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Geological Report on Diamond Drilling

on the

**Montcalm Property
Montcalm Township
Porcupine Mining Division
District of Cochrane
Province of Ontario**

For

Mink Ventures Corp

**J. Kevin Filo, P.Geo
Filo Exploration Services Limited
1080 Michelano Drive
Timmins Ontario
P4P 1H9**

July 23, 2023

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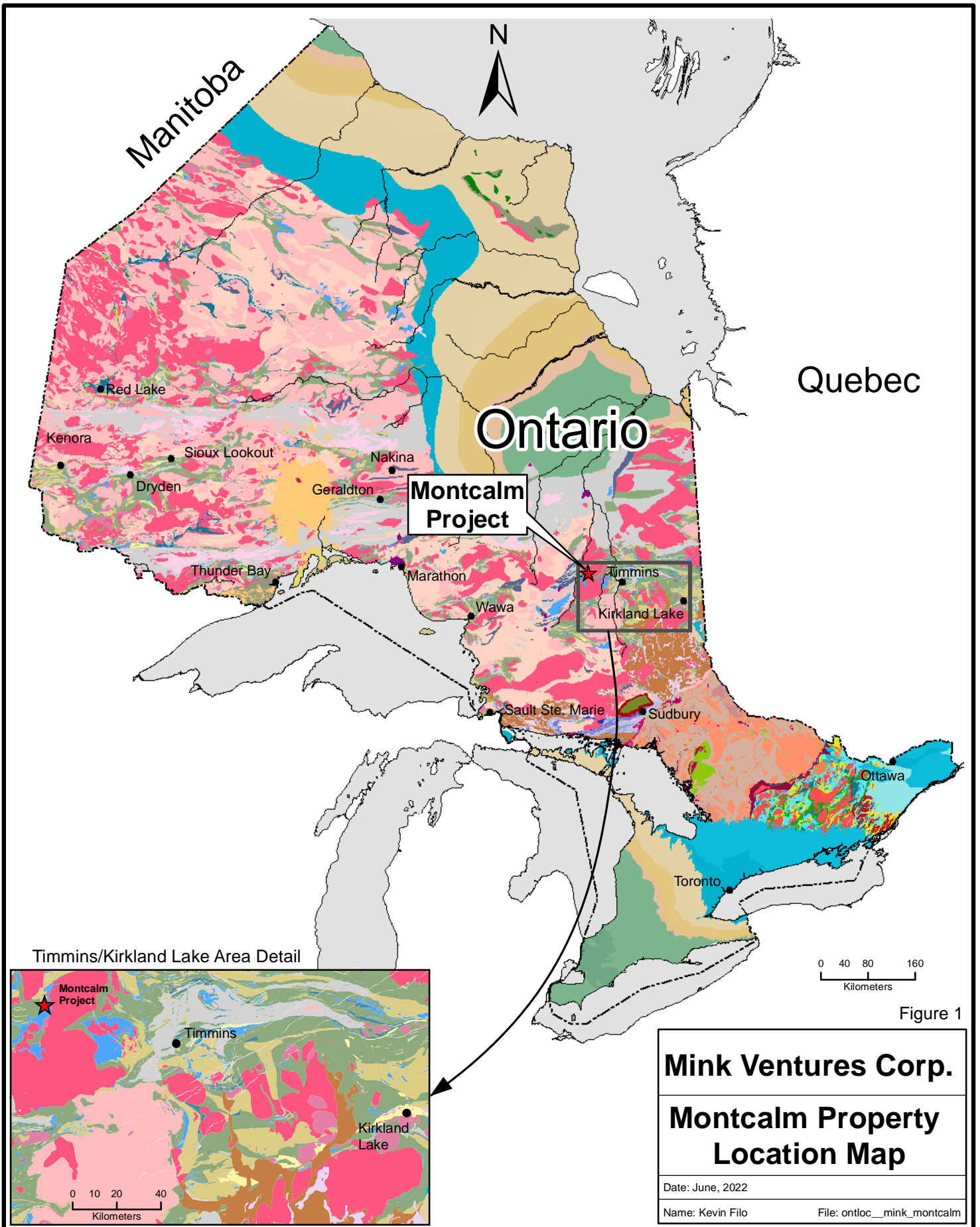
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Quebec

Ontario

Montcalm Project

Timmins/Kirkland Lake Area Detail

0 40 80 160
Kilometers

Figure 1

Mink Ventures Corp.

**Montcalm Property
Location Map**

Date: June, 2022

Name: Kevin Filo

File: ontloc__mink_montcalm

Summary:

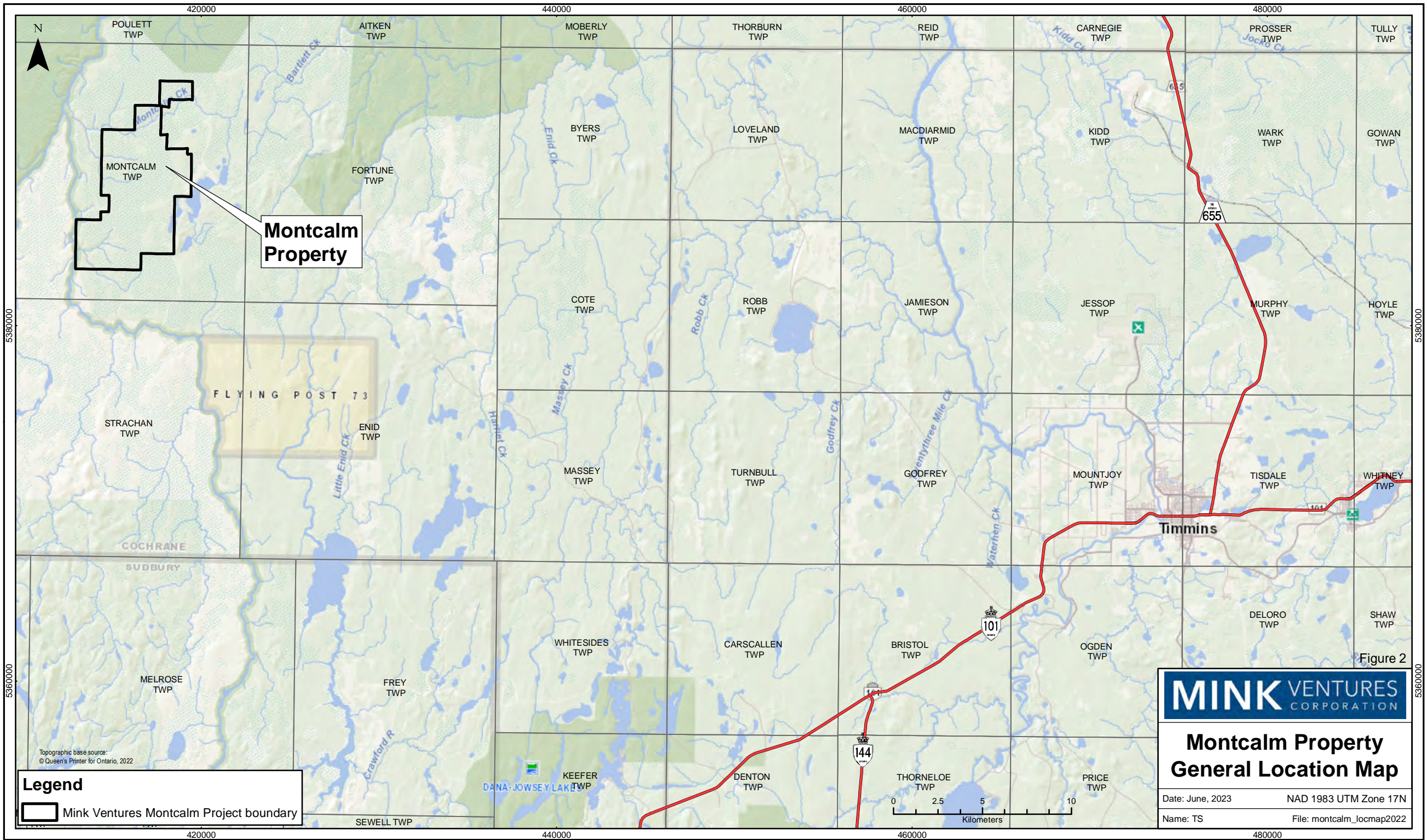
A diamond drill program was initiated by Mink Ventures Corp on its Montcalm Township Property in February of 2023. Field operations including mobilization and demobilization were conducted from February 10 to March 17, 2023. The work was approved under the Ministry of Energy Northern Development and Mines (ENDM) Permits PR-22-000231 and PR-23-000011. Planning and supervision of the drill program was carried out under the direction of J. Kevin Filo, P. Geo. The drilling contract was completed by NPLH Drilling from Timmins Ontario. A total of 822 meters of drilling was completed in 2 holes. A total of 182 samples including QA/QC standards and blanks were submitted for analysis. All core logging and sampling for the program was completed by April 10 2023.

In early 2023 Mink Ventures initiated both borehole induced polarization (IP) and surface IP surveys on the Montcalm Property to define new drill targets associated with the "Hook Zone" magnetic anomaly and a series of magnetic anomalies in the SW Target Area. The rationale for utilization of IP rather than conventional airborne or ground electromagnetic (EM) surveys used by previous operators is that possible zones of disseminated and/or stringer mineralization may be present on the current land holdings and these may have gone undetected by conventional EM due to their lack of a conductive response. An example to support this concept is historical drill hole MAC97-31 on the adjoining Glencore Montcalm Mine Property. Hole MAC97-31 intersected a significant disseminated and stringer zone of anomalous nickel and copper over 20.5 meters associated with a distinct magnetic anomaly with no EM response. (See Fig.8) Further, recent state of the art 3D borehole IP has a search radius of 250 meters around historical holes and has the ability to detect both disseminated as well as conductive targets at depths beyond the capability of airborne systems.

