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2022 ASSESSMENT REPORT

On the

NIPISSING LORRAIN PROPERTY

South Lorrain and Lorrain Townships, Kirkland Mining Division, Ontario, Canada

Located Within:

NTS Sheet 31M04I/31M03L

Centered at Approximately:

Latitude 47°12'43.58" North by Longitude 79°27'22.08" West

Report Prepared For:

Quantum Battery Metals Corp.

800-1199 West Hastings St.

Vancouver, BC, Canada

V6E 3T5

Report Prepared by:

Longford Exploration Services Ltd.

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Vancouver, BC, Canada, V6C 2G8

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EFFECTIVE DATE: June 31, 2023

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1 Summary

1.1 Introduction

This technical report provides the results of a prospecting and geochemical soil survey carried out over the Nipissing Lorrain Property (the Property) for Quantum Battery Metals Corp. (formerly known as Quantum Cobalt Inc.) a Canadian company involved in mineral exploration and development. The Property is located in southeastern Ontario, Canada in the Sudbury Mining Division. The purpose of this report is to fulfill the annual work requirements on the Nipissing Lorrain Property.

The Nipissing Lorrain Property is characteristic of a Five-Element Vein style of mineralization.

1.2 Property Description

The Nipissing Lorrain Property is located 26 km southeast of the town of Cobalt, near the eastern border of Ontario. Cobalt is the epicentre of past Cobalt mining in Ontario. The district is mining friendly, with a rich history of cobalt and silver production. The Property consists of 38 mineral claims located in the Timiskaming Mining Division totalling 832 hectares (ha). The claims currently show in the online registry as being owned 100% by Quantum Cobalt Inc. (now known as Quantum Battery Metals Corp.).

1.3 Geology

The Nipissing Lorrain Property area is located 26 km south of the historic Cobalt silver mines which includes historically significant Keeley-Frontier, Haileybury, and Bellellen mines. The mines are located in the eastern portion of the Cobalt Embayment and are characterized by Archean meta-volcanics and meta-sedimentary rocks which are unconformably overlain by Proterozoic rocks of the Huronian Supergroup. The Archean and Proterozoic rocks have been intruded by Nipissing Diabase sills on a regional scale, and its distribution may be structurally influenced by faults. A significant regional southeast trending fault system is located within the area and consists of the Montreal River, Cross Lake, and Timiskaming faults. This fault system is believed to be related to mineralization as most of the Ag-Co occurrences in the Cobalt Embayment are concentrated between Cross Lake and Montreal River faults.

The Property overlies the Nipissing diabase sill rocks which outcrop on the Temiskaming lakeshore. A basin-structure is formed by these intrusive rocks and exhibits an east-west trending axis. Underlying this unit is the Cobalt Group sedimentary suite of greywackes and conglomerates of Huronian age which pinch out between the overlying diabase and the underlying Keewatin lava complex. Intruding into the Keewatin lava complex are pre-Huronian age lamprophyre dykes and Algoman granites.

1.4 Mineralization

The Nipissing Lorrain Property has a similar style of mineralization to the Cobalt Silver Mines, which is related to the Nipissing Diabase intrusion and is fault controlled. The typical style of mineralization is consistent with the Five-Element (Co-Ni-As-Ag-Bi) vein assemblage. It has been suggested that the origin and mechanism driving this style of mineralization is related to one of the following: (1) metal-rich aqueous fluids originating from late stage differentiation of the diabase sills and or the parent magma at depth; (2) convectively circulating fluids mobilized from the country rocks during cooling of the diabase intrusive complex; or (3) hydrothermal fluids originating from an unidentified external source unrelated to the diabase contact areas, simply acted as a mechanically favourable host environment during regional faulting.

Cobalt, silver and nickel mineralization occurs over a number of fracture zones and veins within the property. Mineralization is associated with calcite veins within close proximity to diabase sills which occurs as Co-Fe-Ni arsenides, argentite, niccolite and native silver. Silver grades up to 261 g/t, and Cobalt grades up to 14.75% have been reported on the Property.

Mineralization exists in a number of structural orientations throughout the Property. However, it appears to be discontinuous and of a pinch and swell nature. The biggest resource on the Property (staples vein) occurs at the intersection between two crosscutting veins.

1.5 Status of Exploration

Mining and exploration have been sporadic over the Property since 1925. The first shafts were sunk into staples vein in 1925 by Nipissing Mining Co. Ltd. Underground mining continued until 1940 with numerous shafts and 5 levels developed. Total production is reported as 2,507 kg Co, 1597 kg Ni and 10,886 kg Ag from 122 tonnes.

During the 2017 program, the focus was on historical works and their potential for further development. Historical shafts and drifts were visited, and waste dumps analyzed. Samples were taken with visible cobalt bloom in calcite veins, Ag-Co-Ni arsenites, malachite and chalcopyrite. Further rock or bulk samples would be necessary to delineate any average grades within the dump. The highest values returned among rock samples were 83,310 ppm Co, 38, 950 ppm Ni, and 27,550 ppm Cu, all collected within the smaller property area to the east of the main property. Samples returning highest values were all located within the Nipissing Lorrain Quartz Diabase intrusion; and 8 of the 15 samples collected returned values > 10,000 ppm cobalt.

During the 2021 program three previously unsampled historical shafts were located and sampled in addition to waste dumps. The area is characterized by areas of extensive overburden coverage, including abundant large boulders, however, higher elevation ground provides considerable outcrop exposure locally. A total of 19 representative rock samples were collected within the boundaries of the main Property claim block and a total of 38 soil samples were collected within the boundaries of the smaller claim block.

1.6 2022 Exploration Program

At the request of Quantum Battery Metals Corp., Longford Exploration Services Ltd. mobilized a crew of four people, consisting of Marc-Andre Pelletier, Ryan Versloot, Francis Thompson, and Avery Lessard on May 26, 2022, to complete a 5-day rock and soil sampling program on the Nipissing Lorrain Property from May 27 to June 2, 2022. In total, 20 rock samples and 164 soil samples were collected across the Property.

An assessment credit of **$43,463.75** is to be applied to this Property for work performed in 2022.

1.7 Conclusions and Recommendations

Prospecting and soil sampling activities on the Nipissing Lorrain Property in 2022 has identified anomalous cobalt values within the smaller claim block (rock samples) of the Property. All rock samples were collected within the waste dump pile within the smaller claim block. The best rock sample assays were found in rock Samples 2556432 and 2556438, which returned a value of 2,000 ppm Co and 1,666.8 ppm Co, respectively. The soil sampling survey returned disappointing results overall.

Rock samples collected from the waste dump within the smaller claim block returned elevated concentrations of cobalt, silver, bismuth, nickel, copper, arsenic, and gold. Cobalt values ranged between 15.40 ppm Co and 2,000 ppm Co, silver returned 48 ppb Ag to 29,654 ppb Ag, bismuth ranged between 0.05 ppm Bi and 155.08 ppm Bi, nickel returned between 21.70 ppm Ni and 3,578.50 ppm Ni, copper returned between 16.73 ppm and 861.17ppm Cu, arsenic returned between 5.20 ppm As and > 10,000 ppm As, and gold ranged between 0.02 ppb Au and 75.5 ppb Au.

With regards to the values returned from the 164 soil samples collected on the Property in 2022, cobalt values ranged between 0.4 ppm Co and 118.80 ppm Co, silver ranged between 5 ppb Ag and 466 ppb Ag, bismuth returned between 0.07 ppm Bi to 0.90 ppm Bi, copper returned between 2.35 ppm Cu and 312.85 ppm Cu, arsenic ranged between 0.5 ppm and 47 ppm As, and nickel returned between 0.9 ppm Ni and 110.30 ppm Ni. Comparing these values to the 97.5th percentile of all samples collected on the Property to date (202 soils) only one sample returned anomalous values of bismuth (Sample 3295868 returned 0.90 ppm Bi).

Based on observations made in the field along with assay results for both rock and soils during the 2021 and 2022 field programs, no significant signs of cobalt mineralization have been identified, therefore, no further work is recommended at this time.

2 Introduction and Terms of Reference

2.1 Issuer

The Issuer of this report is Quantum Battery Metals Corp. with offices located at 800-1199 West Hastings St., Vancouver, British Columbia, Canada, and trades on the Canadian Securities Exchange (CSE) under the symbol QBAT.

2.2 Terms of Reference

In March 2022 Longford Exploration Services Ltd. (Longford) was commissioned by Quantum to conduct a prospecting and soil sampling program on the Nipissing Lorrain Property in southeast Ontario, Canada to further assess the Property's prospectivity for cobalt mineralization. This Report is intended to be read in its entirety.

2.3 Sources of Information

The author has used Ontario's Ministry of Northern Development and Mines (MNDM) publicly available information resources found online at http://www.mci.mndm.gov.on.ca for historical property assessment reports and mineral tenure information as well as the Ontario Geological Survey's digital publication database found online at http://www.geologyontario.mndm.gov.on.ca/ for regional geological data and mineral occurrence information. Climate information was obtained from Environment Canada, population and local information for the Project area was obtained from http://en.wikipedia.org/wiki/Temagami.

Assessment reports found in the MNDM database with information pertaining to the project can be found in Section 13: References.

2.4 Abbreviations and Units of Measurement

Metric units are used throughout this report and all dollar amounts are reported in Canadian Dollars (CAD$) unless otherwise stated. Coordinates within this report use EPSG 26917 NAD83 UTM Zone 17N unless otherwise stated. The following is a list of abbreviations which may be used in this report:

Table 2.1 Abbreviations and Units of Measurement.

Description	Abbreviation or Acronym
percent	%
three dimensional	3D
Ontario Mining Act	Act
silver	Ag
area of interest	AOI
gold	Au
degrees Celsius	°C
circa	ca.
Canadian dollar	CAD$
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
centimetre	cm
copper	Cu
diamond drill hole	DDH
east	E
electromagnetic	EM
European Petroleum Survey Group	EPSG
degrees Fahrenheit	°F
gram	g
grams per tonne	g/t
billion years ago	Ga
Global Positioning System	GPS
greenstone-hosted quartz-carbonate	GQC
Geological Survey of Canada	GSC
gigawatt hours	GWh
hectare	ha
kilogram	kg
kilometre	km
kilometres per hour	km/hr
potassium feldspar	K-spar
kilovolt	kV
Longford Exploration Services Ltd.	Longford Exploration
metre	m
million years ago	Ma
metres above sea level	masl
Mineral Lands Administration System	MLAS
millimetre	mm
mobile metal ion	MMI
Ministry of Energy, Northern Development and Mines	MNDM
molybdenum	Mo
million ounces	Moz
megapascal	MPa
million tonnes	Mt

Description	Abbreviation or Acronym
Nipissing Lorrain Property	The Property
north	N
not applicable	n/a
North American Datum	NAD
nickel	Ni
net smelter return	NSR
National Topographic System	NTS
Ontario Geological Survey	OGS
ounce	oz
ounces per tonne	oz/t
platinum-group elements	PGE
Professional Geoscientist	P. Geo.
parts per billion	ppb
parts per million	ppm
quality assurance/quality control	QA/QC
qualified person	QP
QCV	Quartz Carbonate Vein
south	S
tonne	t
to be determined	TBD
Universal Transverse Mercator	UTM
very low frequency	VLF
volcanogenic massive sulphide	VMS
Versatile Time Domain Electromagnetic	VTEM
west	W
World Geodetic System	WGS
zinc	Zn

3 Property Description and Location

3.1 Location

The Nipissing Lorrain Cobalt Property (Figure 3.1) is located 26 km southeast of the town of Cobalt near the eastern border of Ontario. Cobalt is the epicentre of past Cobalt mining in Ontario. The district is mining friendly, with a rich history of cobalt and silver production.

Figure 3.1: Nipissing Lorrain Property Location.

3.2 Mineral Titles

The Property consists of 38 mineral claims (Figure 3.2) located in the Timiskaming Mining Division totalling 832 hectares (ha). The claims currently show in the online registry as being owned 100% by Quantum Battery Metals Corp. (Table 3.1).

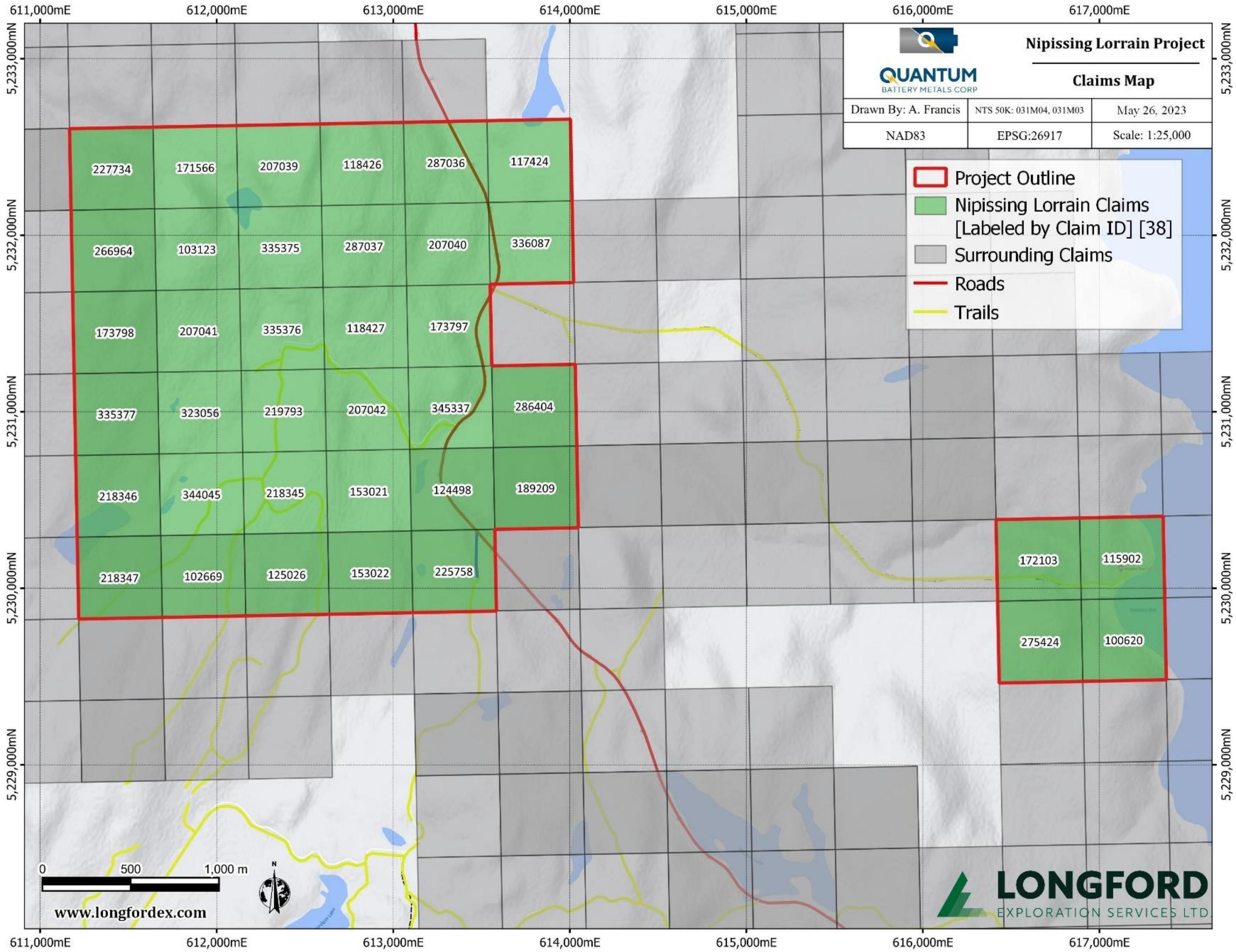

Figure 3.2: Nipissing Lorrain Property Claims.

Table 3.1: Mineral Tenure Summary Table.

Claim ID	Status	Owner	Issue Date	Anniversary Date
102669	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-28
103123	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
117424	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-28
118426	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
118427	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
124498	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
125026	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-28
153021	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
153022	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-28
171566	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
173797	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
173798	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
189209	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-28
207039	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
207040	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
207041	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
207042	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
218345	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
218346	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
218347	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-28
219793	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
225758	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-28
227734	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-30
266964	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2023-06-30
286404	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-28
287036	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2023-06-30
287037	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2023-06-30
323056	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2023-06-30
335375	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2023-06-30
335376	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2023-06-30
335377	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2023-06-30
336087	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2024-06-28
344045	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2023-06-30
345337	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2023-06-30
100620	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2025-06-08
115902	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2025-06-08
172103	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2025-06-08
275424	Active	(100) Quantum Battery Metals Corp.	2018-04-10	2025-06-08

3.3 Property Legal Status

The Ontario Mining Lands website (https://www.mci.mndm.gov.on.ca) confirms that all claims of the Property as described in Table 3.1 were in good standing at the date of this report and that no legal encumbrances were registered with the Ministry of Northern Development and Mines against the titles at that date. The author makes no assertion with regard to the legal status of the Property. The Property has not been legally surveyed to date and no requirement to do so has existed.

There are no other royalties, back-in rights, environmental liabilities, or other known risks to undertake exploration.

3.4 Mining Claims in Ontario

The holder of an Ontario Prospector's License may prospect or stake a mining claim on crown land, or private property where the crown has mineral rights that is open for staking.

Mining claims in Ontario transitioned to online staking using a map designation system in April of 2018. All active, unpatented claims were converted from their legally defined location by post location to a cell-based grid. Mining claims are now legally defined by their cell position on the MLAS Map Viewer grid coordinates. Mining claim staking and registration is now completed online using the MLAS system and paying a $50 registration fee per cell. Up to 50 single-cell claims may be registered at one time provided that each cell claim being registered shares at least one boundary with the cell of another cell claim being registered. Multi-cell claims must be registered separately and may consist of a maximum of 25 cell units, of which each cell must share a least on cell boundary with another cell in the claim.

The government of Ontario requires expenditures of $400 per year per cell claim and $200 per boundary cell claim unit prior to expiry to keep the claims in good standing for the following year. The assessment report must be submitted by the expiry date using the online MLAS system.

The holder of a mining claim may obtain a mining lease for that claim though surface rights provisions under the Ontario Mining Act control the activity as work progresses. Surface rights may be sold or granted to a mining operation if they are necessary to carry out mining operations.

3.5 Permitting

The Ontario Mining Act requires an Exploration Permit or Plans for exploration on Crown Lands. The permit and plans are obtained from the MNDM. The processing periods are 50 days for a permit and 30 days for a plan while the documents are reviewed by MNDM and presented to the Aboriginal communities whose traditional lands will be impacted by the work. Quantum Battery Metals Corp. does not have any permits or applications in place at the time of writing.

4 Accessibility, Infrastructure and Climate,

4.1 Accessibility

The Property is accessible by road, 26 km from Cobalt (Figure 4.1). Starting in North Cobalt, follow Highway 567 to silver centre. After travelling 26.85 km, turn left on maiden road and continue for a further 4.35 km. The road passes through the Property with staples vein visible on the right-hand side of the road. Past production makes power and infrastructure abundant within the area.

Road distances from the Property to select cities and ports are summarized in the following Table:

Table 4.1 Driving Distances to the Property.

Location (population)	Description	Road Distance (km)
Cobalt (pop. 1, 118)	Nearest city with services	26
Ottawa (pop. 934, 240)	Nearest international airport	546
North Bay (51, 553)	Mining service centre	182.3
Thunder Bay (pop. 110,000)	Port, mining service center	983

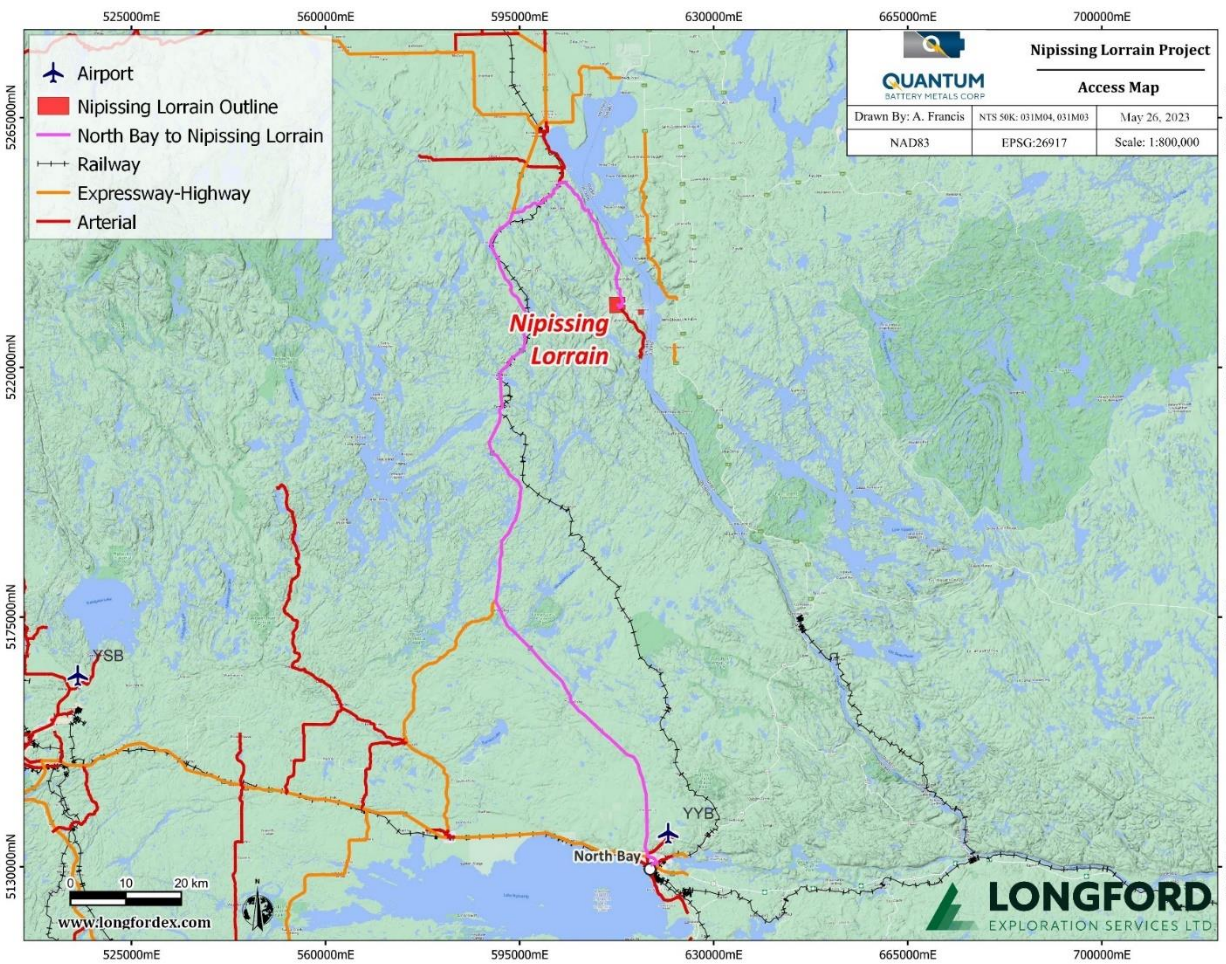

Figure 4.1: Nipissing Lorrain Property Accessibility.

4.2 Climate

There is a local weather observation station located nearby in North Bay. The project area has a humid continental climate typical of the Canadian Shield region with cold, dry winters (34 days below -20°C, 273 cm snowfall). Summers are typically warm with highs of 35°C in July. Average annual rainfall is 775 mm with September being the wettest month and February the driest.

4.3 Local Resources

General and skilled labour is readily available in the City of North Bay (population 51,553). The city is located 182.3 km by road from the project area, and offers year-round charter service, Ontario Provincial Police detachment, ambulance, fuel, lodging, restaurants, and equipment. The closest hospital is located in Temiskaming Shores, 47.8 km north of the claims. LTE cellular service covers the majority of the Property area.

4.4 Infrastructure

The Lower Notch Generating Station is located near the project area, 9.7 km south of Silver Center, Ontario. This station operates a 274 MW capacity transmission line which carries power to eastern areas of Ontario and western areas of Quebec.

4.5 Topography and Vegetation

The Property lies approximately 200 to 400 meters above sea level (asl), with variable rocky terrain, rolling bedrock hills and locally steep ledges and cliffs that are separated by clay and glacial till filled valleys. This area is typical of boreal regions with a predominantly coniferous and mixed-wood forest. The predominant tree species include black and white spruce, jack pine, balsam fir, tamarack, eastern white cedar, poplar, white birch, and alder.

Figure 4.2: Nipissing Lorrain Characteristic Topography over the Small Claim Block.

5 History

5.1 Historical Exploration

Mining and exploration have been sporadic over the Property since 1925 (Table 5.1). The first shafts were sunk into staples vein in 1925 by Nipissing Mining Co. Ltd. Underground mining continued until 1940 with numerous shafts and 5 levels developed. Total production is reported as 2,507 kg Co, 1,597 kg Ni and 10,886 kg Ag from 122 tonnes.

From 1961 until 1967, further exploration, sampling and geophysics programs were completed (Figure 6.1). Since then, bulk sampling has been completed on the Staples vein waste pile in 1982 and 1994, which returned bulk sampling grades from 0.05oz/t to 1.25 oz/t Ag (per 20 lb sample) as noted in the Mineral Deposit Inventory for Ontario (MDI31M03NW00011). More recently, the Ontario Geological Survey flew an airborne magnetics survey over the Nipissing Lorrain Property area (Figure 5.1).

Table 5.1 Historical Exploration Summary.

Year	Company	Summary of Notable Work Preformed
1925-1929	Nipissing Mining Co. Ltd.	Shaft sinking and underground development, adit developed, in production
1935	H.G. Miller	Leased to H.G. Miller, in production
1961-1965	Miller Lorrain Mines Ltd.	Dewatering, DD, underground exploration, DD-3-363 ft
1966-1967	Millerfields Silver Corp. Ltd.	Dewatering, mapping, sampling, DD-7868 ft, ground geophysics
1982-1984	Royal Gold & Silver Corporation	Property acquisition, bulk sampling of waste pile
1994	Cobatec Ltd.	Assessment of waste pile

*Source: MDI31M03NW00011

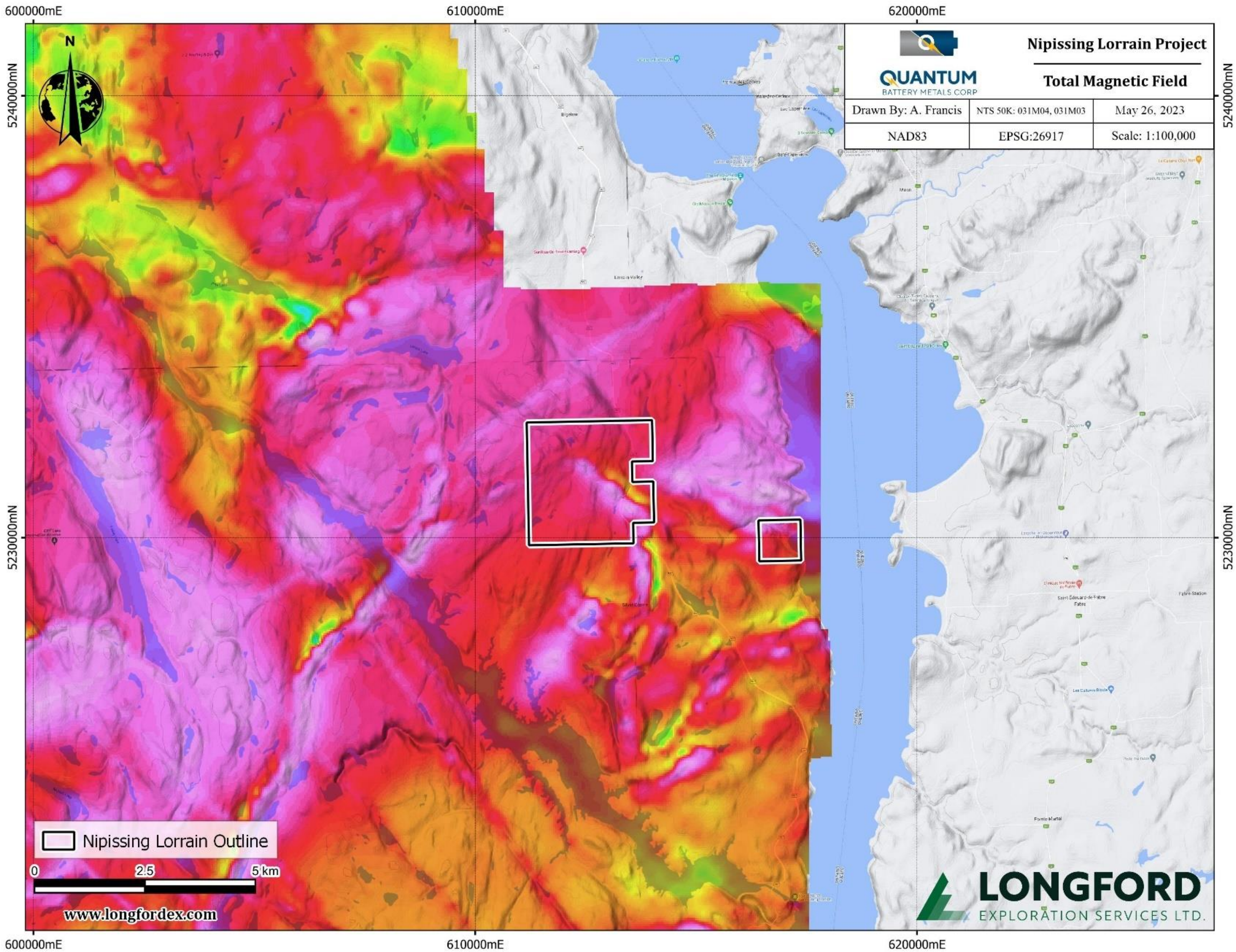

Figure 5.1:Total Magnetic Field over the Nipissing Lorrain Property (OGS 2017).

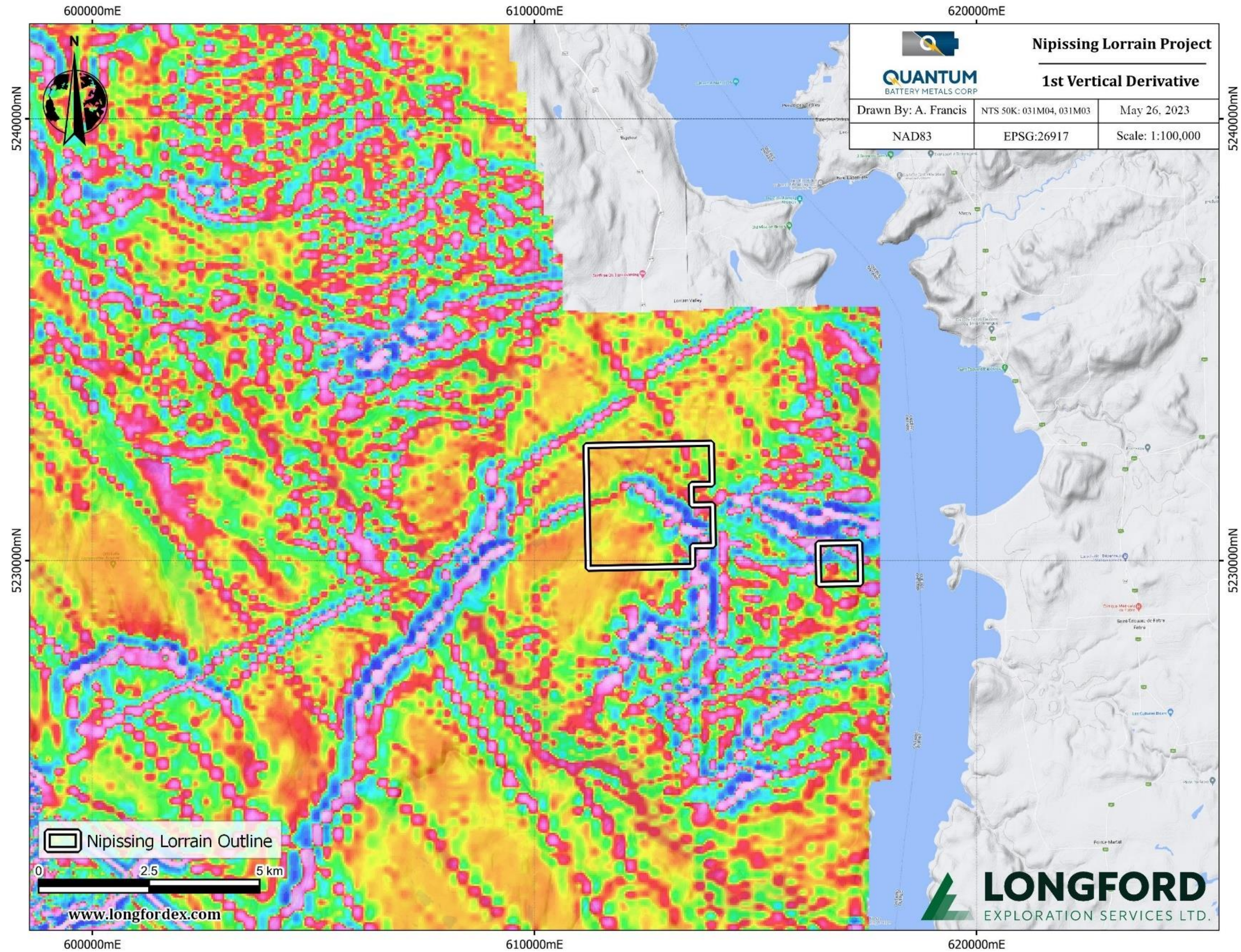

Figure 5.2: First Vertical Derivative over the Nipissing Lorrain Property (OGS 2017).

