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# Hillsport Quarry & Prospecting Report

## June 2019 Property Visit

Thomas Lake Area, Thunder Bay Mining Division



Prepared by:  
M. Gaudreau,  
July 22, 2019

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# HILLSPORT QUARRY & PROSPECTING REPORT

## INTRODUCTION

The intent of work performed in this report was to determine the geochemistry of the mafic intrusive rock extracted within Mining Lease LEA-107 443 and where the mafic unit transects the cell claims to the northeast. The dike is labeled as an Abitibi Mafic Dike, shown on the Ontario Geological Survey Bedrock Geology Map of Ontario dikes layer. The field samples geochemical analysis has confirmed the mafic intrusive does belong to the Abitibi Mafic Dike suite, with similar geochemistry to dikes sampled in Quebec.

Second priority was to test the sporadically mineralized contact areas of the Abitibi Mafic Dike for precious metals. This analytical work was not completed prior too or during the quarry operations further and along strike into the claims.

Third priority was the examining and collecting of a representative sample of pegmatite textured wall rock in contact with the Abitibi Mafic Dike for multi-element analysis.

## LOCATION & ACCESS

The Property lies in the north central part of Thomas Lake Area in the District of Thunder Bay. The contiguous cell claim block centroid location is at approximate latitude of 49° 28' 24" and longitude of 85° 36' 21".

Access to the claim block can be obtained by driving north off Kings Highway 17 west onto Highway 614. Continuing on Highway 614, just as you enter Manitouwadge turn west onto the Caramat Industrial Road. The main Caramat Industrial Road eventually turns northward and has numerous forest operation side roads. The main road continues into the community of Hillspport. Before arriving at Hillspport the access road into the quarry site is located at 49° 27' 20" and longitude of 85° 37' 36". The cell claims block is best accessed through the quarry in a northeast strike direction of approximately 960 meters to the SW corner of claim 135053.





## PROPERTY TENURE

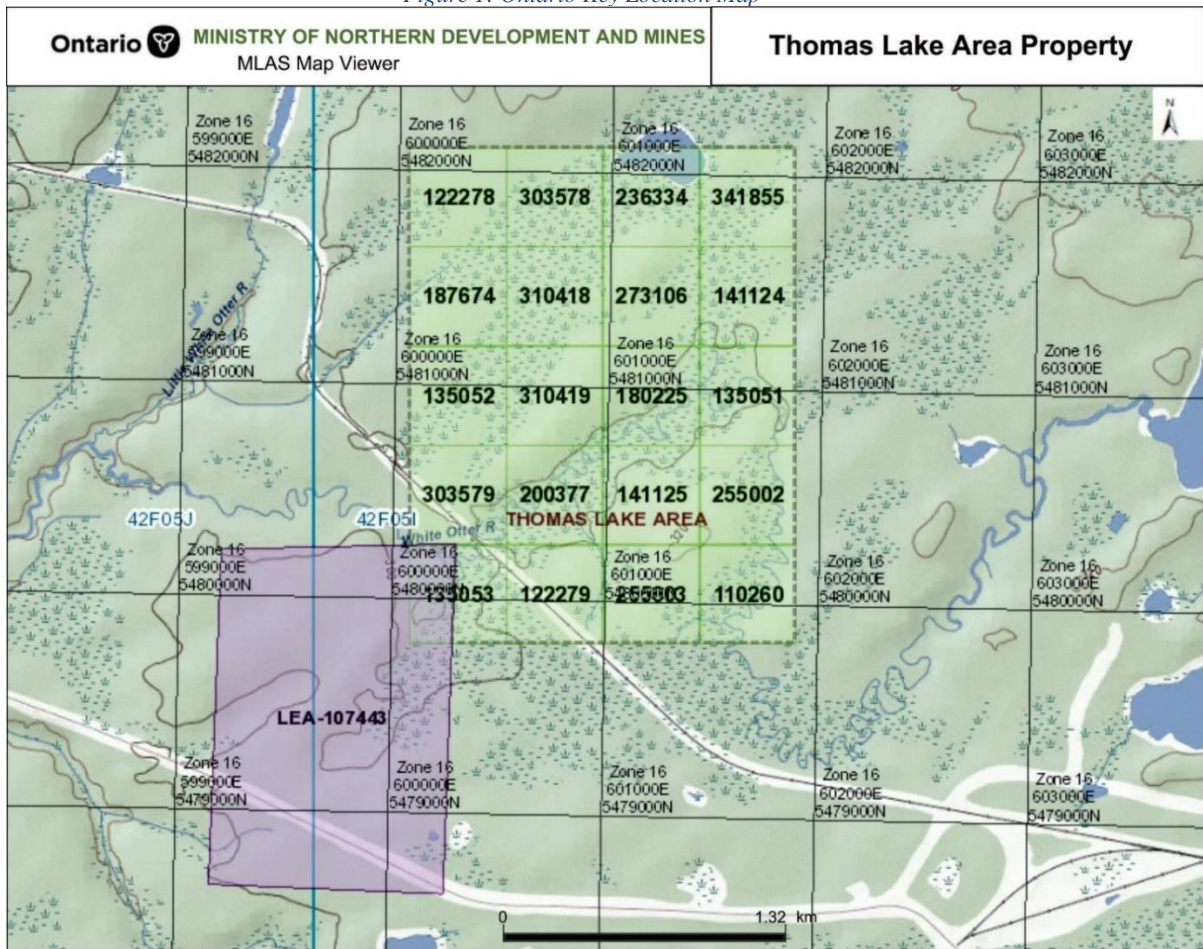
Thunder Bay Mining Division – AECON MINING INC. Cell Claims

Area	Cell Claim Number	Recording Date	Due Date	Bdy. Cell	Percent	Work Required
THOMAS LAKE	122278	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	303578	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	236334	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	341855	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	187674	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	301418	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	273106	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	141124	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	135052	04/10/2018	06/27/2019	No	100%	\$400



THOMAS LAKE	310419	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	180225	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	135051	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	303579	04/10/2018	06/27/2019	YES	100%	\$200
THOMAS LAKE	200377	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	141125	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	255002	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	135053	04/10/2018	06/27/2019	Yes	100%	\$200
THOMAS LAKE	122279	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	255003	04/10/2018	06/27/2019	No	100%	\$400
THOMAS LAKE	110260	04/10/2018	06/27/2019	No	100%	\$400

Figure 1: Ontario Key Location Map



### PREVIOUS WORK DONE BY OTHERS

Other than the extraction of mafic rock at the quarry site there is no other documented historical work done by others within the cell claims.

Figure 2 Property Location Map 2019

# GEOLOGY

## Regional Geology

The area of prospecting represents a portion of the Abitibi Dikes that trend in a northeast direction. The longest Abitibi dike extends over 600 kilometers in length.

Abitibi dikes are compositionally distinct from other dikes as is apparent from most trace element plots (e.g., Figures 14c and 14d) This dike sample contains less than 45% SiO<sub>2</sub>, low Ni, Cr (Figure 16d) and significantly higher TiO<sub>2</sub> plus Zr/Y and La/Yb (e.g., Figure 17a) ratios compared to other dike swarms. Ontario Geological Survey, Open File Report 6171.