The recent drill program tested two borehole IP targets designated IP Target 1 and IP Target 2 both within the Hook Zone magnetic anomaly. Hole MT23-1 tested IP target 1, a near surface bore hole chargeability anomaly. (see Fig.8) This hole intersected disseminated sulphide mineralization but no significant values of base metals or precious metals were noted from assay samples. The disseminated sulphide zone was interpreted to be the cause of the borehole chargeability anomaly.

Drill hole MT23-2 was designed to test borehole IP Target 2, a deep conductive zone, also located within the Hook Zone magnetic anomaly. (see Fig.8) During the course of drilling MT23-2 had substantial up dip deviation from the original proposed hole despite precautions taken to prevent deviation. As a result, no conductive zone was intersected in MT23-2 to explain IP Target 2. Some disseminated sulphide zones and a shear zone with quartz veining were intersected above the target zone, these sections of interest were assayed for base metals and gold but no significant values were noted. IP Target 2 remains an untested legitimate target for future evaluation pending further review from a geophysicist.

During the course of the program there was very limited environmental impact as access to the drill holes areas was along old historical trails from previous operators. Once the holes were completed casing was left in the holes and the casing capped where casing was not damaged. There is very minimal historical exploration on this property and thus



Montcalm Property

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Legend

Mink Ventures Montcalm Project boundary



**Montcalm Property
General Location Map**

Date: June, 2023 NAD 1983 UTM Zone 17N
 Name: TS File: montcalm_locmap2022

Figure 2

Topographic base source:
© Queen's Printer for Ontario, 2022

420000 440000 460000 480000

very little environmental damage from past programs or the current program.

Geographic control points with respect to the property boundary and actual hole location, were determined using a hand held Garmin GPS unit. The property map datum utilized was Nad 83 Zone 17.

This technical geological report was written to document the work completed to date on the Montcalm Property, and to fulfill obligations for assessment requirements and corporate records.

Introduction:

The author was retained by Mink Ventures Corp to prepare a report to cover a recent diamond drill program on the corporations Montcalm Property. The drilling program including field work and core logging was completed from February 10, 2023 to April 10, 2023. The Montcalm Property is located near Timmins Ontario; more specifically the property is in Montcalm Township approximately 62 km northwest of the City of Timmins. (see Figs. 1 and 2).

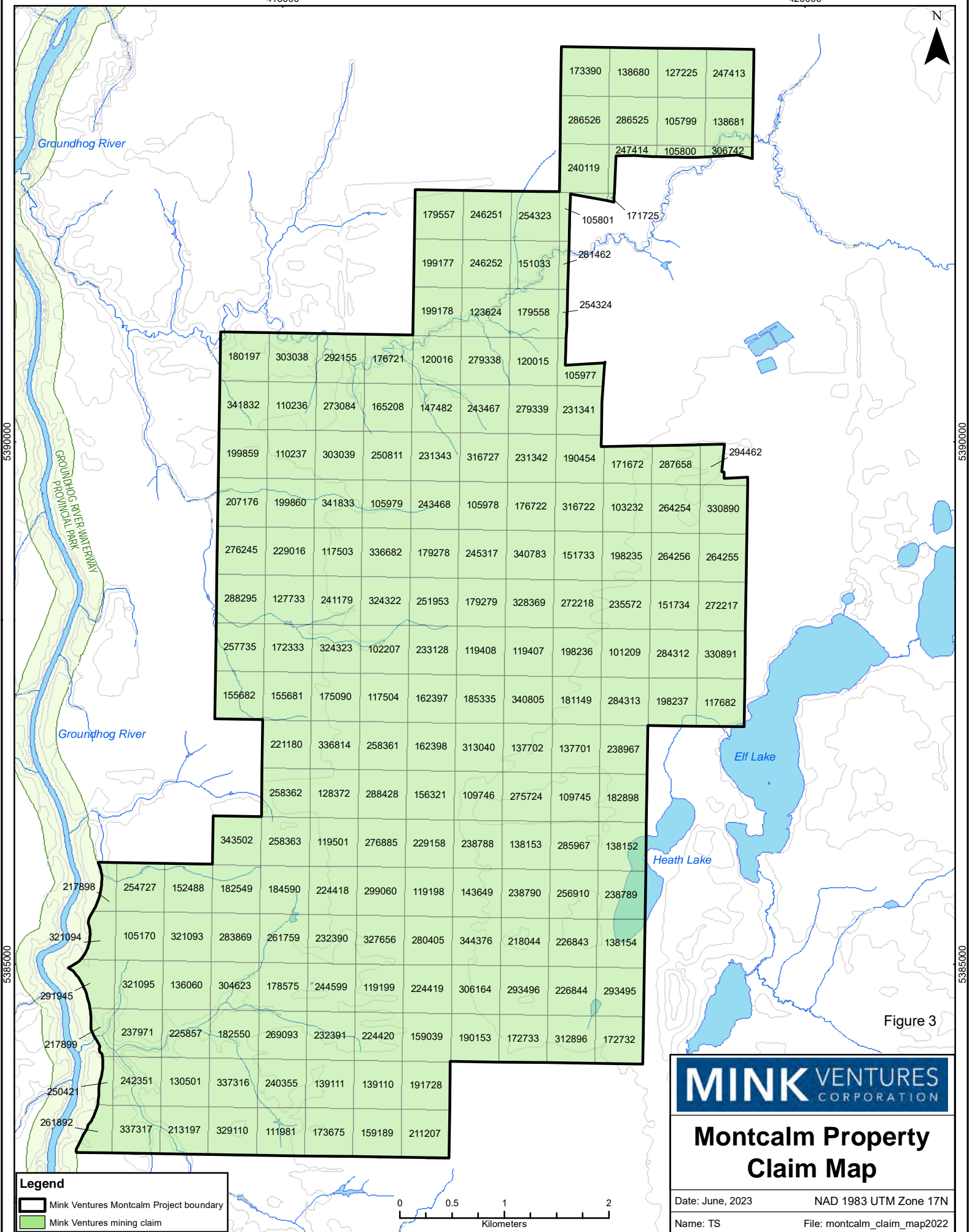
Mink Ventures Montcalm Property adjoins Glencore's former Montcalm Mine which had historical production of approximately 3.93 million tonnes grading 1.25% Ni, 0.67% Cu and 0.051% Co. (Ontario Geological Survey, Atkinson, B., 2010) Mink's recent exploration program was focused on new drill target development in order to locate new potential base metal mineralization similar to that found at the mine within the Montcalm Gabbro Complex (Fig.7).

The corporation has taken a different approach to drill target development than previous operators in the area. Mink Ventures initiated both borehole induced polarization (IP) and surface IP surveys on the Montcalm Property to define new drill targets associated with the "Hook Zone" magnetic anomaly and a series of magnetic anomalies in the SW Target Area. The rationale for utilization of IP rather than conventional airborne or ground electromagnetic (EM) surveys used by previous operators is that possible zones of disseminated and/or stringer mineralization may be present on the current land holdings and these may have gone undetected by conventional EM due to their lack of a conductive response. An example to support this concept is historical drill hole MAC97-31 on the adjoining Glencore Montcalm Mine Property. Hole MAC97-31 intersected a significant disseminated and stringer zone of anomalous nickel and copper over 20.5 meters associated with a distinct magnetic anomaly with no EM response. (See Fig.8) Further, recent state of the art 3D borehole IP has a search radius of 250 meters around historical holes and has the ability to detect both disseminated as well as conductive targets at depths beyond the capability of airborne systems.

The recent IP target development work outlined a number of quality drill targets, two borehole IP targets designated IP Target 1 and IP Target 2 (see Fig.8) were prioritized for drilling within the Hook Zone magnetic anomaly. Hole MT23-1 was drilled to test IP Target 1, a near surface IP chargeability anomaly and hole MT23-2 was drilled to test IP Target 2, a deep IP conductive zone. This technical geological report will summarize the 2023 drill program results as well as pertinent geological observations. Further recommendations for future exploration will also be addressed.

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Figure 3

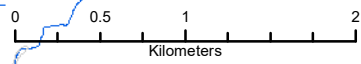


Montcalm Property Claim Map

Date: June, 2023 NAD 1983 UTM Zone 17N
Name: TS File: montcalm_claim_map2022

Legend

- Mink Ventures Montcalm Project boundary
- Mink Ventures mining claim



The report will also be filed with resident geologists office to fulfill assessment requirements and will be also be kept on file with the corporation for record keeping purposes.

Property Description:

Location and Description:

The Montcalm Property is located in Montcalm Township approximately 62 km northwest of the City of Timmins (Fig.1 and 2). The Montcalm Property is comprised of 196 mining cells and covers an area of approximately 3964 hectares as shown in the accompanying claim map (Fig.3).

Property Status:

The Montcalm Property is 100% controlled by Voltage Metals Corp. Mink Ventures Corp. has entered into an option agreement with Voltage Metals to earn an 80% interest in the property by expending 600,000 dollars in exploration, and making certain cash and share payments, specifically 50,000 dollars and 1.6 million shares. All payments and the work commitments are to be completed by April 10, 2024 for Mink to earn its 80% interest in the project. At the time of writing sufficient exploration assessment had been filed to maintain the claims in good standing; this work was pending approval by the Ministry of Energy, Northern Development and Mines.