6 Geological Setting and Mineralization

6.1 Regional geology

The South Lorrain Township is located in the Archean Superior Structural Province and extends into the Southern Province. The Superior Province is the largest Archean craton within the continent of North America and consists of quartz monzonite, quartz diorite, and metamorphosed tonalite (Cookenboo et al. 2003). The last major deformational event to affect this craton occurred during the Kenoran Orogen which took place more than 2.70 Ga (Cookenboo et al. 2003). The Paleoproterozoic Southern Province is comprised of the Huronian Supergroup, located within a folded belt that has been thrust northward to rest upon the Archean craton (Cookenboo et al. 2003). There are four main groups of rocks in this area: Archean basement rocks, flat lying Cobalt Group Sedimentary rocks, diabase sheets or sills and dykes, and meta-sediments (Figure 6.1).

The Temagami area was previously covered by the Laurentide Ice-Sheet, a continental-style glacier, which advanced across the area between 80,000 and 100,000 years ago (Cookenboo et al. 2003). The dominant ice-flow direction in eastern Ontario is towards the southwest and is responsible for many of the landforms that occur in the area (Cookenboo et al. 2003).

The Archean basement rocks consist of steeply dipping (Andrews et al. 1987) faulted and folded meta-volcanics and associated mafic intrusions all of which have been intruded by granitic rocks (McIlwaine 1970). Unconformably overlying the bedrock is the Cobalt Group, a sub-horizontal sedimentary group comprised of the Coleman, Firstbrook, and Lorrain formations. These sediments range from coarse to fine-grained and have variable depth-to-basement (as measured form the surface), likely due to highly irregular basement topography (Andrews et al. 1987).

Intruding all older rock units are the sills and steeply dipping dykes and plugs of the Nipissing Diabase, which have an overall composition of olivine tholeiite (Andrews et al. 1987) and includes gabbros, minor ultramafic rocks, and their green schist facie equivalents (Cookenboo et al. 2003). Regionally they form a basin or dome-like structures called the South Lorrain “diabase dome”. These intrusions are thought to be critical factors associated with the silver-cobalt mineralization in the area (McIlwaine 1970). The sills are horizontal to gently dipping and maintain a fairly uniform thickness of 300-335 m (Andrews et al. 1987) and <500 m wide (Cookenboo et al. 2003). Overlying this unit is a small belt of meta-sediments of unknown age, which are characterized by open folds. To the south of this belt are the paragneisses of the Grenville Province with overlying glacial deposits of variable thicknesses. (McIlwaine 1970).

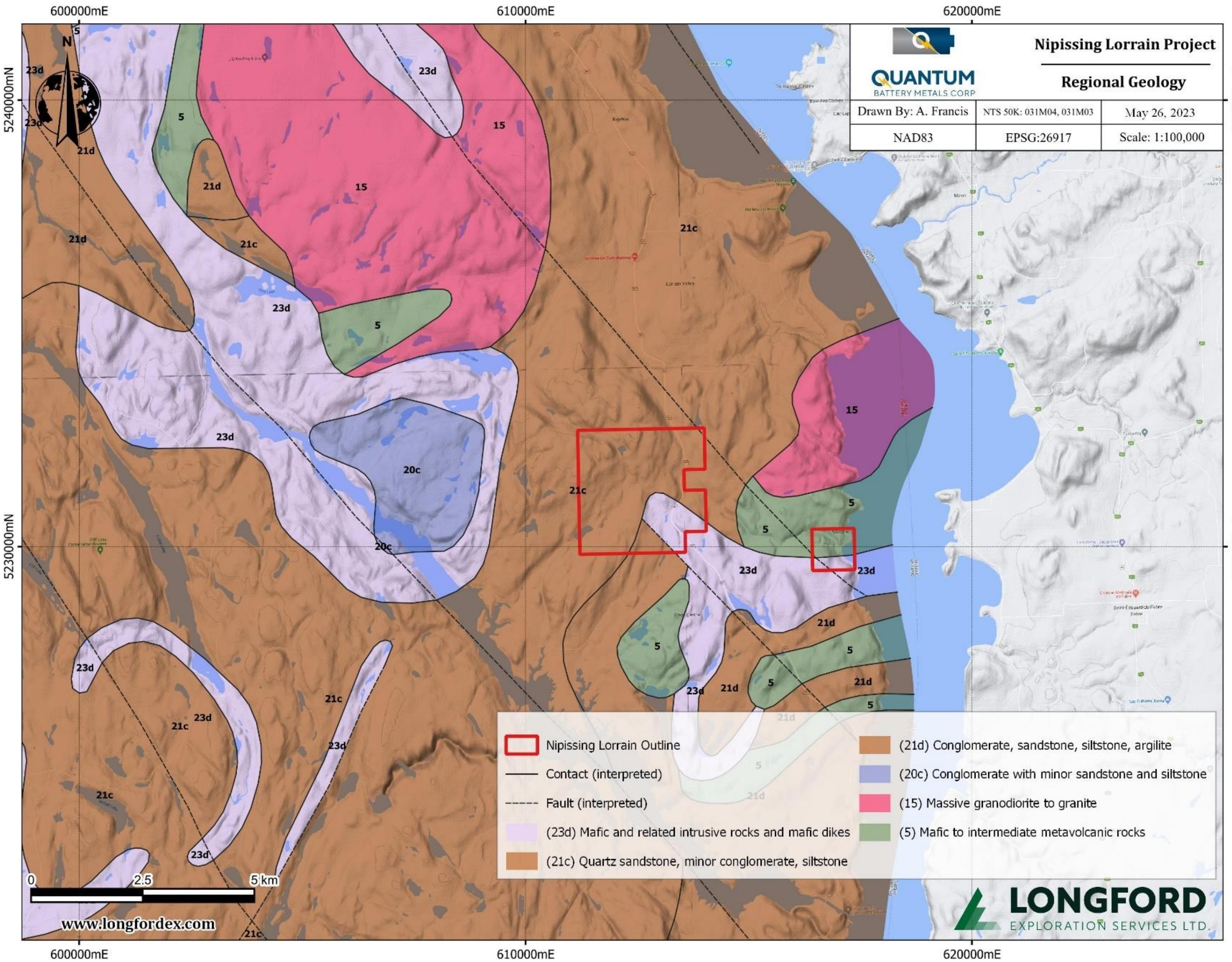

Figure 6.1: Nipissing Lorrain Regional Geology.

6.2 Property Geology

The Nipissing Lorrain Property area is located 26 km south of the historic Cobalt silver mines which includes historically significant Keeley-Frontier, Haileybury, and Bellellen mines. The mines are located in the eastern portion of the Cobalt Embayment (Figure 6.3) and are characterized by Archean meta-volcanics and meta-sedimentary rocks which are unconformably overlain by Proterozoic rocks of the Huronian Supergroup. The Archean and Proterozoic rocks have been intruded by Nipissing Diabase sills on a regional scale, and its distribution may be structurally influenced by faults. A significant regional southeast trending fault system is located within the area and consists of the Montreal River, Cross Lake, and Timiskaming faults. This fault system is believed to be related to mineralization as most of the Ag-Co occurrences in the Cobalt Embayment are concentrated between Cross Lake and Montreal River faults (Faure et al. 2018).

The Property overlies the Nipissing diabase sill rocks which outcrop on the Temiskaming lakeshore (Figure 6.2). A basin-structure is formed by these intrusive rocks and exhibits an east-west trending axis. Underlying this unit is the Cobalt Group sedimentary suite of greywackes and conglomerates of Huronian age which pinch out between the overlying diabase and the underlying Keewatin lava complex (Woolham 1966). Intruding into the Keewatin lava complex are pre-Huronian age lamprophyre dykes and Algoman granites (Woolham 1966).

6.3 Lithology, Structure and Alteration

The lithological units of the project area as well as their respective descriptions have been summarized after McIlwaine (1970) in Figure 6.2 below.

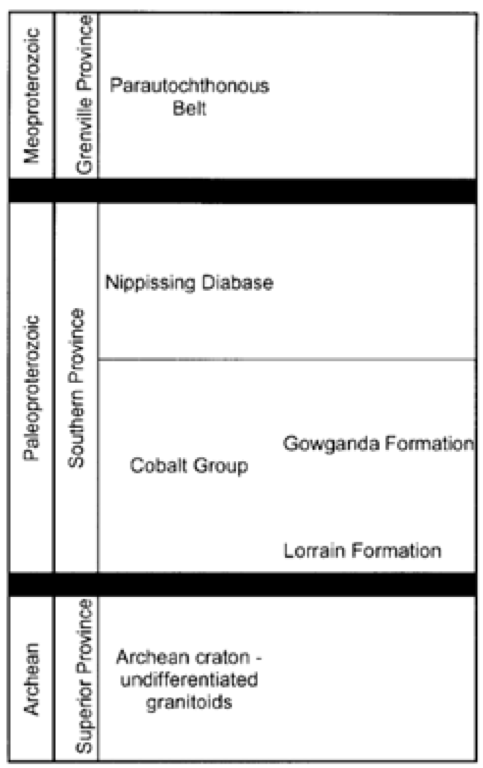

Figure 6.2: Simplified stratigraphic column of the Temagami region (Cookenboo et al. 2003).

Cobalt Group: Proterozoic Huronian Sediments (after McIlwaine 1970)

"A long period of erosion followed the igneous activity of the Archean Era. During this time the Archean topography was greatly modified resulting in a series of basins and corresponding highlands. The Huronian sediments were deposited in the basin areas with the adjacent highlands providing the detrital material.

As originally defined the Cobalt Series (Group) was made up of the Gowganda and Lorrain Formations and upper members (Collins 1917). Thomson (1957, p. 40) modified this classification by introducing the Firstbrook and Coleman Formations which together are the former Gowganda Formation (see Table 3). The present author is employing the names introduced by Thomson (1957). This threefold division was first recognized by Barlow (1899, p. 45 and p. 90 to 104) and further recognized by Miller (1910), and Todd (1925) but it was not until 1957 that a formal nomenclature was introduced (Thomson 1957).

Nearly flat-lying beds of all three formations are found extensively in South Lorrain Township. The contact with the underlying basement is unconformable."

Coleman Formation (after McIlwaine 1970)

"In the nomenclature of Thomson (1957) the Coleman Formation is the lower part of the Gowganda Formation, and is named after Coleman Township, in which the Town of Cobalt is located.

In South Lorrain Township the Coleman Formation occupies most of the eastern half of the map-area. Its estimated maximum thickness is approximately 1,000 feet. More detailed information on the thickness is supplied by diamond-drill cores and underground work; most of this data is from within the diabase dome. Unless otherwise credited all information on drilling is from the files at the Resident Geologist's office of Cobalt, now at Kirkland Lake. A drill hole on claim T34065 southwest of Maidens Lake indicated a vertical thickness of 200 feet, and four holes on T34063 and T34064, nearby, gave thicknesses ranging from 180 to 270 feet. These holes were put down by E. B. E. de Camps in 1949 and 1954. Farther to the northeast a long hole collared near the south shore of Maidens Lake (claim T44062) indicated a vertical thickness of 780 feet, and another hole on the northeast side of the lake gave only 490 feet. Another drill hole southeast of Maidens Lake went through 350 feet of Coleman Formation; the shaft to the east on claim T19297 is reported to have gone through approximately 400 feet of sedimentary rocks before reaching the basement. These and other data (the drill hole data is from assessment files and the drill holes were not found by the author) suggest an irregular basement topography, on which the Coleman Formation was deposited, with the suggestion of a local trough trending east-northeast subparallel to the flanks of the diabase "dome". The only information on thickness outside the diabase "dome" is from a drill hole (not found by author) just north of the north boundary of HR18, northwest of Maidens Lake. Here the thickness was found to be 460 feet. Drilling to the southeast of Maidens Lake by Mining Corporation of Canada (1964) Limited indicated the thickness on their property to be about 100 feet, but this did not represent total thickness. South of the diabase "dome" the author has no information from drilling but using bedding attitudes and topography the author considers that it is in this area that the Coleman Formation reaches its estimated maximum thickness of approximately 1,000 feet. Locally the contact of the Coleman Formation rocks with the Archean basement is irregular, but on a regional basis the outcrops of the formation in South Lorrain Township represent the eastern portion of a northeasterly-trending basin. This basin starts in Riddell Township, to the southwest, and continues northeast through Sunrise

Lake (Riddell Township) through South Lorrain Township to Windy Lake and continues north. The outline of this basin is evident on various maps (see Todd 1925, map; Thomson and Savage 1965). The lack of deformation in the Coleman Formation rocks, except in the vicinity of faults, would indicate that this basin

structure is owing more to basement topography than to post-depositional folding. The rocks of the Coleman Formation are a heterogeneous mixture of greywacke and quartzose siltstone, arkose, argillite, and conglomerate. The quartzose siltstone and greywacke are fine-grained greenish grey rocks consisting of sub-rounded to sub angular grains of quartz, feldspar, and rock fragments in a matrix of chlorite, mica, and silica; minor pebbles may be seen. The arkose is generally brown to pink in colour and slightly more coarse-grained than the quartzose siltstone and greywacke. Conglomerate pebbles, cobbles, and rare boulders (Photos 2 and 3) are generally pink granitic rocks with minor white granite, "greenstone", and diabase. They are generally subangular to sub-rounded and on the average range up to 6 to 8 inches in diameter.

No definite separation of the rock types was possible in mapping owing to their heterogeneous nature. At the top of the formation conglomerate dominates, as evidenced along the east shore of the Matabitchuan River, and to a lesser degree to the north. The beds are generally close to flat-lying, except in the area of faults where they dip steeply. The rocks are schistose close to the Northeast Copper Lake Fault on the north shore of Cooper Lake. Todd (1925) considered these schistose rocks to be Archean, but the author believes they are sheared rocks of the Coleman Formation. The bottom contact of the Coleman Formation is an unconformity, as shown by the nearly vertical dips of the underlying volcanic rocks and flat dips of the overlying sedimentary rocks. The granite forms the basement rock in the southeast

Previous workers have attributed a glacial origin to the Coleman Formation.

Firstbrook Formation (after McIlwaine 1970)

“The Firstbrook Formation was first described by Thomson (1957, p. 41-42) as being the upper part of the Gowganda Formation of Collins (1917). The type locality of the Firstbrook Formation is located in Firstbrook Township, 15 miles northwest of the map-area.

In South Lorrain Township the main area of exposure is a belt, roughly 1/4 to 1/2-mile-wide, striking north for almost the full length of the township, and offset by several faults. The best exposures are on the west shore of Fourbass Lake in central South Lorrain Township, and about 1/2 mile west of Highway 567 in the northern part of the township. A smaller area of outcrop is found north of the Upper Notch power station in northwest South Lorrain Township; to the south there are several out crops, in a north-south belt, that strongly resemble the Firstbrook Formation. The rocks designated Firstbrook Formation just west of Maidens Lake are considered to have been part of the main belt to the west prior to the intrusion of diabase.

The estimated thickness in the main belt varies from 500 to 700 feet, which is less than the 950 feet described by Thomson (1957, p. 41) for the type locality. The Firstbrook Formation is part of the same regional basin described in the section on the Coleman Formation.

The formation consists of laminated or varved, very fine-grained argillite, with alternating greyish red or greyish brown and greyish green layers, and quartzite. The varves are usually more easily seen on the weathered surface of the outcrop. The argillite is composed mainly of sub-rounded quartz grains, with minor feldspar, set in a chloritic matrix with minor sericite. There are also small amounts of opaque minerals. The quartzite is grey, well bedded and harder than the argillite. It is also fine-grained.

The beds are gently dipping, for the most part, with a maximum dip of 30 degrees, and average dip of 10 to 15 degrees.

No contacts were observed with the underlying Coleman Formation but the contact with the Lorrain Formation appears gradational. Lorrain Formation rocks are more rounded in weathered outcrops than Firstbrook Formation rocks owing to the better-defined bedding in the latter.

Thomson (1966, p. 15-16) has suggested that the laminations or varves are due to seasonal deposition in a lake, possibly of glacial origin."

Lorrain Formation (after McIlwaine 1970)

"The Lorrain Formation was first named by Miller (1910, p. 75) because the type section was found in Lorrain Township. It is the youngest formation of the Cobalt Group in South Lorrain Township.

The Lorrain Formation is the most extensive rock type in the map-area; it covers almost all of the area west of the Montreal and Matabitchuan Rivers, plus several square miles east of the Montreal River in the northern part of the township. The thickness of the formation is estimated to be from O to 1,200 feet. No confirming data is available from drilling.

The main rock types are flat-lying grey feldspathic quartzite, pale green quartzite, and pink arkose. The green quartzite locally grades to white ortho-quartzite. These rocks are fine-grained with lenses of medium- to coarse-grained material, and the occasional quartz-pebble lens. Close to the contacts of diabase dikes the rocks are red owing to the oxidation of ferrous iron to ferric iron. The grains of quartz, the most abundant mineral, are generally rounded; the feldspar grains have been altered; and the matrix is fine-grained silica with minor chlorite.

Beds are massive in the Lorrain Formation and data on bedding is difficult to find. Where bedding planes are found they have a gentle dip, the maximum angle being about 25 degrees. Slickensides were found in several of the shear faces of exposures in the area west of the Montreal River, suggesting deformation by faulting.

No contacts were observed with the underlying formations, but the contacts are assumed to be gradational. A small outcrop north of the Maidens Bay Road is a coarse-grained arkose, with feldspar grains up to a quarter inch; this arkose grades imperceptibly into the underlying granite. The width of the zone of gradation cannot be determined owing to the amount of overburden.

The Lorrain Formation appears to be a shallow water deposit derived from a granitic terrain."

Nipissing Diabase (after McIlwaine 1970)

"Intrusive into all older rocks is a massive unaltered mafic rock named the Nipissing Diabase by Miller (1910).

In South Lorrain Township the diabase is considered by the writer to be all one sheet, with numerous rolls, both major and minor. Local rolls around the mines are shown in Figure 2 (Chart A, back pocket). In the eastern part of the township the diabase is in the form of a dome, with the central part removed by erosion. The axis of this dome strikes north-northeast, and it is interesting to note the sub-parallelism of this axis to the margin of the basin of deposition of the Cobalt Group sedimentary rocks. The south flank of the dome dips steeply southeast, and the northwest and wider flank dips approximately 30 degrees west. The north contact of the northwest flank dips to the south and thus forms a minor basin within the dome. In the western part of the township a diabase dike, 1/4 mile-wide, strikes northeast and widens out to almost 3 miles forming a northerly plunging basin structure. Between the dome and this basin another larger lapolith-like basin is postulated, with a possible feeder below. It is suggested that the dike is the surface expression of this feeder. This western basin is connected to the eastern dome as shown on Map-2194 (back pocket) by the continuity of the diabase 1/4 mile south of Hermit Lake.

In hand specimen the diabase is a typical grey to black, fine- to medium-grained, fresh to slightly altered rock. There are areas of coarse-grained diabase that contain minor amounts of pink feldspar. Varied texture is apparent in certain exposures; a good example is the roadside outcrop approximately l mile southeast of the Upper Notch power station. No detailed petrographic study of the diabase was undertaken. Such studies have been made in the Cobalt area by Hriskevich (1952); Satterly (1928) described the diabase in South Lorrain Township. Microscopic examination of a few thin sections shows it to be mainly a quartz diabase with lath-shaped plagioclase crystals of labradorite composition in a pyroxene groundmass. The quartz is present mainly as micrographic intergrowths with the plagioclase. Minor amounts of opaque oxides, biotite, epidote, and chlorite are also present.

Much of the data on the thickness of the sill are from the area of the main mines; other figures given are mostly inferred. Information from the mines shows the diabase to be from 900 to 1,000 feet thick, with local variations. This figure represents the complete sill where it has been protected from erosion. Areas to the east have been exposed to erosion and the thickness of the sill is less than 900 feet. A drill hole on the north peninsula in Maidens Lake penetrated 95 vertical feet of diabase before encountering the underlying Coleman Formation. Approximately 400 feet south of the north boundary of T29490, east of Maidens Lake, a thickness of 130 feet was found, and on the boundary 200 feet of diabase were intersected. Near the adit on HR63, on the shore of Lake Timiskaming, drilling indicates a thickness of 175 feet and farther to the south, 50 feet. With these data, and taking topography into consideration, a maximum thickness of nearly 500 feet is inferred. The diabase northeast of Maidens Lake is the northern flank of the South Lorrain diabase dome and is considered to be a basin in itself.

A K-Ar age determination on the diabase near Cobalt gave a result of 2,095 million years (Lowden et al. 1963, p. 92). Previous geological maps of South Lorrain Township (Knight 1922, map; Todd 1925, map) have indicated the Nipissing Diabase to be Keweenawan in age, but the diabase must now be considered as pre-Keweenawan."

6.4 Mineralization

The Nipissing Lorrain Property has a similar style of mineralization to the Cobalt Silver Mines, which is related to the Nipissing Diabase intrusion and is fault controlled. The typical style of mineralization is consistent with the Five-Element (Co-Ni-As-Ag-Bi) vein assemblage. It has been suggested that the origin and mechanism driving this style of mineralization is related to one of the following: (1) metal-rich aqueous fluids originating from late stage differentiation of the diabase sills and or the parent magma at depth; (2) convectively circulating fluids mobilized from the country rocks during cooling of the diabase intrusive complex; or (3) hydrothermal fluids originating from an unidentified external source unrelated to the diabase contact areas simply acted as a mechanically favourable host environment during regional faulting (Andrews et al. 1986).

Cobalt, silver, and nickel mineralization occurs over a number of fracture zones and veins within the Property. Mineralization is associated with calcite veins within close proximity to diabase sills which occurs as Co-Fe-Ni arsenides, argentite, niccolite and native silver. Silver grades up to 261 g/t, and Cobalt grades up to 14.75% have been reported on the Property (Ontario: MDI31M03NW00011 & MDI31M03NW00024).

Mineralization exists in a number of structural orientations throughout the Property. However, it appears to be discontinuous and of a pinch and swell nature. The biggest resource on the Property (staples vein) occurs at the intersection between two crosscutting veins. Therefore, future exploration should focus on delineating structures and their potential as terrain traps.

Alteration associated with ore-formation is evidenced in the wall rocks of the veins where they have been altered during various ore-forming stages. The most notable alteration is hematite staining developed during the earliest stages of hydrothermal activity.

Figure 6.3: Simplified Geology of the Cobalt Embayment Area , illustrating the main zone of mineralization and mining camps (Andrew et al. 1986).

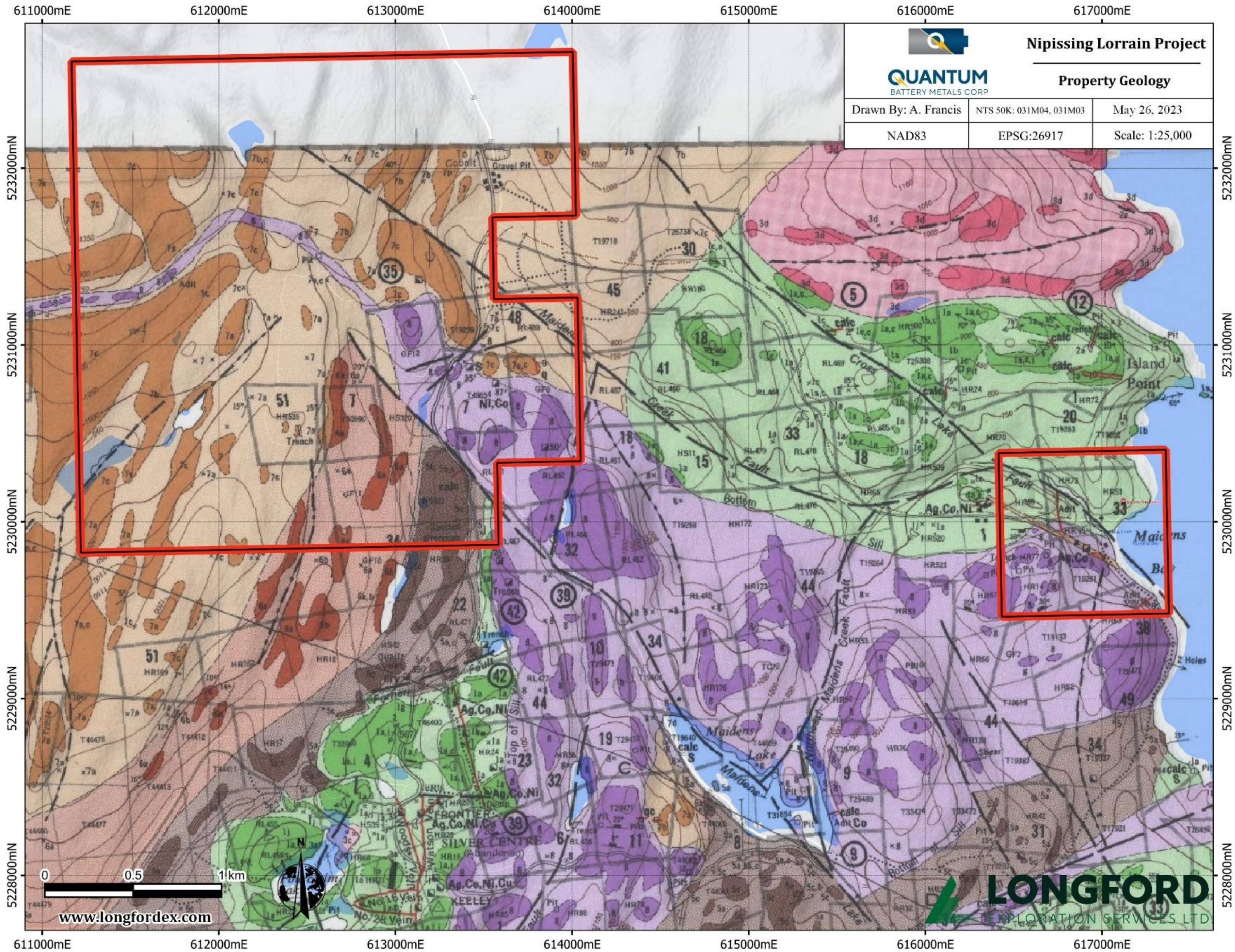

Figure 6.4: Nipissing Lorrain Local Property Geology (ODMNA 1970).

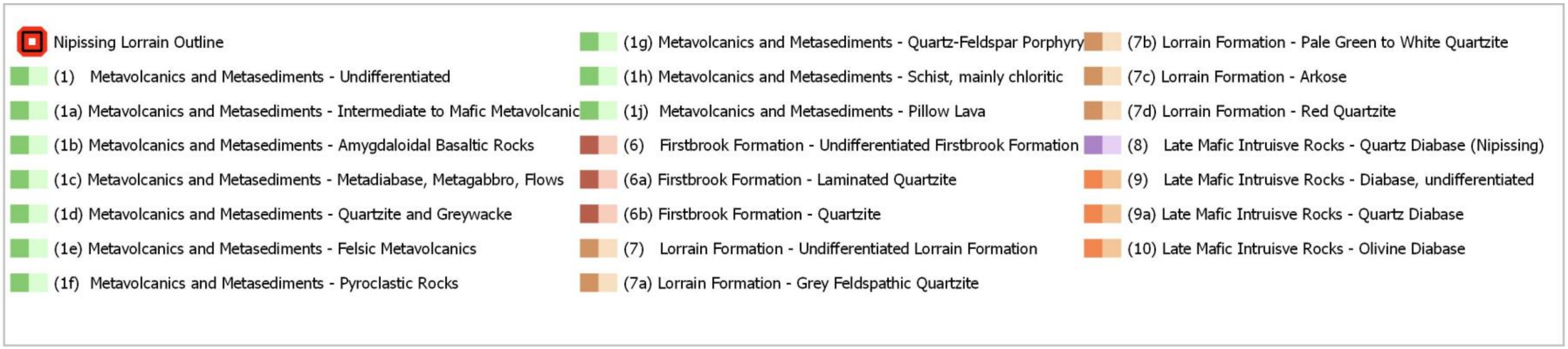

Figure 6.5: Nipissing Lorrain Local Property Geology Legend.

7 Deposit Types

The principal deposit type outlined to-date on the Nipissing Lorrain Property is that of a Five-Element (Co-Ni-As-Ag-Bi) Vein style of deposit. The host rocks for this style of deposit can vary wildly however, there are some characteristics common among some. In a broad sense, host rocks may be characterized as crystalline or sedimentary, usually with little or no interbedded volcanics.

There are several features of host rocks which are important in controlling localization of ore, namely: diabase sills, sulphide-rich strata in crystalline rocks, carbonaceous shales, and sulphide-rich meta-volcanic rocks (Kissin 1992). Sedimentary host rocks are present at Thunder Bay and Cobalt-Gowganda district where some deposits are wholly located within the Nipissing Diabase sills which cut across Archean basement. Some are also located in the shale-rich areas of the Coleman Formation, and others within the Coleman Formation but below the Nipissing Diabase (Kissin 1992). These types of deposits generally occur continentally in areas of rifting or extension, and it is believed that they formed between the early Proterozoic to the Tertiary, as no older deposits are known (Kissin 1992). These deposits appear to have some association with mild propylitic alteration followed by phases of distinct vein assemblages which are deposited by open-space filling (Kissin 1992). This recurrent mineral sequence is visible in most deposits and is summarized as Stage 1: early barren stage, Stage 2: Uraninite stage, Stage 3: Ni-Co arsenide-silver stage, Stage 4: sulphide stage, and Stage 5: late stage. These five stages represent the complete idealized paragenesis sequence, however one or more stages may be absent in any given deposit (Kissin 1992). The genesis style of deposit is difficult to ascertain as the mechanism responsible for its origin may vary from deposit to deposit. Various theories have been proposed and include hydrothermal/magmatic model, hydrothermal/metamorphic model, syngenetic model, and the non-magmatic model. The most plausible and widely applicable model theory is the non-magmatic model whereby the driving mechanism is continental rifting, and the solution is mobilized formational waters, however, this model may not fit every deposit style (Kissin 1992).