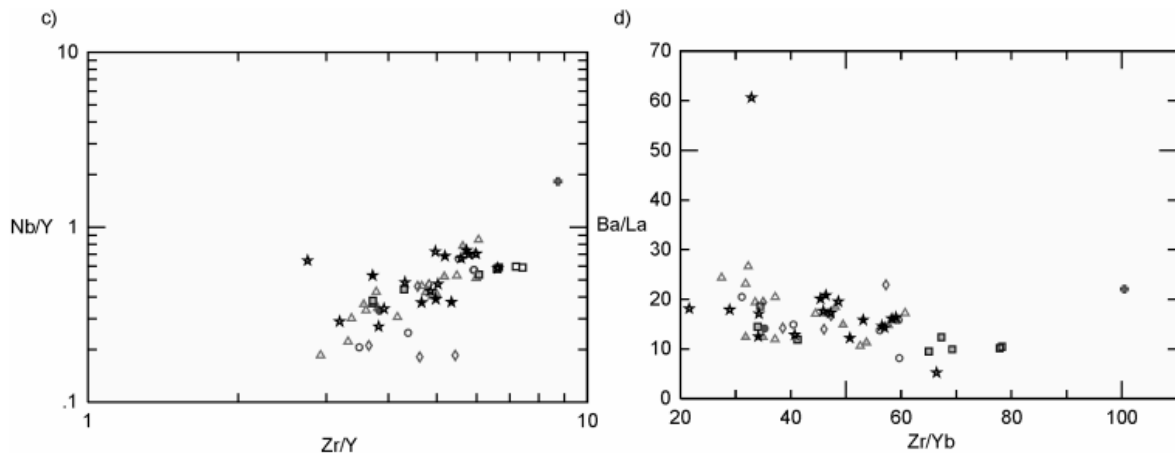
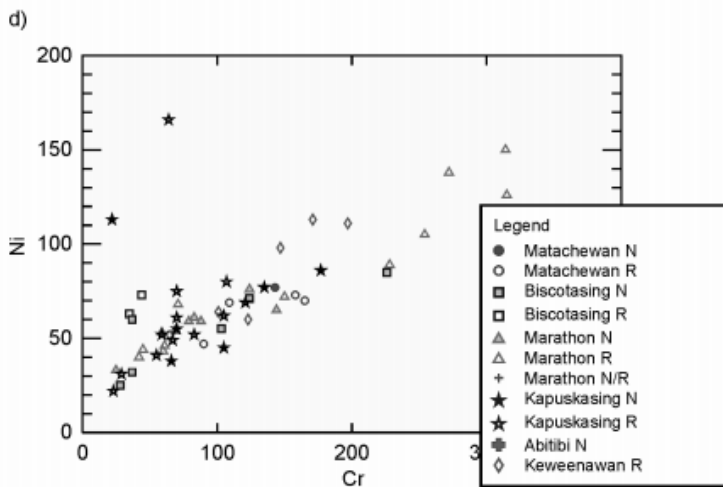


Figure 14. Selected plots of trace elements for the dike swarms, illustrating some limited discrimination among some of the dike swarms.



## Geology of the Sampled Area

The program focused the sampling of the existing quarry walls that showed visible mineralization was observed as rusty burns, on both the southeast and northwest locations. A traverse (approximately 45°) was completed in a northeast strike direction with the intent of following the Abitibi Mafic Dike and confirming its continuity northeast of the quarry site. This was the locus of prospecting and geological evaluation.

### ABITIBI DIKES Summary

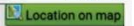
The Abitibi Dykes are composed of olivine gabbro. They are not metamorphosed. Their patina is brown, and their fresh surface is greenish. The rock is composed of plagioclase, augite, olivine, titanomagnetite and ilmenite (Ernst and Bell, 1992). Accessory, interstitial minerals are K-feldspar, apatite and biotite. Trace minerals are baddeleyite and zircon. In the presence of very thick dykes (>140 m), there are two units: 1) a margin facies, aphanitic to coarse-grained; and 2) a central facies, coarse to very coarse-grained (>30 mm) with a trachytic texture defined by plagioclase phenocrysts. According to the work of Ernst and Bell (1992), the modal composition of the second unit is a monzodiorite with more orthoclase and lower plagioclase calcicity (<An<sub>50</sub>).

**These dykes are distinguished from other Proterozoic gabbro dykes in the Abitibi Subprovince by a slightly alkaline signature, high levels of K<sub>2</sub>O, TiO<sub>2</sub>, P<sub>2</sub>O<sub>5</sub> and Ba, and light rare earth elements enrichment (Ernst *et al.*, 1987; Ernst and Bell, 1992).**

In Quebec, the hill east of the Anorthosite Lake (sheet 32F11) contains outcrops representative of this dyke. It ranges in thickness from 90 to 137 m. Its patina is brown and fresh surface greenish. It is medium-grained and the subophitic texture is visible in outcrop. The gabbro is composed of partially saussuritized plagioclase, fresh augite, magnetite and locally serpentinized olivine (Goutier, 2005). Accessory minerals are biotite, apatite and orthose. Alteration minerals are chlorite, serpentine, talc and epidote. The dykes at Km 295 of the James Bay Road are also associated with the Abitibi Dykes, although their orientation is almost EW. They have similar petography and geochemistry (see sample EQ02-01-07 of Ernst and Buchan, 2010, and geochemical analysis below).



**Rock sample**



NTS map-sheet number : 32N11  
 Rock sample type :  
 Sample date : 2016-08-18  
 Unique sample number : 2016067346  
 Rock sample number geologist : 16YD2172-D0  
 Note : LITHOLOGIE: I3B  
 Rock type : I3B - Diabase  
 Easting : 342578  
 Northing : 5724182  
 Zone : 18  
 Depth :  
 Location specification :  
 Extra-EXAMINE document :  
 Provenance : Géofiche outcrop  
 Index value :  
 Anomal value :  
 Significant value : 36.2 ppm Nb  
 Sulfur value : 0.04 % S  
 Comment :  
 Project number :  
 Sample characteristic : Total chemical analysis  
 Date of release : 20161122

**Analysis result**

Chemical element	Grade	Grade unit	Analysis method	Analysis result date
SiO2	45.6700000	%	Inductive coupling mass spectrometry	2016-11-24
TiO2	3.2130000	%	Inductive coupling mass spectrometry	2016-11-24
Al2O3	15.8800000	%	Inductive coupling mass spectrometry	2016-11-24
Fe2O3t	14.9800000	%	Inductive coupling mass spectrometry	2016-11-24
MnO	0.1830000	%	Inductive coupling mass spectrometry	2016-11-24
MgO	5.7400000	%	Inductive coupling mass spectrometry	2016-11-24
CaO	7.4700000	%	Inductive coupling mass spectrometry	2016-11-24
Na2O	2.9400000	%	Inductive coupling mass spectrometry	2016-11-24
K2O	1.9300000	%	Inductive coupling mass spectrometry	2016-11-24
P2O5	0.5900000	%	Inductive coupling mass spectrometry	2016-11-24
S	0.0400000	%	Inductive coupling mass spectrometry	2016-11-24
PAF	1.7800000	%	Inductive coupling mass spectrometry	2016-11-24
Cr2O3	0.0100000	%	Inductive coupling mass spectrometry	2016-11-24
Ag	< 0.3000000	ppm	Inductive coupling mass spectrometry	2016-11-24
As	0.5000000	ppm	Neutron activation	2016-11-24
Au	< 2.0000000	ppb	Neutron activation	2016-11-24
Ba	1 098.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Be	1.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Bi	< 0.1000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Br	< 0.5000000	ppm	Neutron activation	2016-11-24
Cd	< 0.5000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Ce	84.1000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Co	55.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Cr	49.0000000	ppm	Neutron activation	2016-11-24
Cs	4.1000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Cu	29.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Dy	5.6500000	ppm	Inductive coupling mass spectrometry	2016-11-24
Er	2.8600000	ppm	Inductive coupling mass spectrometry	2016-11-24
Eu	2.7300000	ppm	Inductive coupling mass spectrometry	2016-11-24
Fe	96 900.0000000	ppm	Neutron activation	2016-11-24
Ga	23.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Gd	6.8900000	ppm	Inductive coupling mass spectrometry	2016-11-24
Ge	1.4000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Hf	4.8000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Ho	1.0500000	ppm	Inductive coupling mass spectrometry	2016-11-24
In	< 0.1000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Ir	< 5.0000000	ppb	Neutron activation	2016-11-24
La	40.4000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Lu	0.3750000	ppm	Inductive coupling mass spectrometry	2016-11-24
Mo	< 2.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Na	20 000.0000000	ppm	Neutron activation	2016-11-24
Nb	36.2000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Nd	40.5000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Ni	72.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Pb	< 3.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Pr	10.2000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Rb	106.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Sb	< 0.1000000	ppm	Neutron activation	2016-11-24
Sc	18.6000000	ppm	Neutron activation	2016-11-24
Se	< 3.0000000	ppm	Neutron activation	2016-11-24
Sm	7.9100000	ppm	Inductive coupling mass spectrometry	2016-11-24
Sn	1.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Sr	701.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Ta	2.3400000	ppm	Inductive coupling mass spectrometry	2016-11-24
Tb	1.0200000	ppm	Inductive coupling mass spectrometry	2016-11-24
Th	3.5900000	ppm	Inductive coupling mass spectrometry	2016-11-24
Tl	0.3800000	ppm	Inductive coupling mass spectrometry	2016-11-24
Tm	0.3910000	ppm	Inductive coupling mass spectrometry	2016-11-24
U	0.9200000	ppm	Inductive coupling mass spectrometry	2016-11-24
V	232.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
W	1.1000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Y	28.3000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Yb	2.5500000	ppm	Inductive coupling mass spectrometry	2016-11-24
Zn	78.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24
Zr	184.0000000	ppm	Inductive coupling mass spectrometry	2016-11-24

## DESCRIPTION OF FIELD ACTIVITIES

### Prospecting and Sample Collection

On June 22<sup>nd</sup>, 2019, D. Fudge traveled from North Bay to Sudbury, picked up M. Gaudreau in Hanmer and they travelled to Hillsport (1day trip) where they settled in at the Hillsport Hilton. Hillsport is a locality in the Canadian province of Ontario, located in the Thunder Bay District north of Manitouwadge. The area has a few permanent year-round residents and is the location of a family-owned wilderness recreational lodge currently branded as the Hillsport Hillton. Time permitted the team to drive a new logging road that appeared to transect the northeast claims. Unfortunately, this forest operation hadn't reached the mining claims and the best access into the claims is by the quarry site of which the team was preauthorized to use as access.