Environmental Considerations and Permitting:

Considering the size of the current subject property, relatively limited exploration has been carried out on the current Montcalm Property. Most of the work on the property to date has consisted of airborne geophysical surveys, ground geophysical surveys and very limited diamond drilling. The area has heavy overburden cover and there are no trenches or shafts on the property nor has there been any production of minerals or tailings residue present.

Upon completion of the drill program drill casings were left in the holes; all hole casings were capped and marked appropriate. The casing for drill hole MT23-2 could not be capped; during demobilization of the drill the above ground casing was broken off. All debris and waste from the program was disposed of in Timmins. There was minimal damage to the surface area where drilling was conducted. Old drill roads from previous operators and logging operation are present and these roads were used to access drill pad locations, thus mitigating damage. All operations were conducted in winter as well to limit damage to the muskeg.

In Ontario an exploration permit is required to conduct diamond drilling. Two permits for exploration work were issued and permission granted to drill a series of drill holes within various mining cells on the property. The permit numbers issued granting permission complete the recent drilling were work permits number PR-22-000231 and PR-23-000011.

Accessibility, Climate, Local Resources, Infrastructure, and Physiography:

Access to the property is via the Malette Lumber - Montcalm Mine Road, which is located approximately 20 kilometers west of Timmins off provincial Highway #101. A network of secondary and tertiary logging roads; and winter trails provides access to much of the property.

The main centre with facilities and supplies proximal to the property is the City of Timmins. Timmins is a significant mining town with accommodations, restaurants and various supply and machine shops. The town also has a skilled work force for both mining and mineral exploration.

The Montcalm Property has little or relief and is covered in muskeg swamp for the most part. The eastern extremity of the property is covered by a sand esker and the majority of the property is covered with small spruce, jack pine and tamarack trees as well as alders near creeks.

The property lies within the Abitibi Plains ecoregion of the Boreal Shield ecozone and is marked by warm summers and cold, snowy winters. The mean annual temperature is approximately 1°C. The mean summer temperature is 14°C and the mean winter temperature is -12°C (Marshall and Schutt, 1999). Environment Canada data shows some extreme winter and summer conditions with temperatures ranging from -43.6 to +39.4 degrees respectively. Despite the harsh climatic conditions, geophysical surveying and diamond drilling can be performed on a year-round basis. Geological mapping and geochemical sampling are typically restricted to the months of May through to October.

History(see Fig.8):

The following information provides a chronological history of the work conducted on the Montcalm Property prior to the current drill program conducted by Mink Ventures. Full details on all historical work can be obtained in assessment Ontario reports located at the Ontario resident geologist's office in Timmins Ontario or on line. General area reports and survey work conducted by the Ontario Geological Survey over and proximal to the subject property are also available for review at the Resident Geologist office in Timmins. The majority of this section was adapted and modified from Keast, T. 2019, an assessment report filed on behalf of Pancontinental Resources.

1959 - Teck Exploration

Drilled holes 1 and 3 near the contact with the Montcalm Complex in the northern portion of the Property . Massive sulfides were encountered, but no significant assay values were returned.

1974 - Phelps Dodge Corporation of Canada

Holes 138-1 and 138-3 were drilled in the northeastern corner of the current Property. Semi-massive to massive sulfides were reported in each hole but no significant assay values were returned.

1977 - Geophysical Engineering Limited

Conducted an airborne DIGHEM survey totaling 1126 line-miles that covers a small, north-eastern, portion of the current Property. Holes EE-63 and EE-64 were then drilled within the northeastern region of the property. EE-64 reportedly intersected two horizons of massive sulfides, mainly composed of pyrite and pyrrhotite, but no assays results were reported.

1995 - KRL Resources Corporation

Conducted a ground pulse EM survey covering a small north-western portion of the current Property. Two targets were identified and drilled (holes MI & M2). MI appears to have missed the conductor as the hole steepened and deviated from the planned dip. M2 intersected a magnetite rich zone interpreted as the source of the conductive anomaly. Anomalous Ni (up to 0.1%) was reported in M2.

1996 & 1997 - Teck Exploration

Conducted a large diamond drill hole program where six holes were drilled from the southern and central portions of the current property (MAC96-16 to MAC96-18; and MAC97-27 to MAC97-29). No significant assay results were reported for MAC96-16, MAC97-27, or MAC97-29, while anomalous copper and nickel (up to 0.1%) were reported in MAC96-17, MAC96-18, and MAC97-28.

2003 - Aurora Platinum

Geotech Limited flew a 358 line-kilometer airborne VTEM survey that covers the current Property which identified many prospective conductors.

2004 - Aurora Platinum

Completed a four-hole diamond drill program to test conductors identified in the 2003 VTEM survey. Of the four diamond drill holes designated MC-04-01 to MC-04-04, only two intersected the targeted gabbroic rocks with poor sulfide concentration in them. These poorly mineralized gabbroic rocks yielded no significant base or precious metal mineralization.

2004 – Pacific Northwest Capital Corporation

A Helicopter-Borne Aerotem Electromagnetic and Magnetometer Survey was flown by over the current property to identify anomalies for Pacific Northwest's 2005 mobile metal ions soil sampling, prospecting and diamond drilling programs.

2005 – Pacific Northwest Capital Corporation

Three grids were cut in the central region of the current property (two to the west, and one to the east). A mobile metal ions soil sampling program was carried out over these grids, where grid areas were selected based on Aerotem anomalies identified in 2004. The program was designed to help determine the geological setting in areas with

extensive overburden and help identify diamond drill hole targets. Prospecting was also carried out to further assess Aerotem anomalies in regions with outcrop exposure. Anomalous copper values were reported among the 29 samples collected in the prospected area (central most portion of the current property). Total Field Magnetic and Horizontal Loop Electromagnetic surveys were also conducted on the three grids, where MaxMin conductors and magnetic anomalies were the primary focus of their 2005 diamond drilling program. This program consisted of seven holes that were drilled within the south-western portion of the current property (WTM-05-08 to WTM-05-14). Sulphide-bearing intervals with anomalous nickel and copper values were intersected in several of these holes, although no economic values were returned.

2006 – Pacific Northwest Capital Corporation

A Pulse EM survey was conducted in the eastern portion of the current property, over 33.3 kilometres of a 91 km grid that was cut in 2006 (extending grids that were cut to the west in 2005). Several anomalous responses were detected but were reasoned by the surveyor to likely be the result of overburden related responses.

2007 – Pacific Northwest Capital Corporation

Two phases of drilling were implemented to tests magnetic anomalies with coincident Pulse EM conductors that were identified in 2006. During the first phase, three holes were drilled in the southwest of the current property (WTM-07-19 to WTM-07-21) with another three drilled in the east (WTM-07-15 to WTM-07-17). Anomalous Ni-Cu values were intersected in several holes during the drill program, however no economic values were returned. During their second phase of drilling, only one hole was drilled in the east of the property (WTM-07-23). Anomalous copper and nickel values were detected in WTM-07-23, although no economic values were returned.

2008 - International Nickel Ventures

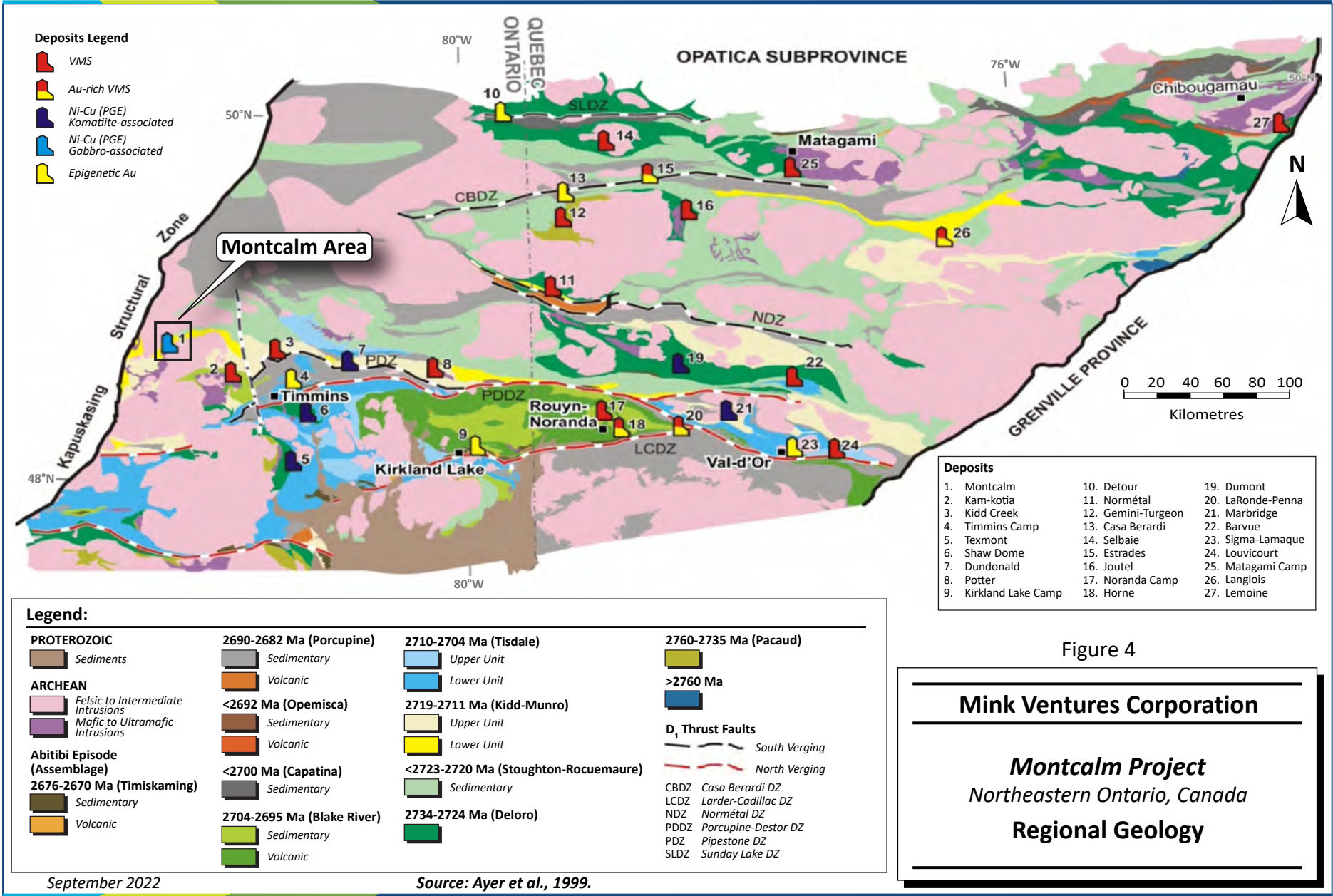
Conducted a 108 line-kilometer ground magnetometer and ground UTEM 3 EM survey over the southern portion of the Property, identifying several untested multi-channel EM conductors.