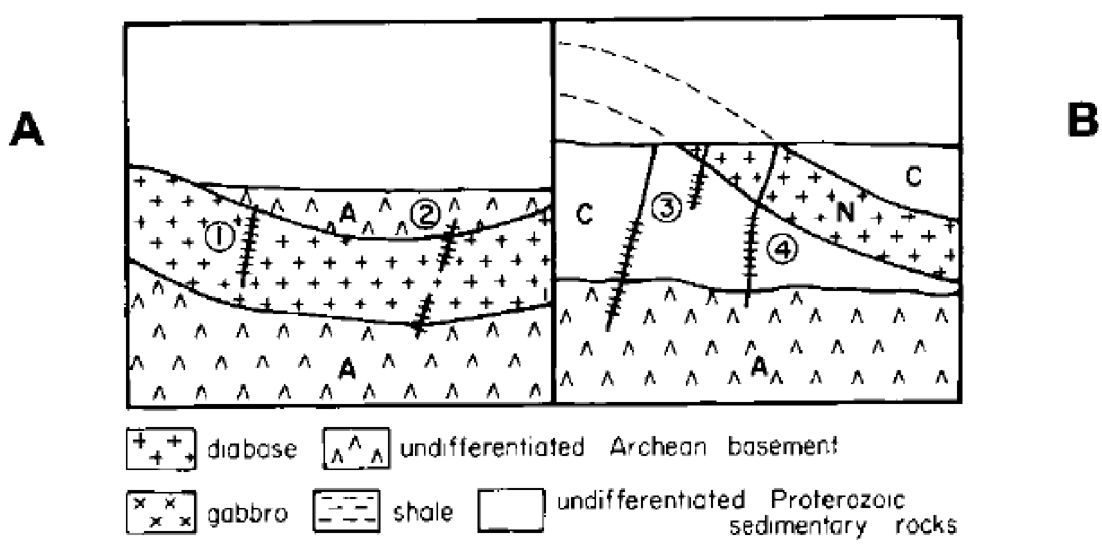

Figure 7.1: Schematic Cross-Section of Relationship of Veins to Geological Units at Cobalt-Gowganda Districtin Ontario, Canada (Kissin 1992).

8 Exploration

8.1 2022 Exploration Program Overview

At the request of Quantum Battery Metals Corp. (formerly Quantum Cobalt), Longford Exploration Services Ltd. mobilized a crew of four people, consisting of Marc-Andre Pelletier, Ryan Versloot, Francis Thompson, and Avery Lessard on May 26, 2022, to complete a 5-day rock and soil sampling program on the Nipissing Lorrain Property from May 27 to June 2, 2022. In total, 20 rock samples and 164 soil samples were collected across the Property.

8.1.1 2022 Rock Sampling

During the 2022 program, the focus was on re-sampling the waste dump and assessing their potential for further development within the small claim block.

The area is characterized by areas of extensive overburden coverage, including abundant large boulders, however, higher elevation ground provides considerable outcrop exposure locally.

Figure 8.1: Aerial Photo of the Nipissing Lorrain Waste Dump (2022).

8.1.2 Rock Sampling Results

A total of 20 rock samples were collected within the boundaries of the main Property claim block and were submitted for analysis (Table 8.1; Figures 8.5 to 8.10) at Bureau Veritas in Vancouver, BC. Rock assay over-limits were not tested.

Assay certificates are available in **APPENDIX A**.

Table 8.1: 2022 Rock Sample Locations, Assay Results and Descriptions.

Sample No.	Easting	Northing	Lithology	Co (ppm)	Ag (ppb)	Bi (ppm)	Ni (ppm)	Cu (ppm)	As (ppm)
	NAD83 Zone 17								
2556424	616909	5229966	Diabase	26.4	77	0.15	35	137.39	17.3
2556425	616918	5229960	Diabase	24.7	167	0.08	30.2	48.32	10.6
2556426	616933	5229961	Diabase	48.4	1,572	0.21	212.5	210.28	41.4
2556427	616941	5229972	Diabase	47.3	171	0.4	91	97.83	211
2556439	616945	5229966	Diabase	42.8	5,960	0.4	82.2	861.17	37.7
2556438	616929	5229967	Diabase	1,666.8	187	2.11	209.1	96.23	5,528.9
2556429	616921	5229973	Diabase	30.9	64	0.12	30.5	107.36	19.3
2556428	616930	5229982	Diabase	20.1	54	0.09	37.6	46.46	5.2
2556441	616943	5229988	Diabase	55.7	29,654	0.89	109.4	245.36	158.5
2556440	616949	5229983	Diabase	32.3	114	0.36	56.2	56.64	18.9
2556442	616935	5229991	Diabase	37.4	1604	0.09	36.3	311.37	39.8
2556443	616940	5229995	Diabase	211.2	526	155.08	53.9	51.91	432.6
2556435	616924	5229983	Diabase	36.8	293	0.57	78.2	87.72	35.1
2556430	616919	5229978	Diabase	20.1	79	0.05	34.4	52.98	11.1
2556432	616911	5229979	Diabase	2,000	11,976	76.84	3,578.5	133.83	10,000
2556431	616916	5229981	Diabase	15.4	48	0.07	21.7	17.55	8.8
2556436	616920	5229986	Diabase	22.2	117	0.12	24.9	172.85	14.7
2556437	616916	5229991	Diabase	46.4	591	1.07	110.7	116.54	84.9
2556433	616913	5229987	Diabase	25.8	72	0.3	33.4	16.73	24.8
2556434	616905	5229984	Diabase	60.4	134	0.42	45.8	97.93	40.3

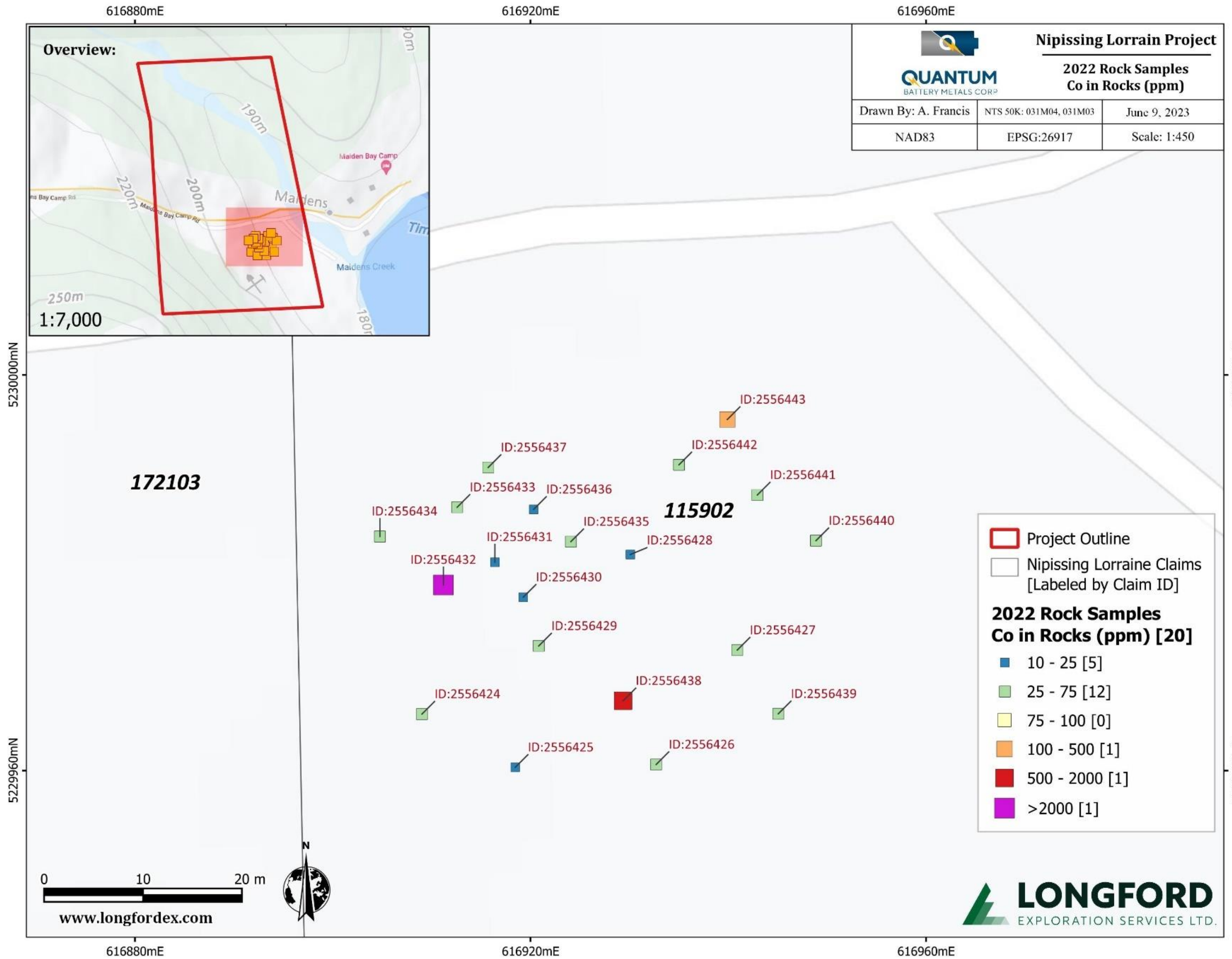

Figure 8.2: 2022 Cobalt in Rock Results (ppm Co).

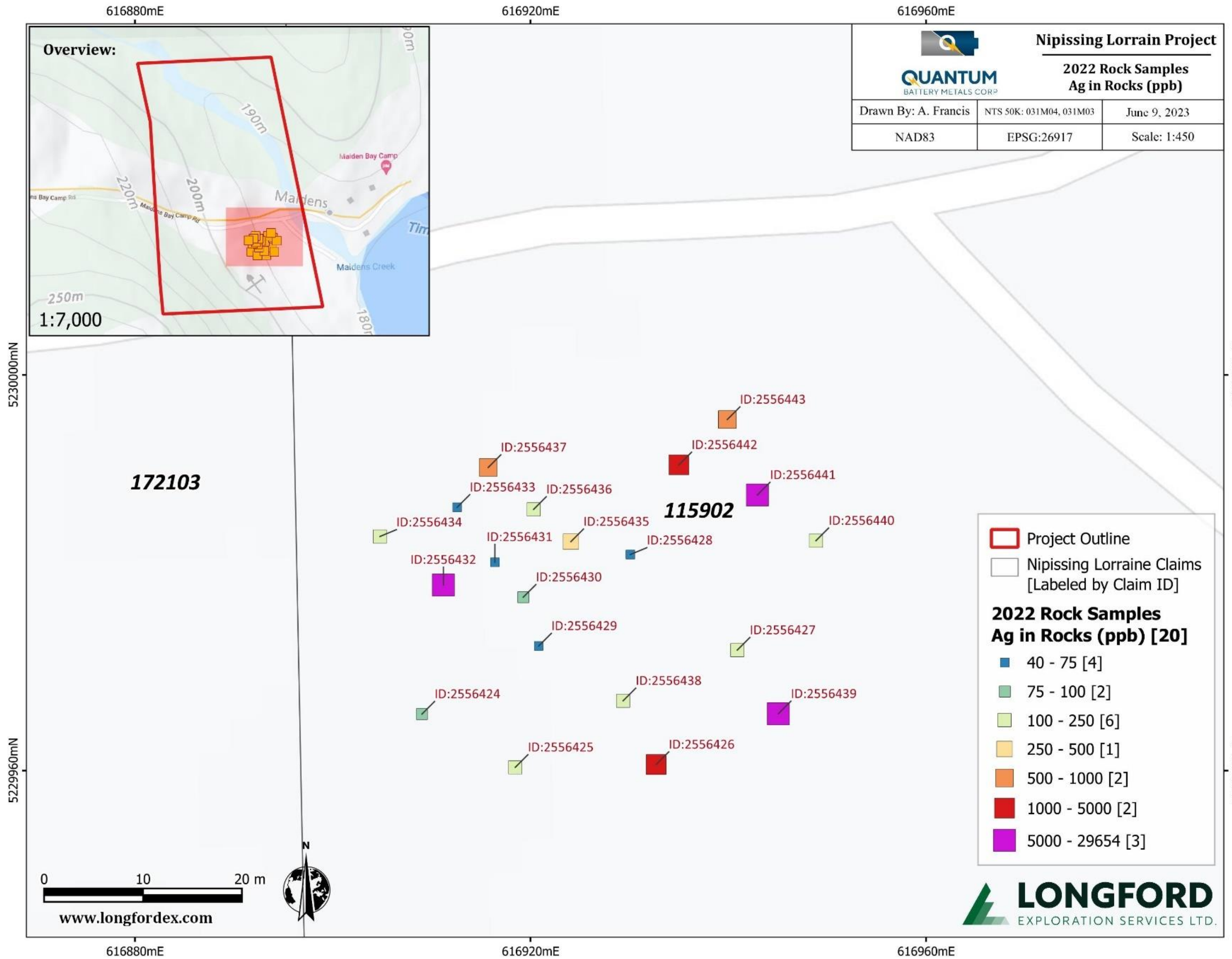

Figure 8.3: 2022 Silver in Rocks (ppb Ag).

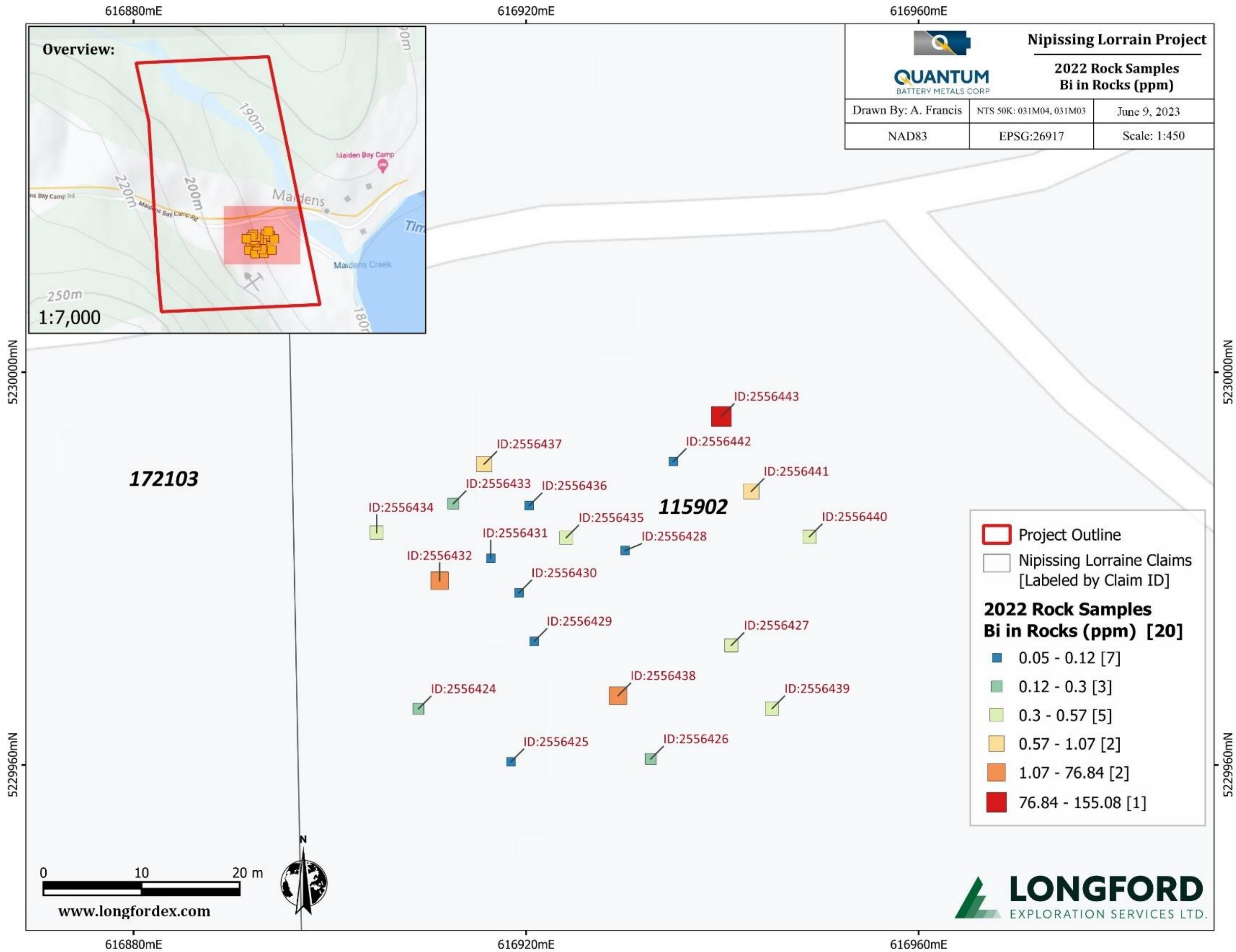

Figure 8.4: 2022 Bismuth in Rocks (ppm Bi).

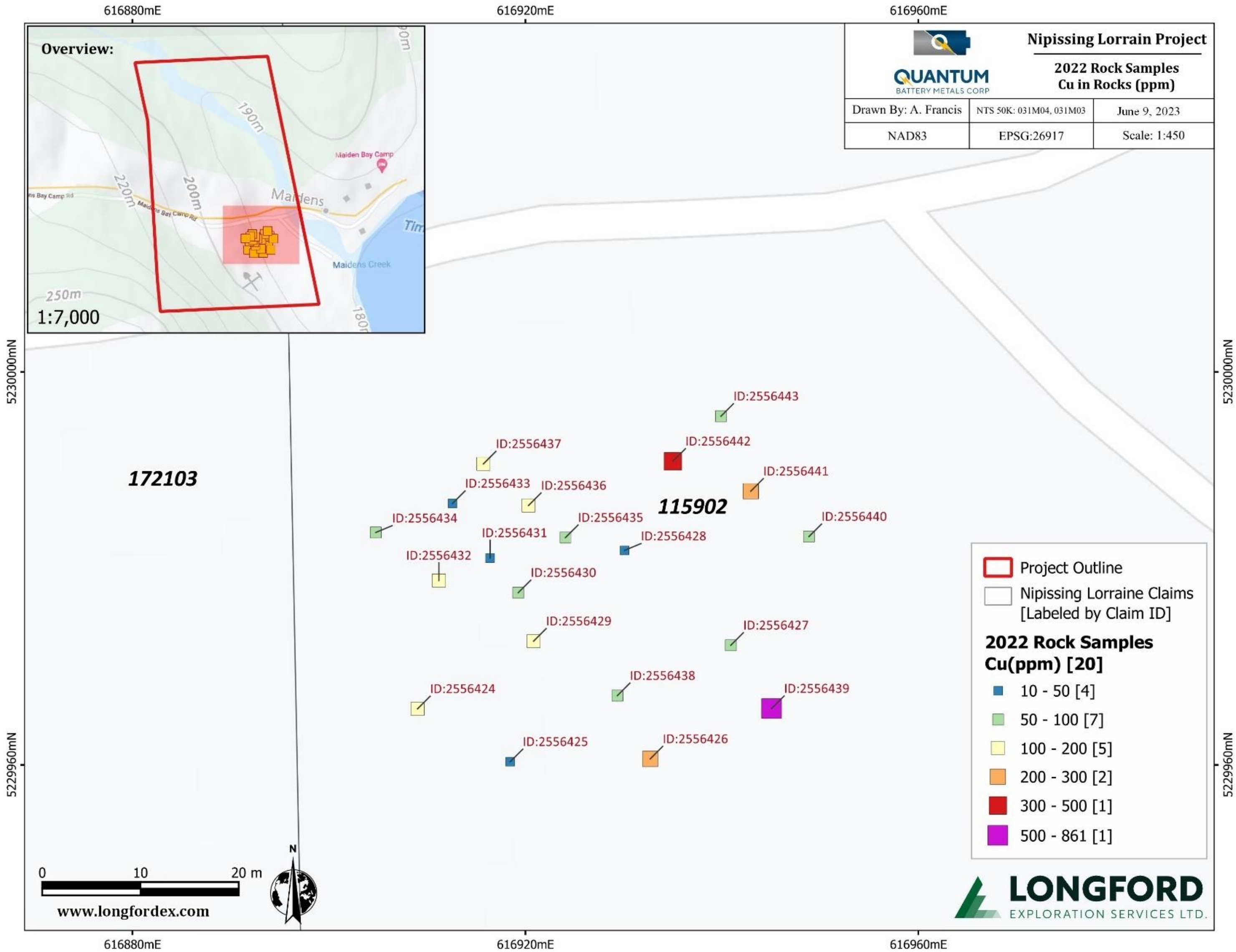

Figure 8.5: 2022 Copper in Rocks (ppm Cu).

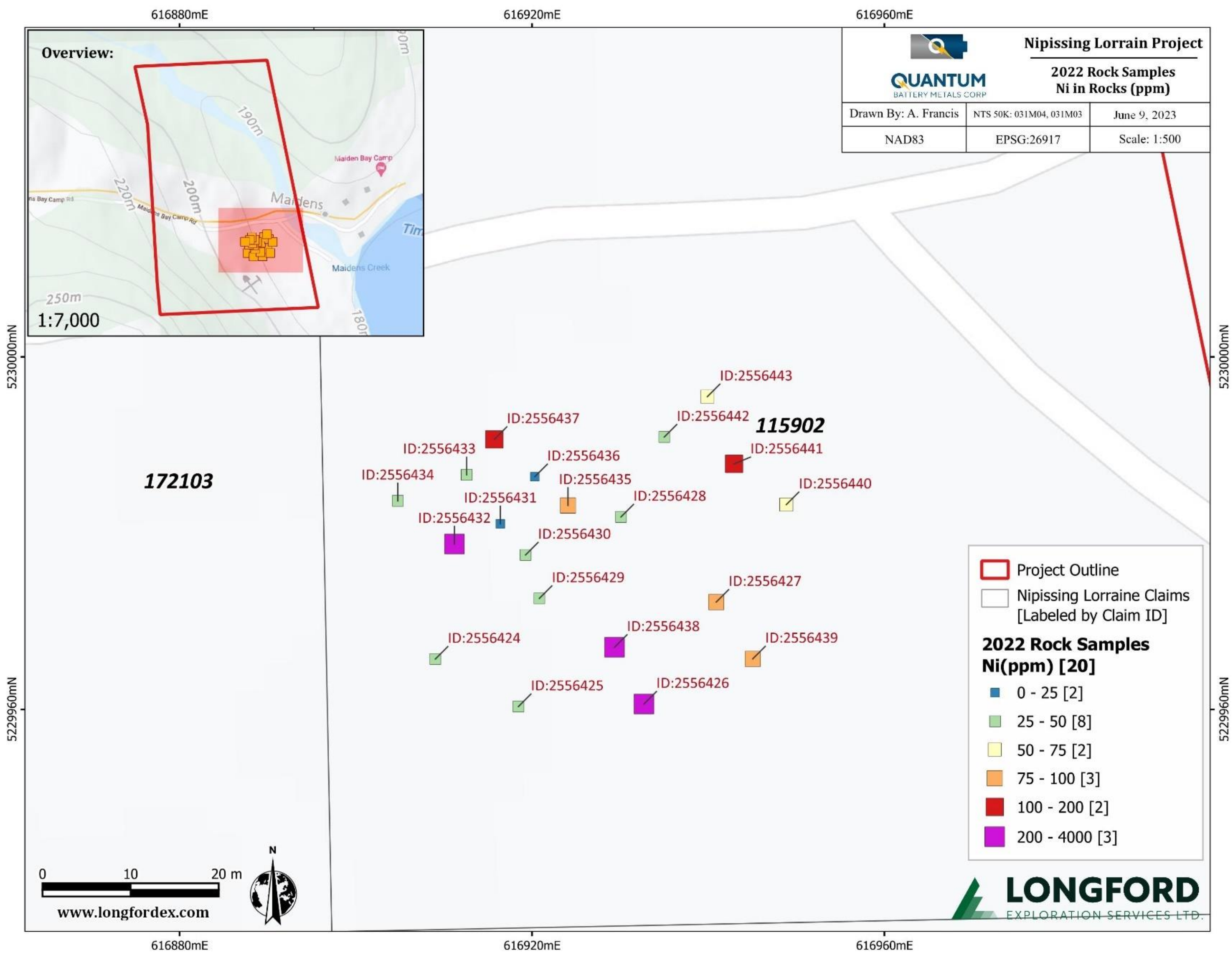

Figure 8.6: 2022 Nickle in Rocks (ppm Ni).

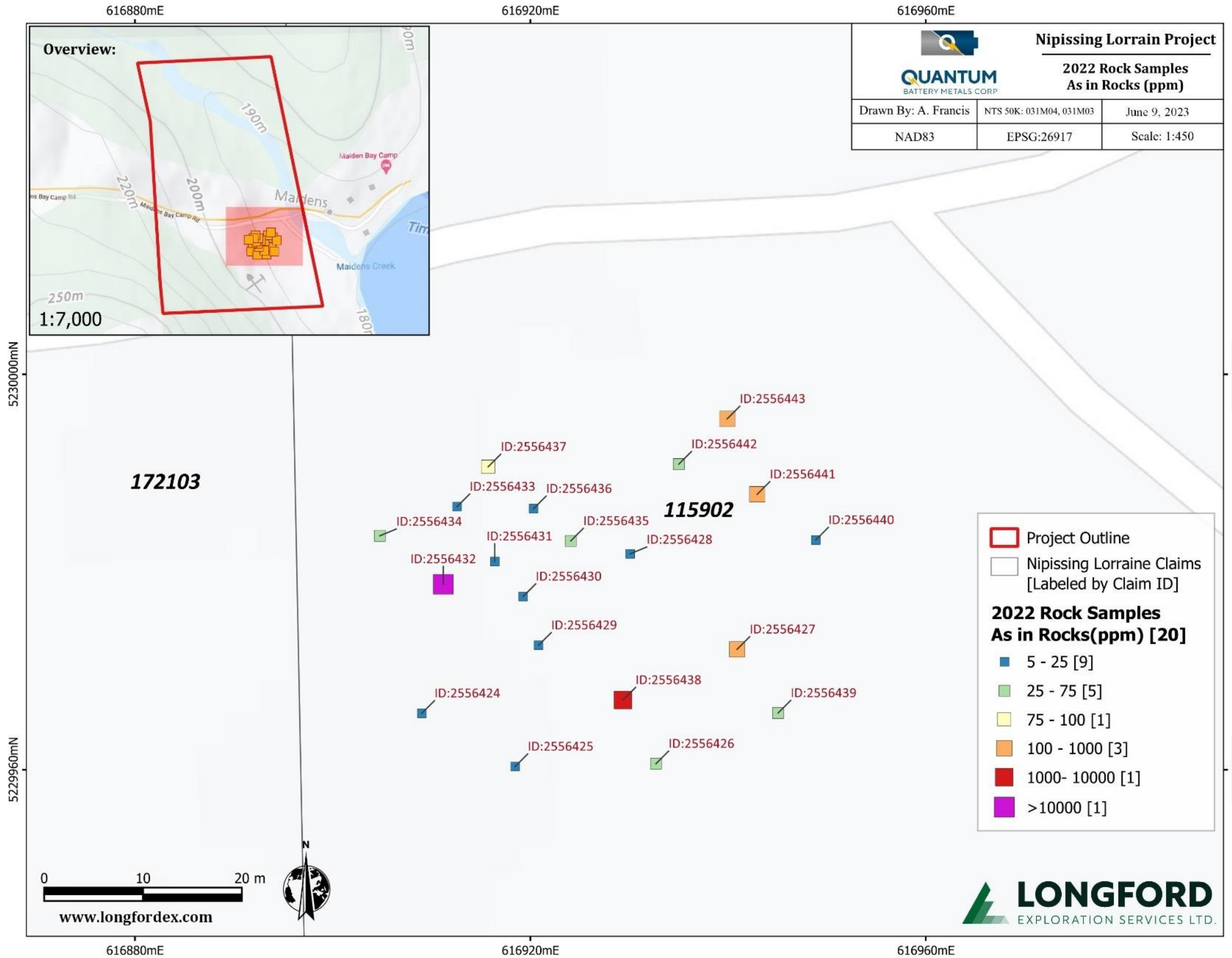

Figure 8.7: 2022 Arsenic in Rocks (ppm As).

8.1.3 Soil Sampling Results

A total of 164 soil samples were collected within the boundaries of the larger claim block and were all submitted for analysis at Bureau Veritas in Vancouver, BC. Some of the soil lines were cut short on the southern end due to local swampy ground.

Results are shown below in Table 8.2 and Figures 8.8 through 8.19, while assay certificates are available in **APPENDIX B**.

Table 8.2: 2022 Soil Sample Locations, Assay Results and Descriptions.