June 23<sup>rd</sup>, 2019: Access into the claims was gained via the inactive quarry at coordinate NAD83, Zone 16 599865E, 5479607N. The prospecting traverse crossed over Mining Lease LEA-107443 into cell claim 135053 or into the SW corner of legacy claim 3002827. The Abitibi Mafic Dike was confidently followed because of its consistent width and strike direction of 43° - 45° easterly and coincident with the height of land when compared to the surrounding terrain. Also, there is a distinct contrast between the Abitibi Mafic Dike and its contacting the pegmatitic granite composed mainly of orthoclase feldspar, quartz, mica and hornblende (amphiboles). In locations observed, especially when close to the contact of the Abitibi Mafic Dike the quartz in the granite segregates to irregular shaped high purity crystal growth clusters of up to 0.5 meters. Similarly, at these same locations the orthoclase crystals are enlarged (enriched) up to 10<sup>2</sup>cm and are well clustered and sparsely distributed with biotite mica, otherwise would be of high purity. The mica content is for the most part very irregularly dispersed and rarely in clusters or of significant size, in the field observed no larger than 3cm. Same is the case with the amphibole crystals, weathering more recessively and prominently standing out against the white orthoclase on weathered surfaces. Epidote was also noted as a secondary mineral filling fractures chaotically and very predictably noted near and at both sides of the Abitibi Mafic Dike. Also noted with the epidote is 1 - 3 percent pyrite. The dike for the most part is magnetic, and its magnetic signature confidently checked with a magnet, with the exception being at the locations where epidotization has occurred which is easily identified by greater than 50% epidote content sometimes being associated with pink feldspar crystals of up to 1cm. Selected samples at these areas coincidental with pyritization are been assayed for PGE's and other precious metals in the event they host anomalous to economic grades. In places pink alteration is caused by hematite staining which presents itself sporadically within the mafic dike.

Other than significant blowdown of jack pine on the higher parts of the ridge the travers crossed the headwaters of the White Otter River and the Canadian National Railway main line west and was a technical success.

June 23<sup>rd</sup>, 2019 sample summary

Map Point	Easting NAD 83 UTM Zone 16	Northing NAD 83 UTM Zone 16	Sample #	Rock Type
1	600117	5480011	2019-HP-01	Medium grained mafic dike (diorite-gabbro) with epidote, pink feldspar and minor pyrite
2	600390	5480478	2019-HP-02	Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix
3	600697	5480778	2019-HP-03	Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor epidote
4	600731	5480873	2019-HP-04	Medium to coarse grained mafic dike (diorite-gabbro) with white feldspar and minor 1 - 2cm pink feldspar in hornblende matrix minor epidote
5	600847	5480987	2019-HP-05	Medium grained mafic dike (diorite-gabbro) with white and pink feldspar in hornblende matrix, pink colour might also be potassic alteration

During the traverse, the contact was observed at location NAD83 Zone 17 600774E, 5480987N. At this location the granite takes on a more gneissic texture in the field it's described as a fine grained gneiss (most likely fine grained phase of the Abitibi Dike intermixed with course grained, granitoid pegmatite.

June 24<sup>th</sup>, 2019: This overcast to light rain day presented the opportunity to work in the main quarry site and also wet the rocks which allowed good identification of rusty zones with were mineralized can be seen from a distance. Samples of these areas focused at each end of the quarry rock face. Great care was taken not to encroach to close to the working face which had obvious loose rock. Several samples matching basically the same rock description, listed below. As described earlier under Abitibi Dike Summary section, the dike is very similar in many aspects. Since this dike is >100m width at both ends of the quarry it can summed up as by best describing it as being a similar dike to other Abitibi Dikes in northern and eastern Ontario including Quebec. 1) a margin facies, aphanitic to coarse-grained; and 2) a central facies, coarse to very coarse-grained (>30 mm) with a trachytic texture defined by plagioclase phenocrystals. The

exception includes places where the mafic rock is not magnetic, places where epidote is pervasive and up to 50% rock matrix usually as bands of up to a meter and can be mineralized with 1-2 percent pyrite. There is a possibility of pyrrhotite however most of the time the metallics are not magnetic or look like chalcopyrite. There is obvious rust occurring with the exposed disseminations. When the rock is magnetic these minerals are typical; plagioclase, augite, olivine, titanomagnetite and ilmenite, with secondary interstitial minerals of K-feldspar, apatite and biotite. Additional larger blasted and crushed rock was sealed in pails from the waste rock piles in the event of further testing.

Later in the day the field team returned to the accommodations checked out and returned to Sudbury/North Bay which took another day of travel on June 25<sup>th</sup>, 2019.

June 24<sup>th</sup>, 2019 sample summary

Map Point	Easting NAD 83 UTM Zone 16	Northing NAD 83 UTM Zone 16	Sample #	Rock Type
1	599691	5479372	PIT-A	Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor epidote
2	599671	5479389	PIT-B	Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor epidote and fine disseminated pyrite
3	599681	5479406	PIT-C	Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor, fine disseminated pyrite
4	599892	5479753	PIT-D	Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor, fine disseminated pyrite
5	599925	5479728	PIT-E	Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor, fine disseminated pyrite
6	599949	5479706	PIT-F	Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende

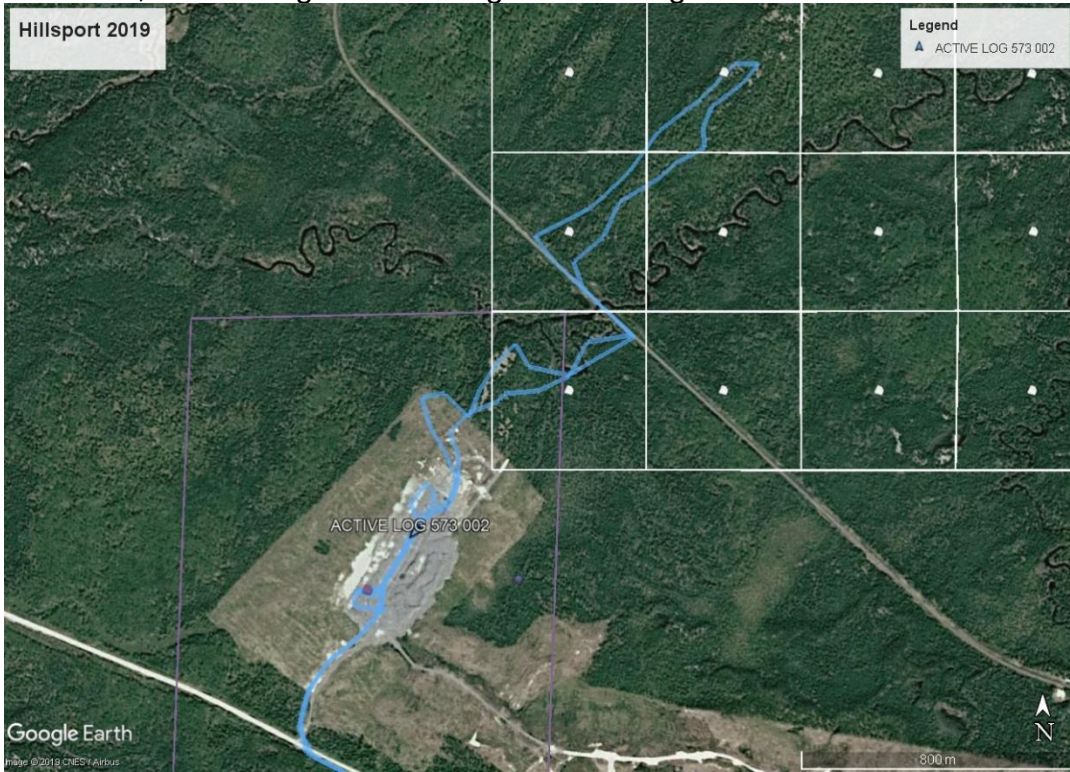


				matrix minor, fine disseminated pyrite
7	599963	5479695	PIT-G	Fly rock; very coursed grained pegmatite granite 50% very pure crystal quartz and 50% white orthoclase
8	west face mineralized composite	west face mineralized composite	PIT-H	Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor, fine disseminated pyrite