2009 - International Nickel Ventures

Conducted a six-hole diamond drill program to test six UTEM anomalies in the central region of the current property (INV-09-001 to INV-09-004; and INV-09-007 to INV-09-008,). Although sections of semi-massive to massive sulfides were encountered in some holes, no significant assay results were obtained during the drill program.

2018 – Pancontinental Resources Corporation

Completed a VTEM™max helicopter borne time domain EM geophysical survey (Geotch Airborne Geophysical Survey) over the north portion of the Montcalm Project. A total of 286 line kilometers (26km²) of geophysical data was acquired (June 17 –July 19, 2018). The survey was flown with east/west flight line orientation at 100 metre line spacing.



Pancontinental completed an in-house interpretation and identified sixteen VTEM anomalies.

2018 – Pancontinental Resources Corporation

Completed an aeromagnetic and FALCON Airborne Gravity Gradiometer survey over the north portion of the Montcalm Property. A total of 666 line-kilometers of geophysical data was acquired (August 24, 2018). The survey was flown with east/west flight line orientation at 100 meter line spacing. Pancontinental completed an in-house interpretation which identified a compelling association between high gravity responses and the approximate position of the Montcalm Gabbro Complex. Some higher gravity responses were identified within the central portion of the complex.

2023 – Mink Ventures Corp

In January of 2023 Mink Ventures initiated a borehole induced polarization survey within the western portion of the Hook Zone magnetic anomaly and a ground IP survey the SW Target Area to define potential new drill targets associated with magnetic anomalies. These surveys defined a number of high priority drill targets. Details on this survey work can be viewed in recent geophysical assessment reports filed by Mink Ventures.

Geological Setting:

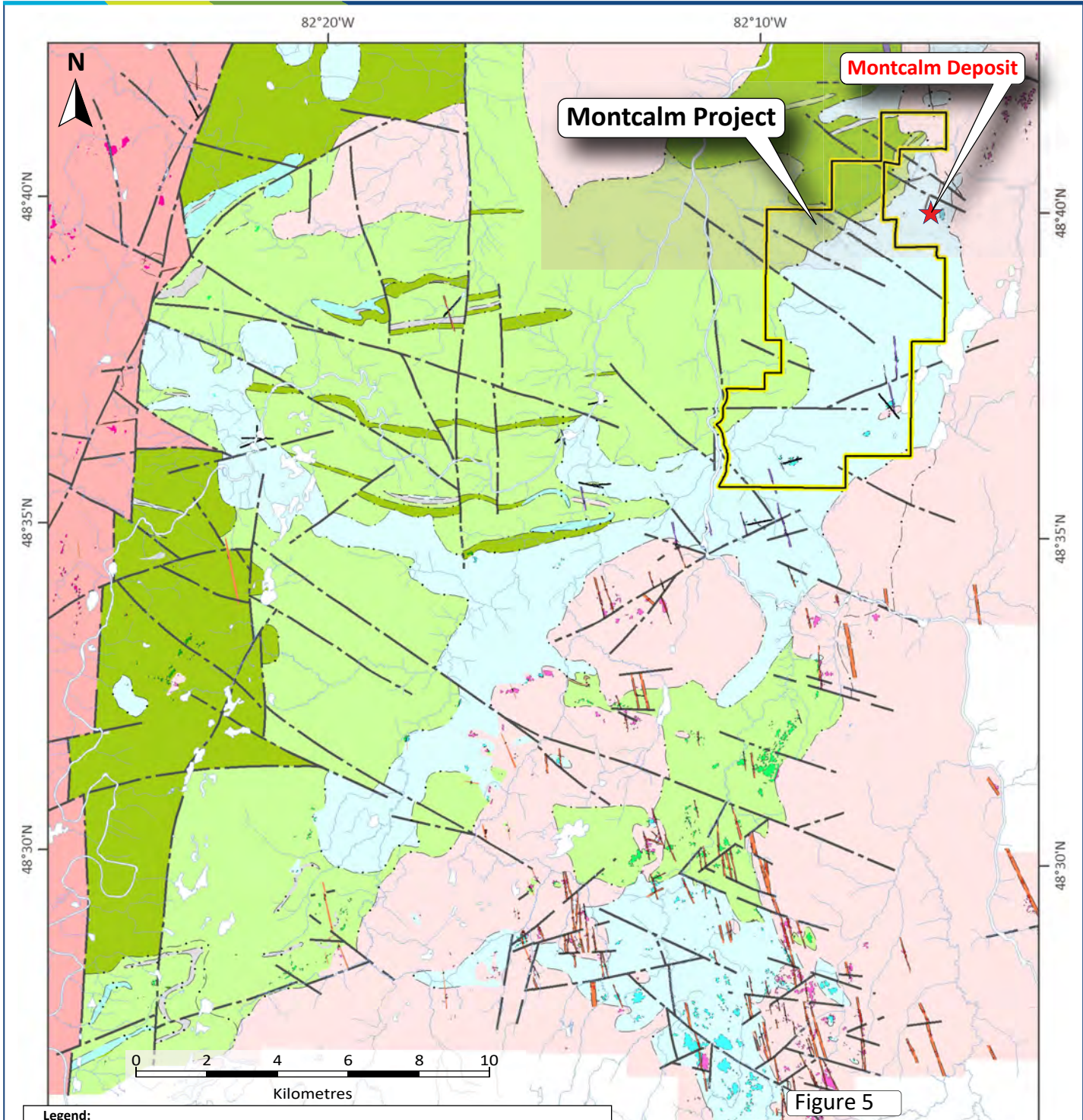
The regional geology, local geology, and property geology sections within this portion of the report were taken directly from a recent NI43-101 report for Mink Ventures by SLR Consulting authored by Paul Chamois (2022).

Regional Geology

The Project is located in the Superior Province of Northern Ontario. The Superior Province is divided into numerous subprovinces (Fig.4), each bounded by linear faults and characterized by differing lithologies, structural/tectonic conditions, ages, and metamorphic conditions. These subprovinces are classified into four types by Card and Ciesielski (1986):

- volcano-plutonic; consisting of low grade metamorphic greenstone belts, typically intruded by granitic magmas, and products of multiple deformation events,
- metasedimentary; dominated by clastic sediments and displaying low grade metamorphism at the subprovince boundary and amphibolite to granulite facies towards the centres,
- gneissic-plutonic; comprised of tonalitic gneiss containing early plutonic and volcanic mafic enclaves, and larger volumes of granitoid plutons, which range from sodic (early) to potassic (late), and
- high grade gneissic subprovinces; characterized by amphibolite to granulite facies igneous and metasedimentary gneisses intruded by tonalite, granodioritic, and syenitic magmas.

In very general terms, the Abitibi Subprovince consists of Late Archean metavolcanic rocks, related synvolcanic intrusions, and clastic metasedimentary rocks, intruded by Archean alkaline intrusions and Paleoproterozoic diabase dykes. The traditional Abitibi



Montcalm Deposit

Montcalm Project

Figure 5

Legend:

Paleoproterozoic to Neoarchean	Mafic to Intermediate Metavolcanic Rocks
Mafic Dikes	Ultramafic Metavolcanic Rocks
Neoarchean	Fault (observed or assumed)
Kapuskasing Structural Zone	Geological Boundary (assumed)
Neoarchean to Mesoarchean	Geological Boundary (interpreted from geophysics)
Intermediate to Felsic Intrusive Rocks	Mink Ventures' Montcalm Project
Mafic Intrusive Rocks	
Chemical Metasedimentary Rocks	
Clastic Metasedimentary Rocks	
Intermediate to Felsic Metavolcanic Rocks	

Mink Ventures Corporation

Montcalm Project
 Northeastern Ontario, Canada

Local Geology

greenstone belt stratigraphic model envisages lithostratigraphic units deposited in autochthonous successions, with their current complex map pattern distribution developed through the interplay of multi-phase folding and faulting (Heather, 1998).

