblende, where their distinction is uneven on the section. Proportions of those minerals are approximative.

The alteration of both pyrrhotite and pentlandite (***photo 3***) leads to a possible confusion in sulfide mineralogy. What have been identified by ARTSection as altered pyrrhotite with 7.72%

Ni is more likely a mix of pyrrhotite and nickel sulfide. Pentlandite is altered in bravoite and violarite.

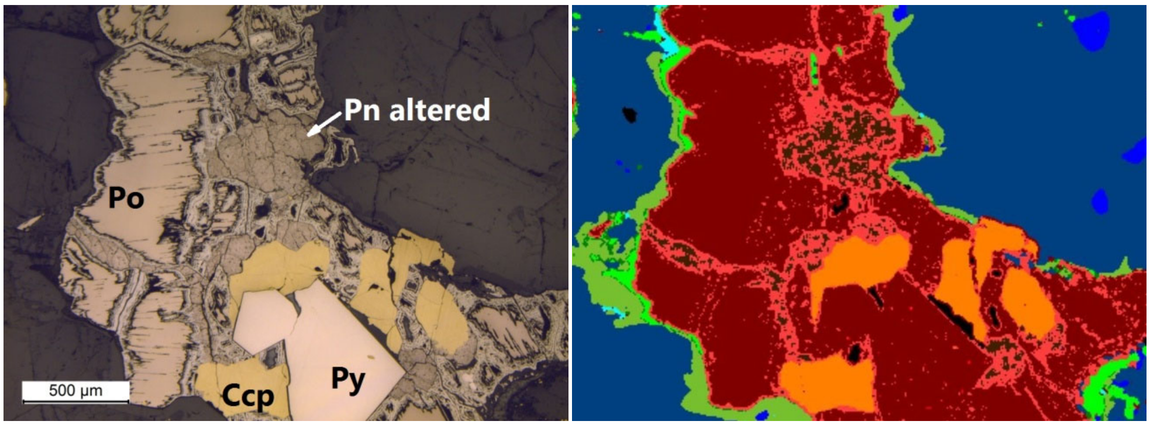
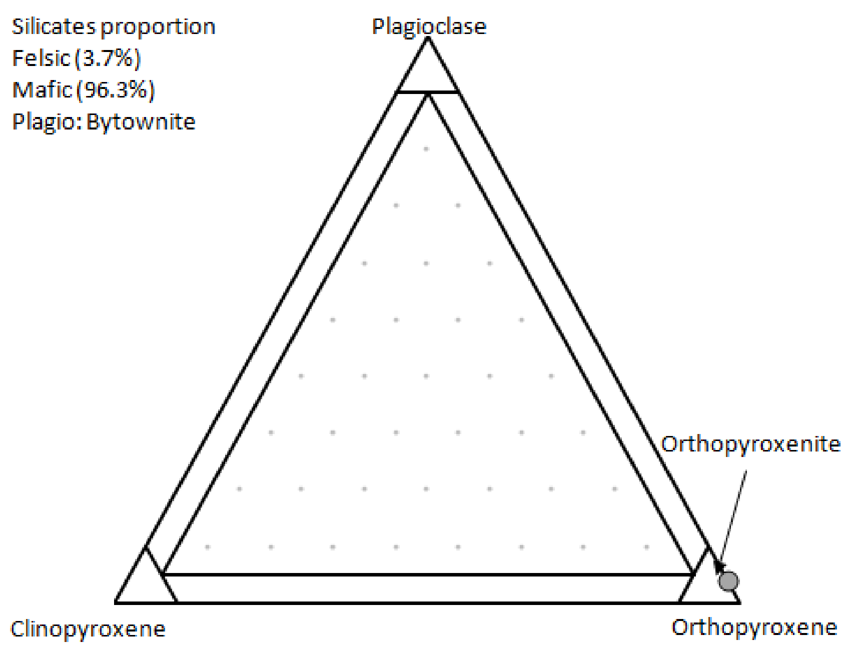


Photo 3*: Left: Sulphide cluster composed of pyrite, chalcopyrite, pyrrhotite (fresh and altered) and altered pentlandite. Sample 141890027 (thin section 1418-5) (RL, 50x). Right: Same section but with ARTSection colours. Grains of chalcopyrite have clean edges while rims of iron sulfides are altered.*

SAMPLE 141890028

Sample number	141890028
Thin section	1418-6
Name	Orthopyroxenite
Texture	Annealed (cumulate) with interstitial sulphides.
Alteration	None
Sulphides (%)	18.61
Silicates (%)	80.38
Oxides (%)	0.87
Mg# (silicates)	47.45
Ni# (sulphides)	0.99



Sample **141890028** is composed in majority of enstatite-ferrosilite, pyrrhotite, hornblende and plagioclase. It displays a well-defined cumulate texture. While pentlandite is granular in all samples, it is mostly present as “flames” in pyrrhotite (***photo 4***). It is also found in contact with pyrrhotite and chalcopyrite.

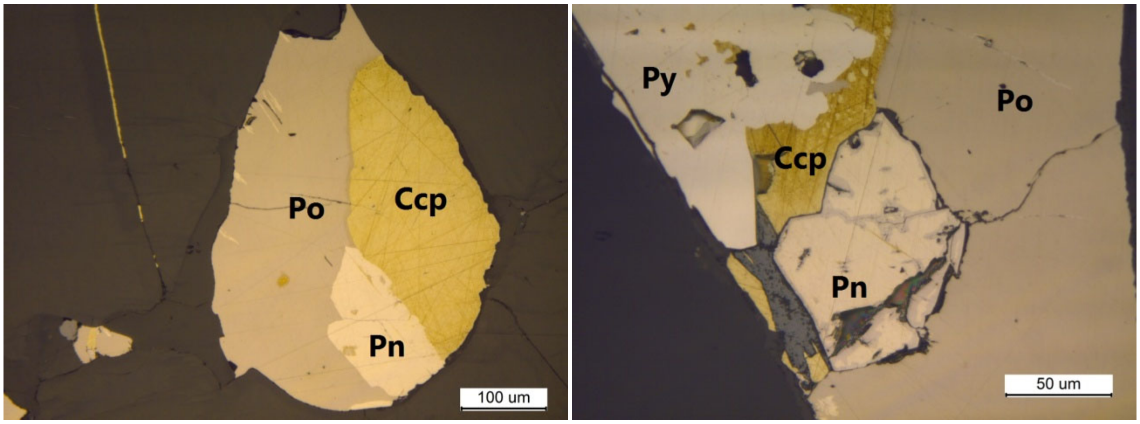
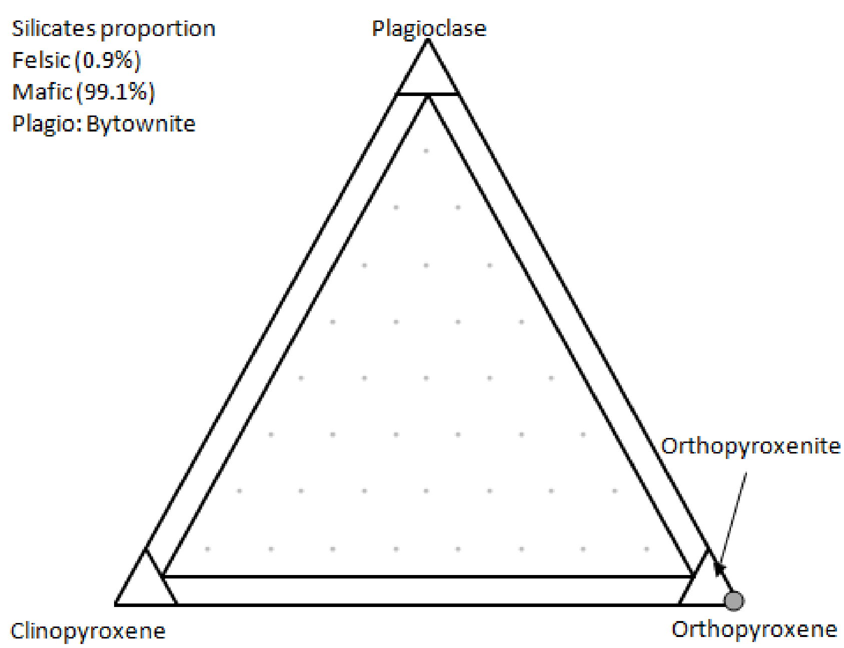


Photo 4*: Left: Pentlandite as flame (thin vein/exsolution) or at the contact with pyrrhotite and chalcopyrite. Sample 141890018 (thin section 1418-6) (RL, 200x). Right: Another example of pentlandite in contact with chalcopyrite. Pentlandite is partially altered (bravoite). (RL, 500x).*

SAMPLE 141890032

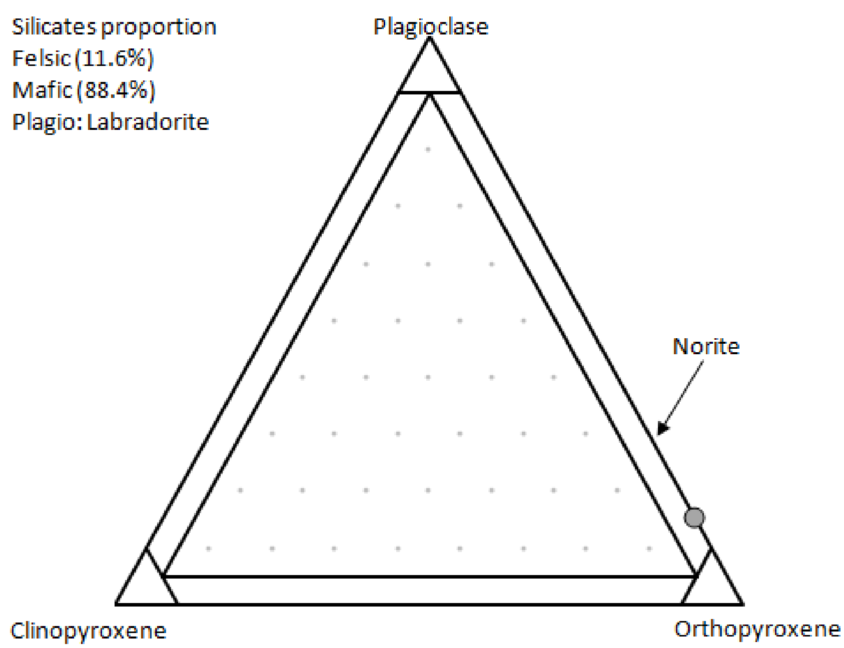
Sample number	141890032
Thin section	1418-7
Name	Orthopyroxenite
Texture	Annealed (cumulate) with little interstitial sulphides.
Alteration	None
Sulphides (%)	3,95
Silicates (%)	95,46
Oxides (%)	0,56
Mg# (silicates)	45,5
Ni# (sulphides)	1,71



Sample **141890032** is mostly composed by enstatite-ferrosilite, hornblende and pyrrhotite. The signal of pyrrhotite is mixed with the pyrite one and locally the signal of pyrite is mixed with the one of pyrrhotite, particularly where pyrrhotite is altered (birds eyes texture). The sample shows a cumulate texture in an orthopyroxenite with a relatively high Mg#.

SAMPLE 141890033

Sample number	141890033
Thin section	1418-8
Name	Norite (altered orthopyroxenite)
Texture	Breccia (possible durchbewegung)
Alteration	Oxidation (strong), chloritization (strong)
Sulphides (%)	16.33
Silicates (%)	43.55
Oxides (%)	40.12
Mg# (silicates)	31.80
Ni# (sulphides)	1.91

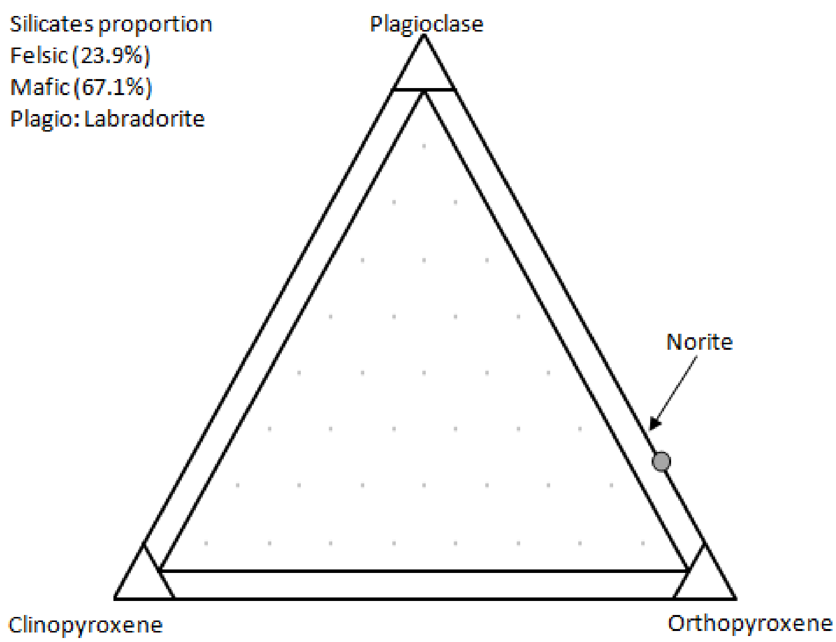


Sample **141890033** is mostly composed of iron oxides, chamosite, enstatite-Fe, pyrite and pyrrhotite. The signal of pyrrhotite is mixed with the pyrite for similar reasons described above. The distinction can be done by the texture of the mineral, where pyrite is equigranular and pyrrhotite presents a "bird's eyes" texture, typical of its alteration. The diopside is amphibolitized.

The sample show strong alteration and a brecciated (durchbewegung) texture. The classification diagram doesn't account for the 18% of chlorite (altered pyroxene?) and therefore, it is possible that the original rock was a pyroxenite rather than a norite.

SAMPLE 141890037

Sample number	141890037
Thin section	1418-9
Name	(amphibolitized) norite (?)
Texture	Breccia
Alteration	None
Sulphides (%)	29.53
Silicates (%)	67.25
Oxides (%)	2.42
Mg# (silicates)	46.8
Ni# (sulphides)	1.36



Sample **141890037** is mostly composed of gedrite, pyrrhotite, plagioclase and tschermakite. False outlines of tschermakite (processing artefact) surround plagioclase and biotite grains due to the contiguous relationship of those minerals. The same phenomenon occurs with the rim of pyrrhotite around iron oxide grains. Iron oxide veinlets in pyrrhotite grains are not distinguished to their thinness and are included in the pyrrhotite signal. The BSE image can be used to see those. Pentlandite is well preserved as vein in pyrrhotite (***photo 5***).

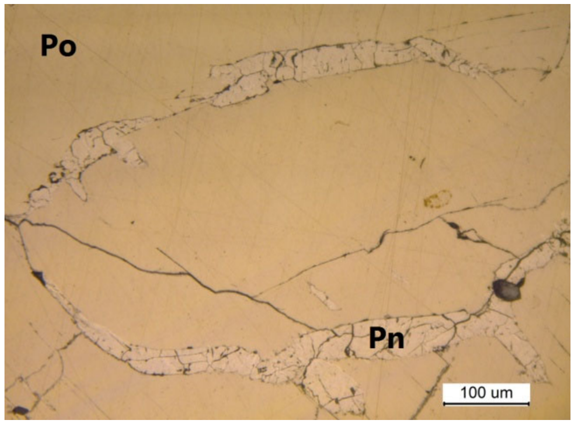
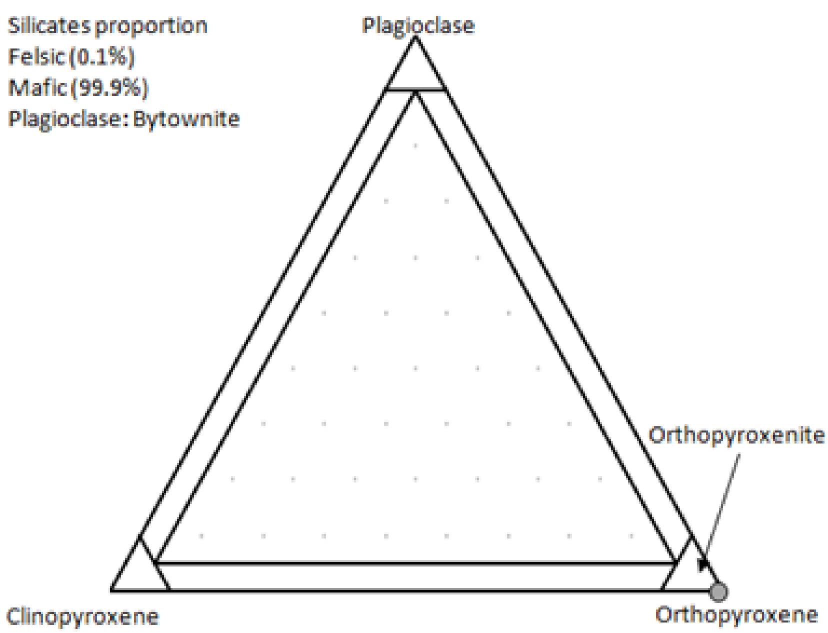


Photo 5: *Well preserved pentlandite in pyrrhotite. Sample 1418038 (thin section 1418-9) (RL, 200x).*

The mafic minerals are mostly amphiboles (gedrite, tschermakite) which is different for all other mafic/ultramafic rocks from the sample set where pyroxene are the dominant minerals. This suggests a metamorphic / alteration process and therefore the rock is interpreted as a amphibolitized norite. The sample has a brecciated texture with rounded host-rock fragment in a sulphide matrix. The proportion of sulphide (29.5%) is just below the proportion of semi-massive sulphide (30%).