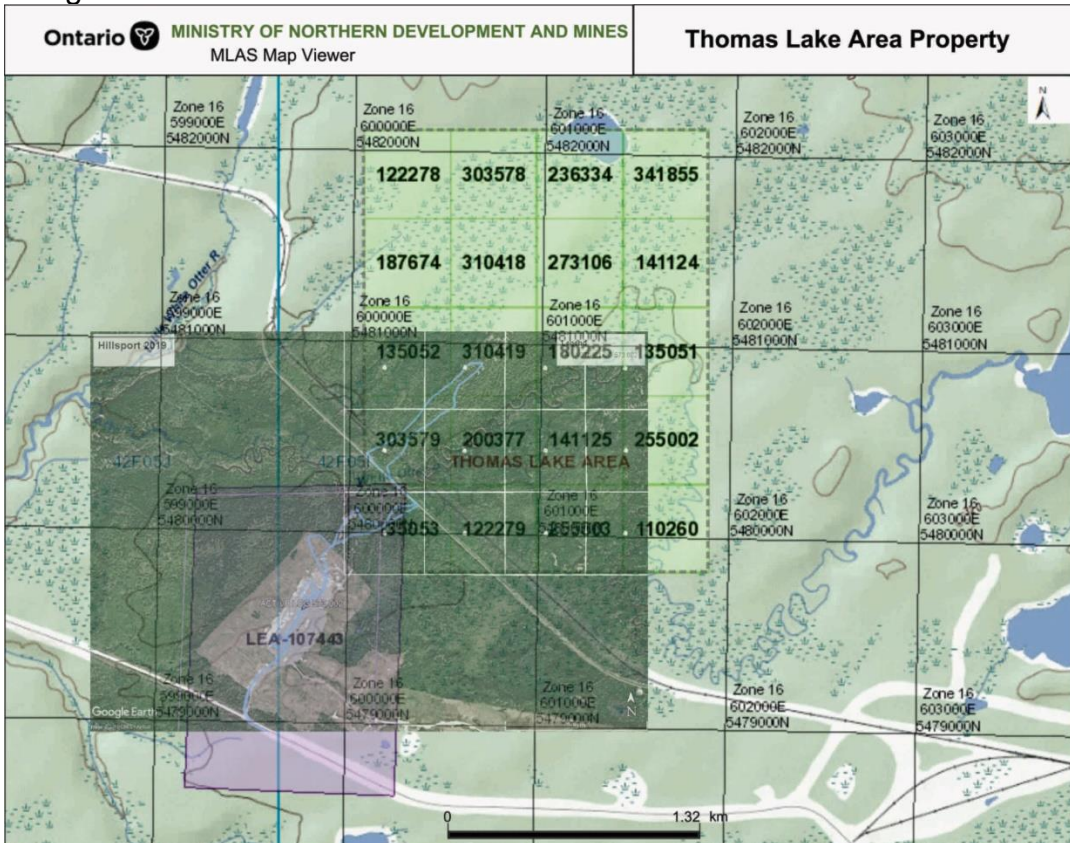
June 24<sup>th</sup>, 2019 Google Earth Image of track log from start to end of travers.



June 23<sup>rd</sup>, 2019 Google Earth Image of track log from start to end of travers.

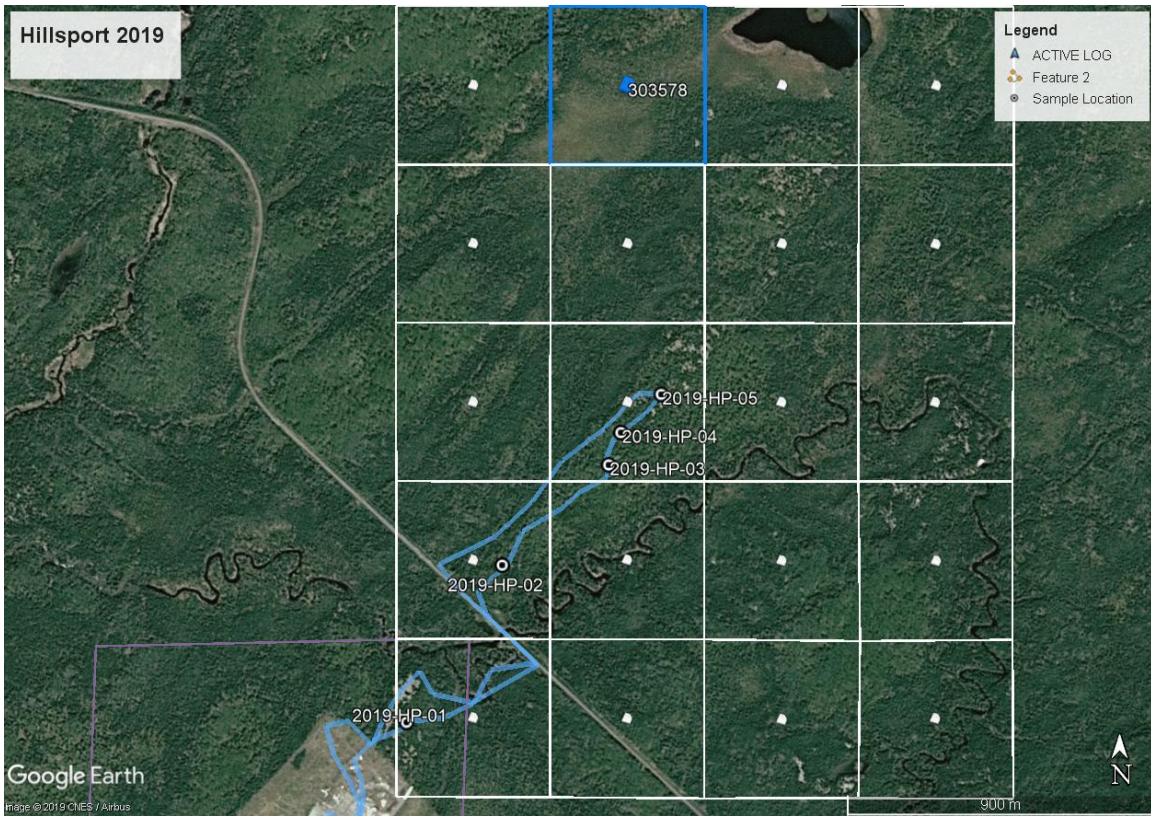


Google Earth Field GPS Track





Samples location maps, 2019 prospecting and quarry locations.





## Sample Descriptions

2019-HP-01: Medium grained mafic dike (diorite-gabbro) with epidote, pink feldspar and minor pyrite.





2019-HP-02: Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende rich matrix.





2019-HP-03: Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix with minor epidote.





2019-HP-04: Medium to coarse grained mafic dike (diorite-gabbro) with white feldspar and minor 1 - 2cm pink feldspar in hornblende matrix with minor epidote.