The Project lies in the westernmost part of the Abitibi Subprovince of the Superior Province. The area has been subjected to regional metamorphism to the lower greenschist facies and locally to the lower amphibolite facies proximal to the margins of large granitoid intrusions (Barrie and Shirey, 2011).

Local Geology

The Property is located within the Montcalm Greenstone Belt (MGB) in the western Abitibi Subprovince (Fig.5). The following is taken from MacTavish (1990), Barrie and Naldrett (1989), and Jackson and Fyon (1991).

Most of the area is underlain by rocks of Neoarchean age. The oldest lithologies are mafic metavolcanic flows and felsic to intermediate pyroclastic rocks locally interbedded with clastic and chemical metasedimentary rocks and ultramafic flows. The supracrustal rocks have been partially divided into the large, dominantly mafic metavolcanic Montcalm assemblage, the dominantly intermediate pyroclastic metavolcanic Nova assemblage, and the composite Oates assemblage. They were intruded by the Montcalm Gabbroic Complex (MGC) in the north and the Strachan Gabbroic Complex (SGC) in the south. Both complexes are layered. The metavolcanic and gabbroic rocks were then intruded by the Nat River Granitoid Complex to the south and east, by an unnamed granitoid complex to the north, and by much smaller felsic to intermediate stocks in western Strachan Township, northern Belford Township, and northwestern Nova Township. All rock types are crosscut by Paleoproterozoic diabase dykes, mainly of the Matachewan swarm, and some diabase dykes of an unknown (possibly Abitibi) swarm. Lamprophyre dykes are common locally. The western edge of the area was truncated by the high grade metamorphic terrane of the Kapuskasing structural zone (KSZ).

The Neoarchean rocks were subjected to at least two, possibly three, periods of deformation. The first was a period of flattening within supracrustal rocks that resulted in northeast to north-northeast trending foliations subparallel to the stratigraphy. The second was a regional, possibly subprovince-scale, event that affected all Neoarchean rock types and produced east-southeast trending conjugate fault systems, open folds, and foliations. Emplacement of the KSZ during the late Neoarchean or the early Paleoproterozoic formed the north to north-northeast trending Ivanhoe Lake cataclastic zone and numerous subsidiary structures.



The supracrustal and gabbroic rocks were affected by regional, lower to middle amphibolite grade metamorphism. Upper amphibolite grade metamorphism was observed locally. Contact metamorphism produced narrow, sometimes overlapping, zones of granoblastic textures near the various granitoid intrusions. A second regional metamorphic event may have accompanied the emplacement of the KSZ.

Property Geology

The Property is underlain almost exclusively by lithologies comprising the MGC. The following is taken from Barrie and Naldrett (1989) and Barrie and Shirey (2011). Figure 6 illustrates the general geology of the Property.

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- Legend**
-  Glencore property boundary
 -  Mink Ventures Montcalm Project boundary

- Geology Legend: OGS Map 2641**
- PRECAMBRIAN**
- PROTEROZOIC**
- PALEOPROTEROZOIC TO NEOARCHEAN**
-  Mafic Intrusive Rocks (observed/interpreted)
- FAULT CONTACT**
-  Intermediate to Felsic Intrusive Rocks (observed/interpreted)
- INTRUSIVE CONTACT**
-  Mafic Intrusive Rocks (observed/interpreted)
- INTRUSIVE CONTACT**
-  Chemical Metasedimentary Rocks
 -  Intermediate to Felsic Metavolcanic Rocks (observed/interpreted)
 -  Mafic to Intermediate Metavolcanic Rocks (observed/interpreted)
 -  Ultramafic Metavolcanic Rocks (observed/interpreted)

**Glencore
Montcalm
Mine**

Montcalm Cu-Ni Deposit
7.5 million tonnes @
1.5% Ni, 0.7% Cu.
Approximately 140 diamond
drill holes within leased
property boundary.

**Montcalm
Property**

Figure 6

MINK VENTURES
CORPORATION

**Montcalm Property
Geology Map**

Date: June, 2023

NAD 1983 UTM Zone 17N

Name: TS

File: montcalm_compmap2023g

Geology Source: OGS Map M2641
MacTavish, 1996



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The MGC is in contact with predominantly mafic volcanic rocks to the south and undifferentiated volcanic and sedimentary rocks to the north. The MGC forms a crescent shape within the volcanic rocks and can be divided into four zones on the basis of petrology and geochemistry:

1. Pyroxenite zone, which consists of ortho-cumulus textured pyroxenite-hornblendite and pegmatitic gabbro units with relatively low Mg numbers (68-74) and high incompatible element contents;
2. Gabbro zone of mesocumulus to adcumulus textured plagioclase-clinopyroxene gabbros with higher Mg numbers (73-81) and lower incompatible element contents;
3. Anorthositic gabbro zone, characterized by a plagioclase-porphyritic texture and erratic Mg numbers (43-69), owing to the sporadic occurrence of Fe-Ti oxides; and
4. Ferroan gabbro zone commonly with cumulus Fe-Ti oxides and lower Mg numbers (25-69).

The MGC appears to be gradational into overlying metavolcanic rocks. Compositional layering within the MGC suggests that the sill faces south.

Endogenous mafic and ultramafic dykes cut all MGC cumulate lithologies and a subvertical felsic dyke suite, including a slightly younger subvertical quartz monzonite-granodiorite dyke, cuts the Ni-Cu-Co deposit.

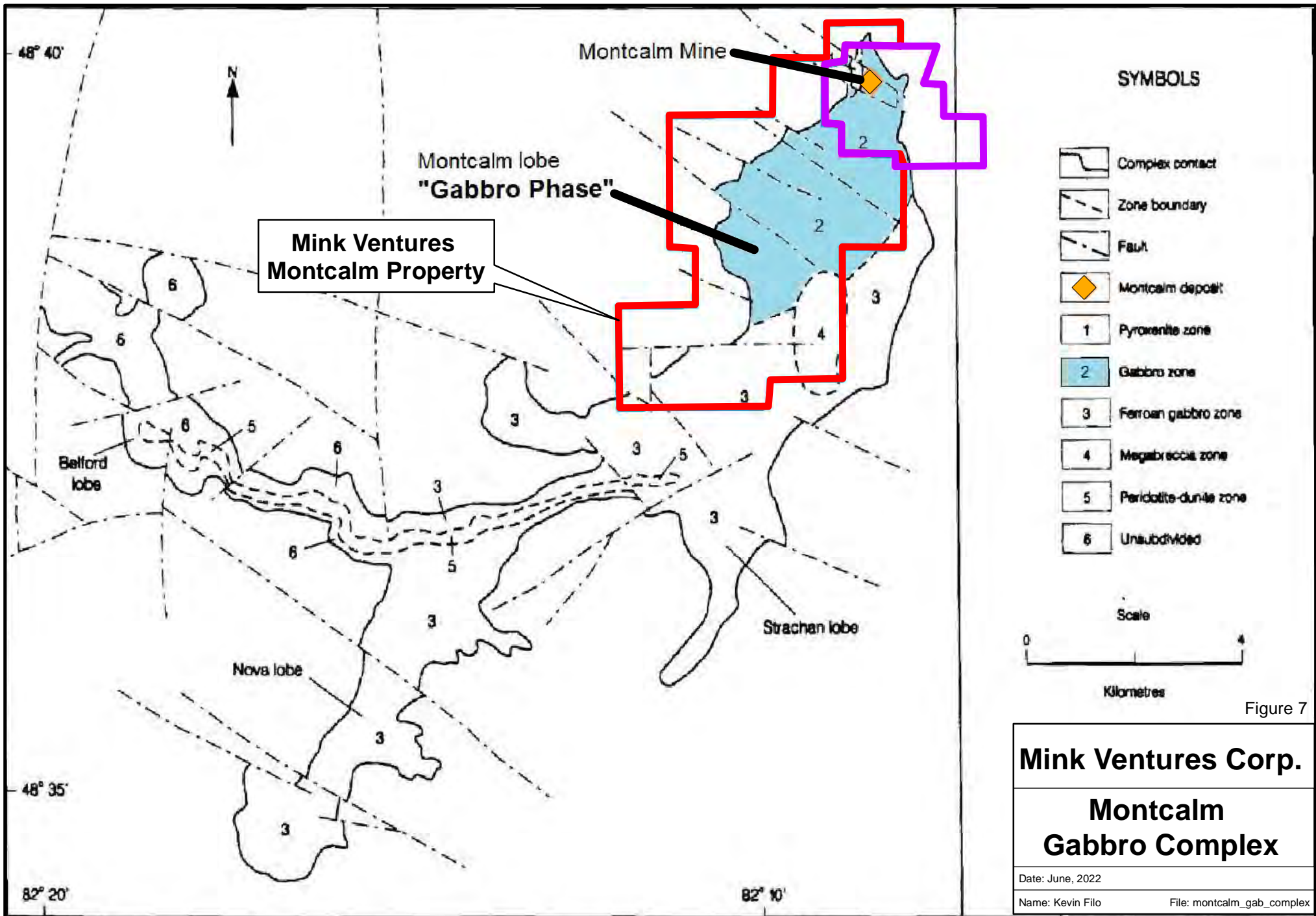
The MGC was subjected to two deformational events. Regional deformation, consistent with a broad doming to the northwest, created a penetrative, subvertical fabric generally parallel to the intrusion contacts. Later regional granitoid emplacement created contact strain zones along the eastern and southern margins of the MGC.