SAMPLE 141890038

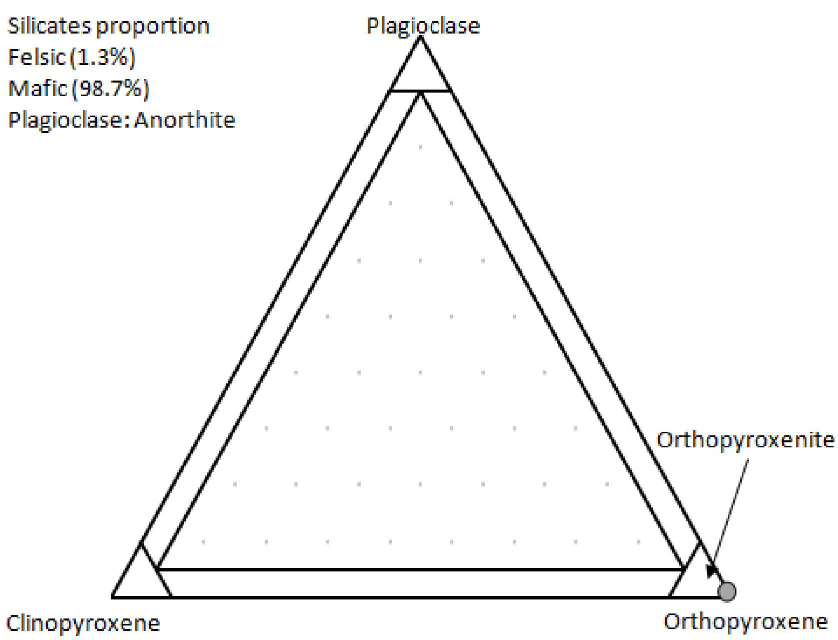
Sample number	141890038
Thin section	1418-10
Name	Orthopyroxenite
Texture	Cumulate with interstitial sulphides
Alteration	None
Sulphides (%)	9.16
Silicates (%)	90.28
Oxides (%)	0.56
Mg# (silicates)	45.6
Ni# (sulphides)	2.36



Sample **141890038** is mostly composed of enstatite, pyrrhotite and hornblende. Locally, the pyrrhotite and the chalcopyrite signal are mixed with pyrite's. Thus, the pyrite grains do not stand out as well in the phase image as in the BSE image.

Sample 141890039

Sample number	141890039
Thin section	1418-11
Name	Orthopyroxenite
Texture	Cumulate with interstitial sulphides
Alteration	Oxides-carbonates (weak)
Sulphides (%)	12.07
Silicates (%)	86.96
Oxides (%)	0.81
Mg# (silicates)	48.0
Ni# (sulphides)	1.50



Sample **141890039** is composed in majority of enstatite, pyrrhotite and a phase labelled “Hornblende + Actinolite”. The contiguously and the similarity between both minerals were not sufficient for the algorithm to distinctively observe both on very fast analysis (300 µs/pixel). It is the same situation or Oxide-Fe and siderite. Many fractures seen in the BSE image are not visible due to the thinness of the minerals that fill them. The muscovite is associated to anorthite alteration.

This sample is the most mafic of the series with an Mg# of 48 and the plagioclase being an anorthite (An_{91}).

CONCLUSIONS

The first objective of the study was to accurately quantify the nickel bearing sulphides. Pentlandite was observed in all samples, from 0.01% to 0.6% (141820007). In many samples, the composition of pentlandite is not stoichiometric and the phase could be a violarite or a mix of the two phases. Pentlandite is also Co-bearing. Conventional petrography was used to observe and describe finer grains not properly observed with the used EDS resolution, and to notice that pentlandite is mostly present as grains that are variably altered in bravoite and violarite. Only sample 141890018 shows a predominance of pentlandite as flame in pyrrhotite. The presence of Ni-rich altered pyrrhotite suggests that the pentlandite content may be underestimated in altered samples. There is confusion between pyrite and pyrrhotite, the later being underestimated.

The second objective was to determine nickel deportment. This metal is mostly present in pentlandite and its alteration products. A phase, identified as altered pyrrhotite, contains a significant proportion of nickel. This mineral is more likely a fine mix of pyrrhotite, pentlandite and other sulphide. Nickel is also found in chlorite-biotite (sample 141890033; altered pyroxenite) and in oxides of sample 141890012.

Finally, the chemistry and mineralogy of the gangue minerals suggests two types of mineralization. The first is massive sulphide with anorthosite fragments and the second disseminated sulphides in the interstices of ultramafic rocks. On occasion (samples 141890012 and -26), sulphides are disseminated in the anorthosite. Sample 141890014 shows injections of sulphides in the gneiss while samples 141890033 and -37 are breccias with sulphides/oxides as the matrix and with different degrees of alteration.

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HSP Project, November 29th 2021

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2021-1418_ARTSection Report
HSP Project, November 29th 2021

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Contributions:

Réjean Girard, P.Geo. : Scientific revision
Lucie Tremblay, P.Geo. : Mineragraphy validation
Jonathan Tremblay, Eng., M.Sc.: Data acquisition
Karine Desbiens, administrative assistant: edition

REFERENCES

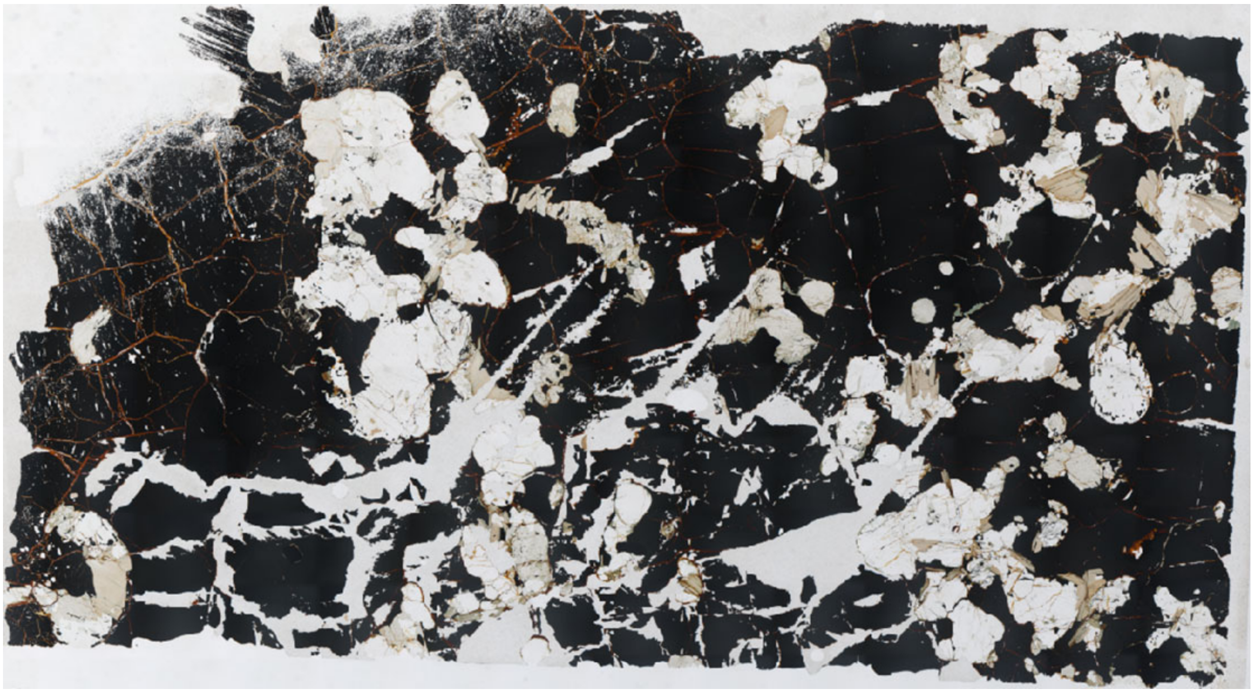
SMITH, D.G.W., and LEIBOVITZ, D.P. (1986). *MinIdent - a data base for minerals and a computer program for their identification.* The Canadian Mineralogist, 24: 695-708.

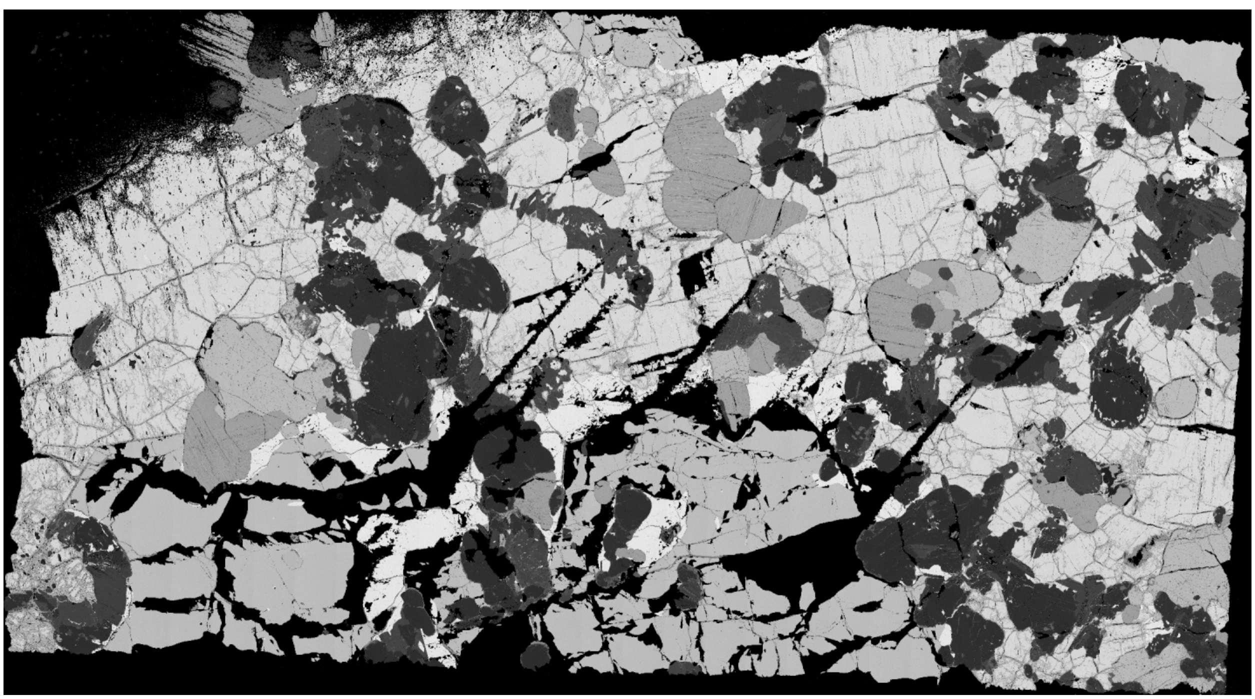
APPENDIX 1

OPTICAL, BACKSCATTERED AND PHASE IMAGES OF THE THIN SECTIONS, AS WELL AS THE TABLES CONTAINING THE MINERAL PHASES, THEIR MODAL PROPORTIONS AND THEIR CHEMICAL COMPOSITIONS

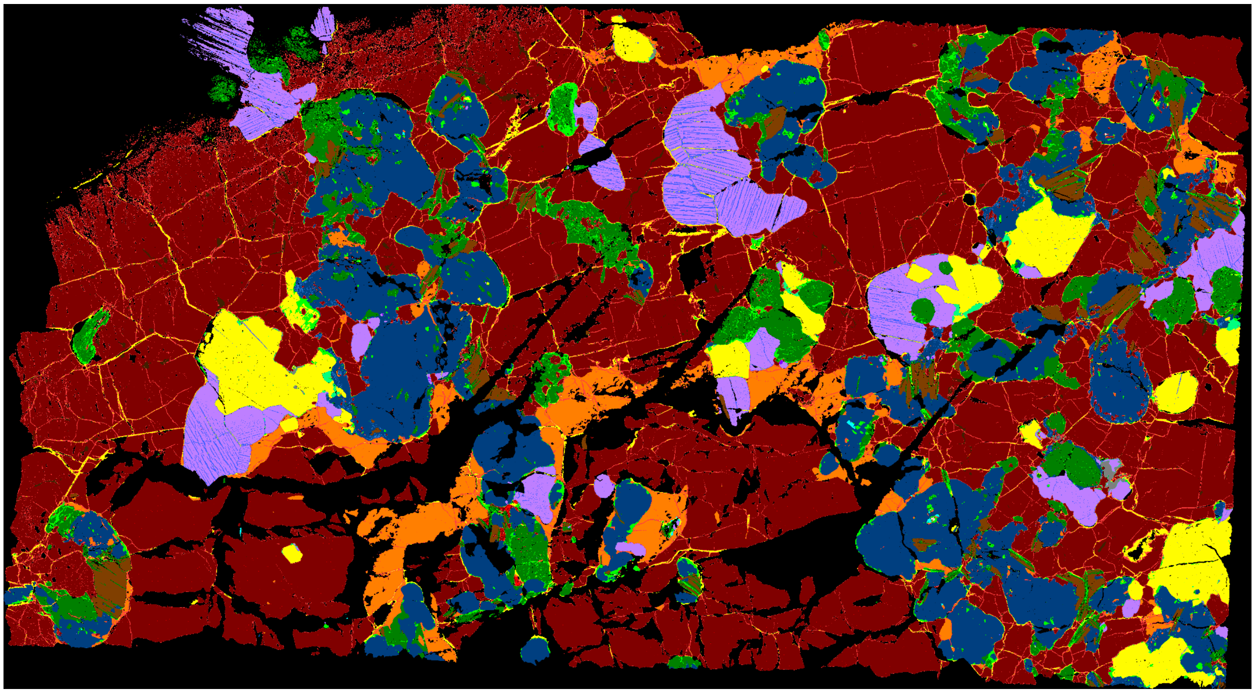
The .czi files are provided for each section and can be used to see the grains of interest on the backscattered images and to note their coordinates for point analysis in semi-quantitative or in fully-quantitative mode, either for trace minerals or the alteration products.