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
2556280	613051	5231428	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Marshy, bushy, mud	40	2.4	10.9	75.61	147
2556281	613063	5231399	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, marshy, rocky	25	0.9	3	4.86	47
2556282	613062	5231371	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Good, rocky, bush	25	2.2	6.8	7.02	31
2556283	613061	5231340	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	25	0.9	3.3	4.14	25
2556284	613075	5231318	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Hillside, rocky, bush	25	1.8	6.9	12.66	48
2556285	613058	5231282	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, bush, good sampling	25	7	22	17.52	36
2556286	613052	5231269	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Hillside, bush, a bit rocky	25	1.7	5.7	30.07	266
2556287	613061	5231236	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Hillside, bush, good sampling	25	8.4	24.9	17.19	37
2556288	613063	5231214	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay, bush, could have been a stream	25	0.4	0.9	2.57	14
2556289	613065	5231200	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Good sampling, hillside, maybe a contact of a stream	25	1.1	2.7	6.86	55

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
2556290	613064	5231160	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Rocky, hillside bush	30	0.7	2	12.29	59
2556291	613062	5231151	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, bush, good sampling	25	3.6	9.4	29.97	54
2556292	613063	5231105	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, hillside, bush	25	2.5	7.1	21.48	56
2556293	613059	5231099	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush, hillside	35	5.2	15.5	14.6	31
2556305	613065	5231068	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, hillside, bush, a bit rocky	35	9	22.1	25.76	5
2556306	613067	5231042	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, very rocky, hillside, cliffface	35	4.7	17	22.95	16
2556307	613067	5231043	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, hillside, rocky	35	8.4	26.6	26.9	100
2556308	613065	5230991	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, hillside, rocky	20	7.6	17.7	23.55	66
2556309	613063	5230996	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, hillside, bush	20	1.5	5.1	6.93	25
2556310	613060	5230969	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Rocky, sandy, bush	25	7.5	22.2	20.35	95

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
2556311	613063	5230947	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, bush, rocky	30	10.1	31.6	17.2	87
2556312	613065	5230891	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Bush, marshy, good sampling	15	6	20.7	10.57	64
2556313	613051	5230890	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, marshy, bush	20	6.3	18.9	7.93	22
2556314	613064	5230849	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay, bush, maybe marshy	15	8.1	27.8	11.93	55
2556315	613062	5230837	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay, bush, marsh like	25	8.3	26.1	12.93	63
2556316	613063	5230834	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay, marshy, bush	35	19.4	52.7	23.11	129
2556317	612863	5231444	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	1.4	4.7	7.38	54
2556318	612967	5231434	Black	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Marsh Poor sampling Bouldery	30	118.8	59.7	304.71	348
2556319	612961	5231418	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Terrible sampling Marsh Boulder field	30	34.4	22.5	63.61	56
2556320	612960	5231395	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Terrible sampling	30	48.6	26.1	85.77	72

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
						Boulder field Marsh					
2556321	612966	5231369	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Sparse forest Bouldery	30	25.8	41.5	82	50
2556322	612962	5231346	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	2.4	7.5	7.49	34
2556323	612966	5231322	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Good sampling Bouldery Sparse forest	30	14.9	21.1	52.04	24
2556324	612962	5231297	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay Marshy Sketchy terrain Ok sampling	30	37.4	41.2	144.22	66
2556325	612961	5231265	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	6.4	19.3	8.07	65
2556326	612958	5231248	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Ok sampling Marsh Bouldery	30	1.9	7.8	8.06	93
2556327	612962	5231219	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Good sampling Bouldery Sparse forest	30	8.9	33.6	10.03	84
2556328	612958	5231191	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery	30	3.6	14.1	9.64	76

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
						Sparse forest Near creek					
2556329	612959	5231165	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Near creek Boulder field	30	73.1	72.6	180.6	208
2556330	612964	5231144	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Boulder field Near creek	30	54.1	60	127.3	126
2556331	612963	5231117	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	15.6	48.3	42.63	113
2556332	612959	5231099	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrific sampling Sparse forest Sandy silty	30	8.7	29.1	12.31	95
2556333	612958	5231075	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrific sampling Near trail Sandy silty	30	18.3	56.1	16.59	153
2556334	612959	5231047	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrific sampling Near trail Sandy silty	30	17	54	20.05	175
2556335	612966	5231013	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrific sampling Thick bush	30	16	52.9	20.78	65
2556336	612961	5230993	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Terrific sampling Thick bush	30	11.8	42.9	19.68	70
2556337	612969	5230968	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Terrific sampling Thick bush	30	6.2	23.6	7.32	49

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
2556338	612957	5230938	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Marsh Bog Very wet	30	10.9	30.9	47.5	31
2556339	612963	5230913	Black	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Total swamp Poor sampling Thick bush Very wet	60	11.5	39	109.36	139
2556340	612961	5230895	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Terrible terrain Absolute swamp	60	12.2	40.9	105.27	102
2556341	612958	5230869	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Ok sampling Terrible terrain Absolute swamp	60	16.5	51.2	141.7	97
2556342	612963	5230847	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrible sampling Absolute swamp Very wet	60	16.1	58.2	122.18	120
2557435	612861	5231133	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Sparse forest Near trail	30	9.2	32.5	16.21	165
2557436	612861	5231112	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Sparse forest Good sampling	30	4.5	14.6	7.21	64
2557437	612858	5231084	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Sparse forest Ok sampling	30	9	28.6	15.86	127
2557438	612861	5231066	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Sparse forest Ok sampling	30	7.6	28.1	14.54	141

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
2557439	612858	5231041	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Sparse forest	30	5	17.7	10.89	115
2557440	612762	5231043	Black	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrible sampling Huge marsh	30	10	34.1	39.89	202
2557451	612670	5231430	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Good, clay, water	30	25.5	43.4	312.85	188
2557452	612670	5231428	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay, bush, river	30	17.9	40.7	272.6	151
2557453	612672	5231385	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Dried up clay, bush, near river	25	12.8	30.8	49.32	192
2557454	612678	5231347	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Excellent, bush	30	13.9	40.8	32.33	59
2557455	612666	5231361	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Good, bush, a bit rocky	30	4.1	11.8	9.25	77
2557456	612667	5231316	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, bush, a bit rocky	25	6.9	18.9	10.11	77
2557457	612677	5231288	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	25	7.4	24	11	71
2557458	612677	5231269	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	30	1.8	6.5	5.4	56

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
2557459	612659	5231253	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Very rocky, bush, average sampling, sandy	30	3.9	14	10.13	86
2557460	612652	5231221	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	30	3.5	11.1	5.65	65
2557462	612666	5231164	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Very rocky, bush, sandy	30	1.5	4.4	3.89	27
2557463	612673	5231143	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Very rocky, sandy, bush	30	1.6	5	3.97	68
2557464	612675	5231124	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, hillside, bush	25	6.5	20.4	12.8	55
2557465	612761	5231062	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Sparse forest	30	15	50.6	114.88	243
2557466	612761	5231093	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material		30	9.4	30.4	19.33	128
2557467	612764	5231112	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Sparse forest	30	5.6	21.4	8.78	86
2557468	612768	5231143	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Sparse forest	30	10.4	38.1	14.06	119
2557469	612769	5231169	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Sparse forest	30	4.6	16.2	9.29	138

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
2557483	612771	5231371	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Rocky, bush	25	1.8	7.4	5.9	125
2557484	612771	5231347	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	30	5.1	17.9	8.08	84
2557485	612762	5231320	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	30	10.1	25.5	25.69	57
2557486	612766	5231292	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, very rocky, bush	30	5.4	17	12.4	115
2557487	612763	5231263	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	30	6.9	26.7	18.58	135
2557488	612767	5231252	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	30	2.3	8.1	16.28	96
2557489	612756	5231221	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Bush, rocky	30	11.1	37.6	42.67	124
2557490	612768	5231187	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay, a bit rocky, marshy	35	20.8	77.9	225.25	102
3205995	612663	5230986	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery	40	0	0	0	0
3295811	613270	5231437	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, bush, rocky	35	10.8	34.2	20.53	53

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
3295812	613268	5231412	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling, rocky, bush	20	3.1	9	11.15	127
3295813	613271	5231393	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Very rocky, bush, good	25	0.6	3.5	7.6	134
3295814	613260	5231363	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Rocky, average, boulder	20	0.7	7.1	11.5	187
3295815	613168	5231420	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Bouldery Marshy	30	1.3	3.7	7.9	35
3295816	613170	5231388	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Bouldery Marshy	30	1.2	3.2	3.74	44
3295817	613169	5231364	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Marshy Bouldery	30	4.4	8.4	11.79	48
3295818	613162	5231345	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Marshy Bouldery	30	7.5	17.8	11.71	71
3295819	613164	5231316	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Marshy Bouldery Sandy silty	30	3.4	9.1	8.05	83
3295820	613161	5231294	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Ok sampling Marsh Bouldery	30	1.2	5.5	5.27	81
3295821	613165	5231264	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Ok sampling Marshy	30	2.2	6.2	5.83	91

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
						Bouldery Sandy silty					
3295822	613164	5231236	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Good sampling Bog Bouldery	30	5.6	17.6	10.83	67
3295823	613161	5231220	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bog Bouldery	30	1.3	4.1	4.62	47
3295824	613157	5231196	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Bouldery Ok sampling	30	3	7.8	5.56	78
3295825	613162	5231172	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Poor sampling Bouldery	30	7.7	25.9	17.73	122
3295826	613156	5231136	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery	30	4.3	7.8	4.93	174
3295827	613164	5231115	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	14.9	25.9	36.21	126
3295828	613157	5231121	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Sparse forest Bouldery	30	5.8	15.8	10.94	51
3295829	613159	5231070	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Ok sampling Near cliff Sparse forest	30	0.5	1.3	2.95	20

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
3295830	613164	5231040	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Hillside Ok sampling Bouldery Sandy silty	30	4.4	9.7	11.63	72
3295831	613168	5231019	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Bouldery Sandy silty Hillside	30	10	15.7	34.66	118
3295832	613167	5230991	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	7.1	15.9	44.08	102
3295833	613156	5230969	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Bouldery Sparse forest Ok sampling	30	1.4	3.1	4.11	80
3295834	613167	5230946	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Hillside Bouldery Ok sampling Sparse forest	30	3.7	11.7	9.58	119
3295835	613151	5230916	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Bouldery Sparse forest Poor sampling Sandy silty	30	0.8	2.3	2.35	68
3295836	613170	5230891	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Poor sampling Sparse forest Bouldery	30	1.6	4	7.74	81
3295837	613164	5230870	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling	30	6.1	20.3	13.1	205

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
						Sparse forest Bouldery					
3295838	613161	5230843	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	8.3	28.9	25.55	89
3295839	613160	5230818	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Sparse forest Bouldery	30	4.8	15.6	9.11	85
3295840	613162	5230797	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Near trail Sparse forest Bouldery	30	4.3	17.2	11.07	113
3295866	613269	5231339	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Rocky, hilly, average	20	0.4	4	9.41	132
3295867	613270	5231310	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, bush, rocky	20	3.1	6.6	7.14	120
3295868	613258	5231289	Black	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Horrible, super rocky, very poor sampling	15	8.1	22	45.16	383
3295869	613266	5231273	Black	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Very poor sampling, very rocky, bush	15	2.9	17.2	38.96	332
3295870	613258	5231241	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, very rocky, bush	15	12.7	15.3	13.58	145
3295871	613264	5231216	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Excellent, rocky, bush	30	3.5	9.6	6.48	46

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
3295872	613257	5231199	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Good, rocky, bush	30	18.4	23.7	11.68	120
3295874	613268	5231152	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling, very rocky, bush	20	0.6	2.2	5.15	81
3295875	613265	5231119	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	25	5.5	20.4	12.42	65
3295876	613267	5231102	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, excellent, rocky, bush	25	6.5	20.1	11.54	63
3295877	613266	5231077	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Very poor sampling, rocky, bush	15	14	26.5	38.95	178
3295878	613265	5231043	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Marshy, bush, rocky	15	12.7	28.1	38.97	166
3295879	613255	5231025	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Rocky, bush, good	25	22	30.2	310.31	160
3295880	613265	5230994	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Excellent, rocky, bush	25	11.4	33.4	35.17	88
3295881	613263	5230965	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	A bit sandy, bush, good	10	13.6	35.5	19.93	100
3295882	613260	5230933	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	15	8.6	28.2	15.7	131

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
3295883	613260	5230924	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy, rocky, bush	15	9.2	26	24.42	86
3295884	613255	5230894	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay, marshy, bush	35	11	42.5	25.09	60
3295885	613268	5230868	Green	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay, swamp	35	14	41.8	21.92	63
3295886	613261	5230843	Green	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Clay, marshy, bush	35	16	53.4	31.6	117
3295887	613260	5230828	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Marsh ,	35	14.2	49.2	63.85	212
3295888	613054	5231466	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Marshy, bush, excellent	40	17.4	47	94.39	71
3295889	613172	5231448	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Marshy	25	2	7.6	10.05	19
3295890	612871	5231174	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Good sampling Near trail	30	10.5	27.2	32.82	58
3295891	612864	5231192	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Near trail	30	3.7	13.8	10.86	153
3295892	612857	5231224	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling	30	6.9	22.9	9.45	105

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
						Bouldery Sparse forest					
3295893	612862	5231241	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	2.6	10.2	4.59	55
3295894	612863	5231272	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Ok sampling Bouldery Sparse forest	30	0.4	1.9	3.45	56
3295895	612863	5231297	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	5.2	16.5	5.96	125
3295896	612868	5231318	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	2.8	9.8	4.3	80
3295897	612862	5231344	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Ok sampling Sandy silty Bouldery Sparse forest	30	3.5	11.4	6.14	96
3295898	612864	5231369	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	4.4	14.3	6.04	75
3295899	612864	5231391	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Ok sampling Bouldery Sparse forest	30	1.7	3.4	3.48	31
3295900	612862	5231418	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest	30	1	2.6	2.41	47

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
3295984	612666	5230743	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Poor sampling Bouldery	30	1.1	3.7	3.53	79
3295985	612663	5230759	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Bouldery Sparse forest Near creek	30	4.5	13.3	4.27	39
3295986	612665	5230794	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Boulder field Poor sampling Near creek	30	0.4	2.5	6.19	53
3295987	612668	5230713	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Clay Sparse forest Ok sampling	30	1.2	3.4	3.62	30
3295988	612668	5230811	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Boulder field Hillside	30	0.4	1.9	3.81	29
3295989	612661	5230842	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Ok sampling Sparse forest	50	8.9	20.2	7.35	14
3295990	612666	5230870	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Poor sampling Bouldery	20	10	23.6	17.19	40
3295991	612668	5230893	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrible sampling Bouldery Hillside	25	31.2	57.7	24.42	127
3295992	612664	5230906	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrible sampling Boulder field Marshy	25	23	110.3	57.1	466

Sample No.	Easting	Northing	Colour	Grain Size	Soil Horizon	Comments	Depth (cm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Ag (ppm)
	NAD83 Zone 17										
3295993	612661	5230945	Orange	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Boulder field Marshy	25	15	42.8	18.97	97
3295994	612667	5230960	Black	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Marshy Boulder field	40	21.9	90.6	51.95	464
3295996	612663	5231019	Gray	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Sandy silty Terrible sampling Boulder field Cliffside	30	11.2	18.9	14.98	99
3295997	612662	5231048	Black	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrible sampling Hillside Boulder field Underground creeks	30	10.3	30.7	26.24	182
3295998	612664	5231075	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Poor sampling Bouldery Hillside Underground creeks	40	9.8	23.5	17.88	59
3295999	612665	5231090	Brown	Mud	(B) Horizon formed by accumulation of material removed from Ae horizon or by alteration of the parent material	Terrible sampling Boulder field Hillside Underground creek	40	8.4	22.2	18.11	107

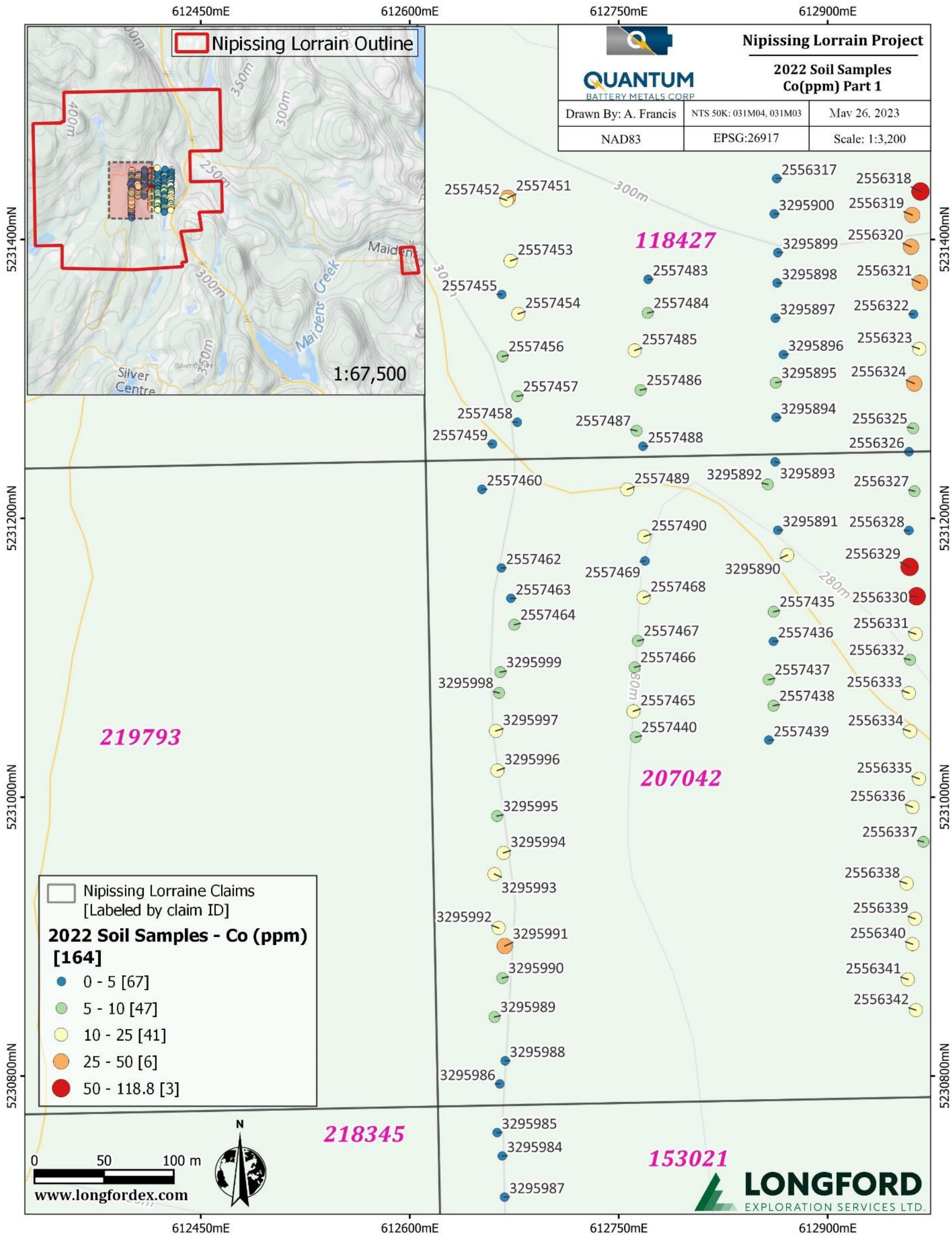

Figure 8.8: 2022 Cobalt in Soils-Map 1 (ppm Co).

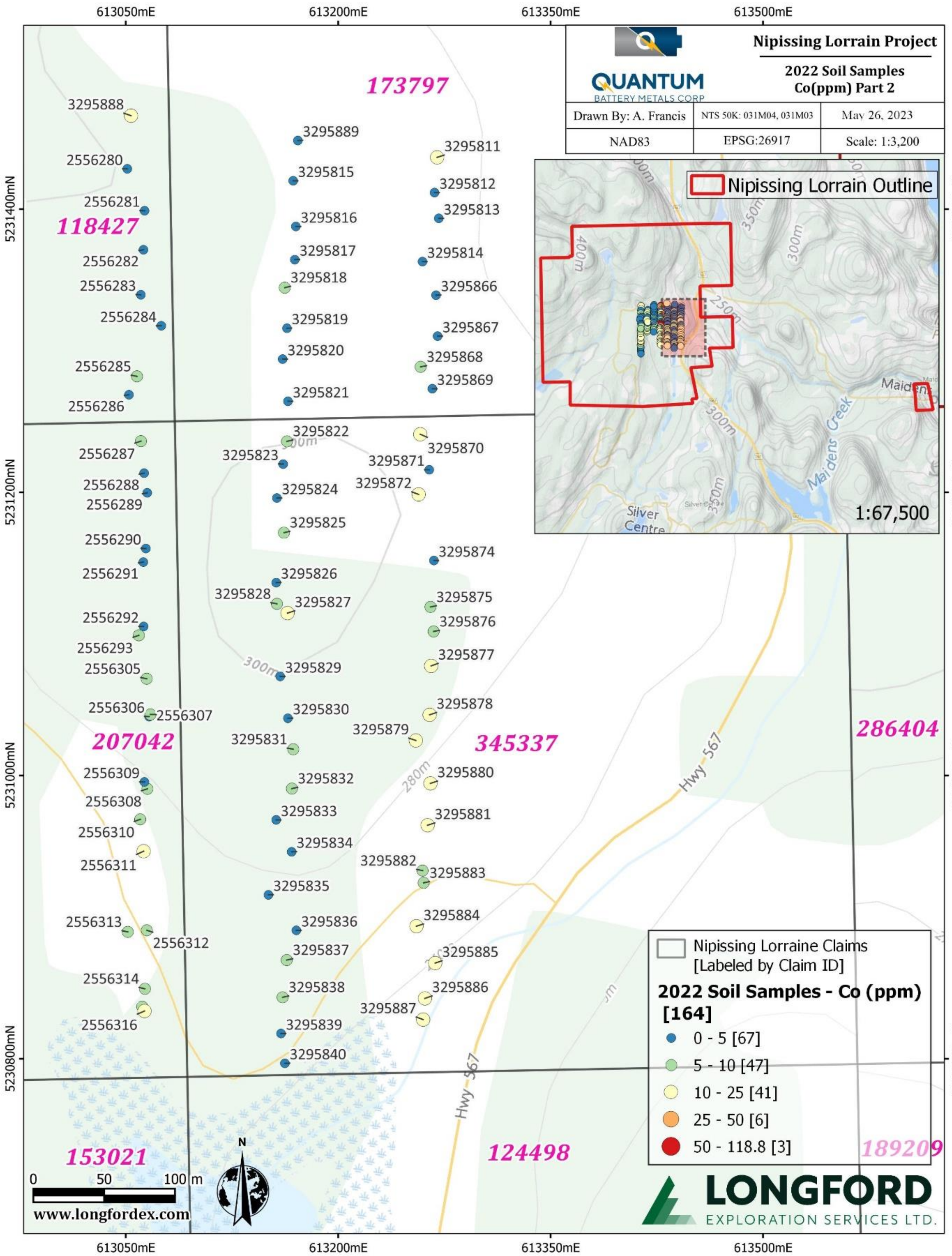

Figure 8.9: 2022 Cobalt in Soils-Map 2 (ppm Co).

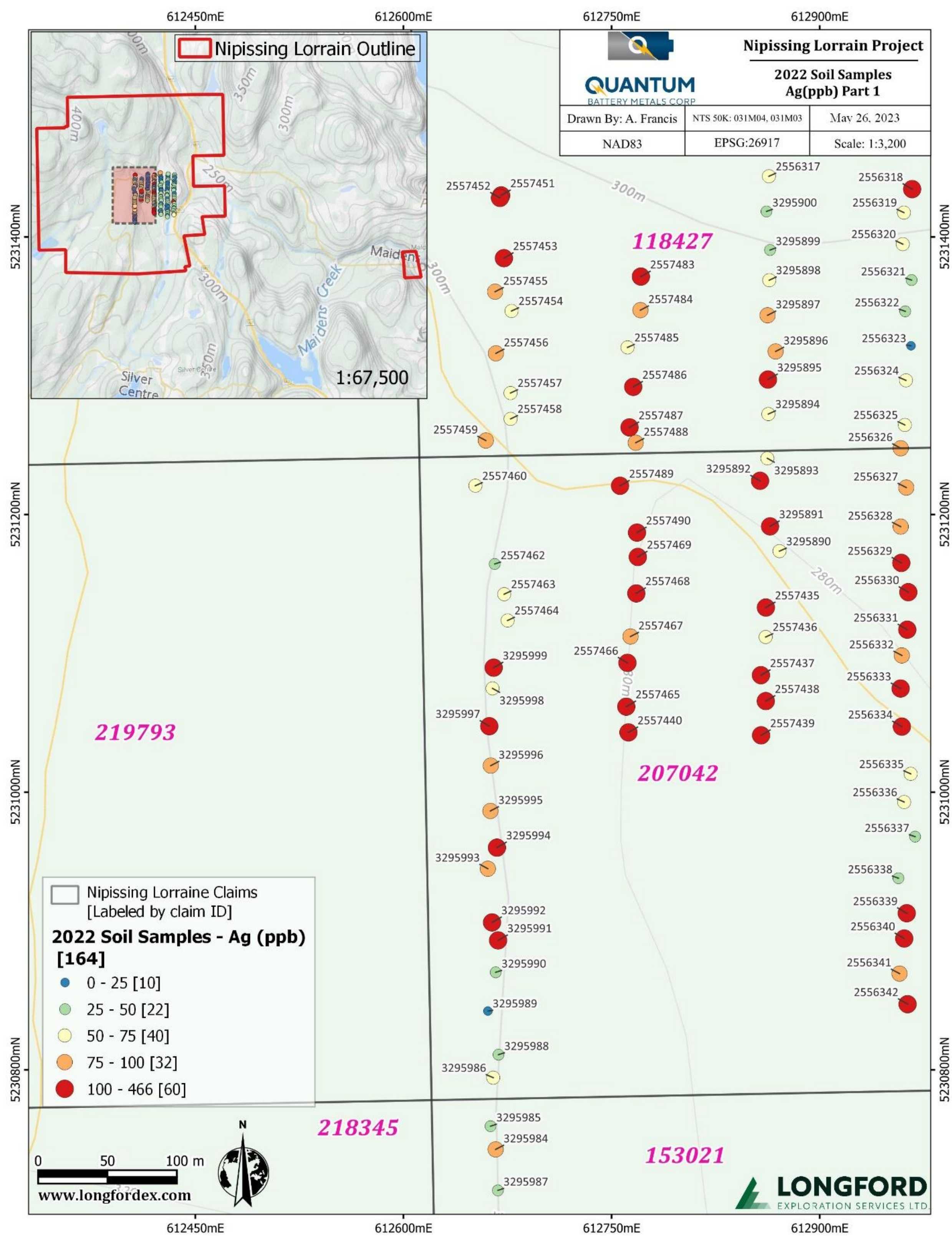

Figure 8.10: 2022 Silver in Soils Map 1 (ppm Ag).

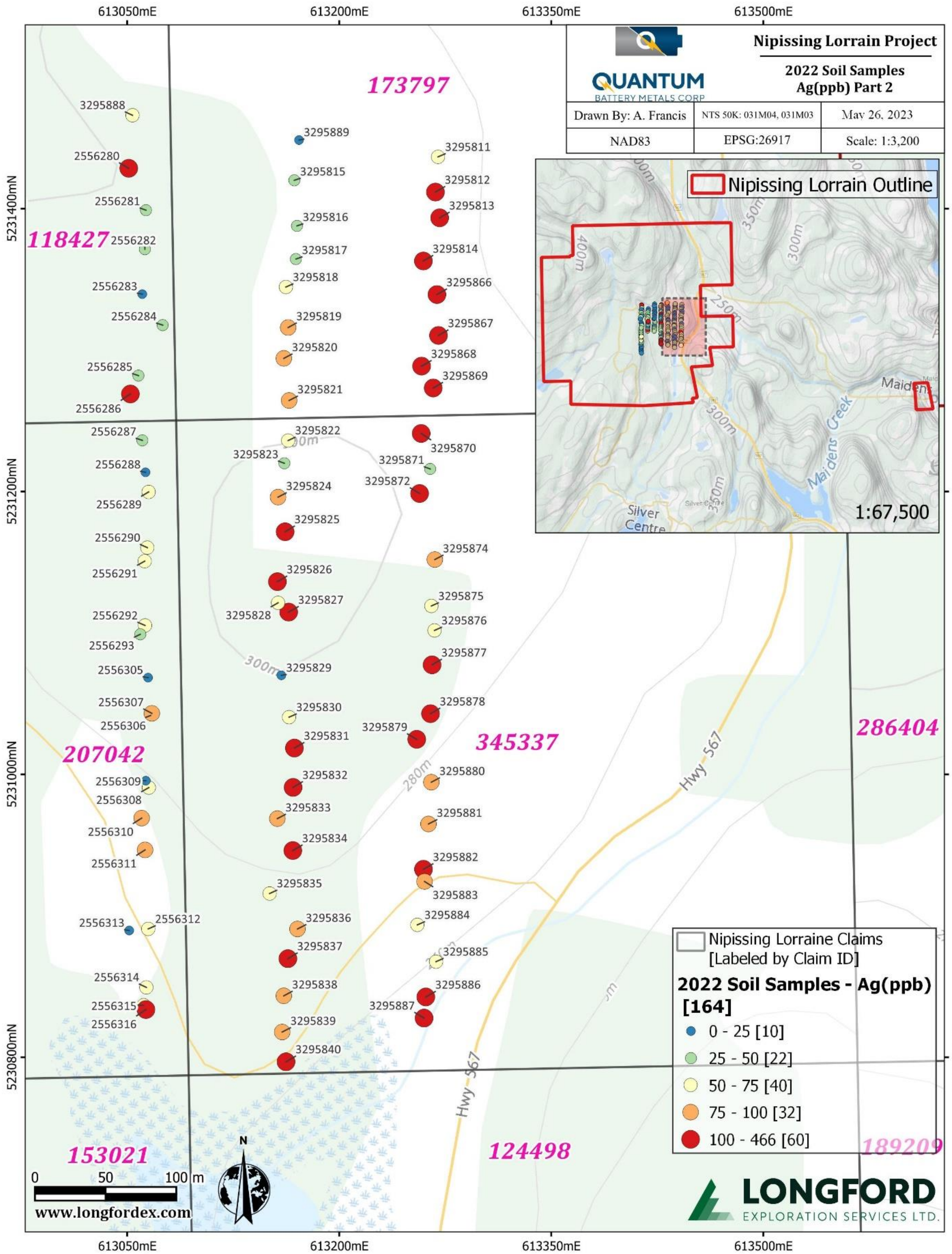

Figure 8.11: 2022 Silver in Soils Map 2 (ppm Ag).

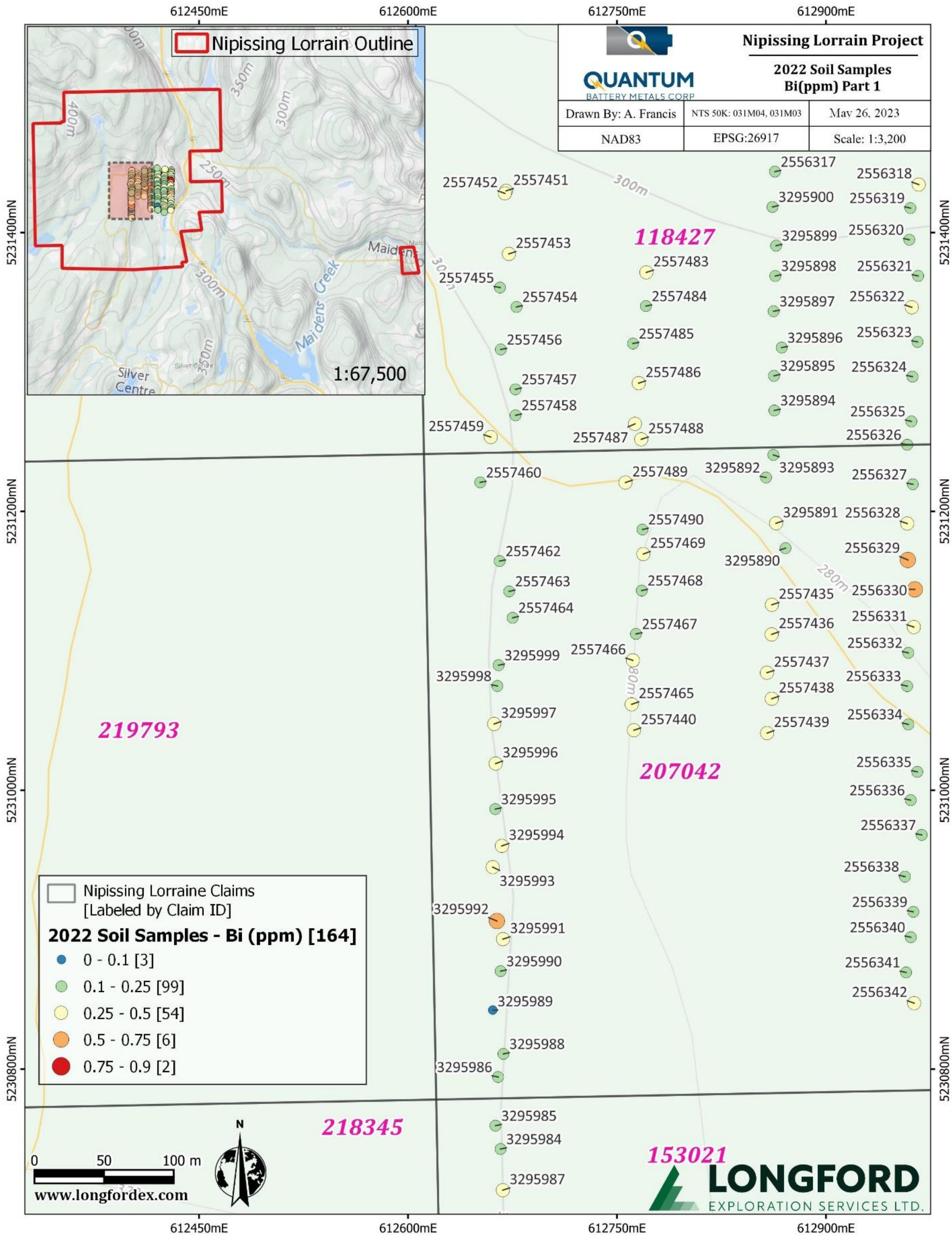

Figure 8.12: 2022 Bismuth in Soils Map 1 (ppm Bi).