Property Economic Geology

Exploration on the Montcalm Property has not outlined any economic drill intersections to date, however a number of historic anomalous intercepts are present along with many unexplained targets from previous operators. The Mink Ventures Montcalm Property has significant potential for economic Ni-Cu deposits within the gabbroic complex, which is supported by the presence of the Montcalm Mine. The former Montcalm Mine had historic production of approximately 3.93 million tonnes grading 1.25% Ni, 0.67% Cu and 0.051% Co. (OGS, Atkinson, B., 2010)

The corporation has taken a different approach to drill target development than previous operators in the area. Mink Ventures initiated both borehole induced polarization (IP) and surface IP surveys on the Montcalm Property to define new drill targets associated with the "Hook Zone" magnetic anomaly and a series of magnetic anomalies in the SW Target Area. The Hook Zone magnetic anomaly is associated with an airborne gravity anomaly and the "gabbro phase" of the Montcalm Gabbro complex which represents an ideal target development area (Fig.7) as the gabbro phase of the complex hosts the Montcalm Mine.

The rationale for utilization of IP rather than conventional airborne or ground electromagnetic (EM) surveys used by previous operators is that possible zones of



**Mink Ventures
Montcalm Property**

Montcalm lobe
"Gabbro Phase"

Montcalm Mine

Belford lobe

Nova lobe

Strachan lobe

48° 40'



48° 35'

82° 20'

82° 10'

disseminated and/or stringer mineralization may be present on the current land holdings and these may have gone undetected by conventional EM due to their lack of a conductive response. An example to support this concept is historical drill hole MAC97-31 on the adjoining Glencore Montcalm Mine Property. Hole MAC97-31 intersected a significant disseminated and stringer zone of anomalous nickel and copper over 20.5 meters associated with a distinct magnetic anomaly with no EM response. (See Fig.8) Further, recent state of the art 3D borehole IP has a search radius of 250 meters around historical holes and has the ability to detect both disseminated as well as conductive targets at depths beyond the capability of airborne systems. Both the borehole IP and surface IP surveys successfully outlined new targets not detected by previous operators.

Survey Control:

The diamond drill hole set up was located using a hand held GPS device. This device was set using the datum Nad 83, Zone 17. Once the actual location of the collar was selected in the field, the drill site location was again verified using geo referenced topographic maps. A final reading on the casing site was taken after completion of the hole for a more accurate location. Note, accuracy generally plus or minus 5 meters on the unit.

Down hole azimuth and dip readings were taken on the hole upon completion of the hole. The down hole readings were incorporated into various surface plans and section plots for an accurate representation of the hole location.

Drilling Program Discussion:

The recent drill program on the Montcalm Property was focused on targets within the western portion of the Hook Zone magnetic anomaly (Fig. cc), accurate drill location plots can be viewed in the accompanying Figures 8 and 9 relative to property boundaries. The accompanying table 1 below also provides detailed location and collar data for all holes completed during the program.

Table 1: Drill Hole Summary

Hole No.	Easting	Northing	Az. Deg.	Dip Deg	Final Depth	Assay Samples
MT23-1	415280	5387940	210	-67	237m.	75
MT23-2	415490	5387770	270	-54	585 m	107

*Note: Sample totals above include QA/QC samples

Hole MT23-1 (Fig. 9 and 10):

Hole MT23-1 was drilled to test a near surface IP chargeability anomaly. The hole encountered various intrusive units including pyroxenite, diorite and various gabbro units. The only section of some interest in the hole was a diorite unit from 118 to 131.6 meters; this unit contained approximately 1% disseminated sulphides; mainly pyrite with some pyrrhotite and a rare speck of chalcopyrite. Some clots of sulphide mineralization were observed over very short intervals, these were conductive when tested with the ohm meter. The best anomalous nickel assay from the diorite unit returned 1010 ppm Ni over 0.70 meters; this assay was associated with a quartz vein within the diorite. A second sample from the diorite unit returned 331 ppm Cu and 819 ppm nickel over 0.90

Legend

- Glencore property boundary
- Mink Ventures Montcalm Project boundary
- 2023 drill hole collar
- Historic drill hole collar
- 2019 drill hole location
- IP Targets (2023)
- VTEM anomaly D
- Gabbro Complex
- Historic EM anomalies

anomaly decay interval classification

- 3-4 Channel
- 5-6 Channel
- 7-8 Channel
- 9-10 Channel
- 11-12 Channel

South Target Area

Glencore Montcalm Mine

DDH MAC97-31
914 ppm Cu
1297 ppm Ni
over 20.5 metres

Montcalm Property

Hook Zone

DDH MT23-1

IP Target 1

IP Target 2

DDH WTM-05-12

DDH MT23-2

VTEM Anomaly D

SOUTH TARGET AREA

SW IP Anomaly 1

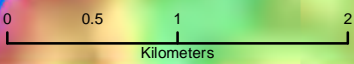
Figure 8



**Montcalm Property
Compilation Map**

Date: June, 2023 NAD 1983 UTM Zone 17N

Name: TS File: montcalm_compmmap2023f



Legend

- Mink Ventures mining claim
- Diamond drill hole collar
- Diamond drill hole trace



MT23-1
 415280mE, 5387940mN (UTM) Elev: 289.0m
 Az: 210°, Dip: -67°
 Length: 237m

MT23-2
 415490mE, 5387770mN (UTM) Elev: 289.0m
 Az: 270°, Dip: -54°
 Length: 585m

172333

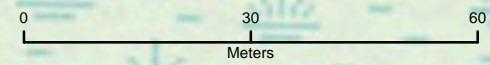
324323

155681

175090

289m

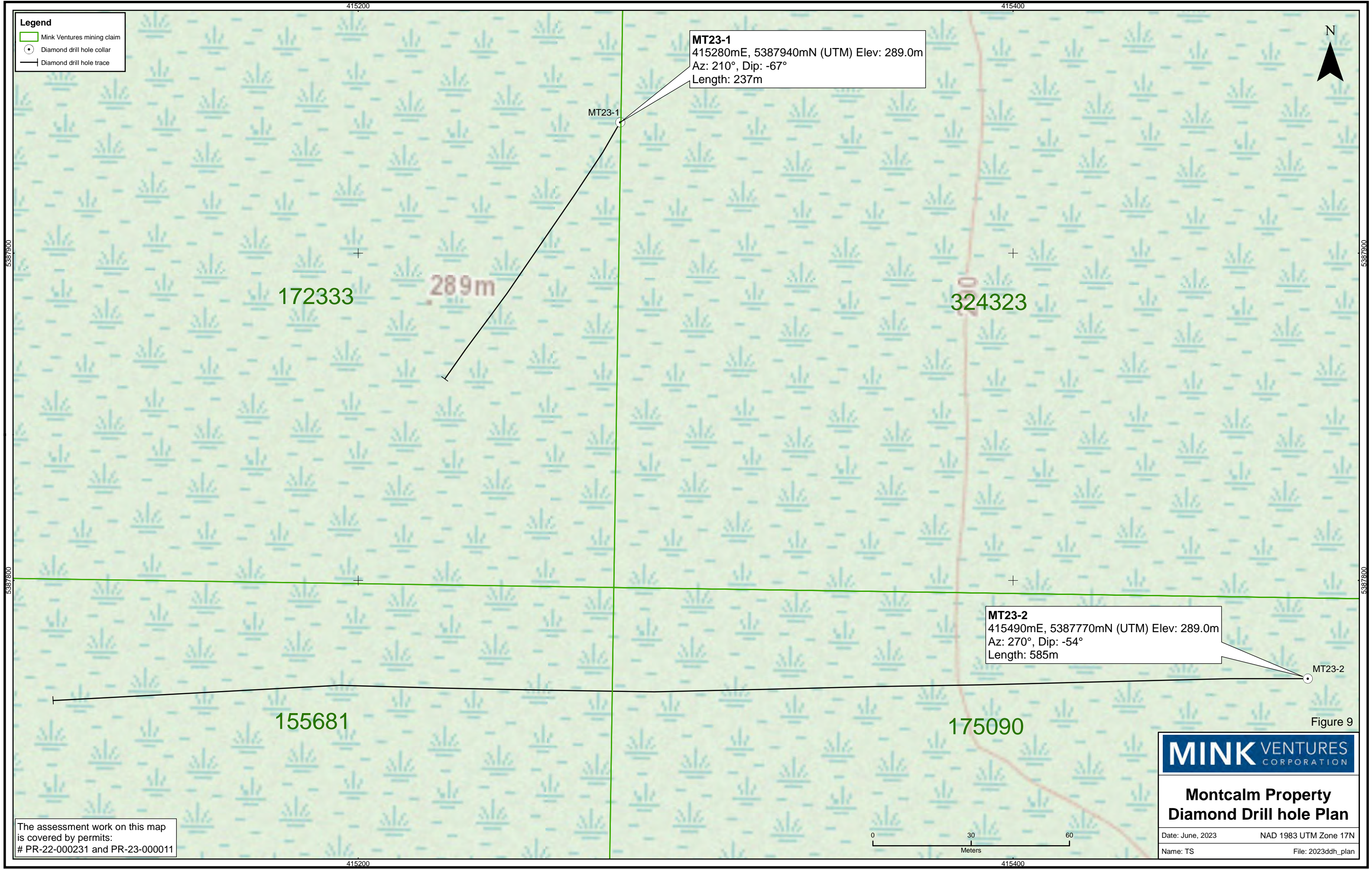
The assessment work on this map is covered by permits:
 # PR-22-000231 and PR-23-000011



**Montcalm Property
 Diamond Drill hole Plan**

Date: June, 2023 NAD 1983 UTM Zone 17N
 Name: TS File: 2023ddh_plan

Figure 9



meters. The cause of chargeability anomaly is possibly related to the weakly mineralized diorite unit.