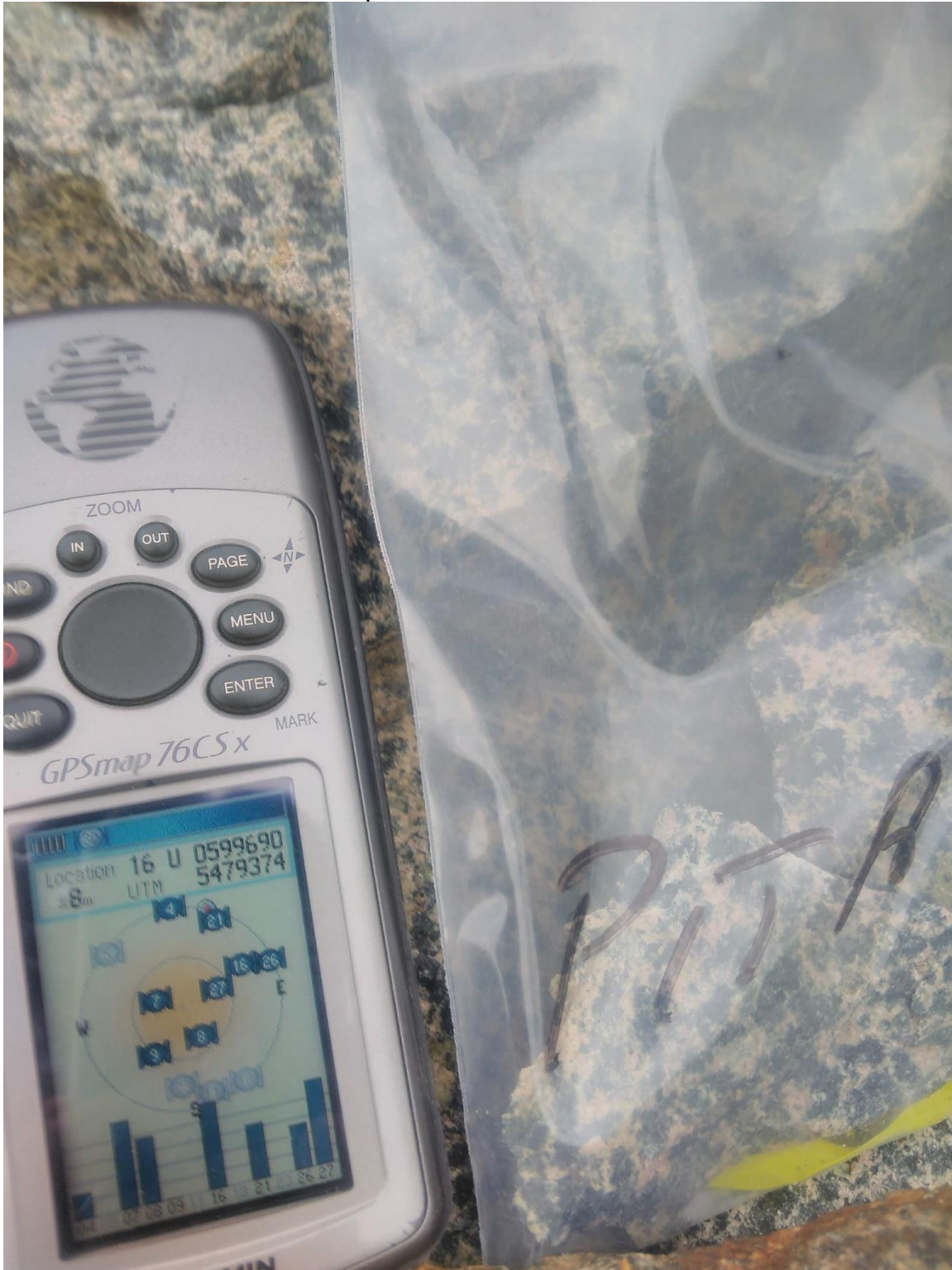


2019-HP-05: Medium grained mafic dike (diorite-gabbro) with white and pink feldspar in hornblende matrix, pink colour might also be potassic alteration.





PIT-A: Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix with minor epidote.



PIT-B: Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor epidote and fine disseminated pyrite.





PIT-C: Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor with fine disseminated pyrite.





PIT-D: Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix minor with fine disseminated pyrite.





PIT-E: Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix with minor, fine disseminated pyrite.



PIT-F: Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix with minor, fine disseminated pyrite.





PIT-G: Fly rock; very coarsed grained pegmatite granite 50% very pure crystal quartz and 50% white orthoclase.





PIT-H: Medium grained mafic dike (diorite-gabbro) with 0.5cm white feldspar in hornblende matrix with minor fine disseminated pyrite.





## CONCLUSIONS & RECOMMENDATIONS

- The prospecting site visit was a technical success in that it confirmed the continuation of the Abitibi Mafic Dike to the northeast and therefore expansion of the existing working quarry face can be confidently advanced aligned with the GPS track obtained in the field ACTIVE LOG 573 002.
- The mineralized areas geochemistry has returned no economic potential for mineralization.
- The geochemistry has confirmed that the mafic dike being extracted belongs to the Abitibi Dike group, as shown by the Ontario Geological Survey and the Quebec Énergie et des Ressources naturelles.

Confirmation of Abitibi Dike location by mapping its corridor has ascertained that with a high level of confidence the claim block can be optimized by removing cell claims that do not effectively contribute to the ongoing operations.

## REFERENCES

1. Halls, H.C., Stott, G.M. and Davis, D.W. 2005. Paleomagnetism, geochronology and geochemistry of several Proterozoic mafic dike swarms in northwestern Ontario; Ontario Geological Survey, Open File Report 6171, 59p.
2. SIGÉOM is a unique spatial reference geomining information system. It contains the entire Québec geoscientific database collected over the past 150 years. Every year, it grows richer with additional data coming from geological mapping surveys, prospection and exploration activities undertaken by the Ministry, mining companies and universities.

## APPENDIX- ASSAY CERTIFICATES





CLIENT NAME: MISC AGAT CLIENT ON, ON

ATTENTION TO: Marc Gaudreau

PROJECT:

AGAT WORK ORDER: 19T492426

SOLID ANALYSIS REVIEWED BY: Sherin Moussa, Senior Technician

DATE REPORTED: Jul 25, 2019

PAGES (INCLUDING COVER): 15

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 19T492426

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

### (200-) Sample Login Weight

DATE SAMPLED: Jul 14, 2019

DATE RECEIVED: Jul 12, 2019

DATE REPORTED: Jul 25, 2019

SAMPLE TYPE: Rock

Analyte:	Sample Login Weight
Unit:	kg
Sample ID (AGAT ID)	RDL: 0.01
SARROW-2019-02 (348378)	0.359
SARROW-2019-04 (348380)	0.602
HILLSPORT ROAD LOGGING (348382)	0.468
EAST DIKE ROAD NORTH (348384)	1.276
2019-HP-01 (348385)	0.487
2019-HP-02 (348386)	0.365
2019-HP-03 (348387)	0.695
2019-HP-04 (348388)	0.726
2019-HP-05 (348389)	0.591
HILLSPORT 2019-PIT A (348390)	0.368
HILLSPORT 2019-PIT B (348391)	0.713
HILLSPORT 2019-PIT C (348392)	1.404
HILLSPORT 2019-PIT D (348393)	1.051
HILLSPORT 2019-PIT E (348394)	1.049
HILLSPORT 2019-PIT F (348395)	0.973
HILLSPORT 2019-PIT G (348396)	1.085
HILLSPORT 2019-PIT H (348397)	0.706

Comments: RDL - Reported Detection Limit  
 Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 19T492426

PROJECT:

5623 McADAM ROAD  
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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 14, 2019

DATE RECEIVED: Jul 12, 2019

DATE REPORTED: Jul 25, 2019

SAMPLE TYPE: Rock

Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
RDL:	1	0.01	5	20	0.5	5	0.1	0.05	0.2	0.1	0.5	0.005	0.1	5
GARROW-2019-01 (348377)	<1	1.36	<5	<20	153	<5	<0.1	<0.05	<0.2	17.6	1.1	0.031	0.1	1
GARROW-2019-03 (348375)	<1	4.46	<5	<20	277	<5	<0.1	<0.05	<0.2	53.4	2.1	0.030	0.5	<
GARROW-2019-05 (348381)	<1	4.36	<5	160	538	<5	0.2	0.13	<0.2	41.8	2.3	0.032	2.8	<
EAST DIKE ROAD SOUTH (348385)	<1	7.22	<5	<20	98.6	<5	0.2	0.23	<0.2	29.6	42.5	0.008	0.7	2
2019-HP-01 (348385)	<1	8.60	<5	<20	410	<5	<0.1	5.22	<0.2	64.7	27.6	0.006	0.6	16
2019-HP-02 (348386)	<1	7.64	<5	<20	259	<5	<0.1	5.83	<0.2	44.7	51.7	0.007	1.5	47
2019-HP-03 (348387)	<1	8.05	<5	<20	346	<5	<0.1	5.50	<0.2	55.3	43.4	<0.005	0.7	20
2019-HP-04 (348388)	<1	8.00	<5	<20	302	<5	<0.1	5.62	<0.2	61.2	41.7	<0.005	1.0	19
2019-HP-05 (348389)	<1	8.67	<5	22	519	<5	<0.1	5.09	<0.2	66.7	24.1	<0.005	0.7	15
HILLSPORT 2019-PIT A (348390)	<1	7.92	<5	<20	330	<5	<0.1	6.07	<0.2	60.6	41.9	0.006	0.7	26
HILLSPORT 2019-PIT B (348391)	1	7.61	<5	<20	178	<5	0.1	6.02	<0.2	44.4	51.5	0.006	0.8	71
HILLSPORT 2019-PIT C (348392)	<1	6.81	<5	<20	260	<5	0.3	5.67	0.4	44.4	82.7	0.007	1.1	470
HILLSPORT 2019-PIT D (348393)	<1	7.35	<5	<20	237	<5	<0.1	6.00	<0.2	46.8	57.1	0.006	1.4	37
HILLSPORT 2019-PIT E (348394)	<1	8.43	6	<20	371	<5	<0.1	5.85	<0.2	69.4	35.8	<0.005	1.0	22
HILLSPORT 2019-PIT F (348395)	<1	8.45	<5	21	443	<5	<0.1	5.43	<0.2	69.6	36.1	<0.005	0.8	18
HILLSPORT 2019-PIT G (348396)	<1	7.15	<5	<20	152	<5	<0.1	1.72	<0.2	3.8	0.6	0.020	0.7	<5
HILLSPORT 2019-PIT H (348397)	<1	5.33	<5	<20	186	<5	<0.1	5.95	<0.2	49.5	73.5	0.009	1.8	50