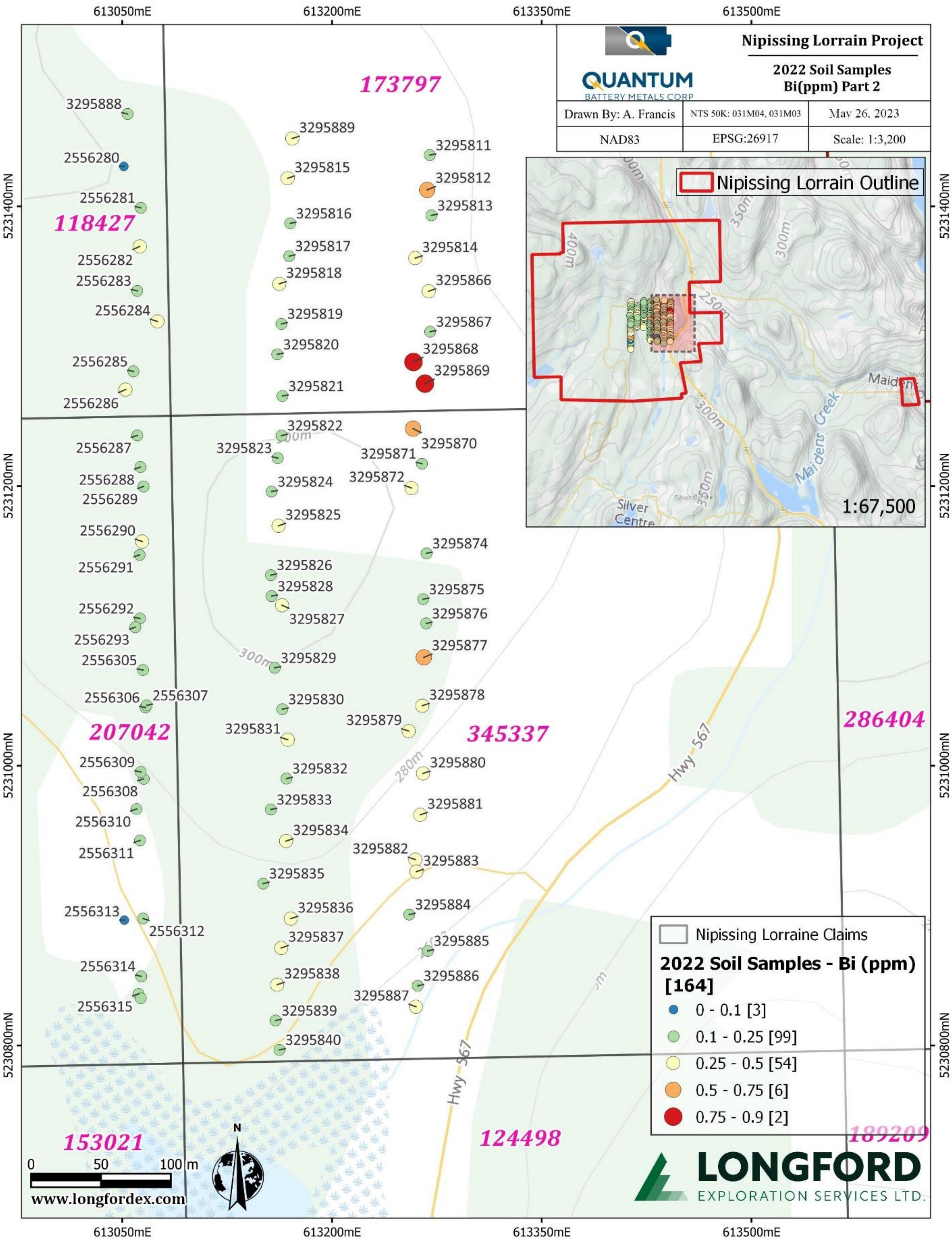

Figure 8.13: 2022 Bismuth in Soils Map 2 (ppm Bi).

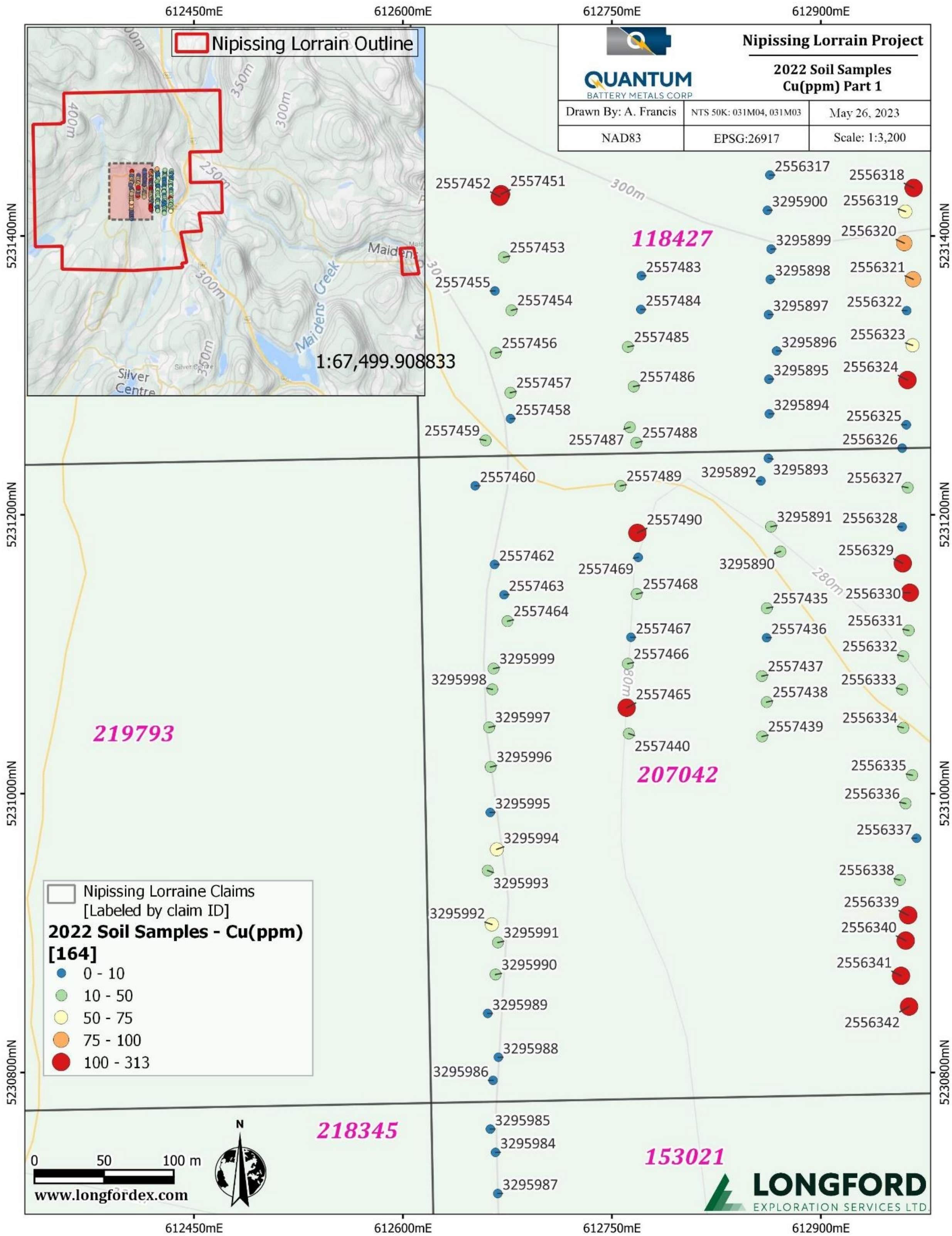

Figure 8.14: 2022 Copper in Soils Map 1 (ppm Cu).

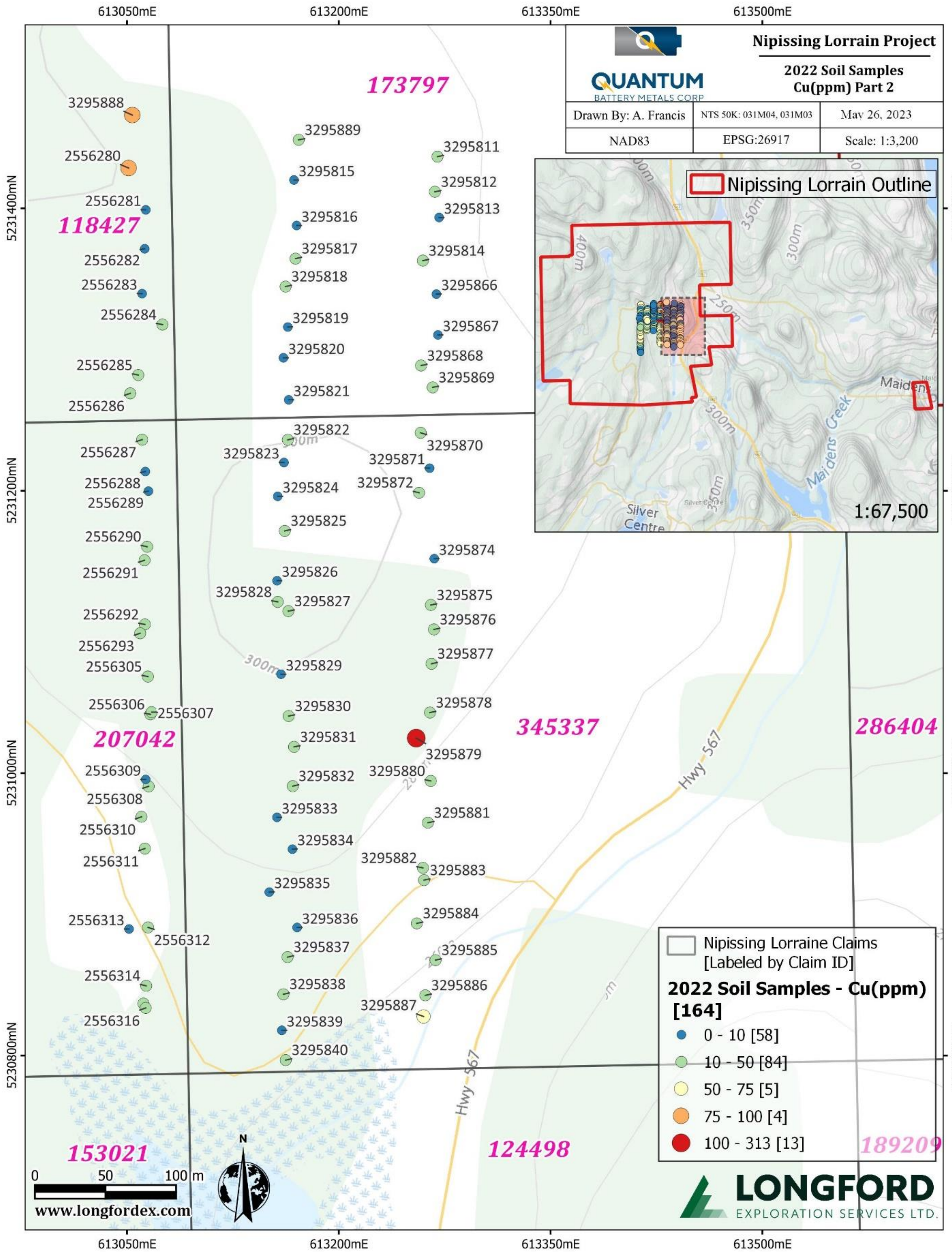

Figure 8.15: 2022 Copper in Soils Map 2 (ppm Cu).

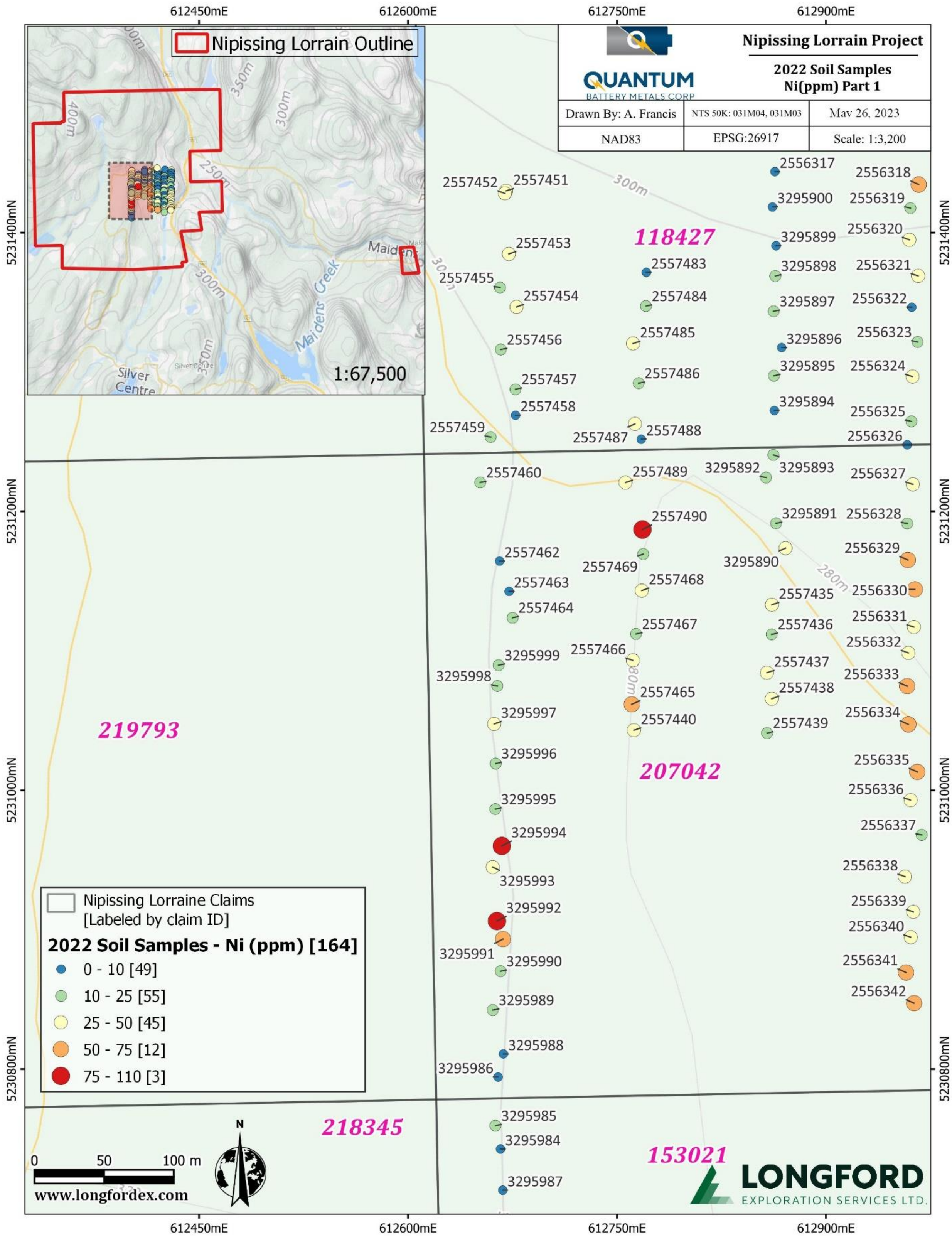

Figure 8.16: 2022 Nickle in Soils Map 1 (ppm Ni).

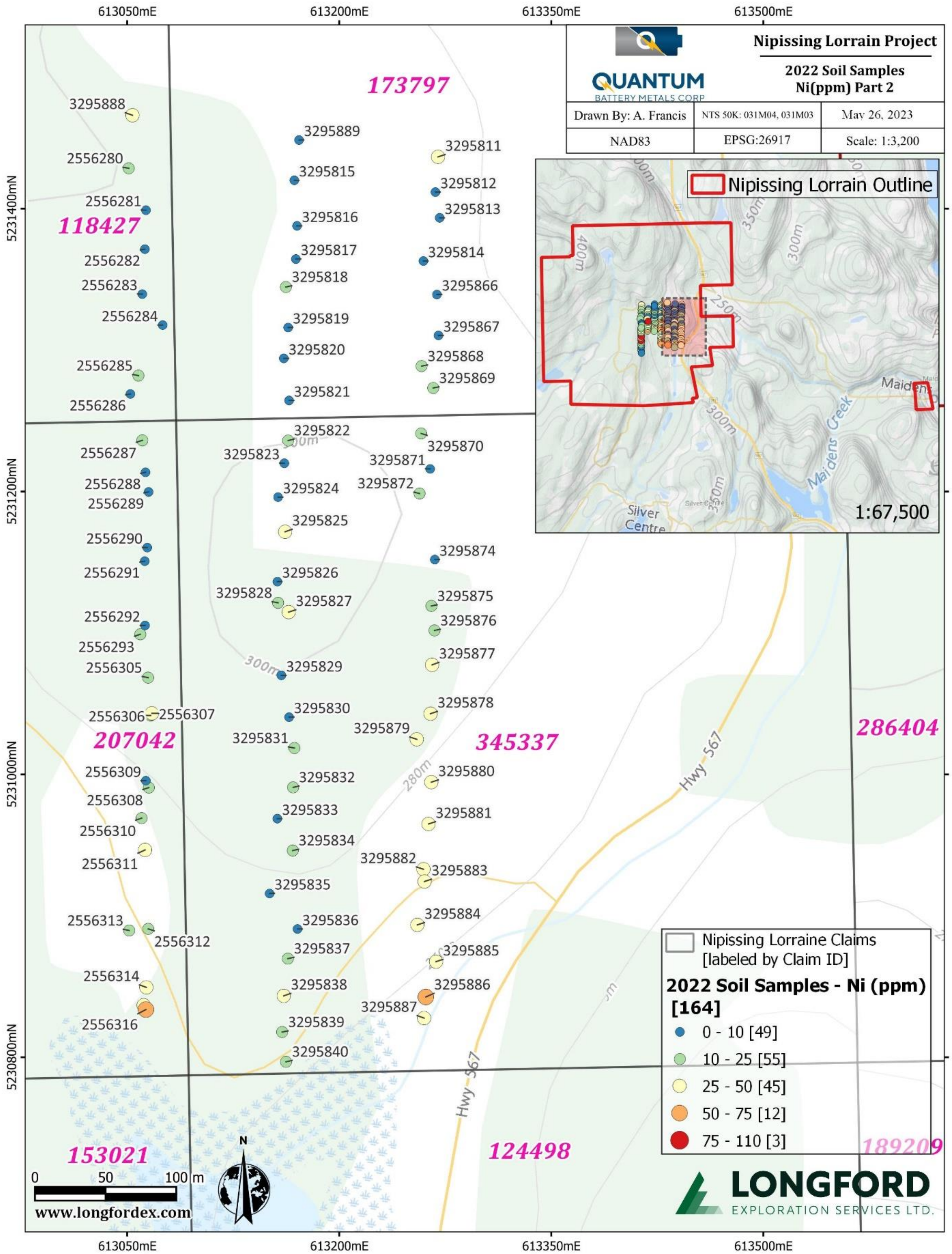

Figure 8.17: 2022 Nickle in Soils Map 2 (ppm Ni).

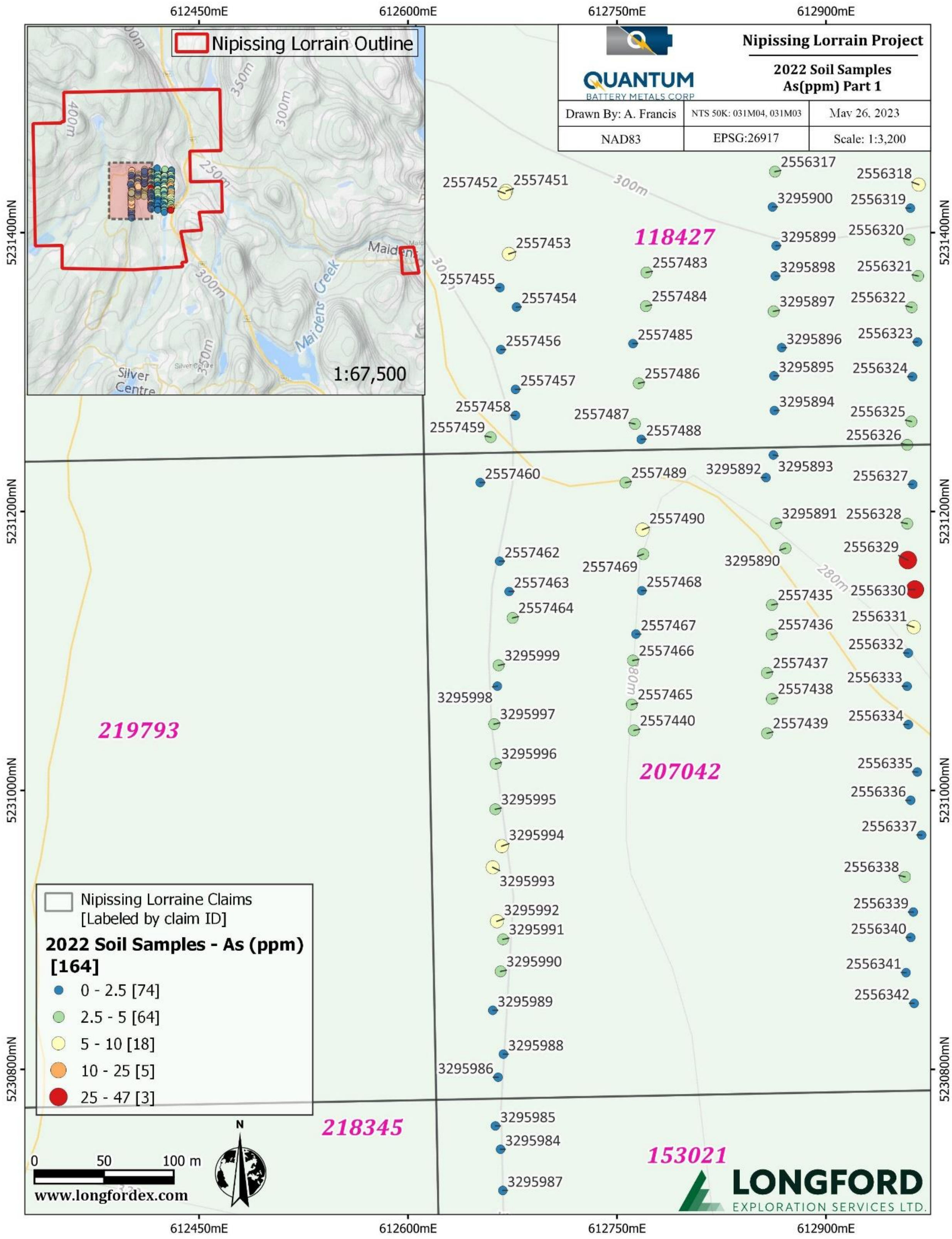

Figure 8.18: 2022 Arsenic in Soils Map 1 (ppm As).

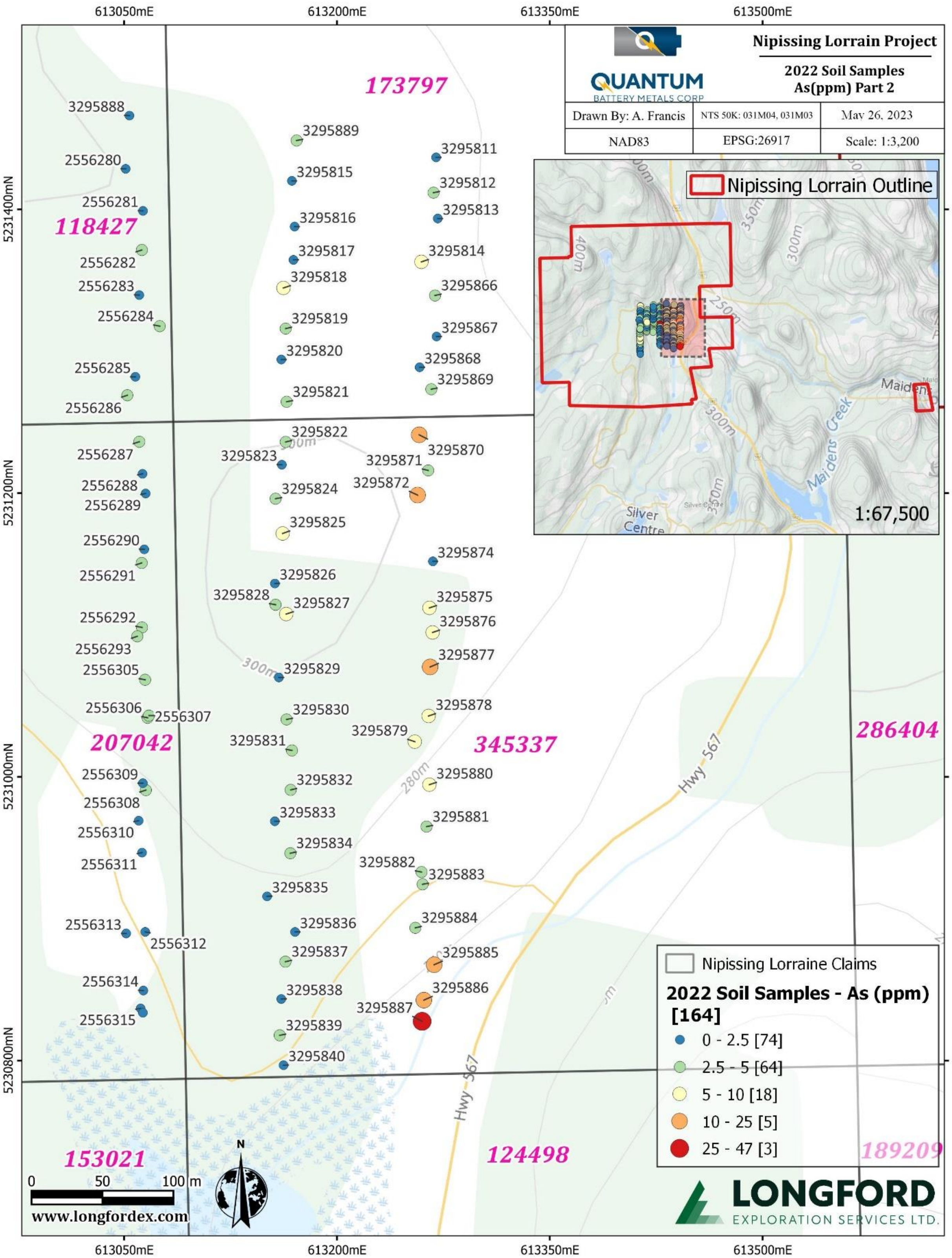

Figure 8.19: 2022 Arsenic in Soils Map 2 (ppm As).

9 Statement of Costs

The following table describes the costs of the work program which are eligible for assessment credit. The amount being applied for is $43,463.75.

Table 9.1: Nipissing Lorrain Property 2022 Statement of Costs.

DATE: June 16, 2023

LONGFORD EXPLORATION SERVICES LTD.

SEND TO:
Quantum Battery Metals Corp.
400-837 West Hasting Street
Vancouver, BC
Canada, V6C 3N6

Longford Exploration Services Ltd.
1680-355 Burrard Street
Vancouver, BC
Canada V6C 2G8
778-809-7009

2022 Nipissing Lorrain Property Invoice

Personnel		**Days**	**Rate**	**Line Total**
P.Geo- Marc Andre Pelletier	May 26-27, May 30 & 31, and June 1-2, 2022	5	$ 1,150.00	$ 5,750.00
Project Manager -R. Versloot	May 26-27, May 30 & 31, and June 1-2, 2023	5	$ 920.00	$ 4,600.00
Senior Field Technician-F. Thompson	May 26-27, May 30-31, and June 1-2, 2022	6	$ 575.00	$ 3,450.00
Field Technician-A. Lessard	May 26-27, May 30-31, and June 1-2, 2022	6	$ 460.00	$ 2,760.00
	Total Work Days	22	**Cat. Total**	**$ 16,560.00**
Food and Lodging		**Units**	**Unit Price**	**Line Total**
Food and Groceries	Longford per diem	22	$ 86.25	$ 1,897.50
Lodging	Temagami	22	$ 138.00	$ 3,036.00
			Cat. Total	**$ 4,933.50**
Transportation		**Units**	**Unit Price**	**Line Total**
Truck	Longford Rental, with recovery gear	6	$ 172.50	$ 1,035.00
Fuel	per km for truck	1500	$ 0.75	$ 1,121.25
			Cat. Total	**$ 2,156.25**
Mobilization & Positioning		**Units**	**Unit Price**	**Line Total**
Positioning Fee	Positioning and prep work	4	$ 1,437.50	$ 5,750.00
			Cat. Total	**$ 5,750.00**
Equipment Rentals		**Units**	**Unit Price**	**Line Total**
Misc Hand Tools	Longford rental: Hammers, picks, Mattocks, Shovels, etc	22	$ 28.75	$ 632.50
Electronics Kit	Radios, Sat Phones, GPS, tablets, drone	22	$ 40.25	$ 885.50
	laptops, RTK		**Cat. Total**	**$ 1,518.00**
Analytical		**Units**	**Unit Price**	**Line Total**
Analysis-Soil Samples	SS80, AQ250, 1 Year Storage	166	$ 36.00	$ 5,976.00
Analysis-Rock Samples	PRP-70-250, AQ250, 1 Year Storage	20	$ 41.00	$ 820.00
			Cat. Total	**$ 6,796.00**
Pre and Post Fieldwork		**Units**	**Unit Price**	**Line Total**
GIS/Maps, Assessment Report and Work Filing		1	$ 5,750.00	$ 5,750.00
			Cat. Total	**$ 5,750.00**
		Estimated Sub Total		**$ 43,463.75**
			Sub Total	**$ 43,463.75**
			GST 5%	**$ 2,246.21**
			Total	**$ 45,709.96**

10 Sample Preparation, Analysis, and Security

10.1 2021 Sampling Procedure

During the 2022 program a total of 20 rock samples and 164 soil samples were collected in a manner where sample integrity and provenance is maintained for future analytical procedures.

Rock samples collected were located by GPS in NAD83 UTM Zone 17N, the sample location was recorded in field notebooks, an assay sample tag book and as a waypoint on a Garmin 60CSX GPS unit. Each sample was collected into its own 18" x 12" poly bag labeled with the locale (i.e., "Nipissing Lorrain") and a unique 7-character sample ID (i.e., E5471266) assigned from a barcoded Tyvek sample book. A tear-out tag with the barcode and unique sample ID was inserted in the bag with the sample and the bag sealed with a cable tie in the field. The sample locations are marked in the field with orange flagging type and the unique sample ID number written on the tape.

A similar process was carried out for recording the soil sample data however soils were collected carefully by following strict guidelines. Grid soil sampling was carried at 25 m intervals with a 25 m line spacing. All sample locations were recorded using a hand-held GPS unit. Sample sites were marked using aluminum tags labelled with the sample number affixed to a 50 cm wooden lath that was driven into the ground. The majority of soil samples were collected from approximately 10 cm deep holes using hand-held geo-tools. Each soil sample was placed into individually labelled Kraft paper bags. No duplicate samples were collected during this program. Soil samples were then sent to Bureau Veritas in Vancouver, BC to be dried and screened to -200 microns. The fine fractions were then analyzed using an aqua regia digestion and using inductively coupled plasma-mass spectroscopy technique (ICP-MS).

10.2 Sampling Preparation and Analysis

The rock and soil samples collected during the 2022 prospecting and soil sampling program were submitted for analysis at Bureau Veritas Mineral Laboratories in Vancouver, BC for the following processes:

Table 10.1: Analytical Methods Descriptions.

Sample Type	Procedure Code	Description
Rock	PRP70-250, AQ300, AQ370, FA430	Crush, split and pulverize 250 g rock to 200 mesh, 1:1:1 Aqua Regia digestion ICP-ES analysis; Lead Collection Fire - Assay Fusion - AAS Finish
Soil	SS80, AQ200, AQ370	1:1:1 Aqua Regia digestion ICP-MS analysis; 1:1:1 Aqua Regia digestion ICP-ES analysis

10.1 Adequacy of Procedures

All sample collection and analysis performed by the Longford Exploration field crew are in conformance with industry best practices and are in accordance with typical CIM standards.

11 Interpretation and Conclusions

Rock sampling activities on the Nipissing Lorrain Property in 2022 identified anomalous cobalt values within the smaller claim block of the Property, which were collected from the waste dump pile. The best rock sample assays were found in rock Samples 2556432 and 2556438, which returned a value of 2,000 ppm Co and 1,666.8 ppm Co (Table 11.1), respectively. However, the soil survey returned disappointing results overall.

Rock samples collected from the waste dump returned elevated concentrations of cobalt, silver, bismuth, nickel, copper, arsenic, and gold (Table 11.1). Cobalt values ranged between 15.40 ppm Co and 2,000 ppm Co, silver returned 48 ppb Ag to 29,654 ppb Ag, bismuth ranged between 0.05 ppm Bi and 155.08 ppm Bi, nickel returned between 21.70 ppm Ni and 3,578.50 ppm Ni, copper returned between 16.73 ppm and 861.17ppm Cu, arsenic returned between 5.20 ppm As and > 10,000 ppm As, and gold ranged between 0.02 ppb Au and 75.5 ppb Au.