141890007 (1418-1)





141890007 (1418-1): *Optical (natural light) and backscattered electron image mosaic.*



141890007 **1418-1**

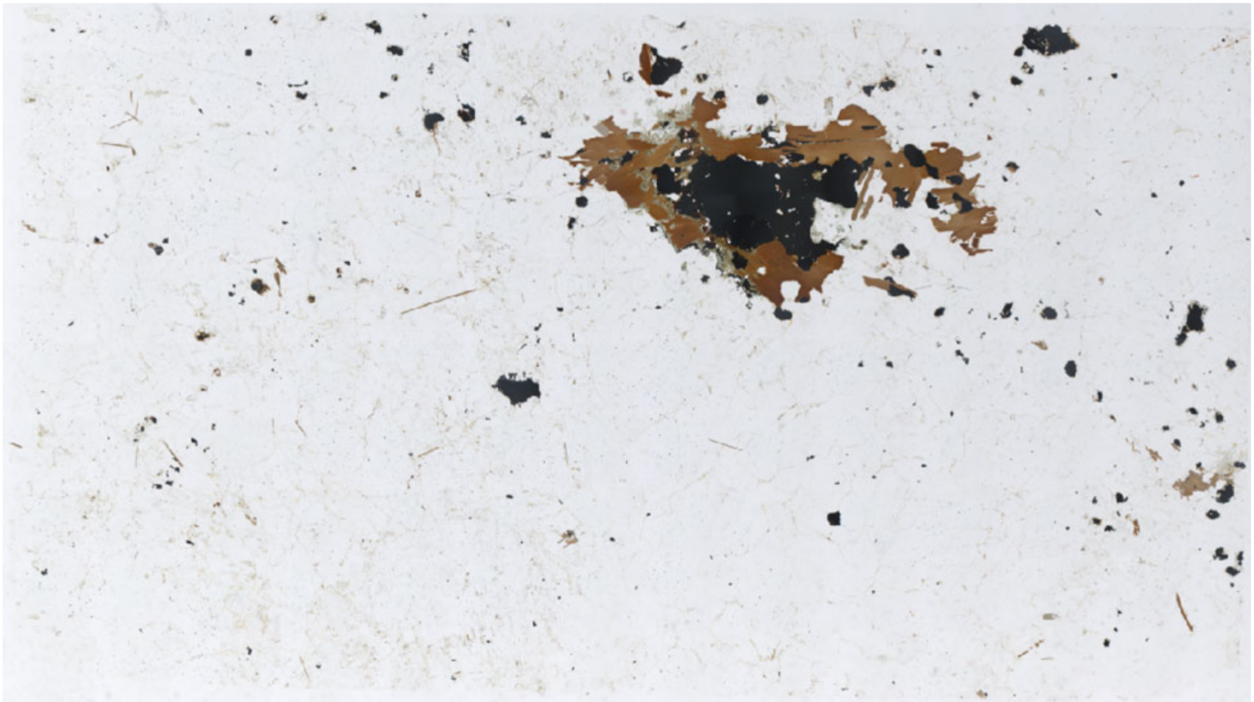
Mineral	Color	%	F	Cl	CO2	Na2O	MgO	Al2O3	SiO2	P2O5	SO3	K2O	CaO	TiO2	V2O5	Cr2O3	MnO	FeO	NiO	CuO	ZnO	ZrO2	BaO	HfO2	Total
Plagioclase		16.05				5.31		29.03	54.72			0.09	10.24					0.60							100
Oxide-Fe		6.38						1.20	0.82						0.70	0.67		96.62							100
Gedrite*		5.85					16.88	15.39	44.50				0.46	0.35			0.75	21.68							100
Pyrrhotite (altered)		5.68									45.16							49.07	2.25	3.53					100
Ilmenite		5.57					0.90	0.23	0.24					46.48		0.08	0.62	51.46							100
Biotite		2.08		0.47		0.41	16.89	19.12	38.42			8.37		1.77				13.95					0.59		100
Chamosite		1.82					7.18	17.64	31.65									43.53							100
Oxide-FeTi		0.88					1.13	2.68	3.37					22.51			0.39	69.92							100
Anorthite		0.13				1.47		35.42	45.24			0.07	17.79												100
Hercynite-Mg		0.13					7.07	58.95						0.88		0.89		21.23			10.99				100
Corundum		0.071						98.41								0.26		1.33							100
Quartz		0.022							100																100
Aluminosilicate		0.013						62.34	35.42									2.24							100
Rutile		0.006					2.27	3.58	7.12					65.67				21.36							100
Clinochlore		0.004					29.40	27.12	31.03									12.45							100
Calcite		0.004			35.66		0.00						58.11					6.23							100
Zircon		0.002							33.03									0.00				66.97		0.00	100
Feldspar-K		0.001				0.00		19.32	64.60			16.08	0.00										0.00		100
Apatite		0.001	0.00	0.00						42.51			57.49												100
Albite		0.0003				11.92		20.87	67.21			0.00	0.00												100

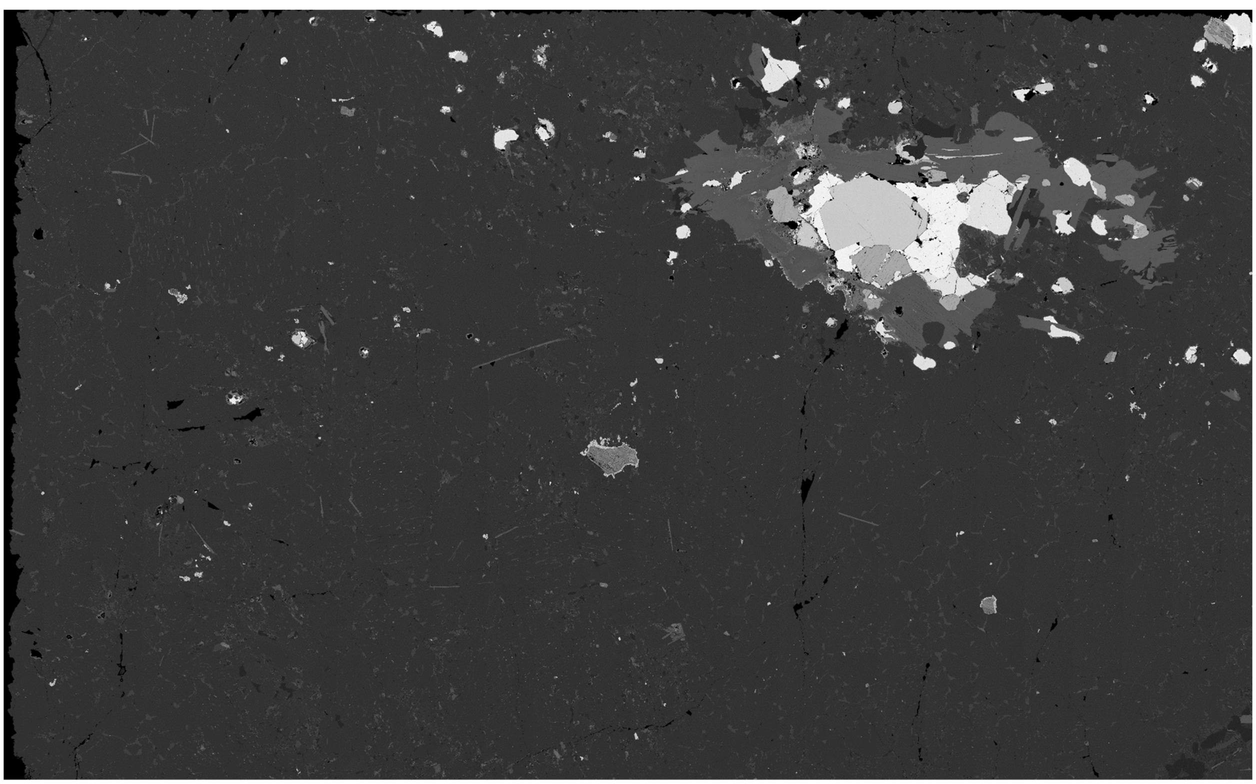
Mineral	Color	%	S	Fe	Co	Ni	Cu	Zn	Total
Pyrrhotite		50.23	43.66	55.95		0.39			100
Chalcopyrite		4.45	34.06	31.46			34.48		100
Pentlandite		0.61	39.65	25.84	4.39	30.13			100
Pyrite		0.034	61.64	38.36					100
Sphalerite**		0.0004	36.39	0.00				63.61	100

*Chloritized
**Insufficient counts

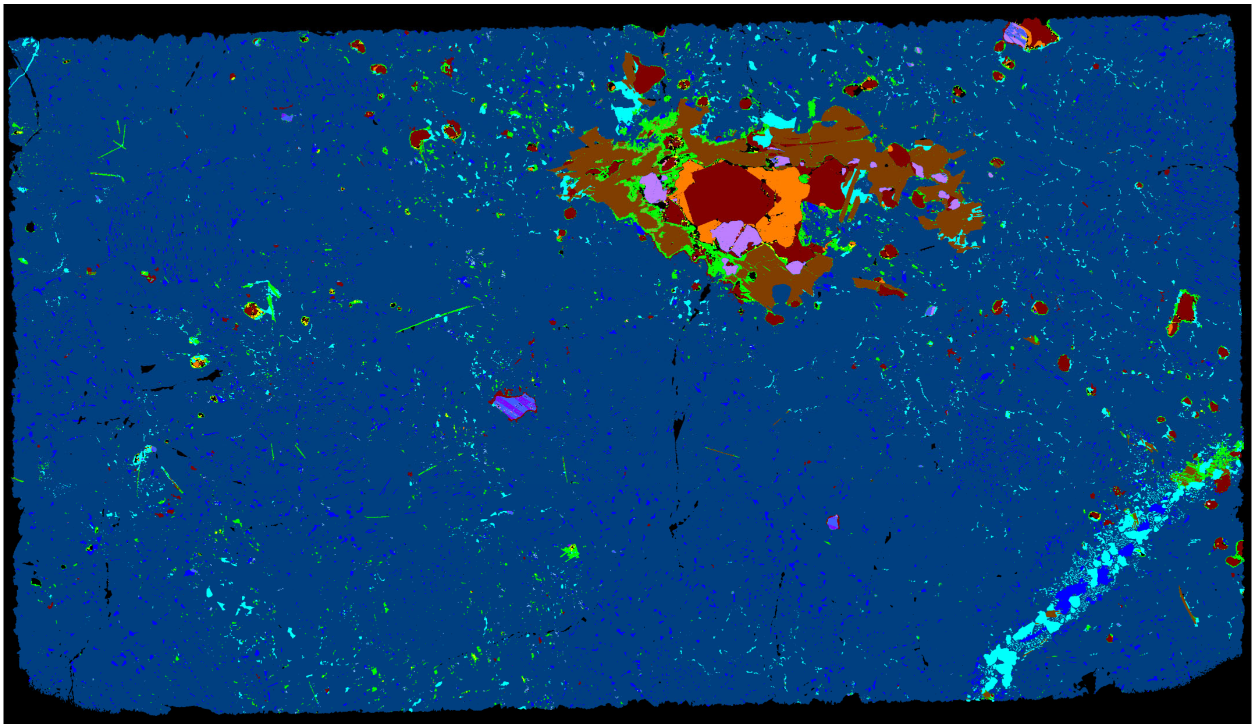
141890007 (1418-1): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890012 (1418-2)





141890012 (1418-2): *Optical (natural light) and backscattered electron image mosaic.*



141890012 **1418-2**

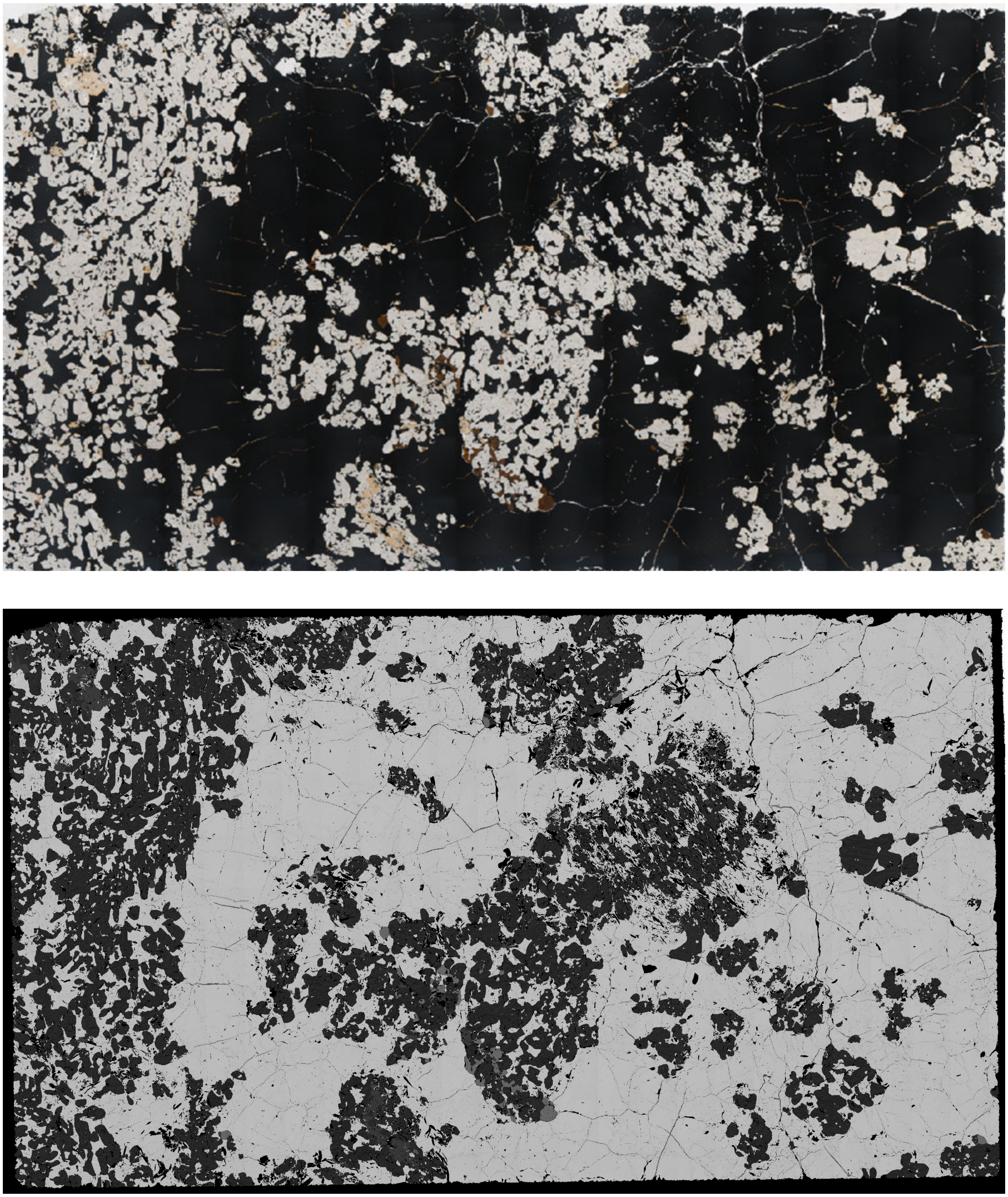
Mineral	Color	%	F	Cl	CO2	Na2O	MgO	Al2O3	SiO2	P2O5	SO3	K2O	CaO	TiO2	V2O5	MnO	FeO	NiO	SrO	ZrO2	Nb2O5	BaO	HfO2	Total
Plagioclase		88.66				5.58		28.28	56.01			0.40	9.45				0.29							100
Biotite		2.59		0.14			11.83	16.44	36.61			9.78		4.44			19.99					0.77		100
Feldspar-K		2.18				0.63		19.51	62.92			15.36	0.10									1.49		100
Quartz		1.69							100															100
Chamosite		1.48					4.62	21.98	31.87			0.62	0.46	0.64			39.81							100
Ilmenite		0.32					0.49	0.58	0.51					46.68		0.56	51.17							100
Oxide-FeTi*		0.16					2.28	8.97	10.97					32.13	0.56	1.01	44.08							100
Albite		0.13				7.66		18.30	71.34			0.08	2.62											100
Oxide-Fe		0.094						5.65	7.78								84.74	1.82						100
Epidote		0.064					0.81	21.20	36.21				20.08	3.96			17.73							100
Anorthite		0.061				2.63		33.26	47.84			0.22	16.05											100
Rutile		0.036					1.17	5.14	6.14					69.49			18.06				0.00			100
Barite		0.012									32.46						1.32		0.00			66.22		100
Muscovite		0.007					0.00	38.78	46.00			11.76					3.45							100
Apatite		0.004	0.00	0.68						40.32			59.00											100
Calcite		0.001			41.27		0.00						58.73				0.00							100
Zircon		0.0002							35.16								0.00			64.84			0.00	100

Mineral	Color	%	S	Fe	Co	Ni	Cu	Total
Chalcopyrite		0.51	33.69	31.66			34.65	100
Pentlandite		0.01	36.14	28.93	3.16	31.77		100
Pyrrhotite		2.00	45.03	54.48		0.49		100

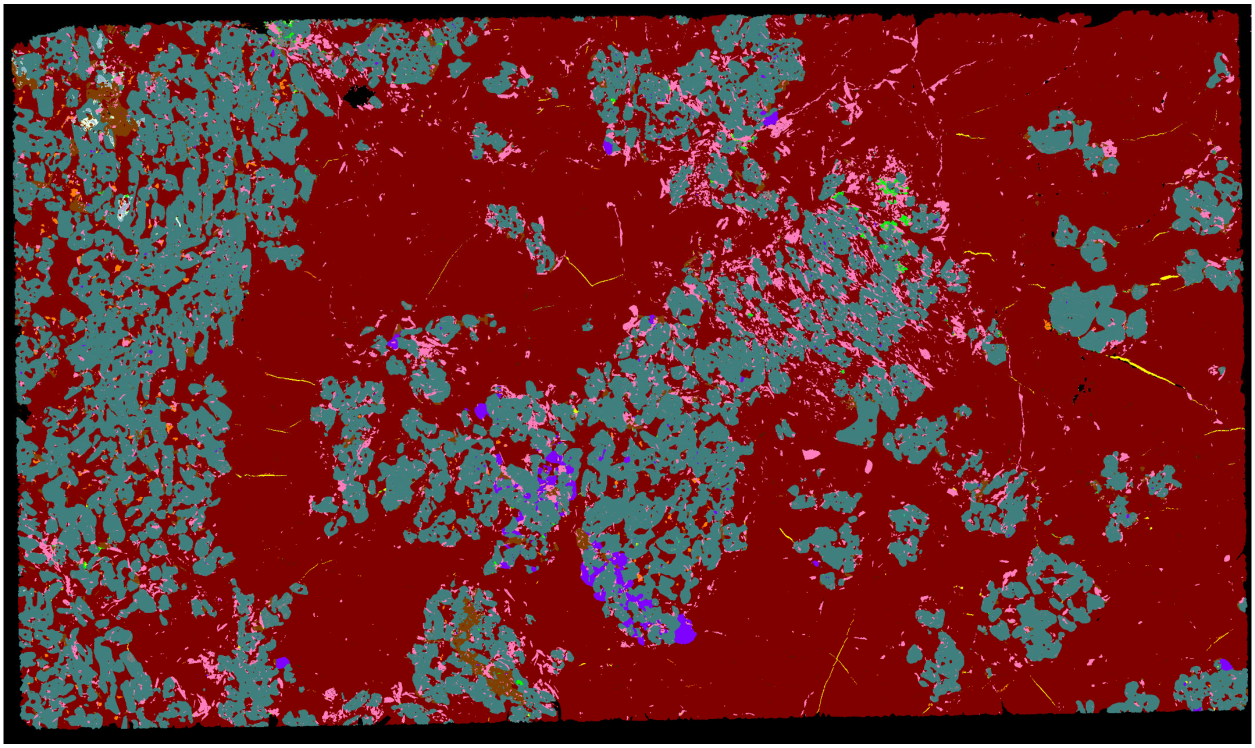
*Mixed signal with Ilmenite and Rutile

141890012 (1418-2): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890013 (1418-12)