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AGAT WORK ORDER: 19T492426

PROJECT:

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 14, 2019

DATE RECEIVED: Jul 12, 2019

DATE REPORTED: Jul 25, 2019

SAMPLE TYPE: Rock

Analyte:	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K	La	Li	Lu	
Unit:	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
Sample ID (AGAT ID)	RDL:	0.05	0.05	0.05	0.01	0.01	0.05	1	1	0.05	0.2	0.05	0.1	10	0.05
BARROW-2019-02 (348378)	2.02	1.36	0.40	0.93	5.40	1.93	<1	2	0.43	<0.2	0.92	11.6	<10	0.2	
BARROW-2019-04 (348380)	1.87	1.30	0.39	0.55	4.51	1.87	<1	5	0.41	<0.2	1.05	16.1	<10	0.2	
HILLSPORT ROAD LITCHING (348382)	0.15	0.07	0.77	0.40	12.1	0.27	<1	<1	<0.05	<0.2	3.83	4.7	10	< 0	
AGAT DIKE ROAD (348384)	7.99	2.55	2.15	11.5	25.3	8.61	2	7	1.45	<0.2	0.49	30.9	<10	0.6	
2019-HP-01 (348385)	7.16	4.06	2.73	9.42	27.3	8.46	2	8	1.39	<0.2	1.18	29.3	14	0.56	
2019-HP-02 (348386)	5.29	2.92	2.03	11.9	22.6	6.52	2	5	1.02	<0.2	0.77	20.0	13	0.37	
2019-HP-03 (348387)	6.26	3.37	2.50	10.9	24.3	7.63	2	6	1.19	<0.2	0.92	25.0	15	0.45	
2019-HP-04 (348388)	6.84	3.69	2.64	11.0	24.8	8.48	2	6	1.32	<0.2	0.83	27.6	16	0.47	
2019-HP-05 (348389)	7.18	3.91	2.71	9.21	26.2	8.69	2	8	1.39	<0.2	1.50	30.3	14	0.52	
HILLSPORT 2019-PIT A (348390)	6.88	3.78	2.59	11.3	25.1	8.08	2	7	1.34	<0.2	1.13	27.3	13	0.51	
HILLSPORT 2019-PIT B (348391)	5.24	2.88	1.89	12.2	21.7	6.31	1	5	1.01	<0.2	0.59	19.7	16	0.37	
HILLSPORT 2019-PIT C (348392)	5.31	2.91	2.00	13.6	23.0	6.51	2	5	1.02	<0.2	0.73	19.6	10	0.38	
HILLSPORT 2019-PIT D (348393)	5.66	3.02	2.14	12.2	24.6	6.77	2	5	1.10	<0.2	0.77	20.8	13	0.39	
HILLSPORT 2019-PIT E (348394)	8.31	4.55	2.87	9.85	27.1	9.72	2	7	1.60	<0.2	1.05	31.0	17	0.59	
HILLSPORT 2019-PIT F (348395)	7.75	4.17	2.87	9.43	27.8	9.51	2	8	1.49	<0.2	1.15	31.2	17	0.56	
HILLSPORT 2019-PIT G (348396)	0.14	0.10	0.51	0.26	12.8	0.19	<1	5	<0.05	<0.2	0.77	2.3	<10	<0.05	
HILLSPORT 2019-PIT H (348397)	6.25	3.34	2.09	16.0	22.8	7.51	2	6	1.19	<0.2	0.79	21.6	11	0.44	

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## Certificate of Analysis

AGAT WORK ORDER: 19T492426

PROJECT:

5623 McADAM ROAD  
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<http://www.agatlabs.com>

CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 14, 2019

DATE RECEIVED: Jul 12, 2019

DATE REPORTED: Jul 25, 2019

SAMPLE TYPE: Rock

Analyte:	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Sc	Si
Unit:	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%
RDL:	0.01	10	2	1	0.1	5	0.01	5	0.05	0.2	0.01	0.1	5	0.01
CARROW-2019-01 (348377)	0.04	<40	14	4	0.0	6	<0.01	<5	2.11	12.2	<0.01	0.1	<5	42
CARROW-2019-03 (348375)	0.05	34	14	8	23.9	6	<0.01	5	6.28	55.2	<0.01	0.2	<5	37
CARROW-2019-05 (348381)	0.49	241	15	9	15.4	7	0.04	10	4.10	120	<0.01	0.1	6	37
EAST DIKE ROAD SOUTH (348385)	2.32	1570	3	14	18.3	43	0.12	<5	3.95	16.4	0.43	0.2	25	21
2019-HP-01 (348385)	1.53	1260	3	25	36.5	15	0.14	<5	8.33	36.5	0.10	0.2	20	23.5
2019-HP-02 (348386)	2.51	1620	3	16	26.7	40	0.17	<5	5.91	33.7	0.15	0.1	28	21.0
2019-HP-03 (348387)	2.00	1580	2	20	32.3	19	0.21	<5	7.26	32.8	0.13	0.2	24	21.6
2019-HP-04 (348388)	2.01	1670	3	22	36.5	19	0.24	<5	8.10	34.1	0.13	0.2	25	21.9
2019-HP-05 (348389)	1.48	1360	3	24	38.0	14	0.20	<5	8.59	54.4	0.04	0.2	20	23.3
HILLSPORT 2019-PIT A (348390)	2.00	1740	3	24	35.0	24	0.13	<5	7.86	31.3	0.36	<0.1	25	22.5
HILLSPORT 2019-PIT B (348391)	2.56	1610	<2	16	26.4	75	0.16	<5	5.83	24.8	0.49	0.1	30	20.6
HILLSPORT 2019-PIT C (348392)	2.62	1650	3	16	26.8	424	0.16	9	5.94	28.6	1.24	0.2	30	19.6
HILLSPORT 2019-PIT D (348393)	2.67	1600	2	17	28.0	41	0.16	<5	6.15	30.6	0.19	0.1	29	21.0
HILLSPORT 2019-PIT E (348394)	1.65	1460	4	25	41.3	15	0.27	6	9.19	37.4	0.14	0.5	22	23.0
HILLSPORT 2019-PIT F (348395)	1.57	1410	3	25	41.1	16	0.24	6	9.10	35.6	0.13	0.3	20	22.7
HILLSPORT 2019-PIT G (348396)	0.03	38	14	<1	1.4	6	0.02	11	0.40	22.2	<0.01	<0.1	<5	35.5
HILLSPORT 2019-PIT H (348397)	3.57	2280	3	21	30.8	77	0.20	<5	6.63	35.7	0.29	0.1	38	19.3

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## Certificate of Analysis

AGAT WORK ORDER: 19T492426

PROJECT:

5623 McADAM ROAD  
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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 14, 2019	DATE RECEIVED: Jul 12, 2019					DATE REPORTED: Jul 25, 2019					SAMPLE TYPE: Rock				
Analyte:	Sm	Sn	Sr	Ta	Tb	Th	Ti	Tl	Tm	U	V	W	Y	Yb	
Unit:	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Sample ID (AGAT ID)	RDL:	0.1	1	0.1	0.5	0.05	0.1	0.01	0.5	0.05	0.05	5	1	0.5	0.1
BARROW-2019-02 (348378)	1.0	<1	16.3	<0.5	0.32	3.7	0.12	<0.5	0.21	1.03	13	<1	13.0	1.5	
BARROW-2019-04 (348380)	2.2	<1	16.0	<0.5	0.30	3.2	0.07	<0.5	0.20	1.10	6	<1	11.5	1.1	
HILLSPORT ROAD LICHENS (348382)	0.4	<1	355	<0.5	<0.05	0.4	<0.01	<0.5	<0.05	0.41	<5	<1	0.9	<0.1	
WASCOPIKE ROAD LICHENS (348384)	0.3	<1	608	1.7	1.35	5.2	1.55	<0.5	0.52	1.33	172	<1	37.3	3.6	
2019-HP-01 (348385)	8.2	3	367	1.7	1.26	5.9	1.29	<0.5	0.55	1.71	150	1	37.2	3.6	
2019-HP-02 (348386)	6.2	2	268	1.1	0.95	3.4	1.92	<0.5	0.39	1.03	359	<1	26.1	2.5	
2019-HP-03 (348387)	7.3	2	296	1.3	1.12	4.3	1.70	<0.5	0.46	1.22	227	<1	31.2	2.9	
2019-HP-04 (348388)	8.2	2	313	1.4	1.23	4.5	1.86	<0.5	0.50	1.29	217	<1	34.9	3.2	
2019-HP-05 (348389)	8.4	2	360	1.5	1.28	5.5	1.31	<0.5	0.54	1.74	156	<1	37.1	3.5	
HILLSPORT 2019-PIT A (348390)	7.8	2	346	1.6	1.20	5.2	1.67	<0.5	0.52	1.54	240	<1	35.0	3.4	
HILLSPORT 2019-PIT B (348391)	6.0	2	287	1.0	0.94	3.5	1.87	<0.5	0.39	1.04	378	<1	27.5	2.5	
HILLSPORT 2019-PIT C (348392)	6.2	2	241	1.0	0.96	3.5	1.92	<0.5	0.39	1.02	402	<1	27.4	2.5	
HILLSPORT 2019-PIT D (348393)	6.5	2	258	1.1	0.98	3.7	1.92	<0.5	0.42	1.10	375	<1	29.3	2.7	
HILLSPORT 2019-PIT E (348394)	9.3	3	335	1.6	1.46	5.8	1.44	0.6	0.63	1.67	158	<1	44.7	4.0	
HILLSPORT 2019-PIT F (348395)	9.2	3	360	1.6	1.38	6.1	1.33	0.6	0.56	1.79	163	<1	41.2	3.7	
HILLSPORT 2019-PIT G (348396)	0.2	2	354	<0.5	<0.05	0.1	<0.01	<0.5	<0.05	1.30	<5	<1	0.9	0.2	
HILLSPORT 2019-PIT H (348397)	7.2	2	160	1.4	1.10	3.7	3.01	<0.5	0.45	1.09	464	<1	32.0	2.9	

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## Certificate of Analysis

AGAT WORK ORDER: 19T492426

PROJECT:

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

### (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

DATE SAMPLED: Jul 14, 2019

DATE RECEIVED: Jul 12, 2019

DATE REPORTED: Jul 25, 2019

SAMPLE TYPE: Rock

Analyte:	Zn	Zr	
Unit:	ppm	ppm	
Sample ID (AGAT ID)	RDL:	5	0.5
BARROW-2019-01 (348377)	<5	0.7	
BARROW-2019-03 (348375)	6	131	
BARROW-2019-05 (348381)	17	160	
EAST DIKE ROAD SOUTH (348383)	90	121	
2019-HP-01 (348385)	64	311	
2019-HP-02 (348386)	117	181	
2019-HP-03 (348387)	102	232	
2019-HP-04 (348388)	103	245	
2019-HP-05 (348389)	101	290	
HILLSPORT 2019-PIT A (348390)	146	279	
HILLSPORT 2019-PIT B (348391)	120	193	
HILLSPORT 2019-PIT C (348392)	176	189	
HILLSPORT 2019-PIT D (348393)	118	197	
HILLSPORT 2019-PIT E (348394)	131	296	
HILLSPORT 2019-PIT F (348395)	120	320	
HILLSPORT 2019-PIT G (348396)	8	116	
HILLSPORT 2019-PIT H (348397)	188	224	

Comments: RDL - Reported Detection Limit  
Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 19T492426

PROJECT:

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

### Sieving - % Passing (Crushing)

DATE SAMPLED: Jul 14, 2019

DATE RECEIVED: Jul 12, 2019

DATE REPORTED: Jul 25, 2019

SAMPLE TYPE: Rock

Analyte:	Pass %
Unit:	%
Sample ID (AGAT ID)	RDL:
GARROW-2019-01 (348377)	75.32

Comments: RDL - Reported Detection Limit  
 Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:





# Certificate of Analysis

AGAT WORK ORDER: 19T492426

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CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

## Sieving - % Passing (Pulverizing)

DATE SAMPLED: Jul 14, 2019

DATE RECEIVED: Jul 12, 2019

DATE REPORTED: Jul 25, 2019

SAMPLE TYPE: Rock

Analyte:	Pass %
Unit:	%
Sample ID (AGAT ID)	RDL:
GARROW-2019-01 (348377)	87.35

Comments: RDL - Reported Detection Limit  
Analysis performed at AGAT Toronto (unless marked by \*)

Certified By:



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

(201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	REPLICATE #1				REPLICATE #2											
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD								
Ag	348377	< 1	< 1	0.0%	348388	< 1	< 1	0.0%								
Al	348377	1.96	1.97	0.5%	348388	8.00	7.71	3.7%								
As	348377	< 5	< 5	0.0%	348388	< 5	< 5	0.0%								
B	348377	< 20	< 20	0.0%	348388	< 20	< 20	0.0%								
Ba	348377	153	150	2.0%	348388	302	302	0.0%								
Be	348377	< 5	< 5	0.0%	348388	< 5	< 5	0.0%								
Bi	348377	< 0.1	< 0.1	0.0%	348388	< 0.1	< 0.1	0.0%								
Ca	348377	< 0.05	< 0.05	0.0%	348388	5.62	5.27	6.4%								
Cd	348377	< 0.2	< 0.2	0.0%	348388	< 0.2	< 0.2	0.0%								
Ce	348377	17.6	19.0	7.7%	348388	61.2	58.9	3.8%								
Co	348377	1.1	1.1	0.0%	348388	41.7	41.5	0.5%								
Cr	348377	0.031	0.0320	1.6%	348388	< 0.005	< 0.005	0.0%								
Cs	348377	0.1	0.1	0.0%	348388	1.0	0.93	3.2%								
Cu	348377	12	9	28.6%	348388	19	19	0.0%								
Dy	348377	1.16	1.14	1.7%	348388	6.84	6.77	1.0%								
Er	348377	0.78	0.724	7.3%	348388	3.69	3.66	0.8%								
Eu	348377	0.27	0.30	10.5%	348388	2.64	2.60	1.5%								
Fe	348377	0.67	0.686	2.4%	348388	11.0	10.3	6.6%								
Ga	348377	3.80	3.87	1.8%	348388	24.8	24.5	1.2%								
Gd	348377	1.26	1.30	3.1%	348388	8.48	8.34	1.7%								
Ge	348377	< 1	< 1	0.0%	348388	2	2	0.0%								
Hf	348377	2	2	0.0%	348388	6	6	0.0%								
Ho	348377	0.25	0.245	2.4%	348388	1.32	1.30	1.5%								
In	348377	< 0.2	< 0.2	0.0%	348388	< 0.2	< 0.2	0.0%								
K	348377	0.55	0.55	0.0%	348388	0.83	0.815	1.8%								
La	348377	9.0	9.8	8.5%	348388	27.6	26.4	4.4%								
Li	348377	< 10	< 10	0.0%	348388	16	16	0.0%								
Lu	348377	0.12	0.112	6.9%	348388	0.47	0.46	2.2%								
Mg	348377	0.04	0.04	0.0%	348388	2.01	2.07	2.9%								
Mn	348377	40	39	2.5%	348388	1670	1610	3.7%								
Mo	348377	14	15	6.9%	348388	3	3	0.0%								





CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

Nb	348377	4	4	0.0%	348388	22	21	4.7%									
Nd	348377	8.0	8.60	7.0%	348388	36.5	35.3	3.3%									
Ni	348377	6	7	15.4%	348388	19	20	5.1%									
P	348377	< 0.01	< 0.01	0.0%	348388	0.24	0.230	3.8%									
Pb	348377	< 5	< 5	0.0%	348388	< 5	< 5	0.0%									
Pr	348377	2.11	2.29	8.2%	348388	8.10	7.80	3.8%									
Rb	348377	12.2	12.4	1.6%	348388	34.1	32.9	3.6%									
S	348377	< 0.01	< 0.01	0.0%	348388	0.13	0.13	0.0%									
Sb	348377	0.1	0.1	0.0%	348388	0.2	0.2	0.0%									
Sc	348377	< 5	< 5	0.0%	348388	25	24	4.1%									
Si	348377	42.7	42.8	0.2%	348388	21.9	20.5	6.6%									
Sm	348377	1.4	1.49	4.8%	348388	8.2	8.1	1.2%									
Sn	348377	1	1	0.0%	348388	2	3										
Sr	348377	32.1	31.8	0.9%	348388	313	294	6.3%									
Ta	348377	< 0.5	< 0.5	0.0%	348388	1.4	1.4	0.0%									
Tb	348377	0.19	0.19	0.0%	348388	1.23	1.20	2.5%									
Th	348377	3.5	3.7	5.6%	348388	4.5	4.4	2.2%									
Ti	348377	0.09	0.09	0.0%	348388	1.86	1.73	7.2%									
Tl	348377	< 0.5	< 0.5	0.0%	348388	< 0.5	< 0.5	0.0%									
Tm	348377	0.12	0.109	7.1%	348388	0.50	0.484	3.7%									
U	348377	0.78	0.799	2.4%	348388	1.29	1.28	0.8%									
V	348377	12	12	0.0%	348388	217	219	0.9%									
W	348377	< 1	< 1	0.0%	348388	< 1	< 1	0.0%									
Y	348377	7.1	6.83	3.9%	348388	34.9	33.8	3.2%									
Yb	348377	0.8	0.74	6.5%	348388	3.2	3.13	1.9%									
Zn	348377	< 5	< 5	0.0%	348388	103	99	4.0%									
Zr	348377	66.7	73.8	10.1%	348388	245	245	0.0%									