Background threshold values for soils were calculated using soil samples collected during the 2021 program (38 soil samples) and 2022 program (164 soils) which is still an extremely small sample size. The 97.5th percentile is a commonly used benchmark for determining potentially anomalous values within a large dataset, meaning that the top 2.5% of values within a geochemical population could be considered anomalous values. Threshold values are normally calculated using a very large set of samples; therefore, the calculated background and anomalous values in Table 11.4 are to be considered with skepticism. It is also important to consider the underlying bedrock lithology, as different rock types naturally contain varying elemental concentration.

Based on the 202 soil samples collected across the Property to date, values greater than 713.35 ppm Co, 374.25 ppb Ag, 90.28 ppm Bi, 541.78 ppm Cu, and 482.0 Ni, and 2,792.68 ppm As, would be considered anomalous values (in the 97.5th percentile; Table 11.4).

With regards to the values returned from the 164 soil samples collected on the Property in 2022 (Table 11.2), cobalt values ranged between 0.4 ppm Co and 118.80 ppm Co, silver ranged between 5 ppb Ag and 466 ppb Ag, bismuth returned between 0.07 ppm Bi to 0.90 ppm Bi, copper returned between 2.35 ppm Cu and 312.85 ppm Cu, arsenic ranged between 0.5 ppm and 47 ppm As, and nickel returned between 0.9 ppm Ni and 110.30 ppm Ni. Comparing these values to the 97.5th percentile of all samples collected on the Property to date (202 soils; Table 11.4) only one sample returned anomalous values of bismuth (Sample 3295868 returned 0.90 ppm Bi).

Based on observations made in the field along with assay results for both rock and soils during the 2021 and 2022 field programs, no significant signs of cobalt mineralization have been identified, therefore, no further work is recommended at this time.

Table 11.1: Statistical Analysis of 2022 Rock Sample Results (n=20).

Statistic	Co (ppm)	Ag (ppb)	Bi (ppm)	Ni (ppm)	Cu (ppm)	As (ppm)
mean	223.56	2,673.00	11.97	245.58	148.32	837.05
std dev	554.73	6,963.54	37.76	786.44	184.20	2479.70
mode	20.10	-	0.40	-	-	-
max	2,000.00	29,654.00	155.08	3,578.50	861.17	10,000.00
min	15.40	48.00	0.05	21.70	16.73	5.20
range	1,984.60	29,606.00	155.03	3,556.80	844.44	9,994.80
median	37.10	169.00	0.33	49.85	97.88	36.40

Table 11.2: Statistical Analysis of 2022 Soil Sample Results (n=164).

Statistic	Co (ppm)	Ag (ppb)	Bi (ppm)	Ni (ppm)	Cu (ppm)	As (ppm)
mean	9.45	98.85	0.26	31.81	22.68	3.96
std dev	12.96	73.24	0.13	54.34	18.37	5.31
mode	0.40	31.00	0.18	17.19	18.90	3.40
max	118.80	466.00	0.90	312.85	110.30	47.00
min	<DL	<DL	<DL	<DL	<DL	<DL
range	118.80	466.00	0.90	312.85	110.30	47.00
median	6.50	81.00	0.23	12.73	19.10	2.70

<DL*: Below Detection Limit

Table 3:3 Statistical Analysis of Soil Sample Results from 2021 and 2022 (n=202).

Statistic	Co (ppm)	Ag (ppb)	Bi (ppm)	Ni (ppm)	Cu (ppm)	As (ppm)
mean	77.86	81.42	9.73	51.24	176.10	369.11
std dev	712.01	75.72	102.07	152.76	2,008.63	4,606.22
mode	0.40	0.30	0.20	15.70	18.90	1.80
max	10,000.00	466.00	1,413.70	1,795.00	28,570.00	65,400.00
min	<DL	<DL	<DL	<DL	<DL	<DL
range	10,000.00	466.00	1,413.70	1,795.00	28,570.00	65,400.00
median	8.30	67.50	0.25	16.55	22.70	3.15

<DL*: Below Detection Limit

Table 11.4: Threshold Values Calculated Using Nipissing Lorrain 2021/2022 Soil Samples (n=202).

Percentiles	Co (ppm)	Ag (ppb)	Bi (ppm)	Cu (ppm)	Ni (ppm)	As (ppm)
25th percentile	3.5	31	0.19	8.84	10.55	1.95
50th percentile	8.3	68	0.25	16.59	22.9	3.2
75th percentile	14.9	117	0.38	35.8	41.5	6.2
95th percentile	120.7	210	7.55	288.66	157.1	468.81
97.5 percentile	713.35	374.25	90.280	541.775	482	2,792.67

12 Recommendations

Due to disappointing results no further work is recommended at this time. Despite somewhat elevated concentrations of the elements of interest, there have been no substantive indications of widespread, economic mineralization to warrant further work.

13 References

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Woolham, R.W., (1966), Report on the Geophysical Surveys, South Lorrain Township, Prepared for Millerfields Silver Corp. Ltd., April 27, 1966

14 Statement of Qualification

I, Sarah Ryan, of 38 Gallipoli Street, St John's, NL, Canada do hereby certify the following:

- I graduated from Memorial University of Newfoundland with a degree in Earth Sciences in 2018, and I have practiced my profession continuously since 2018.
- From 2018 to present I have been working in Canada in mineral exploration and have been actively involved in projects in BC, YK, NWT, ON, QC and NL.
- I am registered as a G.I.T with PEG-NL and I am in good standing.
- I am a Consulting Geologist and have been so since 2018.
- I am the author of the Assessment Report entitled: "2022 Assessment Report on the Nipissing Lorrain Property, Ontario, Canada", effective date June 13, 2022.

	June 13, 2023
Sarah Ryan, G.I.T., B.Sc., B.B.S.	Date

The assessment work reported in the report titled, "2022 Assessment Report on the Nipissing Lorrain Property, ON, Canada", Effective Date June 13, 2023, was supervised by:

Dated this June 13th, 2023.

(Signed and Sealed) "Luke van der Meer"
Luke van der Meer. P. Geo
VP of Exploration for Longford Exploration Services Ltd.

APPENDIX A: 2022 Rock Sample Assay Certificates

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bvna.com/mining-laboratory-services

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Longford Exploration Services Ltd.**
Marine Building, Unit 1680
355 Burrard St.
Vancouver British Columbia V6C 2G8 Canada

Submitted By:	Ryan Versloot
Receiving Lab:	Canada-Timmins
Received:	June 08, 2022
Analysis Start:	August 25, 2022
Report Date:	March 30, 2023
Page:	1 of 2

CERTIFICATE OF ANALYSIS TIM22001601.1

CLIENT JOB INFORMATION

Project:	Nipissing Lorrain
Shipment ID:	
P.O. Number	
Number of Samples:	20

SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT	Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	20	Crush, split and pulverize 250 g rock to 200 mesh			TIM
SHP01	20	Per sample shipping charges for branch shipments			TIM
AQ250	20	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: Longford Exploration Services Ltd.
Marine Building, Unit 1680
355 Burrard St.
Vancouver British Columbia V6C 2G8
Canada

CC: Vedran Pobric

KERRY JAY
Geochem Project Specialist

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bvna.com/mining-laboratory-services

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client: **Longford Exploration Services Ltd.**
Marine Building, Unit 1680
355 Burrard St.
Vancouver British Columbia V6C 2G8 Canada

Project: Nipissing Lorrain
Report Date: March 30, 2023

Page: 2 of 2 Part: 1 of 2

CERTIFICATE OF ANALYSIS TIM22001601.1

	Method	WGHT	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01
2556424	Drill Core	1.49	3.13	137.39	6.04	46.1	77	35.0	26.4	442	3.47	17.3	0.2	2.7	1.3	27.9	<0.01	0.11	0.15	84	1.47
2556425	Drill Core	1.82	1.20	48.32	3.18	54.5	167	30.2	24.7	483	5.28	10.6	0.6	0.4	2.6	12.6	0.04	0.54	0.08	126	1.17
2556426	Drill Core	1.44	2.21	210.28	10.79	109.6	1572	212.5	48.4	401	3.80	41.4	0.2	2.9	1.5	25.2	0.25	0.32	0.21	73	0.95
2556427	Drill Core	1.24	4.47	97.83	19.73	41.0	171	91.0	47.3	658	3.69	211.0	0.3	1.7	1.2	24.1	<0.01	0.23	0.40	76	3.58
2556428	Drill Core	1.37	0.86	46.46	3.35	26.2	54	37.6	20.1	316	3.83	5.2	1.2	0.6	4.0	20.5	<0.01	0.08	0.09	124	0.69
2556429	Drill Core	2.14	1.64	107.36	1.87	23.9	64	30.5	30.9	292	4.59	19.3	0.6	0.5	2.8	10.2	<0.01	0.11	0.12	219	0.74
2556430	Drill Core	1.07	1.04	52.98	1.89	31.4	79	34.4	20.1	392	4.75	11.1	1.2	0.7	5.4	11.0	<0.01	0.16	0.05	62	0.92
2556431	Drill Core	2.24	4.34	17.55	1.28	12.8	48	21.7	15.4	229	2.67	8.8	0.9	0.4	3.3	7.8	<0.01	0.13	0.07	99	0.73
2556432	Drill Core	2.03	14.15	133.83	18.84	51.2	11976	3578.5	>2000	695	5.85	>10000	0.1	75.5	0.4	13.8	<0.01	0.82	76.84	178	1.01
2556433	Drill Core	2.96	1.49	16.73	2.57	13.3	72	33.4	25.8	226	3.49	24.8	2.3	0.6	10.5	6.1	<0.01	0.16	0.30	68	0.47
2556434	Drill Core	1.90	3.47	97.93	3.44	32.6	134	45.8	60.4	407	3.57	40.3	0.3	0.9	0.4	25.1	0.01	0.14	0.42	113	1.67
2556435	Drill Core	1.89	0.77	87.72	3.96	42.8	293	78.2	36.8	427	4.59	35.1	0.5	1.3	2.1	9.4	<0.01	0.10	0.57	248	1.03
2556436	Drill Core	2.25	1.78	172.85	2.52	30.9	117	24.9	22.2	316	4.64	14.7	0.5	2.1	2.1	7.4	<0.01	0.07	0.12	275	0.95
2556437	Drill Core	2.45	24.87	116.54	11.45	46.6	591	110.7	46.4	696	4.36	84.9	0.5	0.9	1.8	28.9	<0.01	0.20	1.07	129	5.16
2556438	Drill Core	2.21	8.87	96.23	6.20	69.5	187	209.1	1666.8	443	4.88	5528.9	0.7	0.7	3.1	7.7	0.32	0.64	2.11	200	0.73
2556439	Drill Core	3.10	13.32	861.17	11.65	50.6	5960	82.2	42.8	470	4.12	37.7	0.2	17.1	0.9	13.8	0.02	0.50	0.40	126	0.93
2556440	Drill Core	3.45	2.12	56.64	1.39	20.3	114	56.2	32.3	356	3.49	18.9	0.8	0.5	2.4	17.6	<0.01	0.19	0.36	87	0.95
2556441	Drill Core	3.01	6.57	245.36	27.48	53.0	29654	109.4	55.7	997	5.04	158.5	0.3	1.2	0.8	24.0	0.09	14.51	0.89	107	2.55
2556442	Drill Core	4.05	1.95	311.37	15.44	25.0	1604	36.3	37.4	274	3.31	39.8	1.8	0.2	8.2	10.8	<0.01	0.44	0.09	76	0.60
2556443	Drill Core	2.64	2.73	51.91	4.53	33.9	526	53.9	211.2	820	3.83	432.6	1.1	5.5	1.5	25.3	<0.01	0.22	155.08	126	5.01

BUREAU VERITAS MINERAL LABORATORIES Canada

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Client: **Longford Exploration Services Ltd.**
Marine Building, Unit 1680
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Vancouver British Columbia V6C 2G8 Canada

Project: Nipissing Lorrain
Report Date: March 30, 2023

Page: 2 of 2 Part: 2 of 2

CERTIFICATE OF ANALYSIS TIM22001601.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.001	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
2556424	Drill Core	0.036	7.4	58.3	1.58	33.6	0.176	<20	1.76	0.097	0.14	0.2	7.1	0.05	0.16	9	0.6	<0.02	6.2
2556425	Drill Core	0.192	18.6	44.7	1.38	50.3	0.152	<20	1.72	0.126	0.39	0.1	11.1	0.11	0.05	10	0.6	<0.02	11.1
2556426	Drill Core	0.041	6.3	261.4	2.25	9.6	0.215	<20	2.08	0.086	0.10	0.4	4.3	0.07	0.14	214	0.4	<0.02	6.6
2556427	Drill Core	0.038	19.8	166.3	2.76	4.5	0.151	<20	1.76	0.051	0.07	0.4	6.6	0.03	0.10	21	0.2	<0.02	8.1
2556428	Drill Core	0.057	16.1	76.1	1.51	13.3	0.094	<20	1.64	0.106	0.09	<0.1	9.0	0.03	0.12	7	0.4	<0.02	9.6
2556429	Drill Core	0.048	9.6	70.1	1.21	7.2	0.130	<20	1.36	0.100	0.07	<0.1	9.0	0.03	0.20	13	0.6	<0.02	8.5
2556430	Drill Core	0.178	23.3	77.2	1.93	17.3	0.152	<20	1.97	0.064	0.15	<0.1	11.5	0.07	0.09	18	0.5	<0.02	14.3
2556431	Drill Core	0.034	7.7	51.9	0.90	4.0	0.057	<20	0.99	0.101	0.04	<0.1	6.1	<0.02	0.09	14	0.4	<0.02	6.1
2556432	Drill Core	0.030	3.7	104.2	2.10	26.5	0.083	<20	2.36	0.101	0.40	0.2	10.0	0.21	0.61	87	1.1	0.07	9.5
2556433	Drill Core	0.046	22.9	62.1	1.34	4.9	0.061	<20	1.41	0.074	0.05	<0.1	7.9	<0.02	0.12	19	0.3	<0.02	9.5
2556434	Drill Core	0.032	5.0	60.0	1.34	12.0	0.171	<20	1.52	0.089	0.13	2.3	7.8	0.05	0.43	134	1.0	0.03	5.6
2556435	Drill Core	0.043	7.9	71.4	1.65	5.6	0.182	<20	1.76	0.127	0.05	0.2	8.4	0.02	0.14	52	0.5	<0.02	8.8
2556436	Drill Core	0.043	7.3	33.1	1.19	7.9	0.156	<20	1.30	0.098	0.09	0.2	8.2	0.03	0.12	15	0.4	<0.02	7.9
2556437	Drill Core	0.040	13.2	195.4	2.72	4.6	0.150	<20	1.67	0.059	0.06	0.2	8.7	0.04	0.23	31	0.7	0.03	7.9
2556438	Drill Core	0.046	14.6	152.5	2.14	5.2	0.078	<20	1.76	0.069	0.06	<0.1	7.1	0.03	0.15	32	0.5	<0.02	9.6
2556439	Drill Core	0.032	3.3	67.3	1.44	15.4	0.174	<20	1.72	0.108	0.15	0.2	7.5	0.12	0.36	57	0.8	0.04	6.8
2556440	Drill Core	0.034	5.0	109.9	1.55	27.5	0.150	<20	1.79	0.100	0.36	0.5	8.0	0.17	0.16	38	0.4	0.02	8.8
2556441	Drill Core	0.061	9.8	351.1	2.89	11.7	0.120	<20	2.88	0.098	0.16	0.2	11.7	0.09	0.15	95	0.6	0.03	10.3
2556442	Drill Core	0.047	23.4	68.9	1.26	9.6	0.103	<20	1.47	0.083	0.07	<0.1	7.6	0.03	0.10	52	0.4	<0.02	9.1
2556443	Drill Core	0.042	8.9	33.5	2.33	4.1	0.131	<20	1.41	0.064	0.05	0.2	11.2	0.03	0.27	76	0.7	0.03	8.3

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Project: Nipissing Lorrain
Report Date: March 30, 2023

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QUALITY CONTROL REPORT TIM22001601.1

	Method	WGHT	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01
Reference Materials																					
STD BVGEO01	Standard		11.17	4487.42	180.91	1739.6	2705	165.6	27.7	733	3.84	122.7	3.8	203.8	14.6	56.1	6.98	2.13	23.32	75	1.35
STD OREAS262	Standard		0.65	117.33	56.58	162.7	497	70.4	30.8	549	3.38	39.4	1.2	55.2	9.2	36.3	0.67	1.99	0.95	22	3.06
STD BVGEO01 Expected			10.8	4415	187	1712	2530	163	25	706	3.7	121	3.67	214	14.4	55	6.25	2.2	24.3	73	1.3219
STD OREAS262 Expected			0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	3.39	1.03	22.5	2.98
BLK	Blank		<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.2	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01
Prep Wash																					
ROCK-TIM	Prep Blank		0.75	8.87	0.79	28.1	7	2.4	5.2	451	1.97	0.7	0.3	0.8	2.1	22.9	<0.01	<0.02	0.08	31	0.71

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Page: 1 of 1 Part: 2 of 2

QUALITY CONTROL REPORT TIM22001601.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.001	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
Reference Materials																			
STD BVGEO01	Standard	0.070	25.1	169.1	1.34	322.4	0.249	<20	2.36	0.200	0.90	4.5	6.3	0.65	0.70	99	5.2	1.05	7.7
STD OREAS262	Standard	0.038	17.0	47.1	1.21	245.2	0.003	<20	1.34	0.071	0.32	<0.1	3.4	0.49	0.28	177	0.8	0.24	4.3
STD BVGEO01 Expected		0.0727	25.9	171	1.3175	340	0.233		2.2628	0.1924	0.8669	3.5	5.97	0.62	0.6655	100	4.84	1.02	7.37
STD OREAS262 Expected		0.04	15.9	41.7	1.17	248	0.003		1.3	0.071	0.312	0.13	3.24	0.47	0.269	170	0.4	0.23	3.9
BLK	Blank	<0.001	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
Prep Wash																			
ROCK-TIM	Prep Blank	0.036	5.4	5.7	0.54	42.1	0.091	<20	1.07	0.100	0.08	<0.1	2.4	<0.02	<0.02	<5	0.2	<0.02	3.8

APPENDIX B: 2022 Soil Sample Assay Certificates

BUREAU VERITAS MINERAL LABORATORIES Canada

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Client: **Longford Exploration Services Ltd.**
Marine Building, Unit 1680
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Vancouver British Columbia V6C 2G8 Canada

Submitted By:	Ryan Versloot
Receiving Lab:	Canada-Timmins
Received:	June 08, 2022
Analysis Start:	August 24, 2022
Report Date:	May 15, 2023
Page:	1 of 4

CERTIFICATE OF ANALYSIS TIM22001602.1

CLIENT JOB INFORMATION

Project:	Nipissing Lorrain
Shipment ID:	
P.O. Number	
Number of Samples:	85

SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT	Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	85	Dry at 60C		Completed	TIM
SS80	85	Dry at 60C sieve 100g to -80 mesh		Completed	TIM
AQ250	85	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	0.5	Completed	VAN
SHP01	85	Per sample shipping charges for branch shipments			TIM
SVRJT	85	Save all or part of Soil Reject			TIM

ADDITIONAL COMMENTS

Invoice To: Longford Exploration Services Ltd.
Marine Building, Unit 1680
355 Burrard St.
Vancouver British Columbia V6C 2G8
Canada

CC: Vedran Pobric

GEORGE ARCALA
Instrumentation Shift Supervisor

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Project: Nipissing Lorrain
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Page: 2 of 4 Part: 1 of 2

CERTIFICATE OF ANALYSIS TIM22001602.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
2556280	Soil	2.25	75.61	4.02	37.8	147	10.9	2.4	71	0.49	1.7	20.1	4.4	1.6	51.6	1.03	0.18	0.08	18	2.82	0.046
2556281	Soil	0.35	4.86	4.97	13.0	47	3.0	0.9	25	0.44	1.3	0.3	1.6	1.1	7.5	0.12	0.03	0.12	18	0.08	0.012
2556282	Soil	0.47	7.02	19.94	18.2	31	6.8	2.2	47	0.90	4.8	0.3	1.0	1.8	9.4	0.07	0.09	0.39	22	0.08	0.015
2556283	Soil	0.28	4.14	8.77	11.9	25	3.3	0.9	24	0.56	2.1	0.2	1.5	1.0	6.8	0.11	0.04	0.20	16	0.05	0.015
2556284	Soil	0.96	12.66	18.71	23.2	48	6.9	1.8	37	1.12	4.3	0.4	1.1	2.1	7.3	0.11	0.11	0.36	23	0.06	0.021
2556285	Soil	0.82	17.52	7.19	36.4	36	22.0	7.0	152	1.57	2.5	0.4	1.4	3.4	20.4	0.16	0.04	0.15	34	0.21	0.014
2556286	Soil	2.99	30.07	9.13	29.5	266	5.7	1.7	29	1.62	4.5	0.5	1.7	3.0	5.3	0.16	0.09	0.38	35	0.05	0.043
2556287	Soil	0.68	17.19	75.42	65.0	37	24.9	8.4	74	2.53	3.4	0.7	0.5	4.7	6.7	0.21	0.08	0.16	30	0.07	0.074
2556288	Soil	0.08	2.57	6.43	5.3	14	0.9	0.4	20	0.10	0.5	0.2	0.6	2.5	3.0	0.05	0.02	0.11	4	0.02	0.005
2556289	Soil	0.37	6.86	10.25	14.4	55	2.7	1.1	26	0.95	2.5	0.6	0.9	2.2	6.3	0.13	0.04	0.23	29	0.04	0.026
2556290	Soil	0.24	12.29	11.56	10.7	59	2.0	0.7	24	0.17	1.6	0.4	2.0	0.2	4.9	0.11	0.04	0.34	7	0.04	0.024
2556291	Soil	0.49	29.97	11.64	35.8	54	9.4	3.6	59	1.89	2.7	0.4	0.5	2.8	7.3	0.13	0.05	0.20	42	0.07	0.042
2556292	Soil	0.51	21.48	8.93	23.4	56	7.1	2.5	33	1.84	4.1	0.3	1.8	2.8	7.4	0.10	0.07	0.20	49	0.07	0.031
2556293	Soil	0.59	14.60	8.46	32.8	31	15.5	5.2	48	1.81	3.1	0.4	0.7	2.7	8.6	0.13	0.06	0.18	42	0.08	0.024
2556305	Soil	0.36	25.76	9.69	14.7	5	22.1	9.0	46	1.24	3.4	0.4	0.9	2.9	6.5	0.09	0.06	0.15	24	0.07	0.023
2556306	Soil	0.36	22.95	10.38	25.2	16	17.0	4.7	52	1.26	3.4	0.3	0.5	2.0	9.4	0.17	0.06	0.16	30	0.11	0.030
2556307	Soil	0.27	26.90	7.25	41.1	100	26.6	8.4	153	1.66	2.8	0.4	0.6	2.4	12.2	0.11	0.06	0.15	31	0.14	0.048
2556308	Soil	0.29	23.55	7.50	32.4	66	17.7	7.6	182	1.30	3.0	0.3	1.0	2.2	11.0	0.17	0.06	0.16	24	0.12	0.058
2556309	Soil	0.12	6.93	6.03	7.9	25	5.1	1.5	38	0.64	2.0	0.2	0.2	2.0	6.8	0.05	0.04	0.11	16	0.08	0.028
2556310	Soil	0.26	20.35	10.20	34.7	95	22.2	7.5	208	1.47	2.4	0.4	0.8	2.5	13.0	0.15	0.04	0.21	31	0.18	0.033
2556311	Soil	0.33	17.20	10.84	51.8	87	31.6	10.1	195	2.34	2.3	0.4	6.9	2.2	26.0	0.26	0.05	0.21	47	0.39	0.038
2556312	Soil	0.20	10.57	10.72	27.9	64	20.7	6.0	116	1.24	2.0	0.3	0.8	2.2	14.9	0.13	0.05	0.19	26	0.19	0.019
2556313	Soil	0.16	7.93	4.79	28.4	22	18.9	6.3	207	1.25	1.0	0.4	1.3	2.8	16.1	0.07	<0.02	0.08	27	0.24	0.029
2556314	Soil	0.22	11.93	11.37	37.2	55	27.8	8.1	313	1.50	1.5	0.3	2.9	1.9	25.8	0.18	0.06	0.19	33	0.43	0.022
2556315	Soil	0.26	12.93	11.71	39.9	63	26.1	8.3	353	1.53	1.5	0.4	0.8	2.6	25.9	0.18	0.05	0.17	35	0.47	0.015
2556316	Soil	0.22	23.11	14.54	61.8	129	52.7	19.4	422	2.91	2.2	0.9	0.8	5.6	35.2	0.23	0.04	0.25	55	0.69	0.021
2556317	Soil	0.34	7.38	11.37	21.9	54	4.7	1.4	65	1.18	2.7	0.3	0.7	1.2	6.4	0.11	0.06	0.23	27	0.05	0.046
2556318	Soil	1.19	304.71	26.19	80.7	348	59.7	118.8	2078	1.91	5.9	7.2	1.6	1.0	39.9	0.84	0.19	0.41	34	0.78	0.153
2556319	Soil	0.69	63.61	9.14	35.3	56	22.5	34.4	651	1.17	2.3	1.6	0.8	1.2	16.6	0.10	0.04	0.19	20	0.27	0.041
2556320	Soil	1.32	85.77	11.53	65.7	72	26.1	48.6	443	1.56	2.9	2.0	3.9	2.3	14.3	0.20	0.05	0.23	28	0.18	0.029

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Project: Nipissing Lorrain
Report Date: May 15, 2023

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	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
2556280	Soil	15.3	15.5	0.18	84.6	0.014	<20	0.64	0.011	0.02	0.2	2.3	0.03	0.35	227	2.6	<0.02	1.3
2556281	Soil	7.5	7.9	0.04	24.2	0.014	<20	0.41	0.004	0.03	<0.1	0.7	0.07	<0.02	21	<0.1	<0.02	3.4
2556282	Soil	9.1	14.2	0.10	27.1	0.041	<20	0.60	0.005	0.04	<0.1	1.1	0.07	<0.02	29	0.5	0.05	3.9
2556283	Soil	7.7	9.7	0.05	18.4	0.028	<20	0.42	0.003	0.03	<0.1	0.6	0.06	<0.02	19	0.1	<0.02	3.3
2556284	Soil	8.3	19.6	0.08	29.5	0.032	<20	0.99	0.003	0.03	<0.1	1.0	0.07	0.02	58	0.3	0.06	4.1
2556285	Soil	10.8	46.5	0.47	60.4	0.088	<20	1.33	0.013	0.05	<0.1	3.0	0.08	<0.02	21	<0.1	0.02	4.7
2556286	Soil	6.6	25.4	0.07	20.1	0.033	<20	1.95	0.002	0.03	<0.1	1.6	0.06	0.03	89	0.8	0.06	4.6
2556287	Soil	10.2	41.1	0.25	49.0	0.051	<20	3.56	0.004	0.04	<0.1	4.7	0.07	0.05	137	0.7	0.03	5.2
2556288	Soil	10.8	2.5	<0.01	9.7	0.017	<20	0.14	0.003	0.01	<0.1	0.2	<0.02	<0.02	<5	<0.1	<0.02	1.7
2556289	Soil	10.1	9.6	0.04	15.0	0.025	<20	0.56	0.003	0.02	<0.1	0.8	0.05	<0.02	43	0.1	0.03	6.9
2556290	Soil	8.5	4.7	0.03	13.6	0.018	<20	0.31	0.004	0.03	<0.1	0.3	0.07	0.03	43	<0.1	<0.02	3.6
2556291	Soil	9.2	24.9	0.14	34.5	0.034	<20	1.47	0.004	0.04	<0.1	1.6	0.07	<0.02	51	0.4	0.03	5.7
2556292	Soil	8.2	24.2	0.09	24.6	0.056	<20	1.35	0.005	0.02	<0.1	1.3	0.06	0.02	41	0.4	0.04	7.0
2556293	Soil	7.6	26.9	0.16	39.8	0.050	<20	1.79	0.004	0.04	<0.1	1.9	0.08	0.02	70	0.3	0.03	5.5
2556305	Soil	7.3	31.3	0.17	27.5	0.043	<20	1.96	0.004	0.02	<0.1	2.6	0.05	0.02	56	0.3	<0.02	3.3
2556306	Soil	8.1	23.9	0.19	27.4	0.048	<20	1.22	0.005	0.03	<0.1	1.6	0.05	0.02	41	0.3	0.03	4.1
2556307	Soil	8.0	41.3	0.34	50.5	0.062	<20	1.51	0.008	0.05	<0.1	2.2	0.05	<0.02	51	0.2	0.02	5.1
2556308	Soil	7.0	31.8	0.23	49.8	0.051	<20	1.00	0.006	0.04	<0.1	1.4	0.04	<0.02	26	0.2	0.03	3.6
2556309	Soil	7.7	14.9	0.10	8.7	0.034	<20	0.29	0.004	0.03	<0.1	0.8	0.03	<0.02	13	<0.1	<0.02	2.0
2556310	Soil	13.6	35.1	0.30	55.1	0.054	<20	1.28	0.007	0.06	<0.1	2.3	0.07	<0.02	37	0.3	0.03	4.8
2556311	Soil	9.2	58.0	0.57	76.9	0.109	<20	1.72	0.014	0.08	<0.1	2.9	0.08	0.02	36	0.2	0.03	6.6
2556312	Soil	10.2	31.2	0.26	56.5	0.048	<20	1.10	0.008	0.06	<0.1	1.9	0.07	<0.02	28	0.2	<0.02	4.2
2556313	Soil	9.3	38.5	0.43	37.6	0.081	<20	0.94	0.013	0.06	<0.1	2.4	0.06	<0.02	12	<0.1	<0.02	3.7
2556314	Soil	9.3	53.0	0.55	52.9	0.073	<20	1.10	0.013	0.07	<0.1	2.6	0.06	0.03	40	0.2	0.03	4.7
2556315	Soil	13.5	46.7	0.57	54.2	0.092	<20	1.19	0.016	0.07	<0.1	2.9	0.07	<0.02	28	0.2	0.03	4.7
2556316	Soil	20.9	94.4	1.05	120.4	0.150	<20	2.63	0.024	0.17	<0.1	6.5	0.14	0.02	41	0.3	0.03	8.8
2556317	Soil	9.0	16.2	0.07	22.2	0.033	<20	0.76	0.003	0.04	<0.1	0.8	0.07	<0.02	38	0.4	0.03	5.8
2556318	Soil	65.9	77.0	0.50	165.7	0.034	<20	3.49	0.014	0.10	<0.1	3.1	0.23	0.12	189	2.3	0.05	6.0
2556319	Soil	19.7	35.3	0.33	79.2	0.034	<20	1.19	0.008	0.05	<0.1	2.1	0.13	0.02	50	0.3	0.03	3.6
2556320	Soil	10.7	42.5	0.33	64.6	0.053	<20	1.55	0.010	0.05	<0.1	2.4	0.15	0.03	65	0.2	<0.02	4.6