141890013 (1418-12): *Optical (natural light) and backscattered electron image mosaic.*



141890013 **1418-12**

Mineral	Color	%	F	Cl	Na2O	MgO	Al2O3	SiO2	P2O5	K2O	CaO	TiO2	V2O5	Cr2O3	MnO	FeO	ZrO2	BaO	HfO2	Total
Sapphirine		26.26				17.09	60.87	14.87				0.09		0.33		6.74				100
Biotite		1.22		0.41		19.82	19.03	39.06		8.87		2.10	0.67	0.15		9.16		0.73		100
Corundum		0.61					93.36						0.38	0.29		5.97				100
Rutile		0.48					0.19					99.63				0.19				100
Oxide-Fe		0.14				3.23	1.56	1.32							1.77	92.13				100
Chamosite		0.11				5.82	32.84	24.06								37.28				100
Anorthite		0.04			3.93		31.55	51.22		0.11	12.36					0.83				100
Clay		0.04			1.60	2.24	36.35	46.35		0.89	6.19					6.38				100
Clinochlore		0.004				16.93	35.29	29.64								18.14				100
Apatite		0.003	0.00	3.35					38.92		57.73									100
Zoisite		0.002					35.81	44.70			17.29					2.19				100
Spinel-Fe		0.001				19.23	66.23									14.54				100
Zircon*		0.0005						34.76								0.00	65.24		0.00	100

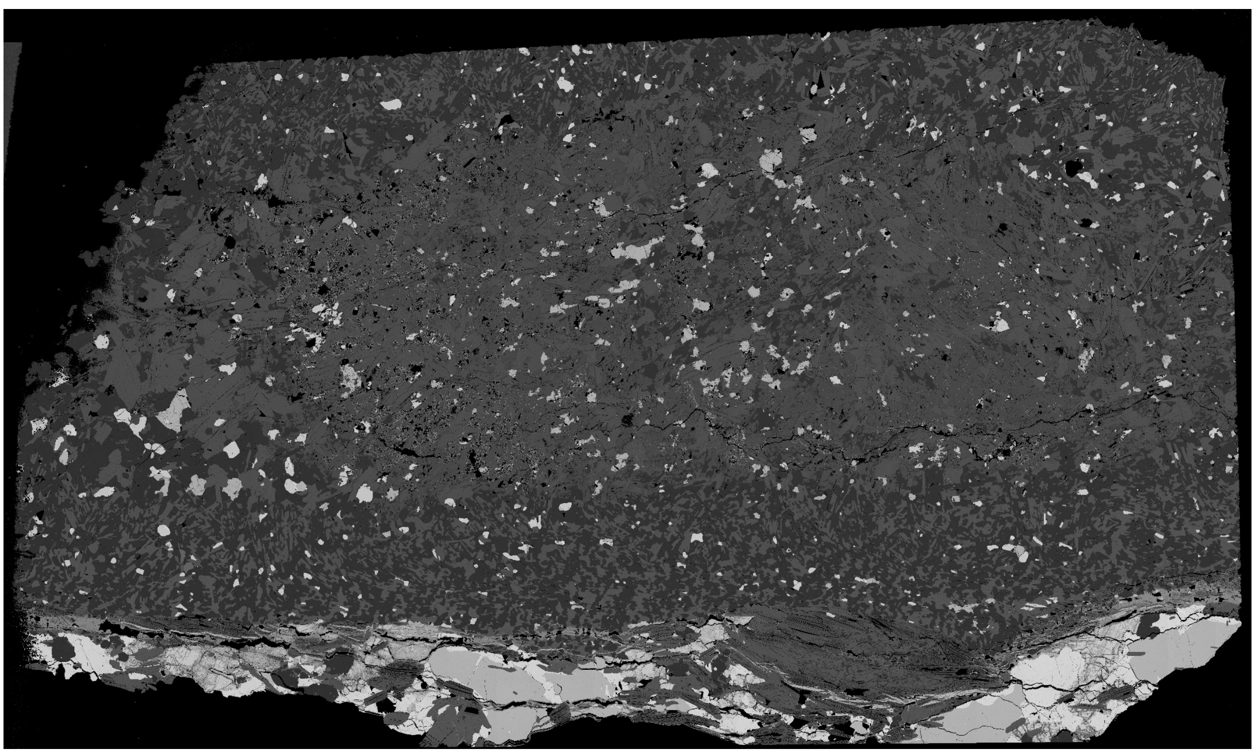
Mineral	Color	%	C	S	Fe	Co	Ni	Cu	Mo	Total
Pyrrhotite		66.38		53.44	46.28		0.28			100
Graphite**		4.38	100							100
Chalcopyrite		0.22		34.12	31.88			34.00		100
Pentlandite		0.10		41.26	24.43	11.87	22.43			100
Molybdenite		0.003		34.40					65.60	100

*Insufficient counts

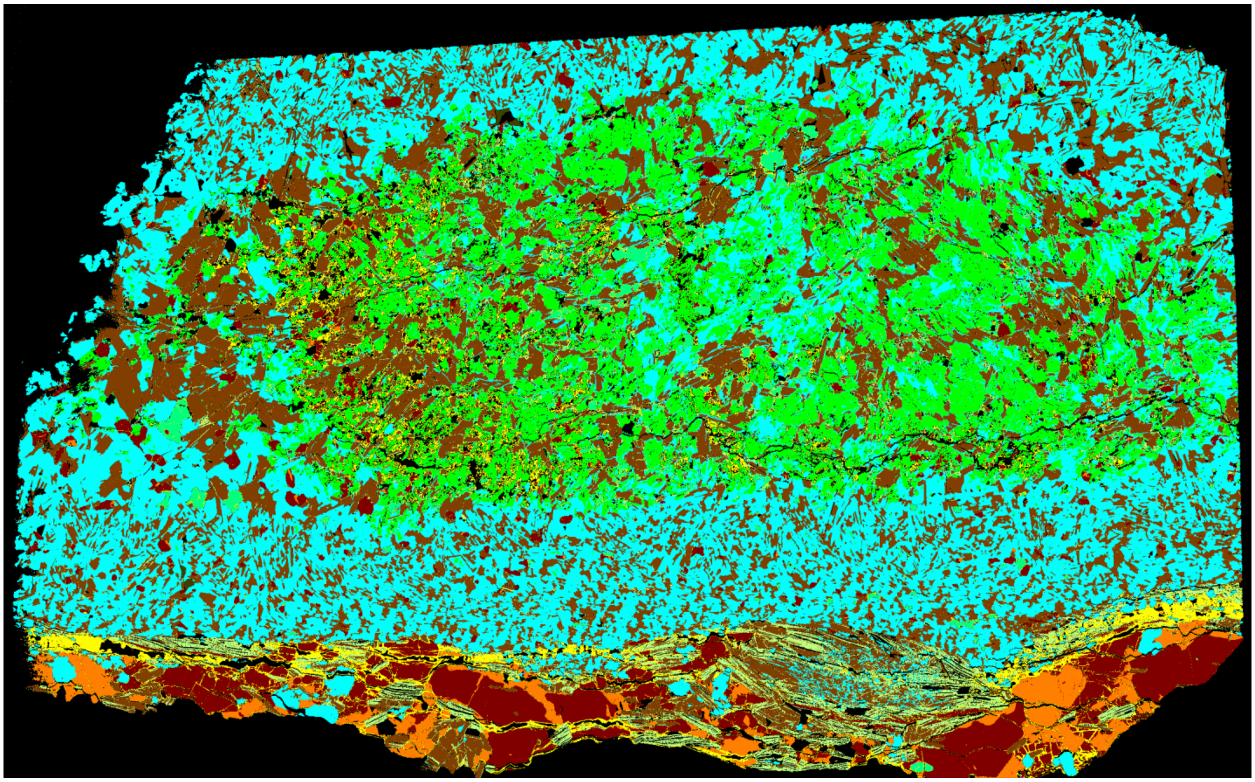
**Mixed signal with voids (glass)

141890013 (1418-12): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890014 (1418-3)



141890013 (1418-12): *Optical (natural light) and backscattered electron image mosaic.*



141890014 1418-3

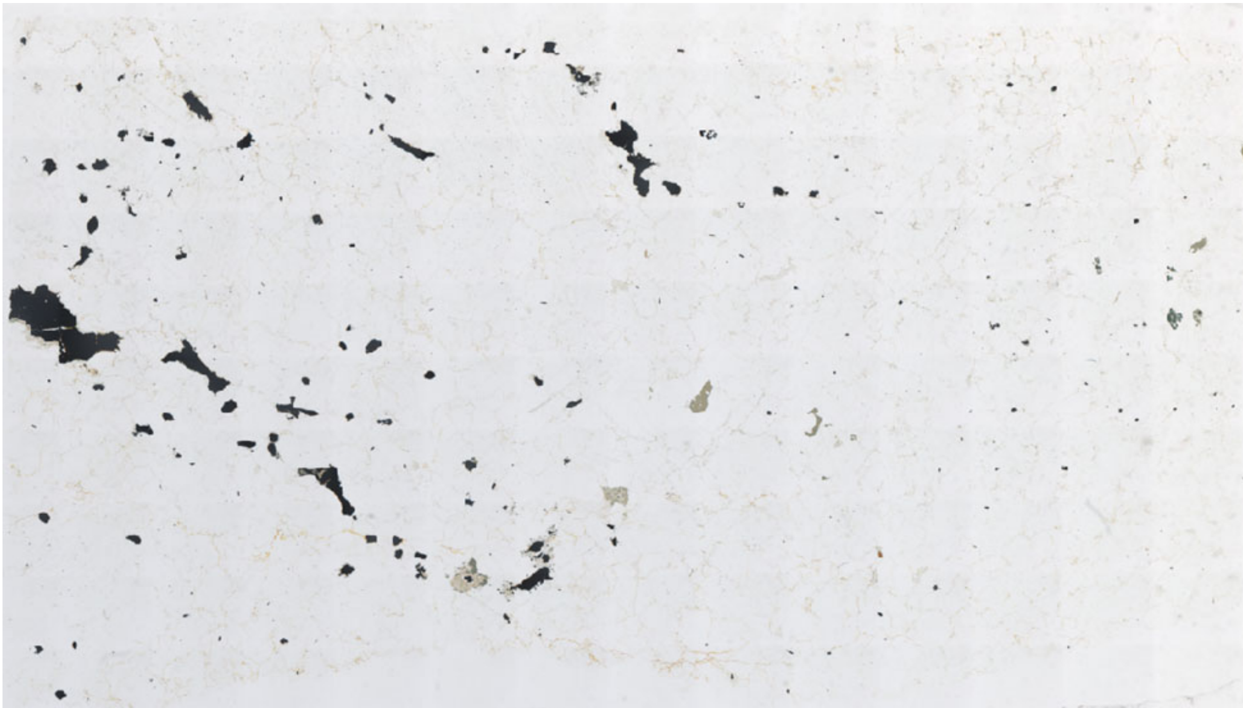
Mineral	Color	%	F	Cl	MgO	Al2O3	SiO2	P2O5	K2O	CaO	TiO2	Cr2O3	MnO	FeO	Y2O3	ZrO2	Gd2O3	Dy2O3	HfO2	Total
Quartz		37.36					100													100
Biotite		25.79		0.33	17.02	14.97	40.31		9.21		2.73			15.43						100
Actinolite		17.58			19.07	1.90	57.37			12.03			0.42	9.21						100
Oxide-Fe		4.89			1.04	6.00	8.46							84.50						100
Clinochlore*		4.76			15.21	17.84	40.71							26.24						100
Oxide-FeCr		1.28				0.57	0.53				0.29	3.72		94.89						100
Apatite		0.048	0.00	0.58				39.75		56.41										100
Xenotime		0.006						35.80							51.18		6.17	6.85		100
Zircon		0.005					33.92							0.69		65.38			0.00	100
Ilmenite		0.005									51.87		1.78	46.35						100
Muscovite		0.0003			3.64	29.95	53.68		12.73		0.00			0.00						100
Rutile		0.0003									100			0.00						100

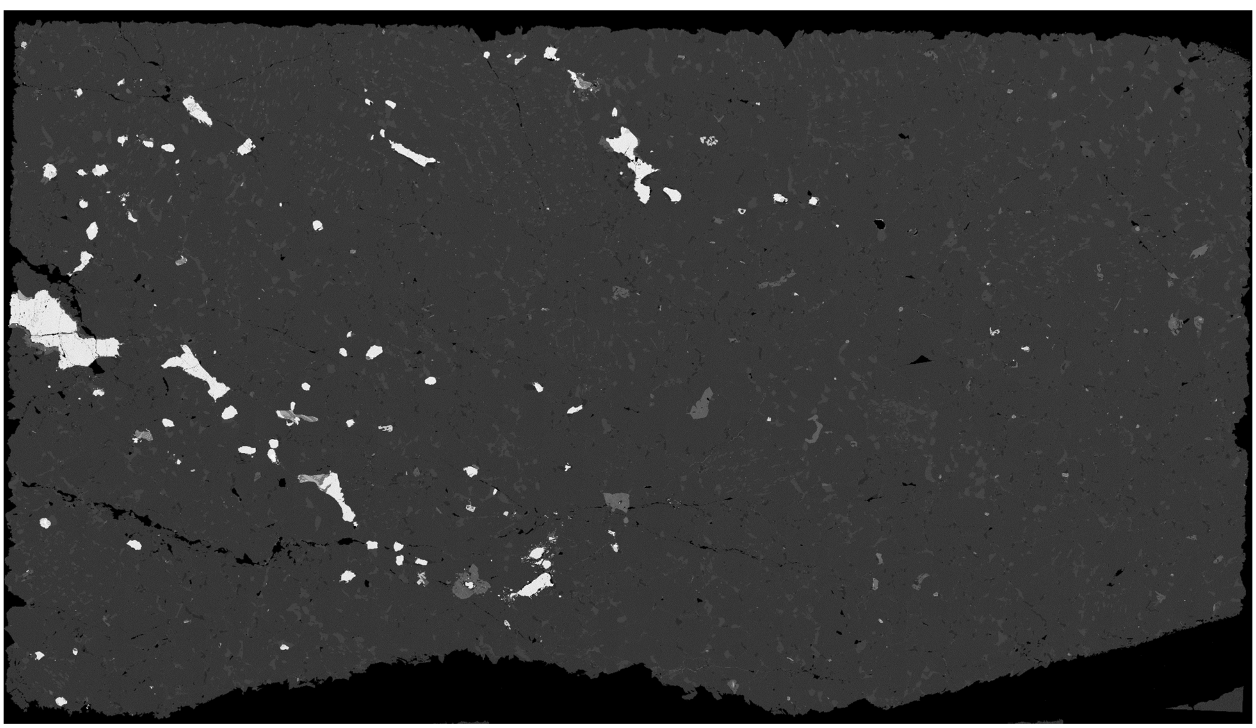
Mineral	Color	%	S	Fe	Co	Ni	Cu	Zn	Total
Pyrrhotite		6.26	46.58	52.76		0.66			100
Chalcopyrite		1.99	34.39	31.29			34.32		100
Pentlandite		0.039	42.54	24.69	2.24	30.52			100
Sphalerite		0.004	32.57	8.15				59.27	100