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

## (201-378) Sodium Peroxide Fusion - ICP-OES/ICP-MS Finish

Parameter	CRM #1 (ref.SY-4)				CRM #2 (ref.WMG-1a)												
	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits									
Ag					3.03	3.14	103%	90% - 110%									
Al	10.95	10.88	99%	90% - 110%	4.75	4.71	99%	90% - 110%									
As					5.99	6.54	109%	90% - 110%									
Ba	340	336	99%	90% - 110%	216	218	101%	90% - 110%									
Be	2.6	2.9	110%	90% - 110%													
Ca	5.72	5.65	99%	90% - 110%	10.06	9.81	97%	90% - 110%									
Ce	122	114	94%	90% - 110%													
Co	2.8	2.5	89%	90% - 110%	191	209	110%	90% - 110%									
Cr					0.0804	0.078	97%	90% - 110%									
Cs	1.5	1.4	96%	90% - 110%													
Cu	7	8	115%	90% - 110%	7120	7245	102%	90% - 110%									
Dy	18.2	18	99%	90% - 110%	2.291	2.288	100%	90% - 110%									
Er	14.2	14.2	100%	90% - 110%													
Eu	2.0	1.84	92%	90% - 110%													
Fe	4.34	4.23	97%	90% - 110%	12.71	12.42	98%	90% - 110%									
Ga	35	35	99%	90% - 110%													
Gd	14	14	102%	90% - 110%													
Hf	10.6	11	104%	90% - 110%													
Ho	4.3	4.2	97%	90% - 110%													
K	1.37	1.36	99%	90% - 110%	0.1021	0.1033	101%	90% - 110%									
La	58	54	92%	90% - 110%	8.47	7.88	93%	90% - 110%									
Li	37	38	102%	90% - 110%													
Lu	2.1	2	97%	90% - 110%													
Mg	0.325	0.299	92%	90% - 110%	7.41	7.24	98%	90% - 110%									
Mn	836	781	93%	90% - 110%													
Mo					2.49	2.32	93%	90% - 110%									
Nb	13	13	100%	90% - 110%													
Nd	57	55	97%	90% - 110%	9.41	9.34	99%	90% - 110%									
Ni	9	8	89%	90% - 110%	2480	2491	100%	90% - 110%									
P					0.0731	0.0794	109%	90% - 110%									
Pb	10	10	104%	90% - 110%													



CLIENT NAME: MISC AGAT CLIENT ON

ATTENTION TO: Marc Gaudreau

Pr	15.0	13.9	93%	90% - 110%													
Rb	55	52	95%	90% - 110%													
S					3.43	3.39	99%	90% - 110%									
Sc					21.33	21.56	101%	90% - 110%									
Si	23.3	23.1	99%	90% - 110%	18.27	17.65	97%	90% - 110%									
Sm	12.7	12.2	96%	90% - 110%	2.211	2.227	101%	90% - 110%									
Sn	7.1	7.8	110%	90% - 110%													
Sr	1191	1231	103%	90% - 110%	39.0	35.9	92%	90% - 110%									
Ta	0.9	0.8	88%	90% - 110%													
Tb	2.6	2.6	101%	90% - 110%													
Th	1.4	1.3	90%	90% - 110%	1.07	1.15	108%	90% - 110%									
Ti	0.172	0.164	95%	90% - 110%	0.419	0.402	96%	90% - 110%									
Tm	2.3	2.2	94%	90% - 110%													
U	0.8	0.8	104%	90% - 110%													
V	8	7	92%	90% - 110%	158	169	107%	90% - 110%									
Y	119	115	97%	90% - 110%	12.67	12.86	102%	90% - 110%									
Yb	14.8	14.5	98%	90% - 110%													
Zn	93	87	93%	90% - 110%	112	108	97%	90% - 110%									
Zr	517	563	109%	90% - 110%													





## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON  
 PROJECT:  
 SAMPLING SITE:

AGAT WORK ORDER: 19T492426  
 ATTENTION TO: Marc Gaudreau  
 SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Sample Login Weight	MIN-12009		BALANCE
Ag	MIN-200-12049		ICP-MS
Al	MIN-200-12001/MIN-200-12049		ICP/OES
As	MIN-200-12049		ICP-MS
B	MIN-200-12001/MIN-200-12049		ICP/OES
Ba	MIN-200-12001/MIN-200-12049		ICP/OES
Be	MIN-200-12001/MIN-200-12049		ICP/OES
Bi	MIN-200-12049		ICP-MS
Ca	MIN-200-12001/MIN-200-12049		ICP/OES
Cd	MIN-200-12049		ICP-MS
Ce	MIN-200-12049		ICP-MS
Co	MIN-200-12049		ICP-MS
Cr	MIN-200-12001/MIN-200-12049		ICP/OES
Cs	MIN-200-12049		ICP-MS
Cu	MIN-200-12001/MIN-200-12049		ICP/OES
Dy	MIN-200-12049		ICP-MS
Er	MIN-200-12049		ICP-MS
Eu	MIN-200-12049		ICP-MS
Fe	MIN-200-12001/MIN-200-12049		ICP/OES
Ga	MIN-200-12049		ICP-MS
Gd	MIN-200-12049		ICP-MS
Ge	MIN-200-12049		ICP-MS
Hf	MIN-200-12049		ICP-MS
Ho	MIN-200-12049		ICP-MS
In	MIN-200-12049		ICP-MS
K	MIN-200-12001/MIN-200-12049		ICP/OES
La	MIN-200-12049		ICP-MS
Li	MIN-200-12001/MIN-200-12049		ICP/OES
Lu	MIN-200-12049		ICP-MS
Mg	MIN-200-12001/MIN-200-12049		ICP/OES
Mn	MIN-200-12001/MIN-200-12049		ICP/OES
Mo	MIN-200-12049		ICP-MS
Nb	MIN-200-12049		ICP-MS
Nd	MIN-200-12049		ICP-MS
Ni	MIN-200-12001/MIN-200-12049		ICP/OES
P	MIN-200-12001/MIN-200-12049		ICP/OES
Pb	MIN-200-12049		ICP-MS
Pr	MIN-200-12049		ICP-MS



## Method Summary

CLIENT NAME: MISC AGAT CLIENT ON

AGAT WORK ORDER: 19T492426

PROJECT:

ATTENTION TO: Marc Gaudreau

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Rb	MIN-200-12049		ICP-MS
S	MIN-200-12001/MIN-200-12049		ICP/OES
Sb	MIN-200-12049		ICP-MS
Sc	MIN-200-12001/MIN-200-12049		ICP/OES
Si	MIN-200-12001/MIN-200-12049		ICP/OES
Sm	MIN-200-12049		ICP-MS
Sn	MIN-200-12049		ICP-MS
Sr	MIN-200-12001/MIN-200-12049		ICP/OES
Ta	MIN-200-12049		ICP-MS
Tb	MIN-200-12049		ICP-MS
Th	MIN-200-12049		ICP-MS
Ti	MIN-200-12001/MIN-200-12049		ICP/OES
Tl	MIN-200-12049		ICP-MS
Tm	MIN-200-12049		ICP-MS
U	MIN-200-12049		ICP-MS
V	MIN-200-12001/MIN-200-12049		ICP/OES
W	MIN-200-12049		ICP-MS
Y	MIN-200-12049		ICP-MS
Yb	MIN-200-12049		ICP-MS
Zn	MIN-200-12001/MIN-200-12049		ICP/OES
Zr	MIN-200-12049		ICP-MS
Pass %			BALANCE