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	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
2556321	Soil	1.04	82.00	9.37	33.5	50	41.5	25.8	92	2.55	4.9	4.6	0.9	3.1	10.7	0.15	0.05	0.19	44	0.14	0.039
2556322	Soil	0.40	7.49	8.12	15.3	34	7.5	2.4	37	1.45	2.8	0.3	<0.2	1.9	7.1	0.14	0.06	0.28	37	0.08	0.022
2556323	Soil	0.54	52.04	6.46	26.6	24	21.1	14.9	51	1.63	1.8	0.5	<0.2	2.6	7.0	0.06	0.03	0.14	30	0.08	0.023
2556324	Soil	0.60	144.22	8.25	51.7	66	41.2	37.4	602	2.36	1.9	6.2	1.5	3.6	32.6	0.16	0.02	0.18	44	0.59	0.071
2556325	Soil	1.08	8.07	8.87	18.9	65	19.3	6.4	76	2.17	3.3	0.5	0.5	2.2	9.5	0.08	0.06	0.20	42	0.12	0.021
2556326	Soil	1.02	8.06	15.96	10.9	93	7.8	1.9	61	0.41	4.7	0.2	0.5	0.8	9.4	0.09	0.06	0.24	12	0.12	0.015
2556327	Soil	0.75	10.03	12.31	99.9	84	33.6	8.9	178	2.00	1.9	0.4	1.4	2.8	15.4	0.23	0.07	0.25	37	0.18	0.078
2556328	Soil	0.69	9.64	18.00	32.8	76	14.1	3.6	109	1.26	2.7	0.4	1.5	1.6	10.3	0.11	0.09	0.37	26	0.12	0.025
2556329	Soil	4.14	180.60	20.28	149.6	208	72.6	73.1	2543	4.27	35.8	5.1	1.1	3.2	36.3	0.66	0.12	0.64	75	0.72	0.085
2556330	Soil	7.26	127.30	20.98	95.4	126	60.0	54.1	2415	2.91	28.3	7.4	1.8	3.8	31.7	0.54	0.13	0.52	56	0.74	0.080
2556331	Soil	1.14	42.63	17.05	84.5	113	48.3	15.6	320	3.14	6.9	1.1	15.4	2.6	29.5	0.39	0.12	0.41	63	0.76	0.091
2556332	Soil	0.97	12.31	11.82	49.9	95	29.1	8.7	222	2.93	1.7	0.5	0.6	2.0	26.6	0.12	0.06	0.24	53	0.41	0.034
2556333	Soil	0.44	16.59	10.11	76.1	153	56.1	18.3	494	3.03	1.1	0.6	0.8	4.4	28.6	0.11	0.03	0.18	52	0.41	0.039
2556334	Soil	0.29	20.05	8.79	63.1	175	54.0	17.0	347	3.05	1.1	0.6	0.6	4.9	27.2	0.08	0.03	0.18	55	0.39	0.055
2556335	Soil	0.21	20.78	9.10	59.1	65	52.9	16.0	353	2.92	1.6	0.5	1.1	5.3	29.6	0.15	0.03	0.18	56	0.37	0.034
2556336	Soil	0.44	19.68	9.35	53.4	70	42.9	11.8	280	2.53	1.4	0.5	0.6	3.0	20.0	0.10	0.05	0.21	44	0.28	0.036
2556337	Soil	0.42	7.32	5.90	22.0	49	23.6	6.2	129	1.65	1.1	0.3	0.5	2.3	20.1	0.05	0.03	0.13	36	0.21	0.013
2556338	Soil	0.47	47.50	6.52	40.3	31	30.9	10.9	219	2.06	3.4	3.7	7.0	3.6	20.5	0.08	<0.02	0.15	37	0.41	0.045
2556339	Soil	0.19	109.36	8.46	60.2	139	39.0	11.5	248	2.06	1.5	5.9	1.9	4.6	40.0	0.25	0.04	0.18	35	1.45	0.043
2556340	Soil	0.14	105.27	9.05	68.4	102	40.9	12.2	220	2.25	1.0	4.5	2.0	5.4	33.6	0.21	0.03	0.18	44	0.89	0.037
2556341	Soil	0.11	141.70	11.09	81.9	97	51.2	16.5	273	2.74	2.0	8.6	2.8	6.2	37.5	0.20	0.04	0.22	47	0.89	0.047
2556342	Soil	0.18	122.18	13.62	88.1	120	58.2	16.1	266	3.19	2.5	14.3	3.2	6.5	52.5	0.72	0.07	0.27	58	1.19	0.069
2557435	Soil	0.54	16.21	19.99	67.4	165	32.5	9.2	373	2.38	3.2	0.4	1.8	2.3	22.9	0.27	0.11	0.32	48	0.32	0.045
2557436	Soil	0.25	7.21	13.62	28.2	64	14.6	4.5	182	1.21	2.6	0.4	1.0	1.8	14.7	0.11	0.06	0.26	27	0.17	0.042
2557437	Soil	0.40	15.86	16.66	65.0	127	28.6	9.0	301	2.38	3.3	0.5	0.6	2.6	15.3	0.20	0.09	0.34	53	0.20	0.051
2557438	Soil	0.45	14.54	14.92	49.7	141	28.1	7.6	186	2.45	2.6	0.5	0.7	2.5	19.7	0.11	0.07	0.28	56	0.24	0.043
2557439	Soil	1.21	10.89	17.40	26.8	115	17.7	5.0	99	2.96	4.0	0.4	1.0	3.2	14.7	0.20	0.13	0.40	68	0.16	0.026
2557440	Soil	0.63	39.89	19.19	80.8	202	34.1	10.0	758	1.85	4.4	10.1	1.4	0.7	33.0	0.64	0.19	0.33	32	1.28	0.094
2557451	Soil	0.57	312.85	16.48	83.8	188	43.4	25.5	778	1.64	6.8	6.7	3.5	0.9	26.1	0.50	0.11	0.31	30	0.88	0.115
2557452	Soil	0.46	272.60	10.64	60.5	151	40.7	17.9	458	1.70	5.1	6.5	3.4	0.9	23.7	0.28	0.07	0.26	30	0.72	0.091

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	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
2556321	Soil	14.3	51.8	0.27	84.9	0.085	<20	3.93	0.007	0.06	<0.1	4.3	0.11	0.05	133	1.1	0.03	7.6
2556322	Soil	6.8	24.8	0.10	14.9	0.065	<20	0.76	0.003	0.03	<0.1	1.0	0.05	<0.02	33	0.2	0.04	5.3
2556323	Soil	7.1	32.6	0.18	46.8	0.049	<20	2.09	0.004	0.04	<0.1	1.8	0.06	0.02	54	0.3	<0.02	4.5
2556324	Soil	37.9	77.4	0.80	124.4	0.095	<20	2.11	0.020	0.10	<0.1	6.5	0.15	0.03	88	0.4	<0.02	6.5
2556325	Soil	8.0	34.6	0.23	39.0	0.082	<20	1.38	0.005	0.04	<0.1	1.8	0.06	0.02	69	0.5	0.04	6.8
2556326	Soil	7.9	13.5	0.11	27.5	0.026	<20	0.54	0.004	0.03	<0.1	1.0	0.08	0.02	46	<0.1	<0.02	3.7
2556327	Soil	10.3	53.5	0.47	76.9	0.074	<20	2.09	0.009	0.06	<0.1	2.6	0.08	<0.02	50	0.4	0.04	7.4
2556328	Soil	9.4	22.4	0.19	46.0	0.050	<20	0.78	0.004	0.04	<0.1	1.2	0.07	<0.02	33	0.2	0.04	5.6
2556329	Soil	27.0	103.0	0.81	240.5	0.086	<20	3.85	0.013	0.18	<0.1	5.8	0.27	<0.02	93	0.6	0.06	10.2
2556330	Soil	29.7	79.1	0.75	202.0	0.086	<20	2.82	0.012	0.19	<0.1	6.2	0.25	<0.02	107	0.9	0.05	7.5
2556331	Soil	14.0	78.4	0.98	103.9	0.134	<20	1.71	0.007	0.19	<0.1	3.7	0.11	<0.02	59	0.4	0.05	9.0
2556332	Soil	10.4	63.6	0.62	53.4	0.147	<20	1.65	0.008	0.10	<0.1	2.8	0.08	<0.02	39	0.2	0.02	10.4
2556333	Soil	14.2	91.6	1.00	107.2	0.172	<20	3.09	0.021	0.14	<0.1	5.6	0.14	<0.02	37	0.2	<0.02	10.2
2556334	Soil	13.7	91.2	1.07	95.9	0.160	<20	3.14	0.022	0.14	<0.1	4.9	0.13	<0.02	44	0.3	<0.02	9.3
2556335	Soil	13.9	93.6	1.06	93.4	0.162	<20	2.98	0.022	0.11	<0.1	4.9	0.12	<0.02	36	0.2	<0.02	9.0
2556336	Soil	11.5	69.1	0.74	75.6	0.107	<20	2.16	0.011	0.08	<0.1	3.4	0.10	<0.02	43	0.4	<0.02	8.1
2556337	Soil	10.2	47.5	0.45	38.4	0.086	<20	1.20	0.010	0.05	<0.1	2.4	0.07	<0.02	21	<0.1	<0.02	6.3
2556338	Soil	31.5	56.0	0.61	84.5	0.077	<20	1.57	0.011	0.07	<0.1	4.9	0.10	<0.02	44	0.3	<0.02	5.3
2556339	Soil	50.7	66.7	0.87	145.8	0.092	<20	2.56	0.020	0.14	0.3	6.6	0.17	0.10	109	0.7	<0.02	6.9
2556340	Soil	46.8	80.3	0.87	147.6	0.104	<20	2.56	0.016	0.14	<0.1	7.5	0.20	<0.02	149	0.5	<0.02	7.8
2556341	Soil	50.6	96.7	0.99	171.5	0.111	<20	3.29	0.018	0.16	<0.1	8.0	0.25	<0.02	189	0.4	<0.02	10.1
2556342	Soil	87.7	112.5	1.08	245.0	0.102	<20	4.65	0.019	0.20	<0.1	8.9	0.33	<0.02	288	1.0	<0.02	13.2
2557435	Soil	10.4	57.4	0.55	83.4	0.108	<20	1.69	0.010	0.09	<0.1	2.6	0.09	<0.02	57	0.3	0.03	8.8
2557436	Soil	10.9	31.0	0.27	45.4	0.073	<20	0.77	0.006	0.06	<0.1	1.7	0.06	<0.02	32	<0.1	<0.02	6.1
2557437	Soil	8.9	58.9	0.53	73.0	0.102	<20	1.39	0.006	0.08	<0.1	3.0	0.09	<0.02	46	0.2	0.03	8.0
2557438	Soil	10.6	61.9	0.56	59.4	0.129	<20	1.56	0.011	0.08	<0.1	2.9	0.09	<0.02	48	0.2	0.03	10.4
2557439	Soil	9.1	50.8	0.32	33.4	0.135	<20	1.26	0.006	0.07	<0.1	1.9	0.09	<0.02	56	0.3	0.05	11.4
2557440	Soil	41.5	52.9	0.54	117.8	0.039	<20	1.75	0.012	0.09	<0.1	2.7	0.12	0.09	114	1.2	0.08	4.4
2557451	Soil	66.0	56.8	0.44	109.2	0.026	<20	2.24	0.009	0.09	<0.1	4.0	0.18	0.03	127	1.2	0.05	3.8
2557452	Soil	63.7	59.8	0.50	106.4	0.031	<20	1.89	0.008	0.09	<0.1	4.0	0.17	<0.02	91	0.9	<0.02	4.2

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Project: Nipissing Lorrain
Report Date: May 15, 2023

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CERTIFICATE OF ANALYSIS TIM22001602.1

Method		AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
Analyte		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
2557453	Soil	1.03	49.32	31.27	60.6	192	30.8	12.8	509	2.71	6.3	1.2	1.7	1.7	23.3	0.67	0.16	0.40	48	0.69	0.063
2557454	Soil	0.35	32.33	10.37	55.1	59	40.8	13.9	271	2.28	2.4	0.9	0.7	2.9	21.0	0.13	0.05	0.23	43	0.36	0.052
2557455	Soil	0.38	9.25	12.40	48.5	77	11.8	4.1	353	1.44	1.8	0.4	0.3	1.2	11.4	0.21	0.08	0.23	29	0.18	0.030
2557456	Soil	0.46	10.11	10.82	43.3	77	18.9	6.9	434	1.84	2.5	0.5	0.3	1.5	11.1	0.21	0.07	0.25	32	0.18	0.038
2557457	Soil	0.30	11.00	10.67	31.4	71	24.0	7.4	293	1.38	2.1	0.7	1.5	1.8	11.7	0.12	0.06	0.20	27	0.25	0.043
2557458	Soil	0.20	5.40	9.46	31.9	56	6.5	1.8	88	0.67	1.4	0.3	0.6	1.6	8.9	0.19	0.06	0.20	16	0.12	0.018
2557459	Soil	0.51	10.13	13.23	36.7	86	14.0	3.9	98	1.95	3.2	0.4	<0.2	1.5	10.8	0.24	0.08	0.35	34	0.24	0.048
2557460	Soil	0.34	5.65	9.71	20.6	65	11.1	3.5	61	1.13	1.3	0.6	0.4	1.7	13.1	0.10	0.04	0.22	25	0.18	0.023
2557461	Soil	0.82	9.26	11.60	36.9	103	13.5	3.8	112	3.18	3.7	0.6	0.6	2.2	9.3	0.12	0.12	0.29	55	0.11	0.069
2557462	Soil	0.20	3.89	9.57	26.2	27	4.4	1.5	54	0.52	1.3	0.3	3.2	0.6	6.8	0.11	0.03	0.23	11	0.08	0.041
2557463	Soil	0.31	3.97	8.85	35.4	68	5.0	1.6	156	1.07	1.4	0.5	4.7	2.1	9.3	0.15	0.04	0.23	22	0.10	0.049
2557464	Soil	0.30	12.80	10.12	50.9	55	20.4	6.5	198	1.67	3.9	0.5	0.7	2.0	9.9	0.21	0.06	0.25	31	0.15	0.076
2557465	Soil	0.57	114.88	19.56	68.0	243	50.6	15.0	608	2.67	4.5	6.0	1.7	4.0	27.5	0.40	0.08	0.43	43	0.63	0.049
2557466	Soil	0.32	19.33	21.77	104.5	128	30.4	9.4	564	1.95	3.7	0.5	0.7	2.3	30.4	0.19	0.10	0.36	36	0.46	0.069
2557467	Soil	0.28	8.78	9.32	59.8	86	21.4	5.6	172	1.75	1.2	0.5	0.6	2.6	20.0	0.08	0.05	0.20	31	0.23	0.034
2557468	Soil	0.34	14.06	10.70	84.3	119	38.1	10.4	278	2.86	1.9	0.6	0.7	3.1	24.0	0.10	0.06	0.23	49	0.30	0.082
2557469	Soil	0.34	9.29	23.30	58.6	138	16.2	4.6	298	1.26	2.8	0.4	2.3	2.8	17.0	0.18	0.11	0.36	30	0.20	0.033
2557483	Soil	0.48	5.90	17.53	20.0	125	7.4	1.8	126	0.61	2.6	0.3	0.2	1.7	9.7	0.14	0.13	0.35	15	0.11	0.022
2557484	Soil	0.61	8.08	9.10	28.1	84	17.9	5.1	57	1.63	4.0	0.4	2.5	2.6	8.9	0.18	0.09	0.21	31	0.12	0.021
2557485	Soil	0.32	25.69	8.44	22.3	57	25.5	10.1	377	1.37	2.3	1.0	1.1	2.7	14.7	0.11	0.04	0.20	22	0.39	0.039
2557486	Soil	0.92	12.40	15.47	20.0	115	17.0	5.4	48	1.85	3.9	0.5	0.8	2.5	6.8	0.15	0.11	0.32	35	0.11	0.025
2557487	Soil	0.85	18.58	19.75	33.8	135	26.7	6.9	114	2.59	4.2	0.5	2.7	3.1	12.1	0.16	0.16	0.33	47	0.13	0.039
2557488	Soil	0.55	16.28	17.74	22.5	96	8.1	2.3	62	1.07	2.5	0.4	0.2	2.4	10.6	0.14	0.11	0.35	34	0.10	0.019
2557489	Soil	0.56	42.67	14.22	87.0	124	37.6	11.1	279	2.59	3.3	0.6	<0.2	2.2	28.1	0.50	0.07	0.27	49	0.74	0.064
2557490	Soil	0.47	225.25	14.76	78.9	102	77.9	20.8	1177	3.47	6.4	3.1	1.6	5.9	39.4	0.39	0.04	0.25	55	0.87	0.070

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CERTIFICATE OF ANALYSIS TIM22001602.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
2557453	Soil	18.9	50.5	0.37	98.6	0.073	<20	1.81	0.007	0.08	<0.1	2.6	0.13	<0.02	72	0.8	0.05	6.7
2557454	Soil	20.0	73.0	0.77	55.2	0.097	<20	1.83	0.012	0.07	<0.1	4.2	0.11	<0.02	46	<0.1	<0.02	5.9
2557455	Soil	7.7	26.9	0.19	51.0	0.066	<20	0.78	0.004	0.05	<0.1	1.2	0.06	<0.02	44	<0.1	0.02	6.2
2557456	Soil	8.1	41.3	0.29	58.6	0.069	<20	1.22	0.006	0.06	<0.1	1.7	0.06	<0.02	47	0.3	<0.02	5.3
2557457	Soil	11.0	41.0	0.32	64.9	0.057	<20	1.07	0.006	0.05	<0.1	1.8	0.07	<0.02	52	0.1	<0.02	3.9
2557458	Soil	9.0	13.7	0.06	42.1	0.032	<20	0.31	0.002	0.05	<0.1	0.7	0.05	<0.02	27	0.1	<0.02	2.5
2557459	Soil	7.7	34.1	0.20	47.4	0.068	<20	0.79	0.004	0.06	<0.1	1.3	0.05	0.02	34	0.3	0.04	5.8
2557460	Soil	12.4	23.4	0.20	36.7	0.079	<20	0.87	0.006	0.04	<0.1	1.6	0.05	<0.02	29	0.2	<0.02	6.3
2557461	Soil	8.9	43.8	0.24	33.6	0.091	<20	1.65	0.006	0.05	<0.1	2.0	0.06	0.04	83	0.5	0.05	9.8
2557462	Soil	7.9	11.8	0.08	27.0	0.022	<20	0.44	0.003	0.04	<0.1	0.7	0.05	<0.02	19	0.1	<0.02	3.2
2557463	Soil	9.5	17.8	0.08	29.2	0.051	<20	0.77	0.003	0.04	<0.1	1.2	0.04	<0.02	33	0.3	0.02	5.8
2557464	Soil	9.0	46.1	0.35	38.7	0.053	<20	1.07	0.005	0.05	<0.1	1.9	0.06	<0.02	24	0.3	0.03	4.7
2557465	Soil	88.6	78.9	0.74	111.7	0.089	<20	2.44	0.014	0.14	<0.1	7.2	0.19	0.03	78	0.7	0.02	7.4
2557466	Soil	11.4	57.8	0.55	137.2	0.100	<20	1.34	0.009	0.11	<0.1	2.8	0.10	0.02	34	0.5	<0.02	7.7
2557467	Soil	12.1	45.8	0.42	55.0	0.088	<20	1.58	0.010	0.06	<0.1	2.7	0.11	<0.02	50	0.3	<0.02	7.6
2557468	Soil	11.3	78.4	0.74	98.4	0.128	<20	2.39	0.015	0.09	<0.1	4.0	0.09	<0.02	42	0.6	<0.02	10.2
2557469	Soil	10.4	30.4	0.26	54.1	0.077	<20	0.79	0.006	0.06	<0.1	1.7	0.08	<0.02	48	0.5	0.04	5.8
2557483	Soil	9.3	10.7	0.08	44.9	0.030	<20	0.35	0.004	0.06	<0.1	0.6	0.06	<0.02	34	0.2	0.04	3.1
2557484	Soil	8.3	32.2	0.18	35.5	0.067	<20	1.22	0.004	0.06	<0.1	1.4	0.07	<0.02	49	0.6	0.05	5.7
2557485	Soil	24.3	46.1	0.39	57.5	0.042	<20	0.89	0.007	0.07	<0.1	3.2	0.10	0.02	32	0.4	<0.02	2.9
2557486	Soil	6.2	32.0	0.14	30.6	0.067	<20	1.28	0.004	0.04	<0.1	1.4	0.07	0.03	66	0.5	0.03	5.2
2557487	Soil	9.9	51.4	0.34	63.8	0.119	<20	1.98	0.008	0.05	<0.1	2.4	0.09	0.02	81	0.8	0.04	9.4
2557488	Soil	10.6	19.5	0.11	36.2	0.073	<20	0.51	0.003	0.04	<0.1	0.9	0.06	<0.02	23	0.3	<0.02	5.8
2557489	Soil	10.8	62.0	0.65	101.6	0.126	<20	1.91	0.010	0.11	<0.1	3.0	0.09	0.04	50	0.6	<0.02	8.8
2557490	Soil	46.2	114.6	1.27	167.0	0.146	<20	2.81	0.030	0.16	<0.1	9.5	0.32	0.02	50	0.7	<0.02	7.6

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QUALITY CONTROL REPORT TIM22001602.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
2556285	Soil	0.82	17.52	7.19	36.4	36	22.0	7.0	152	1.57	2.5	0.4	1.4	3.4	20.4	0.16	0.04	0.15	34	0.21	0.014
REP 2556285	QC	0.85	18.97	7.44	38.1	40	22.4	7.6	155	1.61	2.9	0.3	1.1	3.4	20.7	0.18	0.04	0.15	33	0.21	0.015
2556338	Soil	0.47	47.50	6.52	40.3	31	30.9	10.9	219	2.06	3.4	3.7	7.0	3.6	20.5	0.08	<0.02	0.15	37	0.41	0.045
REP 2556338	QC	0.43	48.84	6.60	41.9	31	31.6	10.8	222	2.03	3.4	3.7	0.8	3.7	21.3	0.06	0.02	0.15	36	0.42	0.048
2557489	Soil	0.56	42.67	14.22	87.0	124	37.6	11.1	279	2.59	3.3	0.6	<0.2	2.2	28.1	0.50	0.07	0.27	49	0.74	0.064
REP 2557489	QC	0.58	43.62	14.74	90.6	142	40.7	11.9	287	2.66	3.6	0.6	0.5	2.4	29.4	0.50	0.08	0.27	51	0.75	0.059
Reference Materials																					
STD DS11	Standard	14.86	137.98	133.19	336.9	1655	72.9	13.9	988	3.03	45.4	2.5	81.5	8.4	71.7	2.48	5.90	11.70	48	1.02	0.072
STD DS11	Standard	14.05	155.68	145.26	367.0	1874	86.2	15.8	946	3.25	48.3	2.7	85.3	9.1	71.9	2.72	7.69	13.46	49	1.09	0.076
STD DS11	Standard	15.82	150.53	147.15	361.5	1798	84.8	14.7	1094	3.36	49.3	2.9	57.5	9.5	73.4	2.74	6.89	13.00	47	1.13	0.074
STD DS11	Standard	14.23	142.75	138.40	327.4	1623	76.0	13.5	1022	3.09	46.2	2.9	59.1	9.3	68.4	2.58	5.48	11.79	49	1.07	0.077
STD OREAS262	Standard	0.81	113.68	55.82	153.8	475	63.3	26.7	521	3.11	37.1	1.2	51.5	9.8	37.2	0.68	1.84	0.99	21	2.80	0.039
STD OREAS262	Standard	0.67	130.18	63.60	166.5	503	70.2	30.7	533	3.56	38.0	1.4	59.1	11.4	41.1	0.74	1.97	1.21	25	3.13	0.041
STD OREAS262	Standard	0.65	124.08	62.53	162.6	503	67.9	29.8	525	3.54	38.8	1.3	62.3	11.2	38.6	0.69	2.20	1.18	25	3.19	0.041
STD OREAS262	Standard	0.63	115.72	59.54	153.5	478	65.1	28.2	545	3.29	39.2	1.2	49.4	10.4	38.0	0.75	2.01	1.08	22	3.07	0.045
STD DS11 Expected		13.9	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	7.2	12.2	50	1.063	0.0701
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	3.39	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001

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Bureau Veritas Commodities Canada Ltd.

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Client: Longford Exploration Services Ltd.
Marine Building, Unit 1680
355 Burrard St.
Vancouver British Columbia V6C 2G8 Canada

Project: Nipissing Lorrain
Report Date: May 15, 2023

Page: 1 of 1 Part: 2 of 2

QUALITY CONTROL REPORT TIM22001602.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
Pulp Duplicates																		
2556285	Soil	10.8	46.5	0.47	60.4	0.088	<20	1.33	0.013	0.05	<0.1	3.0	0.08	<0.02	21	<0.1	0.02	4.7
REP 2556285	QC	10.9	46.7	0.48	65.7	0.090	<20	1.30	0.012	0.04	<0.1	3.1	0.07	<0.02	24	0.2	0.04	4.9
2556338	Soil	31.5	56.0	0.61	84.5	0.077	<20	1.57	0.011	0.07	<0.1	4.9	0.10	<0.02	44	0.3	<0.02	5.3
REP 2556338	QC	32.5	57.4	0.63	86.2	0.077	<20	1.64	0.015	0.07	<0.1	4.5	0.10	<0.02	47	0.2	<0.02	5.1
2557489	Soil	10.8	62.0	0.65	101.6	0.126	<20	1.91	0.010	0.11	<0.1	3.0	0.09	0.04	50	0.6	<0.02	8.8
REP 2557489	QC	10.9	64.7	0.66	104.3	0.132	<20	1.94	0.010	0.12	<0.1	3.1	0.10	0.04	42	0.4	0.04	9.5
Reference Materials																		
STD DS11	Standard	19.2	52.4	0.84	411.6	0.097	<20	1.13	0.074	0.39	2.3	3.3	4.80	0.28	278	2.1	4.50	4.7
STD DS11	Standard	19.5	58.6	0.88	435.5	0.094	<20	1.12	0.067	0.42	2.9	3.1	5.24	0.21	283	2.0	4.70	5.1
STD DS11	Standard	21.3	60.9	0.91	443.8	0.101	<20	1.22	0.079	0.42	2.9	3.4	5.32	0.30	273	2.5	5.01	5.1
STD DS11	Standard	19.9	58.1	0.84	406.0	0.097	<20	1.16	0.075	0.40	2.5	3.4	4.83	0.28	280	2.1	4.42	5.2
STD OREAS262	Standard	17.9	44.2	1.15	251.2	0.003	<20	1.16	0.065	0.29	<0.1	3.2	0.45	0.26	144	0.2	0.20	3.8
STD OREAS262	Standard	19.1	44.8	1.28	284.7	0.003	<20	1.37	0.066	0.33	<0.1	3.7	0.51	0.21	183	0.4	0.23	4.5
STD OREAS262	Standard	19.5	45.9	1.25	279.1	0.004	<20	1.30	0.066	0.31	0.1	3.5	0.51	0.28	177	0.3	0.26	4.2
STD OREAS262	Standard	16.3	42.6	1.21	272.6	0.003	<20	1.21	0.070	0.30	<0.1	3.5	0.47	0.27	166	0.4	0.23	4.0
STD DS11 Expected		18.6	61.5	0.85	417	0.0976		1.129	0.0694	0.4	2.9	3.1	4.9	0.2835	260	2.2	4.56	4.7
STD OREAS262 Expected		15.9	41.7	1.17	248	0.003		1.3	0.071	0.312	0.13	3.24	0.47	0.269	170	0.4	0.23	3.9
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	8	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1

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Client: **Longford Exploration Services Ltd.**
Marine Building, Unit 1680
355 Burrard St.
Vancouver British Columbia V6C 2G8 Canada

Submitted By:	Ryan Versloot
Receiving Lab:	Canada-Timmins
Received:	June 08, 2022
Analysis Start:	August 24, 2022
Report Date:	May 15, 2023
Page:	1 of 4

CERTIFICATE OF ANALYSIS TIM22001604.1

CLIENT JOB INFORMATION

Project:	Nipissing Lorrain
Shipment ID:	
P.O. Number	
Number of Samples:	81

SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT	Dispose of Reject After 60 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	81	Dry at 60C		Completed	TIM
SS80	81	Dry at 60C sieve 100g to -80 mesh			TIM
SHP01	81	Per sample shipping charges for branch shipments			TIM
AQ250	81	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	0.5	Completed	VAN
SVRJT	81	Save all or part of Soil Reject			TIM

ADDITIONAL COMMENTS

Invoice To: Longford Exploration Services Ltd.
Marine Building, Unit 1680
355 Burrard St.
Vancouver British Columbia V6C 2G8
Canada

CC: Vedran Pobric

KERRY JAY
Geochem Project Specialist

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Project: Nipissing Lorrain
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Page: 2 of 4 Part: 1 of 2

CERTIFICATE OF ANALYSIS TIM22001604.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3295811	Soil	0.33	20.53	7.76	39.2	53	34.2	10.8	150	1.74	1.5	0.6	2.3	4.6	13.0	0.09	0.03	0.19	32	0.13	0.028
3295812	Soil	0.56	11.15	30.70	24.9	127	9.0	3.1	104	0.85	4.3	0.3	0.5	1.6	9.8	0.17	0.16	0.59	23	0.08	0.029
3295813	Soil	0.46	7.60	15.34	20.7	134	3.5	0.6	41	0.12	2.0	0.5	0.6	0.3	4.4	0.37	0.08	0.22	4	0.04	0.020
3295814	Soil	0.38	11.50	22.72	31.4	187	7.1	0.7	43	0.20	7.5	0.8	1.5	0.2	3.1	0.92	0.15	0.34	5	0.04	0.050
3295815	Soil	1.56	7.90	12.42	10.2	35	3.7	1.3	24	0.28	1.5	0.5	0.3	1.2	7.5	0.08	0.05	0.27	16	0.07	0.016
3295816	Soil	0.26	3.74	5.92	11.5	44	3.2	1.2	33	0.28	1.0	0.3	0.3	1.9	5.9	0.12	0.05	0.11	9	0.05	0.009
3295817	Soil	0.75	11.79	8.12	37.8	48	8.4	4.4	152	1.84	1.6	0.6	2.9	3.4	8.4	0.10	0.05	0.19	33	0.09	0.036
3295818	Soil	0.57	11.71	16.79	35.9	71	17.8	7.5	179	1.75	8.6	0.5	0.9	2.2	7.7	0.20	0.20	0.38	31	0.08	0.055
3295819	Soil	0.43	8.05	14.10	23.7	83	9.1	3.4	143	0.91	2.8	0.3	1.4	1.8	10.2	0.12	0.09	0.25	20	0.10	0.018
3295820	Soil	0.87	5.27	14.00	12.1	81	5.5	1.2	30	0.48	1.3	0.4	8.3	2.3	9.3	0.07	0.05	0.25	12	0.07	0.008
3295821	Soil	0.37	5.83	12.12	19.3	91	6.2	2.2	61	0.75	2.6	0.3	0.5	1.5	8.3	0.04	0.05	0.24	20	0.08	0.015
3295822	Soil	0.38	10.83	12.02	39.4	67	17.6	5.6	185	1.23	4.4	0.4	1.0	1.7	6.4	0.16	0.09	0.25	19	0.06	0.061
3295823	Soil	0.21	4.62	6.15	12.7	47	4.1	1.3	53	0.70	1.8	0.3	1.0	1.9	6.2	0.05	0.03	0.15	17	0.05	0.014
3295824	Soil	0.24	5.56	6.42	18.2	78	7.8	3.0	336	0.77	2.8	0.2	0.3	1.9	6.2	0.07	0.05	0.16	14	0.06	0.035
3295825	Soil	0.45	17.73	12.97	88.4	122	25.9	7.7	263	1.95	7.5	0.5	0.5	3.0	13.7	0.21	0.17	0.29	33	0.13	0.039
3295826	Soil	0.37	4.93	9.96	45.8	174	7.8	4.3	336	0.99	2.2	0.3	0.4	1.9	7.6	0.09	0.05	0.20	20	0.06	0.025
3295827	Soil	0.53	36.21	13.36	35.9	126	25.9	14.9	476	1.66	9.0	0.6	1.0	2.8	8.7	0.24	0.09	0.39	28	0.09	0.048
3295828	Soil	0.52	10.94	10.25	54.2	51	15.8	5.8	90	2.19	3.1	0.5	1.4	2.7	6.9	0.15	0.07	0.22	39	0.07	0.077
3295829	Soil	0.16	2.95	7.73	8.5	20	1.3	0.5	11	0.10	0.6	0.2	0.4	0.8	4.2	0.08	0.03	0.11	4	0.02	0.009
3295830	Soil	0.35	11.63	6.49	21.5	72	9.7	4.4	178	0.98	3.4	0.3	0.7	2.0	7.5	0.09	0.08	0.21	24	0.09	0.029
3295831	Soil	0.42	34.66	9.54	62.5	118	15.7	10.0	249	1.96	5.0	0.3	3.2	2.0	9.1	0.10	0.08	0.27	41	0.11	0.112
3295832	Soil	0.38	44.08	9.94	41.5	102	15.9	7.1	174	1.56	3.2	0.3	2.0	1.7	10.2	0.07	0.06	0.24	32	0.11	0.038
3295833	Soil	0.19	4.11	10.64	10.9	80	3.1	1.4	67	0.24	1.6	0.2	0.5	1.1	7.6	0.07	0.07	0.23	9	0.10	0.011
3295834	Soil	0.38	9.58	13.72	36.7	119	11.7	3.7	605	0.95	3.4	0.3	9.2	1.4	12.6	0.25	0.07	0.38	22	0.14	0.048
3295835	Soil	0.15	2.35	6.34	11.6	68	2.3	0.8	66	0.27	1.1	0.2	0.7	0.8	6.0	0.04	0.03	0.16	9	0.07	0.020
3295836	Soil	0.19	7.74	12.16	18.1	81	4.0	1.6	115	0.32	1.6	0.3	0.8	1.2	9.5	0.12	0.08	0.26	10	0.10	0.019
3295837	Soil	0.55	13.10	11.55	47.9	205	20.3	6.1	218	2.43	4.9	0.4	0.7	2.8	9.6	0.14	0.10	0.27	43	0.11	0.142
3295838	Soil	0.39	25.55	11.70	75.7	89	28.9	8.3	448	1.95	2.1	0.4	0.6	2.5	13.9	0.12	0.06	0.28	36	0.20	0.114
3295839	Soil	0.28	9.11	10.39	45.2	85	15.6	4.8	307	1.38	2.8	0.4	0.5	2.2	11.6	0.14	0.08	0.24	24	0.13	0.073
3295840	Soil	0.39	11.07	9.71	24.6	113	17.2	4.3	263	1.21	2.1	0.4	0.7	1.5	12.2	0.07	0.06	0.19	20	0.13	0.033