*Not stoichiometric

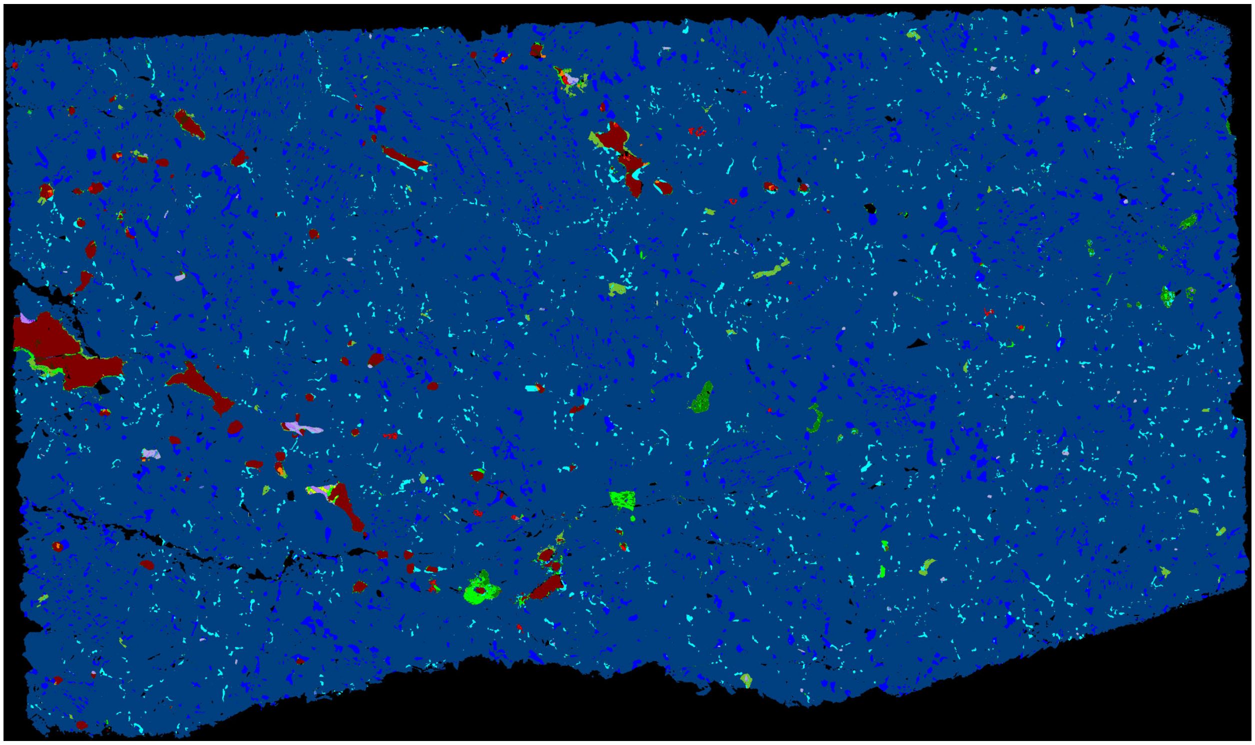
141890013 (1418-12): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890026 (1418-4)





***141890026 (1418-4):** Optical (natural light) and backscattered electron image mosaic.*



141890026 1418-4

Mineral	Color	%	F	Cl	Na2O	MgO	Al2O3	SiO2	P2O5	K2O	CaO	TiO2	Cr2O3	MnO	FeO	BaO	Total
Plagioclase		91.85			5.47		28.51	55.60		0.28	9.91				0.22		100
Feldspar-K		4.14			0.60		19.24	63.42		15.73	0.05					0.95	100
Quartz		1.36						100									100
Epidote		0.31				0.55	24.72	39.95		0.21	21.25	0.27		0.22	12.84		100
Pargasite		0.29		0.16	1.43	4.65	18.28	40.34		1.20	8.40	1.13		0.39	24.02		100
Chamosite		0.21				3.88	22.81	32.64							40.67		100
Titanite		0.11					8.77	29.03			22.82	29.25			10.14		100
Anorthite		0.11			4.79		29.23	52.70		0.00	13.28						100
Ilmenite		0.030					0.64	0.56				50.17		2.62	46.01		100
Oxide-FeTi*		0.014					6.69	8.00				31.77		1.64	51.90		100
Oxide-Fe		0.010					2.55	2.16					1.12		94.16		100
Muscovite		0.005				0.00	36.34	45.93		11.53					6.20		100
Apatite		0.004	5.28	0.00					37.84		56.88						100
Biotite		0.002				9.17	18.72	33.97		7.02		3.29			27.83		100
Rutile**		0.001					3.06	11.86			11.31	64.01			9.75		100
Clay		0.0003					45.64	54.36							0.00		100

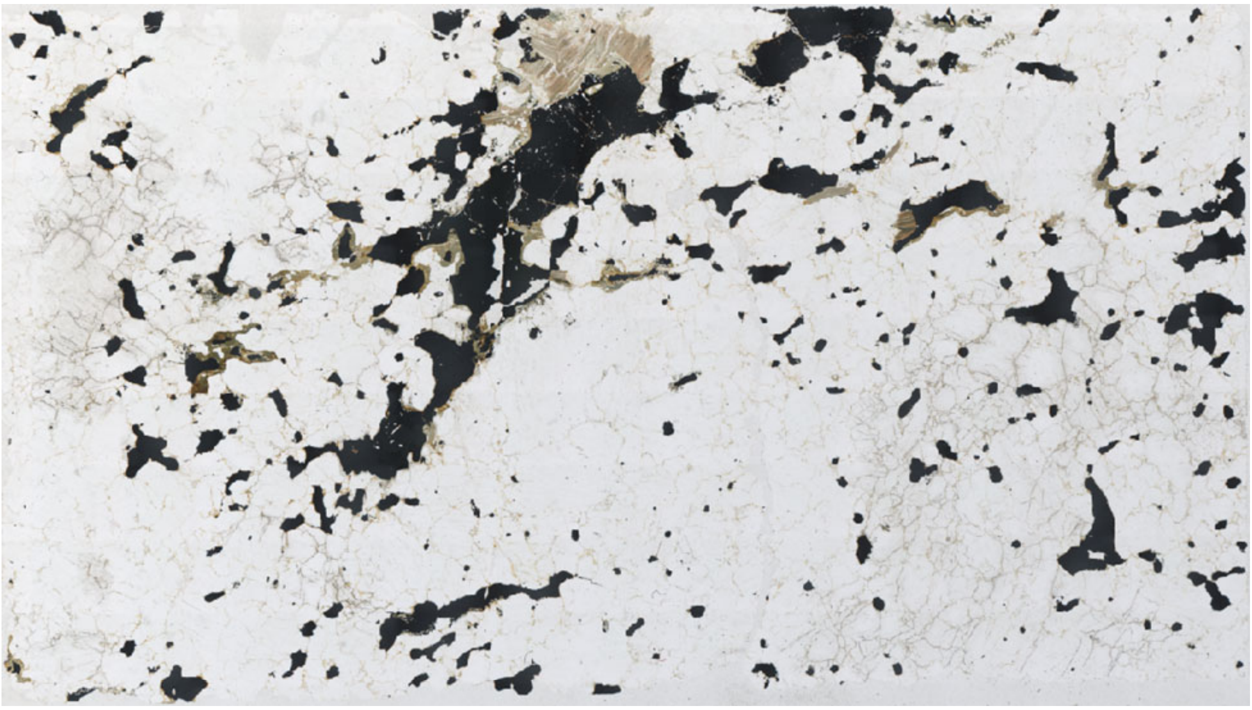
Mineral	Color	%	S	Fe	Co	Ni	Cu	Total
Pyrrhotite		1.44	38.26	61.04		0.70		100
Pentlandite		0.07	38.05	32.29	2.49	27.17		100
Pyrite		0.04	52.82	47.18				100
Chalcopyrite		0.03	33.69	31.89			34.42	100

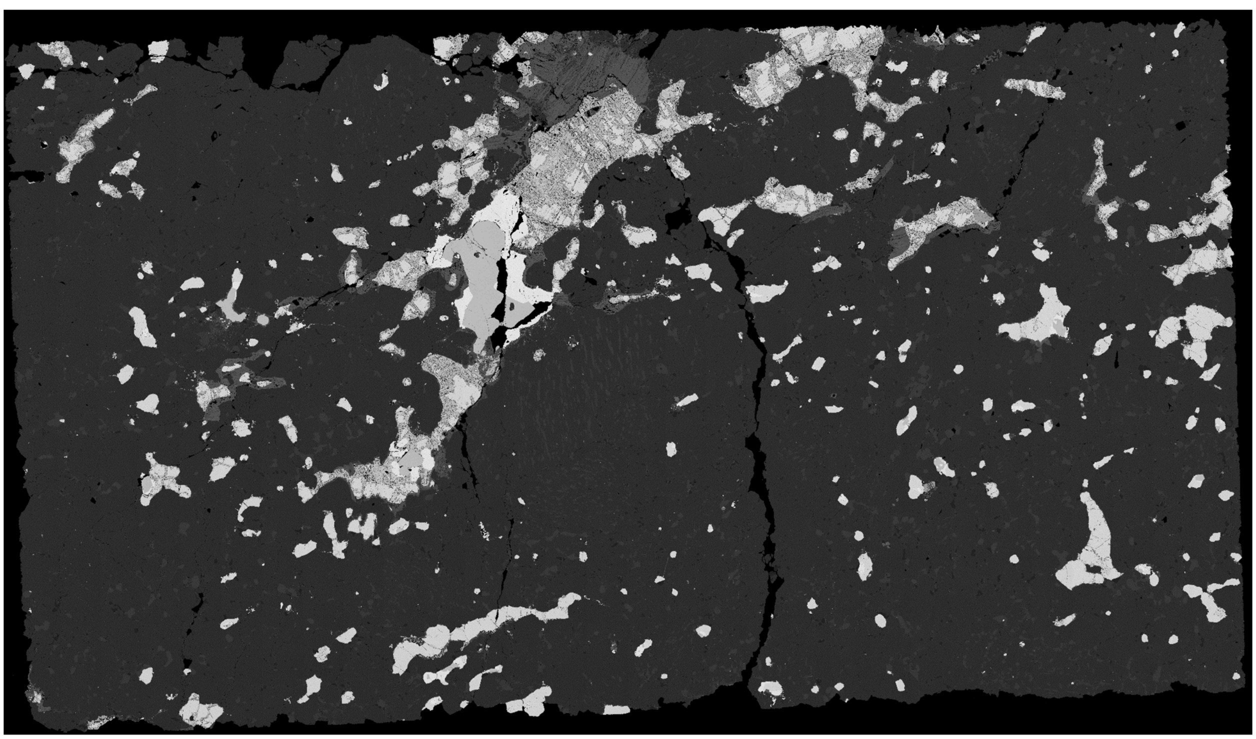
*Mixed signal between Oxide-FeTi, Ilmenite and Titanite

**Mixed signal with Titanite (rutile contained in the titanite)

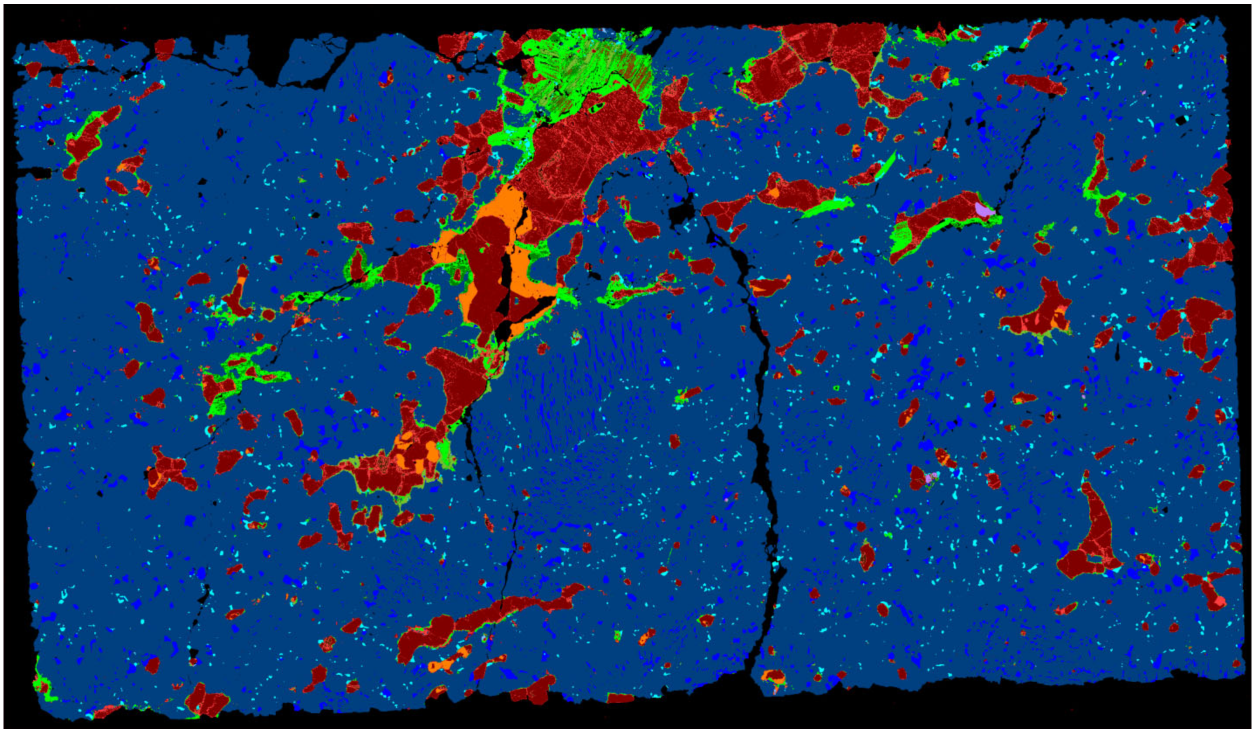
141890026 (1418-4): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890027 (1418-5)





141890027 (1418-5): *Optical (natural light) and backscattered electron image mosaic.*