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Page: 2 of 4 Part: 2 of 2

CERTIFICATE OF ANALYSIS TIM22001604.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3295811	Soil	13.5	54.9	0.49	76.3	0.092	<20	2.17	0.008	0.06	<0.1	3.7	0.08	0.03	68	0.3	<0.02	6.0
3295812	Soil	10.9	16.9	0.12	28.6	0.038	<20	0.50	0.006	0.05	<0.1	0.9	0.08	<0.02	47	0.4	0.02	5.2
3295813	Soil	13.7	3.7	0.02	34.1	0.004	<20	0.28	0.002	0.05	<0.1	0.2	0.06	<0.02	33	0.2	<0.02	3.3
3295814	Soil	26.1	4.7	0.02	39.7	0.003	<20	0.31	0.003	0.06	<0.1	0.2	0.11	0.05	74	0.7	<0.02	2.4
3295815	Soil	9.0	13.1	0.08	20.5	0.069	<20	0.45	0.004	0.03	<0.1	0.7	0.07	0.02	30	<0.1	<0.02	7.2
3295816	Soil	10.8	9.6	0.03	26.5	0.013	<20	0.25	0.004	0.05	<0.1	0.4	0.04	<0.02	11	<0.1	<0.02	2.4
3295817	Soil	10.8	26.5	0.14	34.0	0.056	<20	1.57	0.005	0.05	<0.1	1.7	0.07	0.02	59	0.4	0.03	9.0
3295818	Soil	8.3	31.0	0.19	37.3	0.049	<20	2.13	0.006	0.05	<0.1	1.7	0.09	0.03	92	0.9	0.08	7.3
3295819	Soil	10.0	16.5	0.12	37.3	0.031	<20	0.65	0.005	0.05	<0.1	1.0	0.07	<0.02	36	0.2	0.04	3.8
3295820	Soil	13.9	9.3	0.07	28.4	0.027	<20	0.51	0.004	0.04	<0.1	0.8	0.07	<0.02	27	<0.1	<0.02	3.7
3295821	Soil	11.4	13.7	0.11	31.7	0.042	<20	0.57	0.005	0.04	<0.1	0.9	0.07	<0.02	14	0.2	<0.02	4.7
3295822	Soil	8.8	27.9	0.19	38.5	0.025	<20	1.68	0.005	0.06	<0.1	1.2	0.07	<0.02	61	0.9	0.05	3.4
3295823	Soil	11.3	11.6	0.06	28.4	0.024	<20	0.56	0.003	0.04	<0.1	0.8	0.08	<0.02	20	0.2	0.02	3.6
3295824	Soil	11.9	16.4	0.11	35.9	0.018	<20	0.68	0.004	0.05	<0.1	0.9	0.07	<0.02	25	0.2	0.02	3.4
3295825	Soil	10.4	35.1	0.24	63.3	0.051	<20	1.92	0.007	0.08	<0.1	2.1	0.11	<0.02	73	0.7	0.06	7.8
3295826	Soil	10.6	16.7	0.10	37.3	0.028	<20	0.92	0.004	0.04	<0.1	1.1	0.08	<0.02	37	0.2	0.02	4.7
3295827	Soil	12.8	38.7	0.25	71.5	0.036	<20	1.59	0.006	0.08	<0.1	1.9	0.10	0.02	76	0.7	0.06	4.6
3295828	Soil	9.3	38.5	0.18	52.4	0.039	<20	2.47	0.006	0.05	<0.1	1.9	0.07	0.03	107	0.8	0.02	7.4
3295829	Soil	11.5	3.5	0.01	13.2	0.007	<20	0.38	0.004	0.03	<0.1	0.3	0.06	<0.02	10	<0.1	<0.02	3.8
3295830	Soil	11.3	18.7	0.18	26.4	0.023	<20	0.71	0.005	0.05	<0.1	1.1	0.07	<0.02	33	0.2	0.04	3.7
3295831	Soil	7.5	23.9	0.20	32.0	0.050	<20	1.38	0.006	0.04	<0.1	1.9	0.06	<0.02	54	0.4	0.03	6.6
3295832	Soil	9.0	36.3	0.32	26.7	0.052	<20	0.98	0.005	0.05	<0.1	1.9	0.08	<0.02	36	0.2	0.03	5.3
3295833	Soil	9.1	7.0	0.07	18.6	0.027	<20	0.26	0.005	0.05	<0.1	0.6	0.05	<0.02	13	<0.1	<0.02	2.5
3295834	Soil	9.3	25.5	0.19	53.2	0.056	<20	0.65	0.006	0.05	<0.1	1.4	0.07	<0.02	19	0.3	0.03	4.5
3295835	Soil	8.1	5.9	0.04	18.2	0.020	<20	0.29	0.003	0.04	<0.1	0.5	0.06	<0.02	14	<0.1	<0.02	2.6
3295836	Soil	9.3	9.3	0.07	20.7	0.028	<20	0.28	0.005	0.03	<0.1	0.8	0.05	<0.02	14	<0.1	<0.02	2.3
3295837	Soil	8.4	48.3	0.29	44.0	0.084	<20	1.45	0.005	0.05	<0.1	2.3	0.08	<0.02	48	0.6	0.06	8.0
3295838	Soil	9.0	45.0	0.39	87.7	0.071	<20	1.57	0.009	0.07	<0.1	2.7	0.08	<0.02	55	0.4	<0.02	6.8
3295839	Soil	9.9	30.7	0.24	58.1	0.055	<20	1.01	0.006	0.05	<0.1	1.8	0.07	<0.02	32	0.2	0.02	5.6
3295840	Soil	10.3	31.8	0.23	48.6	0.043	<20	0.93	0.006	0.05	<0.1	1.6	0.08	<0.02	43	0.1	<0.02	4.7

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: Longford Exploration Services Ltd.
Marine Building, Unit 1680
355 Burrard St.
Vancouver British Columbia V6C 2G8 Canada

Project: Nipissing Lorrain
Report Date: May 15, 2023

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CERTIFICATE OF ANALYSIS TIM22001604.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3295866	Soil	0.29	9.41	18.78	19.5	132	4.0	0.4	18	0.13	3.5	1.0	0.6	0.2	3.4	0.64	0.11	0.29	4	0.03	0.031
3295867	Soil	0.35	7.14	9.58	36.7	120	6.6	3.1	233	1.23	2.0	0.4	1.6	1.9	10.5	0.14	0.04	0.23	24	0.11	0.054
3295868	Soil	0.71	45.16	66.28	186.1	383	22.0	8.1	838	0.24	2.2	0.2	2.3	0.4	45.6	2.14	0.56	0.90	4	1.08	0.122
3295869	Soil	0.37	38.96	77.13	120.7	332	17.2	2.9	239	0.22	2.9	0.2	0.6	0.4	33.9	2.38	0.30	0.84	4	0.65	0.054
3295870	Soil	0.56	13.58	29.73	64.1	145	15.3	12.7	613	1.23	10.6	0.3	1.5	1.1	13.9	0.29	0.14	0.59	21	0.29	0.061
3295871	Soil	0.20	6.48	7.50	42.3	46	9.6	3.5	67	0.67	3.3	0.4	0.4	0.6	10.7	0.12	<0.02	0.19	13	0.12	0.033
3295872	Soil	0.46	11.68	16.54	43.2	120	23.7	18.4	374	1.27	11.4	0.3	0.4	1.3	13.4	0.21	0.09	0.31	23	0.16	0.022
3295873	Soil	0.45	11.27	27.90	30.1	147	9.5	4.3	252	0.88	5.1	0.3	0.7	1.5	11.0	0.23	0.12	0.54	21	0.12	0.039
3295874	Soil	0.23	5.15	14.32	16.0	81	2.2	0.6	36	0.08	0.7	0.2	0.4	1.6	5.2	0.15	0.09	0.18	3	0.07	0.011
3295875	Soil	1.22	12.42	10.97	26.3	65	20.4	5.5	120	1.67	7.0	0.3	0.5	2.6	19.2	0.09	0.06	0.24	41	0.18	0.013
3295876	Soil	0.53	11.54	7.56	36.5	63	20.1	6.5	145	1.56	6.2	0.4	0.5	2.5	21.4	0.15	0.05	0.20	34	0.22	0.016
3295877	Soil	0.52	38.95	26.55	71.8	178	26.5	14.0	709	1.32	10.1	0.6	1.7	1.1	16.8	0.33	0.11	0.64	23	0.24	0.042
3295878	Soil	0.57	38.97	19.66	72.0	166	28.1	12.7	693	1.50	7.4	0.7	0.8	1.3	23.6	0.22	0.07	0.47	27	0.33	0.046
3295879	Soil	0.61	310.31	19.03	48.8	160	30.2	22.0	665	2.06	6.5	1.2	1.2	2.0	20.9	0.18	0.06	0.38	34	0.28	0.045
3295880	Soil	0.48	35.17	25.87	54.2	88	33.4	11.4	302	2.33	8.9	0.5	0.8	2.7	21.7	0.18	0.14	0.45	44	0.25	0.030
3295881	Soil	0.39	19.93	18.08	106.5	100	35.5	13.6	681	2.23	3.4	0.5	<0.2	2.3	35.6	0.26	0.10	0.32	40	0.44	0.062
3295882	Soil	0.41	15.70	17.82	94.0	131	28.2	8.6	308	2.33	3.6	0.4	1.0	3.0	29.4	0.32	0.11	0.33	41	0.34	0.068
3295883	Soil	0.38	24.42	10.62	50.2	86	26.0	9.2	267	1.72	2.9	0.4	1.0	2.3	22.2	0.30	0.06	0.26	30	0.73	0.042
3295884	Soil	0.21	25.09	6.66	42.6	60	42.5	11.0	285	2.26	3.0	0.5	1.9	4.7	30.8	0.05	0.02	0.15	40	0.59	0.043
3295885	Soil	0.52	21.92	10.34	59.7	63	41.8	14.0	237	2.67	21.3	0.9	0.9	7.1	29.6	0.11	0.05	0.18	44	0.57	0.030
3295886	Soil	0.89	31.60	12.64	78.7	117	53.4	16.0	246	3.38	12.1	1.8	2.2	6.6	34.8	0.22	0.03	0.21	53	0.75	0.051
3295887	Soil	0.84	63.85	15.28	95.1	212	49.2	14.2	208	2.58	47.0	4.6	2.5	2.5	34.3	0.64	0.19	0.34	41	0.84	0.090
3295888	Soil	0.30	94.39	8.38	59.8	71	47.0	17.4	276	2.46	1.1	24.1	2.7	6.2	40.4	0.13	0.04	0.17	47	0.81	0.061
3295889	Soil	1.32	10.05	8.25	22.3	19	7.6	2.0	32	1.76	4.0	0.4	0.4	2.2	6.8	0.13	0.06	0.26	51	0.06	0.016
3295890	Soil	0.30	32.82	8.07	36.5	58	27.2	10.5	365	1.59	3.1	0.5	0.7	4.0	24.3	0.15	0.04	0.18	28	2.30	0.058
3295891	Soil	0.38	10.86	19.97	35.2	153	13.8	3.7	101	1.40	3.9	0.4	0.9	2.0	13.1	0.23	0.08	0.34	29	0.14	0.060
3295892	Soil	0.31	9.45	8.91	67.5	105	22.9	6.9	202	1.76	2.3	0.4	0.9	2.3	13.9	0.17	0.07	0.19	31	0.18	0.043
3295893	Soil	0.22	4.59	9.35	30.8	55	10.2	2.6	77	0.99	1.8	0.3	0.8	2.1	11.2	0.08	0.04	0.18	20	0.12	0.036
3295894	Soil	0.19	3.45	13.47	10.3	56	1.9	0.4	19	0.22	1.2	0.2	1.7	0.6	6.3	0.10	0.07	0.21	8	0.07	0.010
3295895	Soil	0.42	5.96	7.30	29.2	125	16.5	5.2	127	1.75	1.3	0.4	2.7	2.1	8.3	0.05	0.04	0.19	31	0.10	0.051

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	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3295866	Soil	20.7	4.5	0.01	27.2	0.005	<20	0.29	0.002	0.03	<0.1	0.2	0.06	0.03	53	0.3	<0.02	2.8
3295867	Soil	11.6	18.7	0.11	42.3	0.034	<20	0.86	0.004	0.04	<0.1	1.2	0.07	<0.02	41	0.3	0.02	6.1
3295868	Soil	4.0	8.2	0.12	125.7	0.006	<20	0.15	0.013	0.11	0.2	0.3	0.06	0.16	167	1.7	0.04	0.8
3295869	Soil	7.0	7.5	0.06	153.2	0.006	<20	0.16	0.007	0.06	0.2	0.4	0.05	0.09	111	1.2	0.05	1.1
3295870	Soil	8.5	28.7	0.28	51.4	0.038	<20	0.68	0.005	0.06	<0.1	1.3	0.09	0.02	43	0.4	0.05	4.1
3295871	Soil	10.4	18.9	0.18	32.8	0.028	<20	0.72	0.005	0.05	<0.1	1.1	0.07	<0.02	23	0.2	<0.02	3.7
3295872	Soil	9.0	31.3	0.27	61.0	0.038	<20	1.21	0.007	0.05	<0.1	1.4	0.10	<0.02	47	0.4	0.04	4.2
3295873	Soil	9.5	20.0	0.12	37.2	0.044	<20	0.55	0.004	0.04	<0.1	1.1	0.08	<0.02	37	0.2	0.04	4.6
3295874	Soil	11.5	2.9	0.02	20.0	0.007	<20	0.14	0.003	0.02	<0.1	0.2	0.03	<0.02	17	0.2	<0.02	1.5
3295875	Soil	10.2	43.6	0.40	29.4	0.090	<20	1.16	0.009	0.04	<0.1	2.4	0.06	<0.02	31	<0.1	0.02	6.9
3295876	Soil	10.6	39.0	0.39	42.9	0.085	<20	1.20	0.009	0.03	<0.1	2.4	0.07	<0.02	30	0.2	0.03	6.5
3295877	Soil	17.6	31.9	0.32	77.8	0.044	<20	1.24	0.007	0.07	<0.1	2.0	0.11	0.03	66	0.6	0.04	4.7
3295878	Soil	18.3	41.7	0.40	81.0	0.058	<20	1.42	0.009	0.07	<0.1	2.4	0.09	0.02	46	0.4	0.03	5.6
3295879	Soil	28.2	49.8	0.51	81.9	0.078	<20	1.75	0.009	0.08	<0.1	3.5	0.15	0.03	66	0.6	0.02	7.0
3295880	Soil	12.1	59.9	0.57	70.8	0.113	<20	2.02	0.012	0.07	<0.1	3.2	0.11	<0.02	47	0.8	0.07	8.1
3295881	Soil	13.1	61.4	0.66	99.9	0.109	<20	1.94	0.013	0.11	<0.1	3.1	0.11	0.03	56	0.6	0.03	8.2
3295882	Soil	11.9	56.5	0.53	79.5	0.114	<20	1.87	0.012	0.10	<0.1	3.3	0.10	0.02	74	0.5	0.03	8.9
3295883	Soil	12.6	44.4	0.55	70.0	0.072	<20	1.40	0.010	0.10	<0.1	2.5	0.09	0.03	31	0.3	<0.02	5.3
3295884	Soil	27.2	82.0	0.87	84.5	0.109	<20	1.77	0.018	0.12	<0.1	6.0	0.13	<0.02	24	0.2	<0.02	6.0
3295885	Soil	19.8	79.3	0.87	129.0	0.114	<20	2.63	0.009	0.15	<0.1	6.6	0.14	<0.02	37	0.4	<0.02	8.1
3295886	Soil	29.1	94.8	1.05	179.5	0.101	<20	3.57	0.011	0.19	<0.1	7.4	0.20	0.04	70	0.5	<0.02	10.4
3295887	Soil	52.6	83.9	0.85	171.7	0.060	<20	3.48	0.012	0.17	<0.1	6.2	0.26	0.10	134	0.7	<0.02	9.8
3295888	Soil	44.8	89.7	0.96	153.2	0.127	<20	2.55	0.027	0.15	<0.1	8.2	0.16	0.03	105	0.4	<0.02	7.6
3295889	Soil	8.0	23.2	0.09	19.5	0.073	<20	0.76	0.003	0.04	<0.1	0.9	0.08	<0.02	33	0.4	0.03	9.1
3295890	Soil	20.3	47.4	1.35	42.4	0.069	<20	0.93	0.009	0.16	<0.1	3.5	0.15	<0.02	18	<0.1	<0.02	3.3
3295891	Soil	9.3	28.4	0.20	56.7	0.069	<20	0.77	0.005	0.06	<0.1	1.4	0.07	<0.02	34	0.5	0.03	6.1
3295892	Soil	8.1	44.7	0.39	61.9	0.068	<20	1.60	0.007	0.07	<0.1	2.3	0.07	<0.02	51	0.6	<0.02	6.5
3295893	Soil	9.9	21.4	0.14	37.9	0.048	<20	0.83	0.005	0.03	<0.1	1.2	0.07	<0.02	21	0.2	<0.02	5.5
3295894	Soil	8.4	7.1	0.03	21.3	0.012	<20	0.25	0.003	0.04	<0.1	0.4	0.06	<0.02	10	<0.1	<0.02	2.6
3295895	Soil	7.6	30.0	0.18	47.0	0.052	<20	1.83	0.007	0.04	<0.1	1.8	0.06	<0.02	29	0.2	<0.02	5.5

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	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3295896	Soil	0.27	4.30	7.82	19.3	80	9.8	2.8	142	1.12	1.8	0.3	3.3	1.8	8.0	0.07	0.05	0.18	25	0.09	0.030
3295897	Soil	0.39	6.14	10.37	32.8	96	11.4	3.5	212	1.26	2.6	0.4	1.0	2.2	10.0	0.10	0.08	0.23	28	0.10	0.031
3295898	Soil	0.41	6.04	7.88	32.1	75	14.3	4.4	99	1.79	1.9	0.4	0.7	2.1	8.3	0.07	0.06	0.21	34	0.09	0.066
3295899	Soil	0.16	3.48	6.34	17.0	31	3.4	1.7	119	0.58	2.3	0.3	0.9	1.1	7.0	0.11	0.05	0.14	12	0.05	0.026
3295900	Soil	0.10	2.41	4.99	11.1	47	2.6	1.0	28	0.39	0.8	0.3	0.4	2.3	6.8	0.08	0.02	0.13	10	0.05	0.014
3295984	Soil	0.44	3.53	6.69	20.3	79	3.7	1.1	37	1.83	1.6	0.4	0.9	2.6	6.5	0.07	0.07	0.19	36	0.06	0.035
3295985	Soil	0.47	4.27	7.43	52.9	39	13.3	4.5	63	1.90	1.8	0.5	0.4	2.5	8.1	0.11	0.04	0.15	33	0.09	0.045
3295986	Soil	0.26	6.19	12.26	20.6	53	2.5	0.4	27	0.24	1.1	0.2	4.7	0.2	2.8	0.34	0.05	0.18	6	0.04	0.037
3295987	Soil	0.32	3.62	7.47	15.5	30	3.4	1.2	36	1.22	2.5	0.4	1.8	2.1	5.5	0.06	0.04	0.30	25	0.04	0.040
3295988	Soil	0.17	3.81	8.60	14.7	29	1.9	0.4	18	0.28	1.0	0.2	1.9	0.1	4.1	0.16	0.03	0.18	9	0.04	0.014
3295989	Soil	0.54	7.35	4.32	12.6	14	20.2	8.9	65	1.04	1.1	0.9	4.1	2.5	9.3	0.02	<0.02	0.07	17	0.13	0.043
3295990	Soil	0.39	17.19	12.20	43.7	40	23.6	10.0	307	1.54	3.5	0.8	1.4	3.4	13.9	0.15	0.05	0.25	29	0.23	0.039
3295991	Soil	1.26	24.42	13.39	91.6	127	57.7	31.2	147	3.36	4.9	2.4	5.1	5.6	9.4	0.20	0.12	0.31	48	0.11	0.080
3295992	Soil	1.35	57.10	14.33	90.8	466	110.3	23.0	3328	4.34	6.7	12.6	1.8	5.3	40.7	0.32	0.06	0.55	67	1.07	0.160
3295993	Soil	0.79	18.97	15.72	118.9	97	42.8	15.0	1320	2.68	6.2	2.5	6.9	2.5	15.7	0.37	0.05	0.41	57	0.41	0.054
3295994	Soil	1.36	51.95	13.98	94.8	464	90.6	21.9	2499	3.94	6.0	12.5	2.3	3.1	34.9	0.28	0.06	0.47	64	0.83	0.167
3295995	Soil	0.41	8.45	8.24	42.5	83	18.3	5.1	135	1.38	2.8	0.6	3.7	1.9	13.0	0.11	0.04	0.24	25	0.15	0.038
3295996	Soil	0.52	14.98	21.13	151.1	99	18.9	11.2	1475	1.69	4.9	0.7	1.1	0.8	15.1	0.44	0.08	0.36	26	0.22	0.099
3295997	Soil	0.51	26.24	14.40	90.7	182	30.7	10.3	732	2.16	4.2	7.1	1.5	1.0	22.8	0.40	0.09	0.31	35	0.76	0.089
3295998	Soil	0.25	17.88	8.73	33.0	59	23.5	9.8	444	1.54	2.3	3.9	1.1	1.9	17.4	0.14	0.03	0.19	28	0.39	0.069
3295999	Soil	0.25	18.11	11.42	66.9	107	22.2	8.4	685	1.54	3.2	1.3	1.4	1.3	19.1	0.31	0.05	0.22	26	0.59	0.048

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	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3295896	Soil	8.3	18.0	0.10	28.8	0.040	<20	1.09	0.005	0.04	<0.1	1.0	0.05	<0.02	26	0.3	<0.02	5.9
3295897	Soil	8.8	22.7	0.13	33.1	0.055	<20	0.88	0.007	0.04	<0.1	1.3	0.06	<0.02	34	0.1	<0.02	5.3
3295898	Soil	7.5	27.7	0.15	34.7	0.063	<20	1.28	0.006	0.05	<0.1	1.4	0.06	<0.02	41	0.4	<0.02	6.1
3295899	Soil	8.5	9.0	0.06	20.6	0.025	<20	0.47	0.004	0.04	<0.1	0.7	0.06	<0.02	18	<0.1	<0.02	3.2
3295900	Soil	11.1	6.8	0.04	14.0	0.028	<20	0.39	0.005	0.02	<0.1	0.7	0.04	<0.02	15	<0.1	<0.02	3.7
3295984	Soil	9.0	19.6	0.07	19.5	0.059	<20	1.21	0.005	0.03	<0.1	1.3	0.05	0.02	49	0.3	<0.02	8.3
3295985	Soil	8.1	31.2	0.17	44.9	0.054	<20	2.09	0.008	0.03	<0.1	2.3	0.06	0.03	74	0.3	<0.02	6.6
3295986	Soil	6.4	6.8	0.04	26.7	0.004	<20	0.41	0.004	0.06	<0.1	0.4	0.07	<0.02	29	<0.1	<0.02	3.2
3295987	Soil	9.9	13.3	0.07	20.1	0.040	<20	0.69	0.002	0.03	<0.1	0.9	0.07	<0.02	30	0.3	<0.02	7.5
3295988	Soil	7.1	6.6	0.03	12.5	0.014	<20	0.36	0.005	0.02	<0.1	0.4	0.04	<0.02	13	<0.1	<0.02	3.9
3295989	Soil	12.7	32.6	0.22	19.7	0.050	<20	2.25	0.007	0.03	<0.1	2.3	0.04	0.04	78	0.5	<0.02	2.6
3295990	Soil	16.3	41.8	0.36	63.2	0.050	<20	1.24	0.010	0.05	<0.1	2.9	0.12	<0.02	31	<0.1	<0.02	3.7
3295991	Soil	14.1	73.0	0.32	85.1	0.078	<20	5.19	0.002	0.11	<0.1	4.0	0.18	0.09	135	0.9	0.04	7.7
3295992	Soil	58.0	142.9	1.02	475.5	0.059	21	6.42	0.006	0.47	<0.1	10.7	0.39	0.09	152	1.5	0.04	11.7
3295993	Soil	19.7	74.7	0.69	102.2	0.110	<20	2.35	0.009	0.10	<0.1	5.0	0.15	0.02	46	0.4	0.08	8.7
3295994	Soil	62.9	131.8	0.81	375.0	0.056	<20	5.70	0.006	0.33	<0.1	8.3	0.36	0.08	169	1.2	0.02	10.4
3295995	Soil	10.2	30.9	0.24	83.5	0.073	<20	1.08	0.007	0.07	<0.1	1.9	0.06	<0.02	37	0.2	0.03	6.3
3295996	Soil	11.9	32.5	0.23	104.2	0.041	<20	1.15	0.007	0.07	<0.1	1.7	0.10	0.03	54	0.3	0.05	5.4
3295997	Soil	29.4	55.4	0.47	134.4	0.038	<20	2.14	0.010	0.12	<0.1	3.3	0.12	0.06	68	0.4	0.03	5.0
3295998	Soil	22.0	50.7	0.47	60.1	0.051	<20	1.07	0.010	0.09	<0.1	3.6	0.09	<0.02	38	0.2	0.03	3.4
3295999	Soil	19.7	44.3	0.40	88.4	0.043	<20	1.38	0.010	0.09	<0.1	2.9	0.10	0.03	43	0.3	<0.02	3.8

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Project: Nipissing Lorrain
Report Date: May 15, 2023

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QUALITY CONTROL REPORT TIM22001604.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
3295870	Soil	0.56	13.58	29.73	64.1	145	15.3	12.7	613	1.23	10.6	0.3	1.5	1.1	13.9	0.29	0.14	0.59	21	0.29	0.061
REP 3295870	QC	0.59	12.92	29.28	59.7	125	15.5	12.5	642	1.25	10.6	0.3	1.1	1.2	13.5	0.27	0.13	0.57	21	0.29	0.060
3295989	Soil	0.54	7.35	4.32	12.6	14	20.2	8.9	65	1.04	1.1	0.9	4.1	2.5	9.3	0.02	<0.02	0.07	17	0.13	0.043
REP 3295989	QC	0.57	7.37	4.37	12.8	15	20.6	9.5	68	1.07	1.1	0.9	0.6	2.5	9.3	0.03	<0.02	0.07	18	0.14	0.046
Reference Materials																					
STD DS11	Standard	14.10	135.35	136.34	326.2	1907	74.6	13.1	1005	3.03	44.5	3.1	97.3	8.4	71.6	2.41	6.97	11.67	48	1.04	0.077
STD DS11	Standard	13.11	141.45	131.40	351.1	1664	73.7	13.4	959	2.91	43.2	2.6	61.5	8.1	66.2	2.34	6.40	11.33	43	1.00	0.066
STD DS11	Standard	15.82	150.53	147.15	361.5	1798	84.8	14.7	1094	3.36	49.3	2.9	57.5	9.5	73.4	2.74	6.89	13.00	47	1.13	0.074
STD OREAS262	Standard	0.56	112.37	56.51	142.7	470	60.7	26.6	532	3.18	37.8	1.2	58.9	9.8	37.6	0.69	1.92	1.02	21	2.98	0.040
STD OREAS262	Standard	0.63	110.77	54.75	146.6	442	60.8	25.3	519	3.10	35.8	1.2	52.1	9.7	35.9	0.67	1.88	0.99	19	2.83	0.036
STD OREAS262	Standard	0.65	124.08	62.53	162.6	503	67.9	29.8	525	3.54	38.8	1.3	62.3	11.2	38.6	0.69	2.20	1.18	25	3.19	0.041
STD DS11 Expected		13.9	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	7.2	12.2	50	1.063	0.0701
STD OREAS262 Expected		0.68	118	56	154	450	62	26.9	530	3.284	35.8	1.22	65	9.33	36	0.61	3.39	1.03	22.5	2.98	0.04
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001

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QUALITY CONTROL REPORT TIM22001604.1

	Method	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
	MDL	0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
Pulp Duplicates																		
3295870	Soil	8.5	28.7	0.28	51.4	0.038	<20	0.68	0.005	0.06	<0.1	1.3	0.09	0.02	43	0.4	0.05	4.1
REP 3295870	QC	8.0	27.8	0.28	48.2	0.037	<20	0.69	0.007	0.06	<0.1	1.4	0.09	0.02	42	0.5	0.06	4.1
3295989	Soil	12.7	32.6	0.22	19.7	0.050	<20	2.25	0.007	0.03	<0.1	2.3	0.04	0.04	78	0.5	<0.02	2.6
REP 3295989	QC	12.3	33.4	0.23	19.8	0.053	<20	2.36	0.008	0.03	<0.1	2.7	0.05	0.04	83	0.5	<0.02	2.7
Reference Materials																		
STD DS11	Standard	20.2	53.7	0.84	420.3	0.099	<20	1.15	0.075	0.40	2.6	3.3	4.94	0.28	257	2.0	4.53	4.7
STD DS11	Standard	19.2	55.1	0.79	395.4	0.093	<20	1.09	0.068	0.38	2.3	3.2	4.71	0.25	261	2.1	4.36	4.8
STD DS11	Standard	21.3	60.9	0.91	443.8	0.101	<20	1.22	0.079	0.42	2.9	3.4	5.32	0.30	273	2.5	5.01	5.1
STD OREAS262	Standard	19.0	39.3	1.15	254.8	0.003	<20	1.21	0.069	0.31	<0.1	3.2	0.46	0.26	160	0.4	0.22	3.4
STD OREAS262	Standard	19.7	39.6	1.11	244.5	0.003	<20	1.20	0.063	0.30	<0.1	3.4	0.46	0.24	156	0.5	0.18	3.9
STD OREAS262	Standard	19.5	45.9	1.25	279.1	0.004	<20	1.30	0.066	0.31	0.1	3.5	0.51	0.28	177	0.3	0.26	4.2
STD DS11 Expected		18.6	61.5	0.85	417	0.0976		1.129	0.0694	0.4	2.9	3.1	4.9	0.2835	260	2.2	4.56	4.7
STD OREAS262 Expected		15.9	41.7	1.17	248	0.003		1.3	0.071	0.312	0.13	3.24	0.47	0.269	170	0.4	0.23	3.9
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1