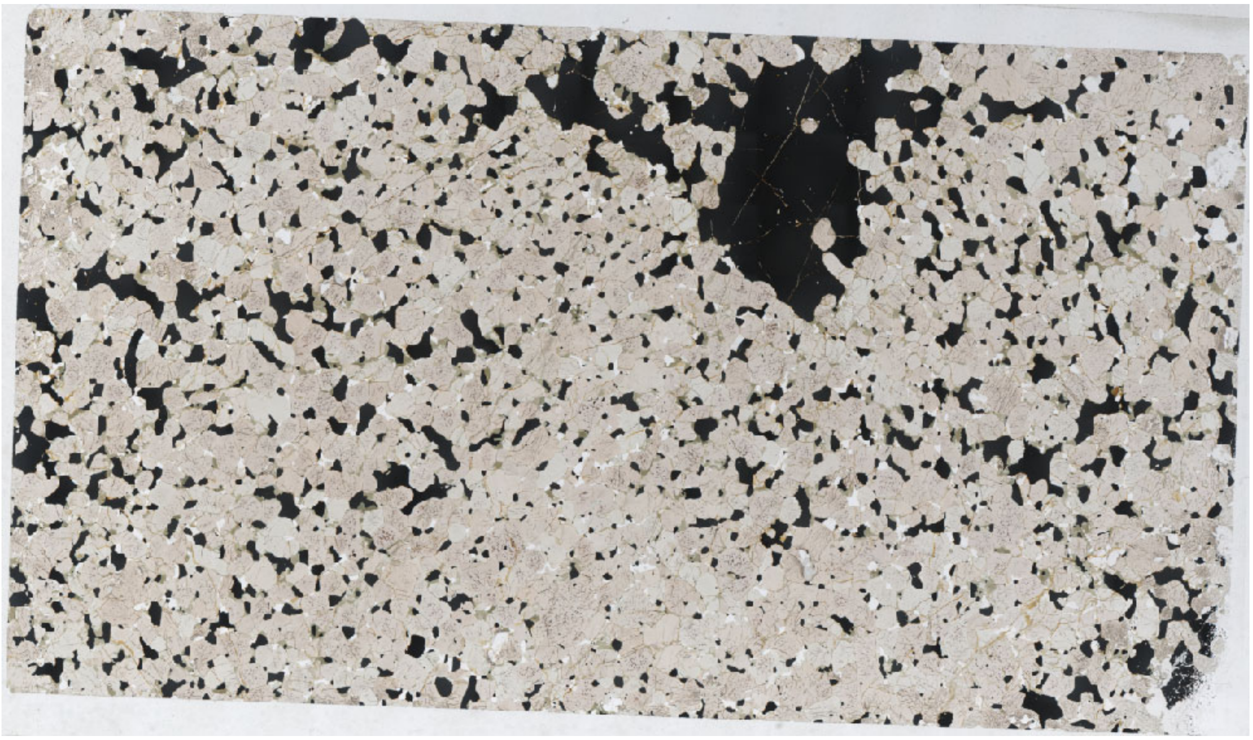
141890027 1418-5

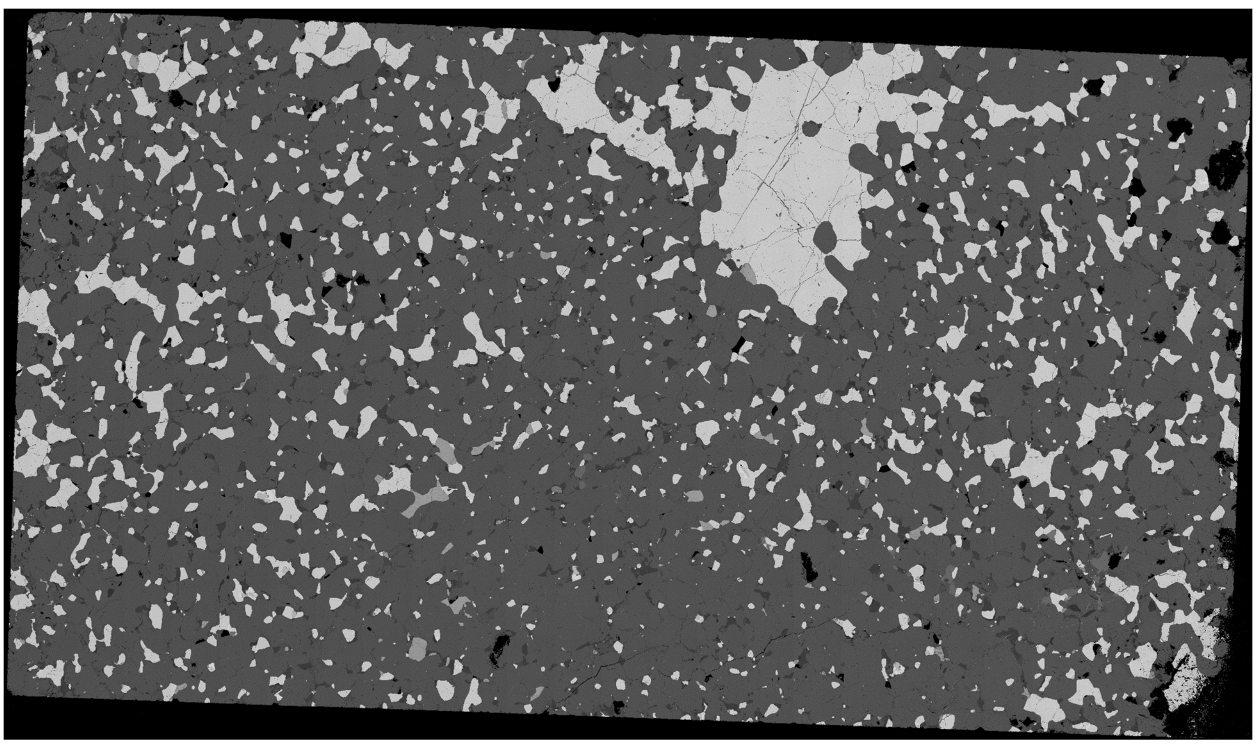
Mineral	Color	%	F	Cl	Na2O	MgO	Al2O3	SiO2	P2O5	SO3	K2O	CaO	TiO2	MnO	FeO	NiO	BaO	Total
Plagioclase		79.13			5.50		28.69	55.56			0.35	9.69			0.21			100
Feldspar-K		3.63			0.66		19.35	63.56			15.50	0.02					0.91	100
Pyrrhotite (altered)		2.32								59.27					33.01	7.72		100
Chamosite		2.22				4.10	23.15	35.34			1.15	1.57	1.43		33.25			100
Quartz		1.18						100										100
Hornblende		0.49			0.61	4.93	17.86	39.06			1.75	11.19	1.68	0.55	22.38			100
Epidote		0.39					25.71	40.64				22.60			11.06			100
Biotite		0.12		0.17		8.06	18.78	36.02			7.43	0.63	3.65	0.55	24.71			100
Albite		0.054			7.97		22.98	64.59			0.29	4.17						100
Ilmenite-Mn		0.036					0.31	0.40					49.60	6.69	43.00			100
Apatite		0.006	3.76	0.00					39.41			56.82						100

Mineral	Color	%	S	Fe	Co	Ni	Cu	Total
Pyrrhotite		9.55	43.29	56.71				100
Chalcopyrite		0.69	33.94	31.45			34.61	100
Pentlandite		0.16	39.54	24.27	2.88	33.31		100
Pyrite		0.002	56.70	43.30				100

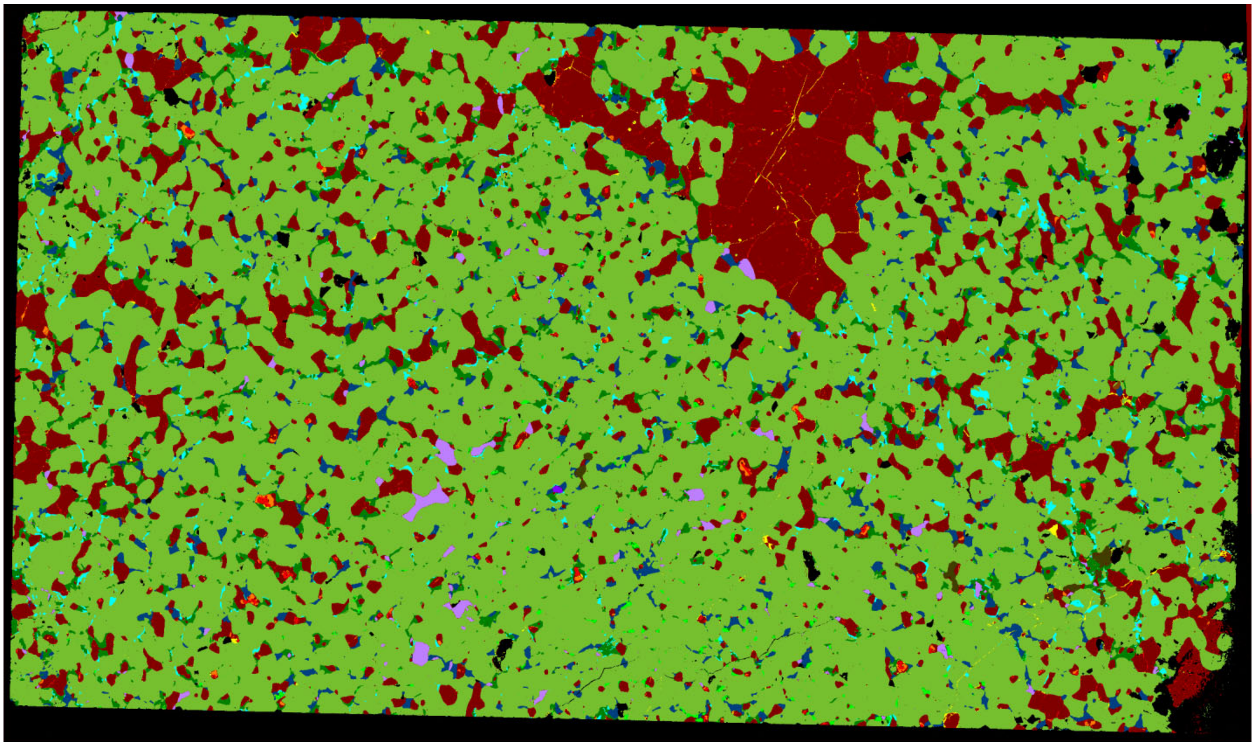
141890027 (1418-5): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890028 (1418-6)





141890028 (1418-6): *Optical (natural light) and backscattered electron image mosaic.*



141890028 1418-6

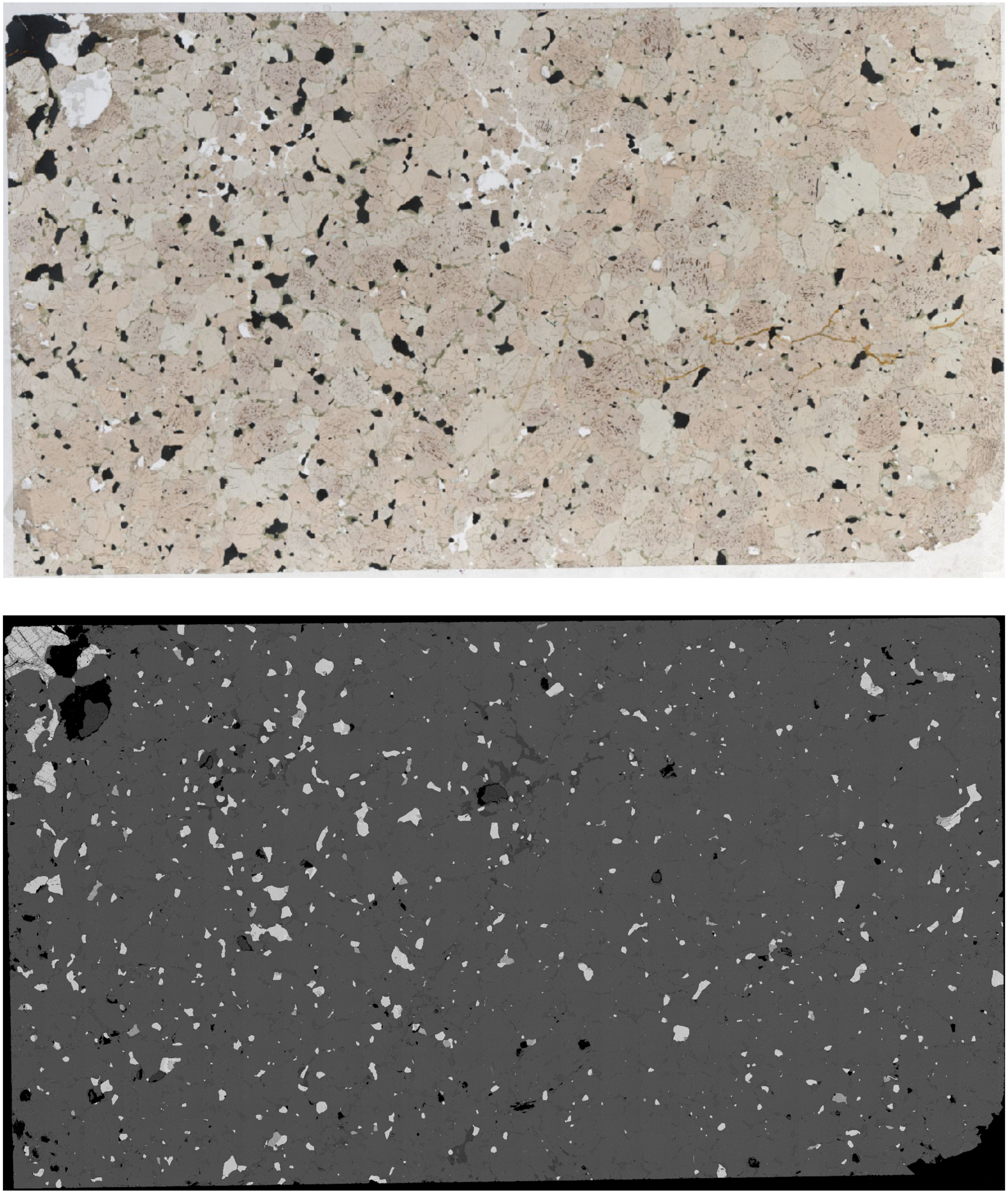
Mineral	Color	%	F	Cl	CO2	Na2O	MgO	Al2O3	SiO2	P2O5	K2O	CaO	TiO2	MnO	FeO	ZrO2	Nb2O5	Total
Enstatite-Ferrosilite		71.57					23.54	1.67	53.34			0.47	0.11	0.50	20.37			100
Hornblende		4.44				1.03	15.37	10.74	47.92		0.65	11.69	1.29		11.31			100
Plagioclase		2.98				4.38		30.72	52.38		0.11	12.01			0.41			100
Quartz		1.07							100									100
Ilmenite		0.63					1.42	0.20	0.46				47.14	0.42	50.36			100
Tremolite-Actinolite*		0.25					18.34	2.68	56.06			15.58			7.33			100
Oxide-Fe		0.23					3.06	0.00	1.04					0.99	94.92			100
Apatite		0.12	2.11	1.33						40.02		56.54						100
Biotite		0.037					19.54	16.80	40.03		8.41	0.42	3.37		11.43			100
Enstatite		0.029					28.77	1.88	64.35						5.01			100
Rutile		0.012											98.23		1.01		0.76	100
Magnesite-Siderite		0.006			48.36		23.32					0.71			27.61			100
Diopside**		0.001					13.64	2.54	50.92			26.44	0.00	0.00	6.45			100
Zircon***		0.00002							26.64							73.36		100

Mineral	Color	%	S	Fe	Co	Ni	Cu	Total
Pyrrhotite		17.72	38.81	60.64		0.55		100
Pyrite		0.70	56.09	43.91				100
Chalcopyrite		0.15	34.26	31.51			34.23	100
Pentlandite		0.05	40.49	23.63	6.59	29.29		100

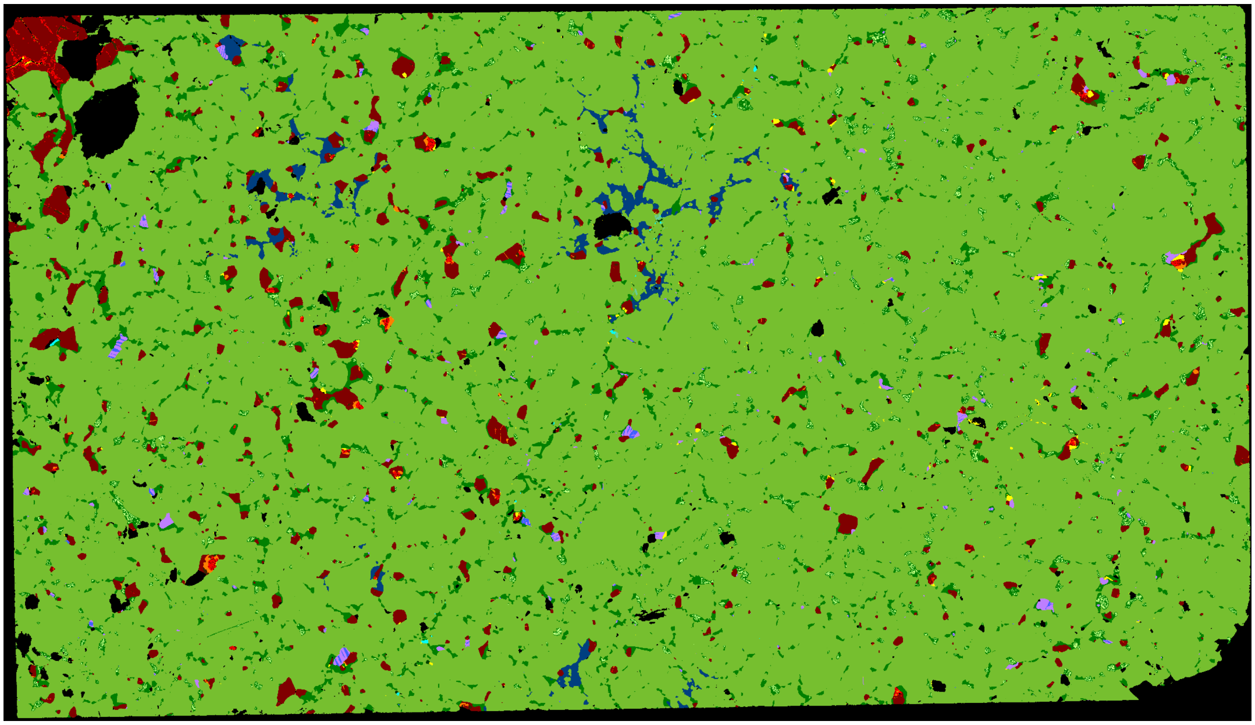
* Mixed signal with Diopside
**Amphibolitized
***Insufficient counts

***141890028 (1418-6):** False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890032 (1418-7)



141890032 (1418-7): *Optical (natural light) and backscattered electron image mosaic.*



141890032 **1418-7**

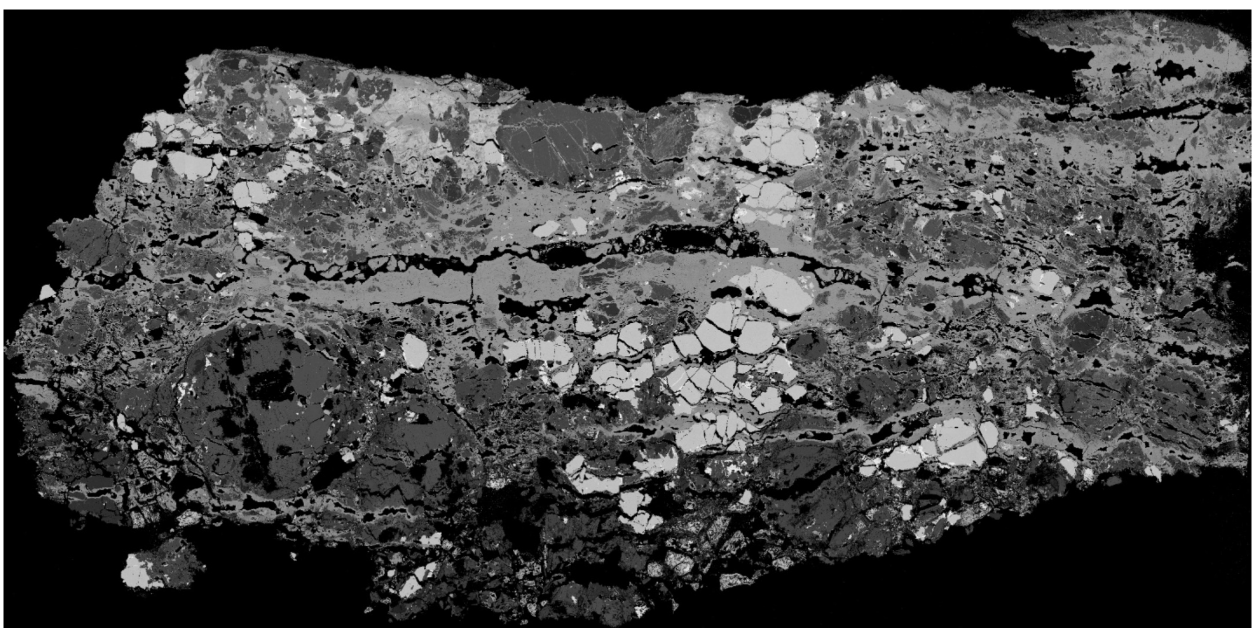
Mineral	Color	%	F	Cl	CO2	Na2O	MgO	Al2O3	SiO2	P2O5	K2O	CaO	TiO2	V2O5	Cr2O3	MnO	FeO	ZnO	ZrO2	Total
Enstatite-Ferrosilite		88.61					22.68	2.62	52.28			0.48	0.10			0.49	21.34			100
Hornblende		5.40				0.99	15.18	9.23	49.02			13.81	0.97				10.81			100
Plagioclase		0.85				2.50		33.70	48.03		0.09	15.33					0.36			100
Diopside		0.57				0.23	13.79	3.45	51.63			23.46	0.39	0.00	0.00	0.18	6.87			100
Ilmenite		0.35					1.40	0.19	0.22				45.99			0.38	51.82			100
Oxide-Fe		0.12						0.63	0.39					0.62	0.84		97.53			100
Oxide-FeTi		0.095					0.52	0.49	0.36				17.37	1.05	0.56		79.65			100
Quartz		0.017							100											100
Magnesite-Siderite		0.016			50.70		26.10					0.41				0.90	21.88			100
Apatite		0.009	2.43	0.29						40.53		56.75								100
Enstatite		0.008					28.24	1.61	64.21								5.95			100
Hercynite-Mg*		0.0001					8.81	64.26									26.93	0.00		100
Zircon*		0.0001							33.38										66.62	100

Mineral	Color	%	S	Fe	Co	Ni	Cu	Total
Pyrrhotite		3.62	39.09	60.42		0.49		100
Pyrite		0.16	48.68	51.32				100
Chalcopyrite		0.09	34.29	31.48			34.23	100
Pentlandite		0.07	35.84	26.66	5.83	31.67		100

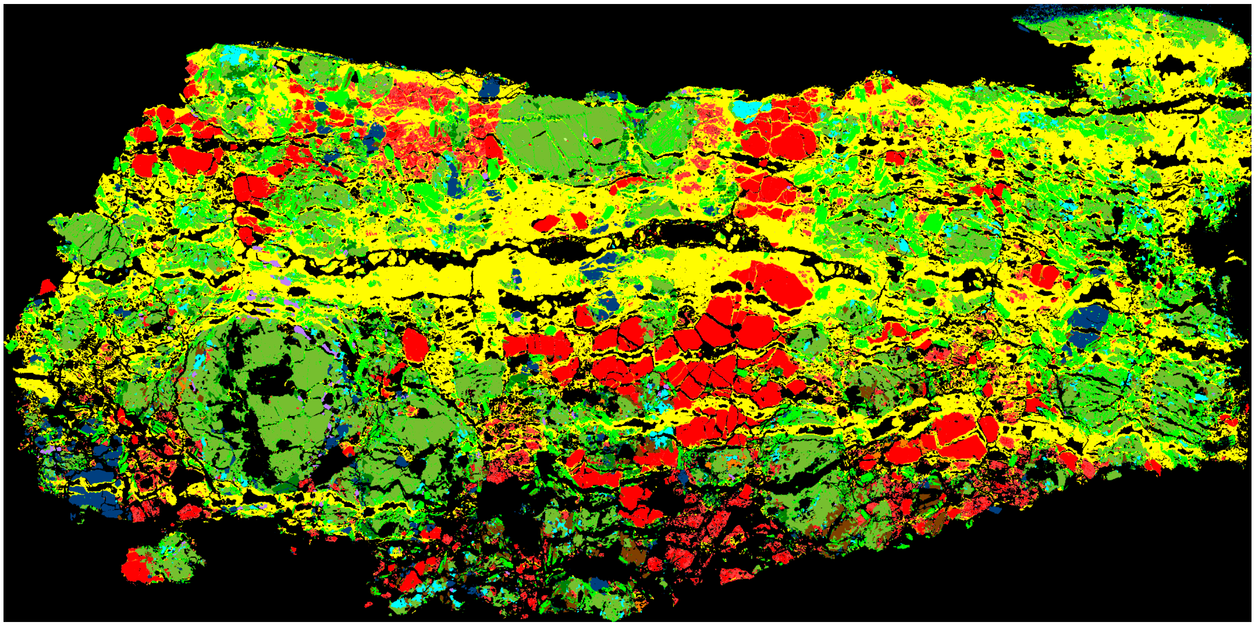
*Insufficient counts

141890032 (1418-7): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890033 (1418-8)



141890033 (1418-8): *Optical (natural light) and backscattered electron image mosaic.*



141890033 **1418-8**

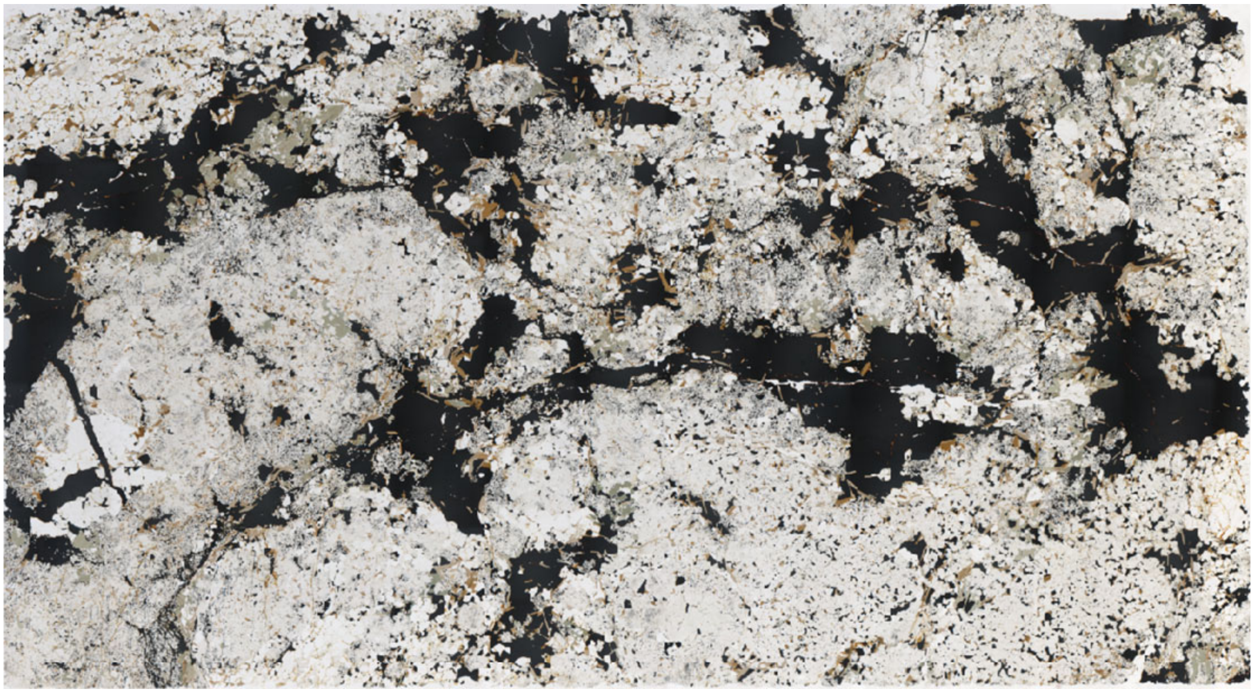
Mineral	Color	%	F	Cl	Na2O	MgO	Al2O3	SiO2	P2O5	SO3	K2O	CaO	TiO2	MnO	FeO	NiO	ZrO2	BaO	HfO2	Total
Oxide-Fe		39.58					1.54	8.09							90.36					100
Chamosite		18.06		0.20		13.50	9.44	34.05			0.52	0.74	1.57		38.66	1.32				100
Enstatite-Fe		17.15				21.68	1.63	54.49				0.63	0.08	0.55	20.94					100
Pyrrhotite (altered)		5.38								61.08					36.74	2.19				100
Plagioclase		3.18			5.81		28.13	55.76			0.14	9.30			0.86					100
Biotite		1.94		0.37		16.33	17.11	39.36			7.91		3.64		15.00	0.27				100
Quartz		1.86						100												100
Pargasite-Tschermakite		1.34		0.26	1.10	13.57	11.81	45.49			0.73	11.42	1.13		14.49					100
Ilmenite		0.55				0.54	0.20	0.17					48.79	0.31	50.00					100
Diopside		0.008				17.74	2.45	55.08				16.81			7.92					100
Zircon		0.004						34.96							1.60		63.45		0.00	100
Feldspar-K		0.003			1.43		20.27	64.05			14.25	0.00						0.00		100
Rutile		0.001											87.31		12.69					100
Aluminosilicate*		0.0001					58.48	41.52												100
Apatite*		0.0001	0.00	4.65					40.52			54.83								100
Titanite*		0.0001						35.85				25.91	38.24							100

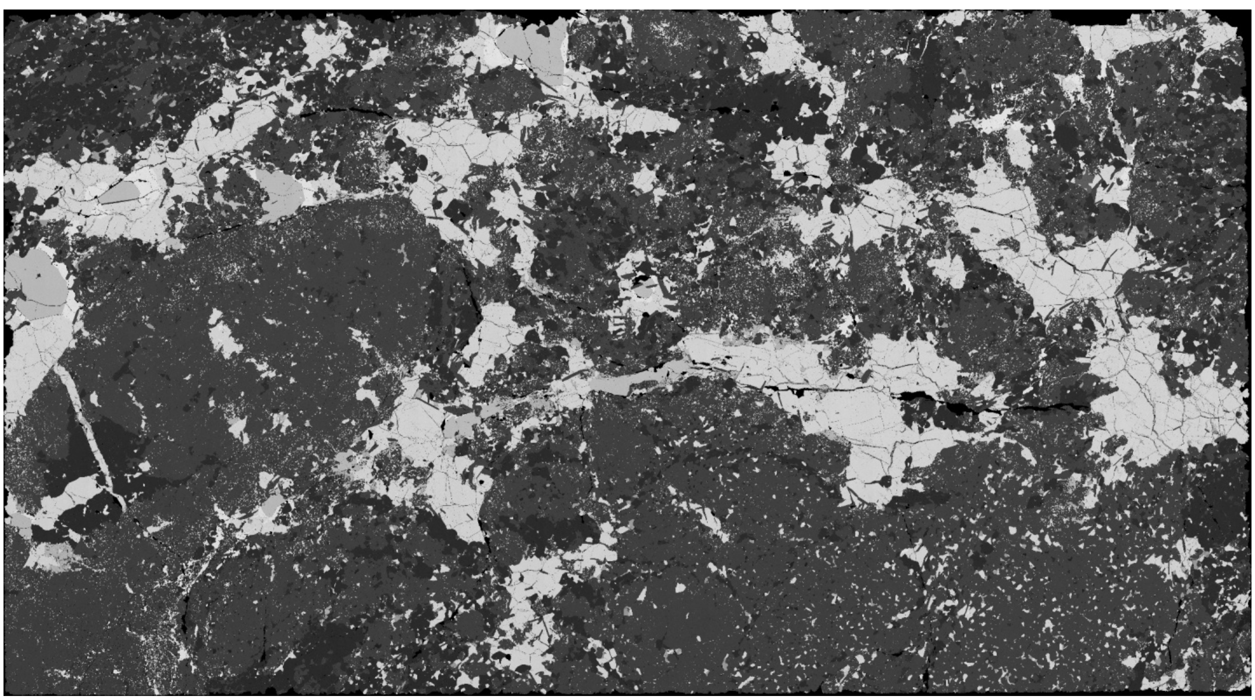
Mineral	Color	%	S	Fe	Co	Ni	Cu	Total
Pyrite		10.14	52.33	47.67				100
Chalcopyrite		0.64	33.57	31.46			34.97	100
Pentlandite		0.17	39.41	32.84	3.67	24.08		100

*Insufficient counts

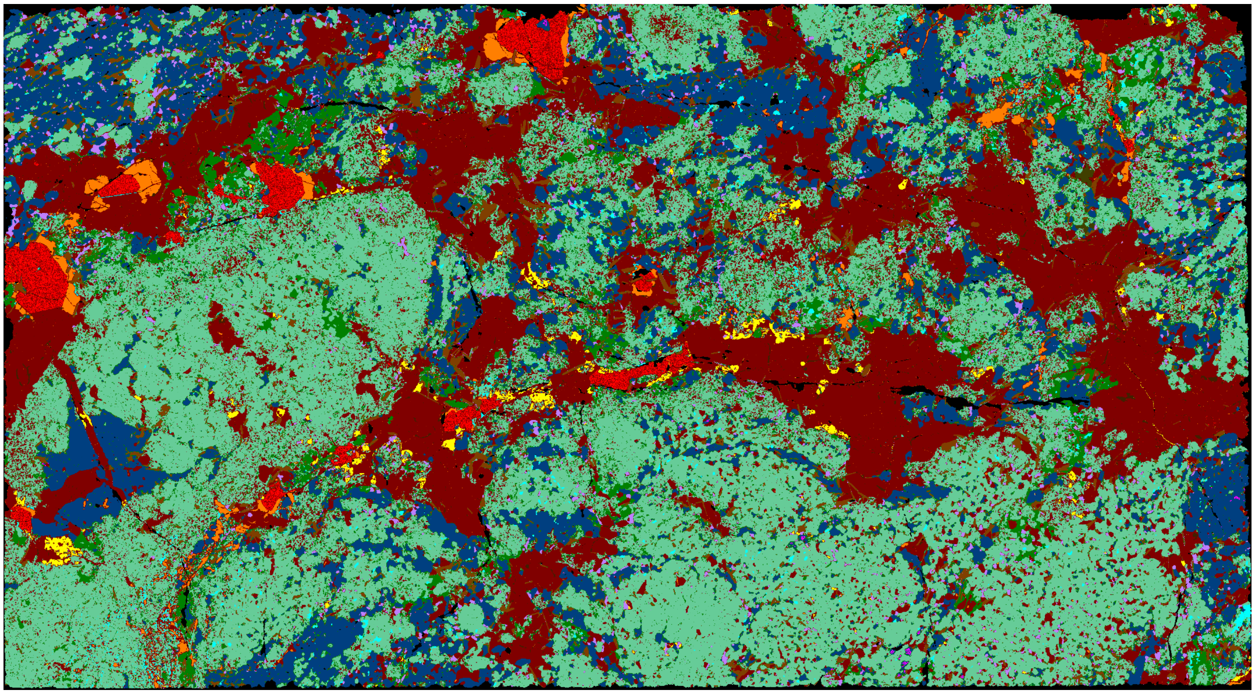
141890033 (1418-8): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890037 (1418-9)





141890037 (1418-9): *Optical (natural light) and backscattered electron image mosaic.*



141890037 1418-9

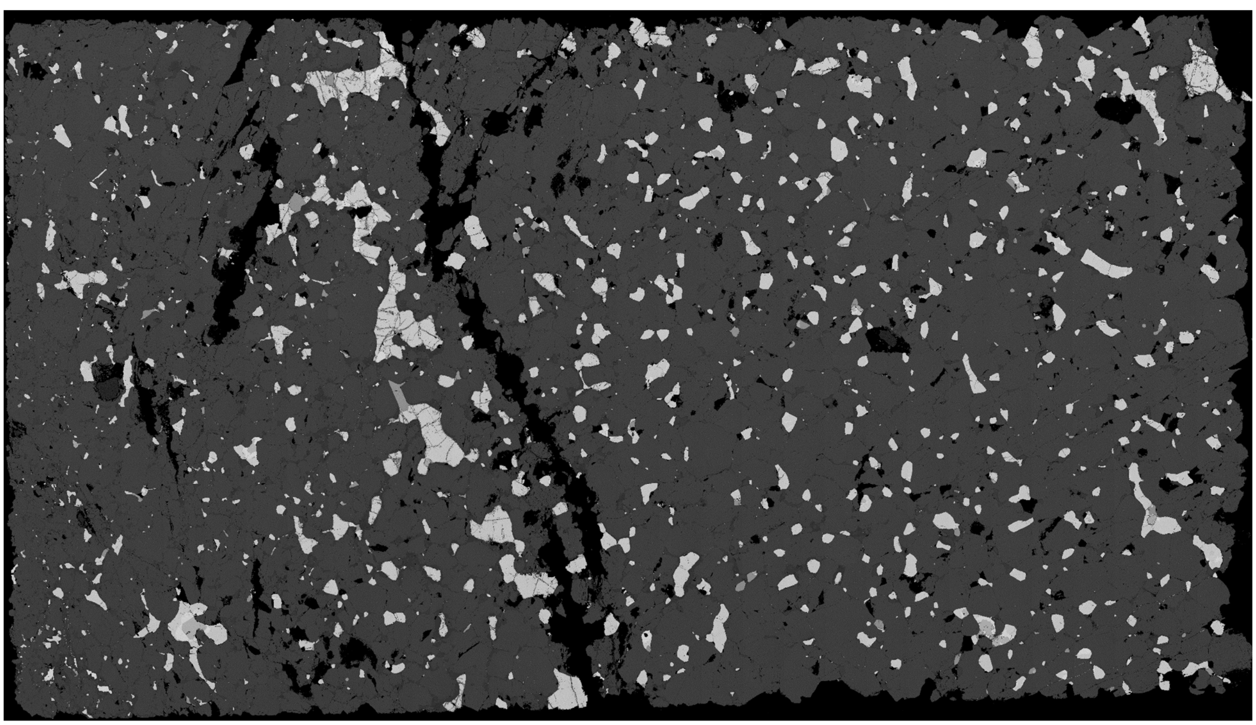
Mineral	Color	%	F	Cl	Na2O	MgO	Al2O3	SiO2	P2O5	SO3	K2O	CaO	TiO2	Cr2O3	MnO	FeO	ZrO2	BaO	La2O3	Ce2O3	Nd2O3	HfO2	ThO2	Total
Gedrite		37.93				21.99	1.13	56.89				0.41	0.06		0.69	18.82								100
Plagioclase		15.38			5.64		28.54	55.56			0.10	9.75				0.42								100
Tschermakite		9.75			1.90	12.06	14.81	50.94			1.20	5.63	0.61		0.30	12.55								100
Biotite		4.03		0.35		16.83	16.92	39.10			9.21		2.91			14.14		0.56						100
Ilmenite		1.78				0.74	0.12	0.22					48.79		0.64	49.50								100
Quartz		0.84						100																100
Oxide-Fe		0.63					1.37	1.04						0.68		96.91								100
Apatite		0.073	1.04	1.98					39.98			57.00												100
Sylvialite		0.029			3.85		26.33	46.35		5.99		17.48												100
Zircon		0.004						34.87								0.00	65.13					0.00		100
Rutile		0.001					4.62	5.78					72.90			16.71								100
Monazite*		0.0001							29.79			0.00							31.38	38.82	0.00		0.00	100
Oxide-MgFe		0.0001				49.75										50.25								100

Mineral	Color	%	S	Fe	Co	Ni	Cu	Total
Pyrrhotite		27.26	39.07	60.33		0.60		100
Chalcopyrite		1.01	34.00	31.56			34.44	100
Pyrite		0.91	53.64	46.36				100
Pentlandite		0.36	41.17	31.76	4.83	22.24		100

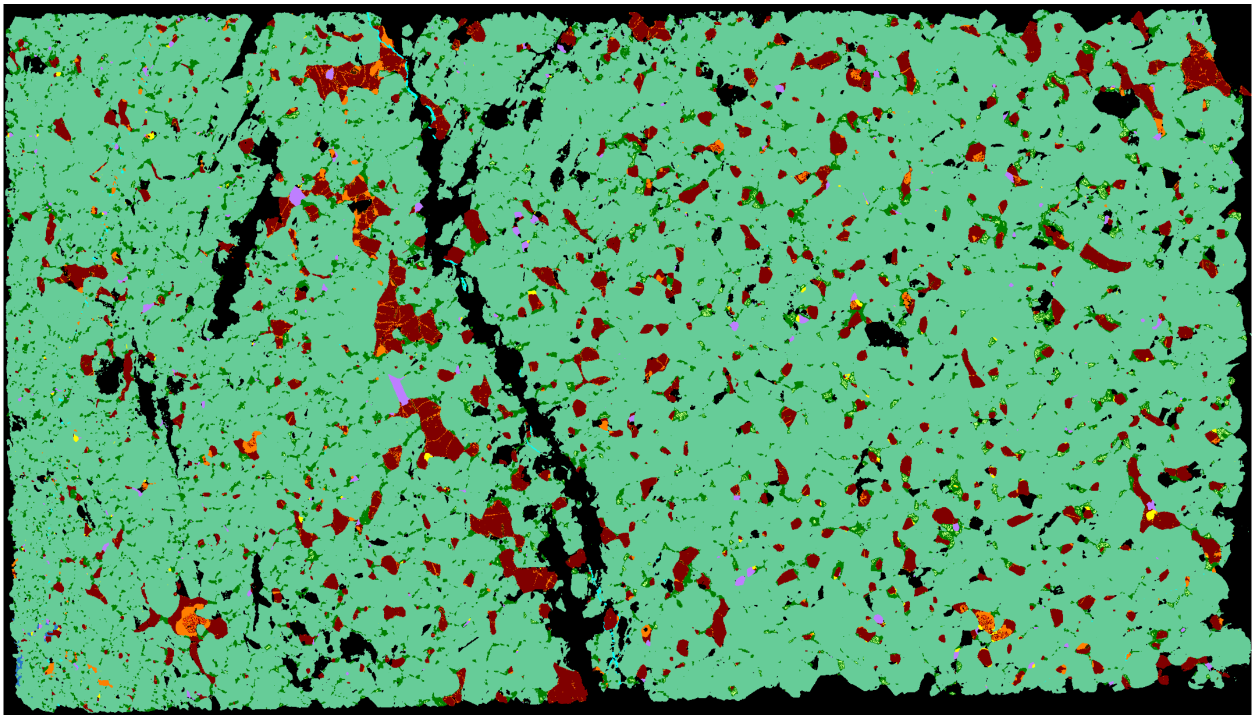
*Insufficient counts

141890037 (1418-9): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890038 (1418-10)



141890038 (1418-10): *Optical (natural light) and backscattered electron image mosaic.*



141890038 **1418-10**

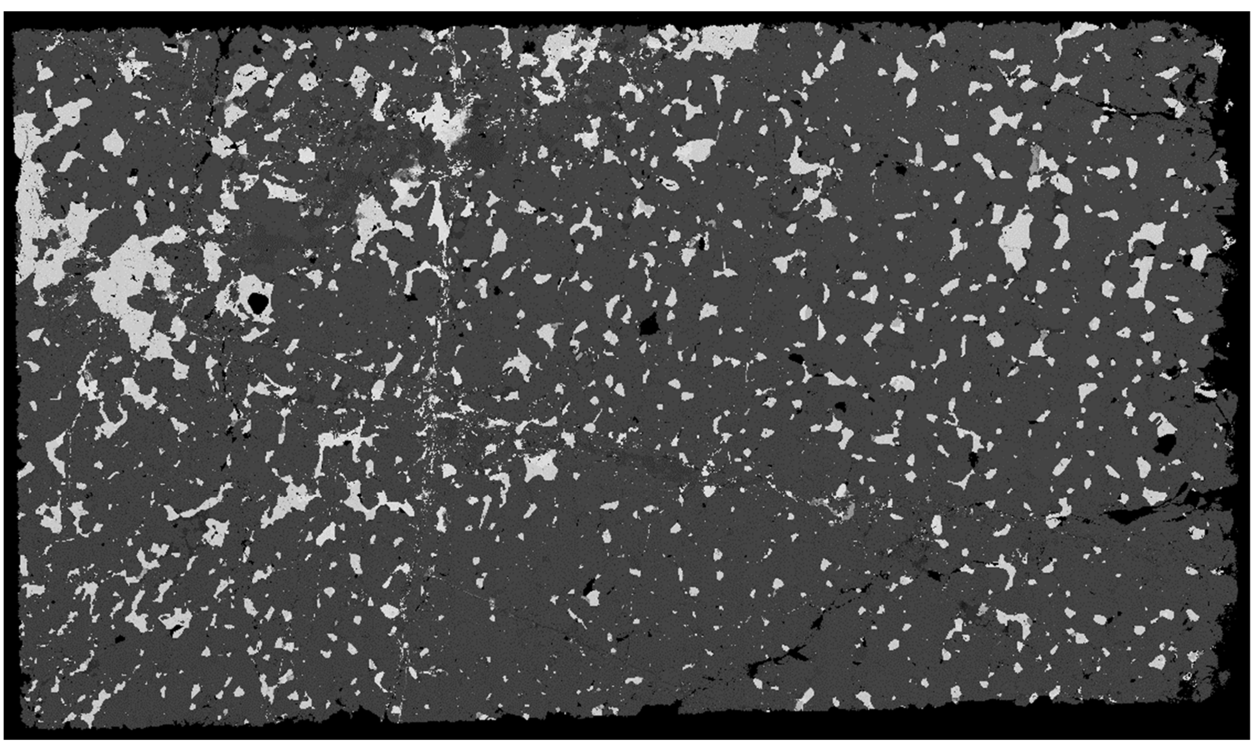
Mineral	Color	%	F	Cl	CO2	Na2O	MgO	Al2O3	SiO2	P2O5	K2O	CaO	TiO2	V2O5	Cr2O3	MnO	FeO	ZrO2	BaO	HfO2	Total
Enstatite		84.22					22.59	2.85	52.19			0.49	0.10			0.58	21.20				100
Hornblende		5.588				0.82	16.26	8.57	49.96		0.09	12.68	0.83		0.18	0.18	10.43				100
Ilmenite		0.409					1.62	0.15	0.26				48.56			0.59	48.82				100
Diopside		0.340				0.21	14.02	3.61	51.55			23.64	0.46	0.00	0.00	0.18	6.33				100
Oxide-Fe		0.149						1.15	0.58					0.76	2.12		95.38				100
Quartz		0.102							100												100
Anorthite		0.023				2.55		33.74	48.15		0.00	15.13					0.43				100
Apatite		0.001	0.00	0.00						39.22		60.78									100
Zircon		0.001							34.62								0.00	65.38		0.00	100
Magnesite-Siderite		0.0005			54.60		21.24										24.17				100
Biotite		0.0004					21.70	17.63	41.79		8.42						10.46				100
Feldspar-K*		0.0001				0.00		23.51	61.73		14.76	0.00							0.00		100

Mineral	Color	%	S	Fe	Co	Ni	Cu	Total
Pyrrhotite		7.99	38.72	60.70		0.58		100
Chalcopyrite		1.01	39.99	37.11		4.27	18.62	100
Pentlandite		0.14	39.11	26.31	4.50	30.08		100
Pyrite		0.03	57.84	39.88		2.28		100

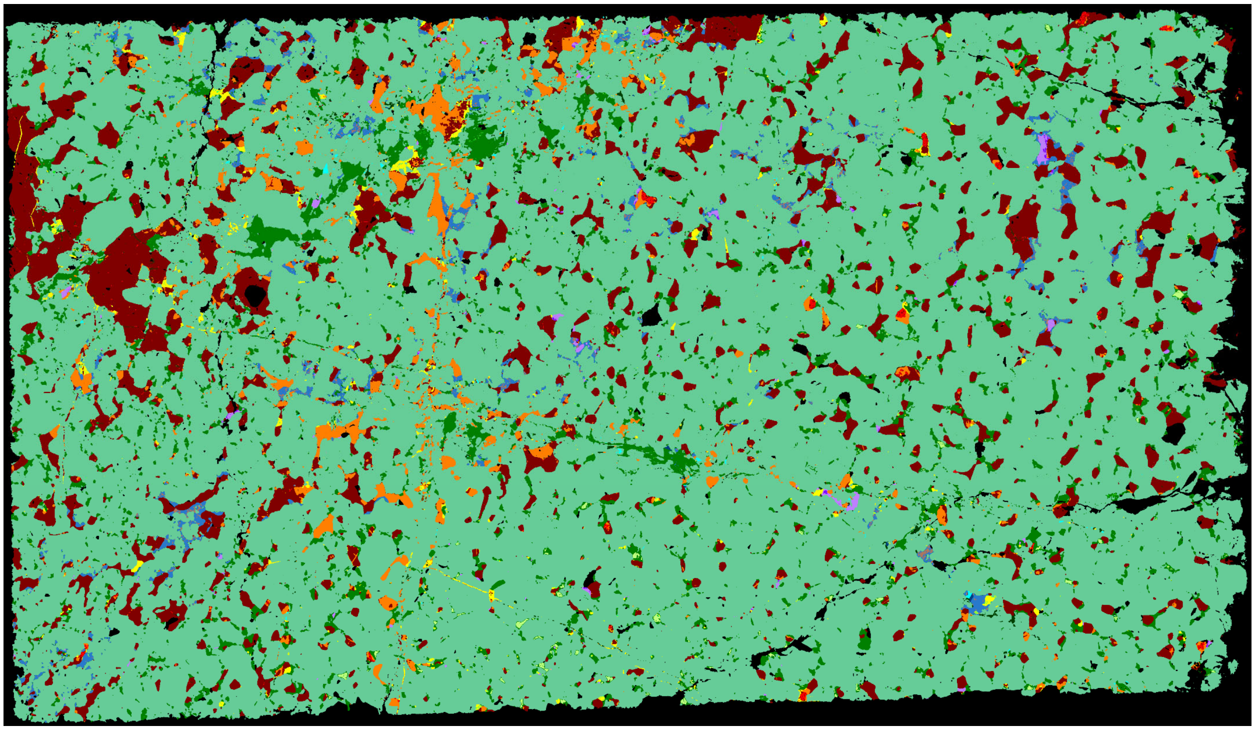
*Insufficient counts

141890038 (1418-10): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

141890039 (1418-11)



141890039 (1418-11): *Optical (natural light) and backscattered electron image mosaic.*



141890039 **1418-11**

Mineral	Color	%	F	Cl	CO2	Na2O	MgO	Al2O3	SiO2	P2O5	K2O	CaO	TiO2	V2O5	Cr2O3	MnO	FeO	ZrO2	HfO2	Total
Enstatite		80.44					23.66	2.64	52.72			0.39				0.55	20.04			100
Hornblende + Actinolite*		5.09				1.16	15.54	10.87	47.68			11.78	1.17		0.46	0.19	11.15			100
Anorthite		1.05				1.40		35.54	46.66		1.51	14.89								100
Oxide-Fe + Siderite*		0.55			26.96		1.02	0.86	1.21				0.21	0.45	3.61		65.69			100
Ilmenite		0.20					1.40	0.16	0.52				49.32			0.66	47.93			100
Muscovite		0.15				0.55	0.65	36.18	46.74		7.09	4.69					4.09			100
Magnesite-Siderite		0.15			51.39		28.18					0.36				1.25	18.81			100
Diopside		0.11					14.47	4.02	51.72			22.50	0.52		0.29	0.22	6.25			100
Quartz		0.05							100											100
Oxide-FeCr		0.04					1.42	3.07	1.51				0.64	0.82	11.23		81.31			100
Actinolite		0.02					20.64	2.85	56.73			12.38					7.39			100
Plagioclase		0.02				8.20		24.77	60.86		0.00	5.44					0.73			100
Rutile*		0.02					3.54	0.50	3.63				67.61				24.72			100
Biotite		0.02		0.39			17.39	17.87	39.25		7.99		2.69				14.42			100
Apatite		0.008	0.00	1.98						40.49		57.53								100
Zircon		0.001							33.66								0.00	66.34	0.00	100

Mineral	Color	%	S	Fe	Co	Ni	Cu	Total
Pyrrhotite		9.54	38.51	60.95		0.54		100
Chalcopyrite		2.18	34.13	31.50			34.37	100
Pyrite		0.21	40.86	48.10		7.67	3.37	100
Pentlandite		0.14	39.61	23.51	4.70	32.18		100

*Mixed signal

141890039 (1418-11): *False colour mineral map deconvoluted from EDS X-ray map mosaic. Mineral abundance is calculated from pixel abundance. Mineral chemistry is calculated from composite spectrum of all pixels of each mineral phase.*

APPENDIX 7

CLAIMS LIST
(as of June 2021)

Title	NTS Map	Start Date	Expiry Date	Owner
CDC-2541627	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541628	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541629	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541630	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541631	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541632	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541633	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541634	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541635	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541636	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541637	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541638	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541639	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541640	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541641	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541642	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541643	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541644	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541645	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541646	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541647	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541648	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541649	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2541650	12M05	2019-07-16	2022-07-15	Jacob Verbaas
CDC-2530232	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530233	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530234	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530235	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530236	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530237	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530238	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530239	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530240	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530241	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530242	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530243	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530244	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530245	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530246	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530247	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530248	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530249	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530250	12M05	2019-01-29	2022-01-28	Go Metals corp.

Title	NTS Map	Start Date	Expiry Date	Owner
CDC-2530251	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530252	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530253	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530254	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530255	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530256	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530257	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530258	12M12	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530259	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530260	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530261	12M12	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530262	12M12	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530263	12M12	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530264	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530265	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530266	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530267	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530268	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530269	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530270	12M05	2019-01-29	2022-01-28	Go Metals corp.
CDC-2530271	12M12	2019-01-29	2022-01-28	Go Metals corp.
CDC-2540092	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540093	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540094	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540095	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540096	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540097	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540098	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540099	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540100	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540101	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540102	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540103	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540104	12M05	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540105	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540106	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540107	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540108	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540109	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540110	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540111	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540112	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540113	12M12	2019-06-04	2022-06-03	Jacob Verbaas

Title	NTS Map	Start Date	Expiry Date	Owner
CDC-2540114	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540115	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540116	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540117	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540118	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540119	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540120	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540121	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540122	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540123	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540124	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540125	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540126	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540127	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540128	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540129	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540130	12M12	2019-06-04	2022-06-03	Jacob Verbaas
CDC-2540131	12M12	2019-06-04	2022-06-03	Jacob Verbaas