Hole MT23-2 (Fig 9 and 11):

Hole MT23-2 was drilled to test a deep conductive IP anomaly. The hole failed to intersect any conductive zone. The target depth of the original proposed hole was collared at -54 degrees and 270 degrees azimuth with a proposed target depth of 650 meters with the assumption of minimal deviation. Despite precautions to minimize hole deviation this hole had an up dip deviation of approximately 50 meters and minimal deviation along the azimuth. The likely cause of the hole not intersecting the target zone is the up dip hole deviation. The proposed conductive IP target still remains a legitimate unexplained conductive zone at this time.

Hole MT23-2 intersected various gabbro units and substantial section of diorite, as well a number of mafic and felsic dykes. Within the first 180 meters of the hole there were a number wide shear zones with weak to moderate shear fabric; these shear zones often hosted quartz veining which exhibited fushitic alteration in some instances. These veins along with any disseminated sulphide mineralization associated with the shear zones were assayed for gold and base metals. The majority of up dip hole deviation was experienced during the course of drilling through this section multiple shear zones.

A large section of diorite 315.05 to 400.20 meters was intersected in this hole. This unit often contained some disseminated pyrite, pyrrhotite, and rare speck of chalcopyrite. The occasional clot of pyrrhotite was found in this unit and this pyrrhotite was conductive over very short intervals (less than 10 cm) when tested with an ohm meter. Note, from approximately 551 to 585 meters strongly magnetic interval due to considerable magnetite.

No significant base metal assays were noted in MT23-2, however single anomalous gold assay of 429 ppb Au over 1 meter at 316 to 317 meters was found to be associated with a K feldspar rich dyke.

Sampling Method and Approach:

The core handling and sampling procedures at the Montcalm project met current industry standards. Upon completion of an initial review of the core was logged using a consistent lithological table established by the project geologist and all pertinent geological information recorded in an excel spread sheet for easy coding and transfer to a database for plan and section work if warranted.

Intervals to be sampled were identified and marked on the core by a company geologist and the following sampling protocol carried out:

- Beginning and end of sample intervals are based on geology and mineralization logged in the core.
- Maximum individual sample length equal to 1.5 metres with the exception of one sample.
- No minimum sample length.

MT23-2
415490mE, 5387770mN (UTM) Elev: 289.0m
Az: 270°, Dip: -54°
Length: 585m

SURFACE

Claim #
155681

Claim #
175090

Drill hole lithology codes can
be found in Appendix 1

The assessment work on this map
is covered by permits:
PR-22-000231 and PR-23-000011

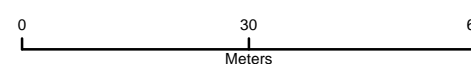


Figure 11

MINK VENTURES
CORPORATION

Montcalm Property
Diamond Drill Hole Section 5387770N
Hole MT23-2
Looking North, Section Width 10m

Date: June, 2023 NAD 1983 UTM Zone 17N

Name: TS File: 2023ddh_sec5387770N

- Contiguous samples are collected along full length of mineralized drill core.
- Core sample intervals were divided into half lengthways using a mechanical splitter.
- Half of each sample interval was collected in a new plastic bag and tagged with reference sample number. The samples were placed in rice bag sacks and sealed for delivery to the lab by company staff.
- The residual core half was returned to the original location in the core box along with a numbered sample tag for future reference.

With respect to the design of sampling intervals; the actual intervals were designed to provide contiguous sampling across the full width of the mineralized zones including shoulder samples. Particular attention was paid to the following general geological parameters to identify potential mineralized zones for priority sampling included the following:

- Rock types: No restriction on rock type. Mineralized zones potentially occur in all rock types intersected in the project area.
- Rock deformation: Mineralized zones may include evidence for increased host rock deformation including foliation, ductile strain, and/or brittle fracturing including the following vein-filling minerals: quartz, carbonates, feldspars, sulphides (in particular chalcopyrite, sphalerite, \pm pyrite and pyrrhotite).
- Rock alteration: Mineralized zones may be marked by an increase in the following alteration types within the host rock: chloritic alteration, carbonate alteration, sericitization, sulphidization (in particular chalcopyrite \pm pyrite and pyrrhotite) and silicification.
- Observed base and precious metal.

Sample quality was considered excellent and representative of the observed mineralized intervals where samples were taken as little or no lost core was noted in the intervals sampled.

Sample Preparation, Analyses and Security:

Core from the Montcalm program was reviewed and sampled at a secure logging facility in Connaught Ontario. The core was logged and tagged for sampling by an experienced geologist and split by a technician under the supervision of the project geologist as per protocols described in the previous section. Splitting of the core was completed by core splitting technician Gregor Dixon.

For the Montcalm project assay analysis was completed for both precious metals (Au, Pt, and Pd) and multi element analysis was also carried out for various base metals. The standard operating procedure for documentation of precious metal assays is to record in the log and/or data base if a standard precious metal fire assay, or pulp metallic fire assay was completed. If a pulp metallic assay was completed it was put into the data base and taken as the most accurate representation of the sample and recorded in both the log and data base. In the event of a duplicate assay completed on a sample such as a check by the lab the average of the two analysis was placed in the log and the data base. Base metal assays of interest such as copper and nickel were

recorded in the data base and drill logs. Other multi element results in excel spread sheets were kept for future reference in corporate records.

Analysis for the Montcalm project was completed at Actlabs in Timmins Ontario. All samples assayed for gold, platinum and palladium using Actalab's 1C-OES analysis method. Multi element analysis was also performed using their 1E3 analysis method. Full details on the methodology utilized by Actlabs for their analysis methods can be obtained from Actlabs web site.

Standard quality control procedures are present in the lab utilized. However, in addition to the quality control at the labs an Oreas standard and a blank sample were submitted for QA/QC requirements. For each batch of 25 samples there was a blank and two standards submitted with the assay batch. A precious metal standard Oreas 681 and a base metal standard Oreas 70b were the standards utilized in this program. Limestone garden rock was used for the blank. No unusual numbers were noted from the blanks submitted. Only one failure of the standard for precious metals was noted for all precious metal standards submitted. Oreas standard 70b was consistently below the tolerance limits for nickel and very close or slightly below the tolerance limits for copper in almost all cases where this standard was submitted. No ore grade intercepts were noted in the recent program and thus no repeats of assays were completed as a result of Oreas 70b data. The author has reviewed QA/QC data from the lab and noted excellent correlation of duplicates and rigorous QA/QC program; assay data presented is thought to be an accurate representation of values for samples submitted.

Data Verification:

As described above exploration at the Montcalm project including core logging, sampling procedures and record keeping are industry standard. The author personally supervised the entire program and was on site during the time the work was carried out. Further, the author personally examined all drill core. The author also supervised sampling technicians during the course of the program. Prior to completion of this current report the author reviewed all data base entries, drill logs, plans, and sections for errors prior to submission. From the material reviewed to date no major discrepancies were noted.

Conclusions and Recommendations:

Conclusions:

Hole MT23-1 intersected a weak zone of disseminated mineralization thought to be the cause of the IP chargeability anomaly (IP Target 1). No significant mineralization of economic interest was noted in MT23-1.

Hole MT23-2 failed to intersect a deep, strong, conductive IP target (IP Target 2). At this time the likely cause for MT23-2 not intersecting the target zone is hole deviation. The cause of IP Target 2 is unknown and this target remains a legitimate target to be drill tested again at a later date.

CERTIFICATE OF AUTHOR

I, J. Kevin Filo, P. Geo. do hereby certify that:

1. I am a consultant for Mink Ventures Corporation.
2. I graduated with an Honours Bachelor of Science Degree in Geology from Laurentian University in Sudbury in 1980.
3. I am a member of the Association of Professional Geologists of Ontario (Reg. No. 0220).
4. I have worked as a geologist for a total of 42 years since my graduation from university.
5. I am responsible for a non- independent review of the current subject report and I was responsible for the planning and supervision of the recent drilling program.
6. I am not aware of any material fact or material change with respect to the subject matter of the report that is not reflected in the report, the omission to disclose which would make the report misleading.
7. I am not independent of Mink Ventures Corporation as I presently control a substantial share position in Mink Ventures Corporation and I am an officer and director of the corporation

Dated this 23 day of July, 2023

Signature of Qualified Person

J. Kevin Filo P. Geo.



References:

- Atkinson, B.T., Pace, A., Beauchamp, S.A., Bousquet, P., Butorac, S., Draper, D.M., and Wilson, A.C., 2010: Report of Activities 2009 Resident Geologist Program, Timmins Regional Resident Geologist Report, Timmins and Sault Ste. Marie Districts. Ontario Geological Survey, OFR 6247.
- Ayer, J.A., Thurston, P.C., Bateman, R., Dube, B., Gibson, H.L., Hamilton, M.A., Hathaway, B., Hocker, S.M., Houle, M.G., Hudak, G., Ispolatov, V.O., Lafrance, B., Leshner, C.M., MacDonald, P.J., Peloquin, A.S., Piercy, S.J., Reed, L.E., and Thompson, P.H., 2005: Overview of results from the Greenstone Architecture Project: Discover Abitibi Initiative: OGS Open File 6154, 146 p.
- Ayer, J.A., Amelin, Y., Corfu, F., Kamo, S.L., Ketchum, J.W.F., Kwok, K. and Trowell, N.F., 2002: Evolution of the southern Abitibi greenstone belt based on U-Pb geochronology: autochthonous volcanic construction followed by plutonism, regional deformation and sedimentation; *Precambrian Research*, v115, pp. 63-95.
- Ayer, J.A., Ketchum, J.W.F. and Trowell, N.F., 2002: New geochronological and neodymium isotopic results from the Abitibi greenstone belt, with emphasis on the timing and the tectonic implications of Neoproterozoic sedimentation and volcanism; In *Summary of Field Work and Other Activities 2002*, Ontario Geological Survey, Open File Report 6100, pp. 5-1 to 5-16.
- Ayer, J., Berger, B., Johns, G., Trowell, N., Born, P., and Mueller, W.U., 1999: Late Archean rock types and controls on gold mineralization in the southern Abitibi greenstone belt of Ontario: Geological Association of Canada- Mineralogical Association of Canada Joint Annual Meeting, Sudbury, Canada, 1999, Field Trip B3 Guidebook, 73 p.
- Ayer, J.A., Trowell, N.F., Madon, Z., Kamo, S., Kwok, Y.Y., and Amelin, Y., 1999: Compilation of the Abitibi Greenstone Belt in the Timmins-Kirkland Lake Area: Revisions to Stratigraphy and new Geochronological Results; in *Summary of Field Work and Other Activities 1999*, Ontario Geological Survey, Open File Report 6000, pp. 4-1 to 4-13.
- Barrie, C.T., Naldrett, A.J., and Davis, D.W., 1990: Geochemical constraints on the genesis of the Montcalm gabbroic complex and Ni-Cu deposit, western Abitibi Subprovince, Ontario. *The Canadian Mineralogist*, Volume 28, part 3, pp. 451-474.
- Barrie, C.T., and Naldrett, A.J., 1989: Geology and Tectonic Setting of the Montcalm Gabbroic Complex and Ni-Cu Deposit, Western Abitibi Subprovince, Ontario, Canada *in* *Magmatic Sulphides, The Zimbabwe Volume* (M.D. Prendergast and M.J. Jones, eds.) Inst. Min. Metall., London, pp. 151-165).
- Barrie, C.T., and Shirey, S.B., 2011: Nd- and Sr-isotope systematics for the Kamiskotia-Montcalm area: implications for the formation of late Archean crust in the western

- Abitibi Subprovince, Canada. Canadian Journal of Earth Sciences, Vol. 28(1), pp. 58-76.
- Blecha, M., Thalenhorst, H., and Komura, A., 1977: Teck's Montcalm copper nickel deposit: AEM survey brings major discovery. Canadian Mining Journal, Vol. 98 (4), pp. 21-28.
- Card, K.D., and Ciesielski, A., 1986: DNAG #1. Subdivisions of the Superior Province of the Canadian Shield. Geoscience Canada, vol. 13, pp. 5-13.
- Chamois, P., NI-43101 Technical Report on the Montcalm Property, Montcalm Township, Porcupine Mining Division, Ontario. Qualifying transaction report prepared on behalf of Mink Ventures Corporation., 74 p.
- Eckstrand, O.R. and Hulbert, L.J., 2007: Magmatic Nickel-Copper-Platinum Group Element Deposits *in* Goodfellow, W.D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit Types, District Metallogeny, the Evolution of Geological Provinces and Exploration Methods, Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, pp. 205-222.
- Eckstrand, O.R., 1984: Canadian Mineral Deposit Types: A Geological Synopsis. Geological Survey of Canada Economic Geology Report 36, 86 p.
- Fraser, D.C., 1978: Geophysics of the Montcalm Copper-Nickel Discovery. CIM Bulletin Volume 71 – No. 789, pp. 99-104.
- Grant, J., 2023: Exploratory Geophysical Report, Montcalm Property, Montcalm Twp., Porcupine Mining Division, Ontario. An assessment report prepared on behalf of Mink Ventures Corporation., 16 p.
- Heather, K.B., 1998: New insights on the stratigraphy and structural geology of the southwestern Abitibi greenstone belt: Implications for the tectonic evolution and setting of mineral deposits in the Superior Province: in The first age of giant ore formation: stratigraphy, tectonics and mineralization in the Late Archean and Early Proterozoic; Papers presented at the PDAC, pp. 63 -101.
- Jackson, S.I., and Fyon, J.A., 1991: The Western Abitibi Subprovince in Ontario *in* Geology of Ontario, Ontario Geological Survey Volume 4, Part 1, pp. 405-484.
- Keast, T., 2019: Exploratory Diamond Drilling Report, Montcalm Property, Montcalm Twp., Porcupine Mining Division, Ontario. An assessment report prepared on behalf of Pancontinental Resources Corp., 22 p.
- MacTavish, A.D., 1996: Precambrian Geology: Montcalm Greenstone Belt. Ontario Geological Survey Report 300, 76 p.
- Marshall, I.B., and Schutt, P.H., 1999: A national ecological framework for Canada – Overview. A co-operative product of Ecosystems Science Directorate, Environment Canada and Research Branch, Agriculture and Agri-Food Canada.

Ontario Geological Survey, 1990: Airborne electromagnetic and total field intensity magnetic survey – Montcalm area. Ontario Geological Survey Map 81360. Scale 1:20,000.

Ontario Mineral Inventory Record MDI42B09NE00007: Montcalm Mine.

Webster, B., 2023: Exploratory Geophysical Report, Montcalm Property, Montcalm Twp., Porcupine Mining Division, Ontario. An assessment report prepared on behalf of Mink Ventures Corporation., 45 p.

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Dated this 23 day of June, 2023

Signature of Qualified Person
J. Kevin Filo P. Geo.



Appendix 1: Lithology Codes

LEGEND

ABBREVIATIONS

[8U] Diabase (All Ages) :

[7U] Felsic to Intermediate Intrusive

- [7G] Granite
- [7GD] Granodiorite, Quartz Monzonite
- [7T] Tonalite
- [7S] Syenite
- [7M] Monzonite
- [7PP] Feldspar Porphyry
- [7DP] Quartz/Feldspar Porphyry
- [7PA] Pegmatite
- [7A] Aplite
- [7C] Felsite

[6U] Mafic to Ultramafic Intrusive

- [6D] Diorite, Trochilinite
- [6G] Gabbro
- [6A] Anorthosite
- [6P] Peridotite, Pyroxenite
- [6L] Lamprophyre

[5U] Clastic Sediments

- [5AR] Argillite
- [5GR] Graphitic Argillite
- [5G] Graywacke
- [5CG] Conglomerate
- [5CGR] Timistoming Conglomerate
- [5SS] Sandstone
- [5ST] Siltstone
- [5Q] Quartzite
- [5A] Arkose

[4U] Chemical Sediments

- [4F] Iron Formation
- [4FS] Sulfide Facies
- [4FC] Silicate Facies
- [4FO] Oxide Facies
- [4C] Chert
- [4GP] Graphite

[3U] Felsic to Intermediate Volcanics

- [3R] Rhyolite
- [3D] Dacite
- [3A] Andesite
- [3T] Trachyte

[2U] Mafic Volcanics

- [2MS] Massive
- [2P] Pillowed
- [2FB] Mafic Flow-Breccia
- [2HY] Mafic-Hyaloclastite
- [2VA] Volcanic
- [2PP] Porphyritic

[1U] Ultramafic Volcanics - Unsubdivided

- [1TC] Talc-Chlorite Altered
- [1GS] Green-Carbonate Altered

Textural

ag agglomerate
AZ,az alteration zone
amy amygdaloidal
FB,fb flow breccia
fol foliated
glom glomerophyric
hy hyaloclastite
htr heterolithic
lap lapilli
ms massive
p pillowed
por porphyritic
sch schistose
sfx spherulitic
t tuffaceous
vez vesicular
vor vorfolitic

Veining

Av ankerite
Cr calcite
Epy epidote
Hemv hematite
Mtu magnetite
Qv quartz
Qtourv quartz-tourmaline
Qav quartz ankerite
Qcv quartz calcite
Tourv tourmaline

Intensity Code
Qav 1-5%
QAV 5-15%
[QAV] >15%

Structural

bd bedded
bnd banded
bx breccia
brd brecciated
ct contact
f fault
FZ, fz fault zone
flt faulting
fl flow
fr fracture
g gouge
s shear
SZ, sz shear zone
slk slickenside

OTHER

fg fine grained
mg medium grained
cg coarse grained
frag fine to medium grained
fcg fine to coarse grained
int intermittent
locl locality (local) eg kmog
mag magnetic
mod moderate
st strong
vs very strong
wk, w weak eg wmag

V-VARIABLE

Alteration

Ab albification
Ank ankeritization
Bf bicalcification
Cal calcite
Carb carbonatization
Cb carbon
Ch chloritization
Ep epithermal
Gcb green carbonate
Hem hematization
Lx leucokene
Pot potassic
Ser sericitization
Serp serpentinization
Sf silicification
Tc talc
Tour tourmaline

Intensity Code

Ank weak
ANK moderate
[ANK] strong

Mineralization

Asp arsenopyrite
Cl clustered pyrite
Cpy chalcopyrite
Ds disseminated pyrite
Gn galena
Mt magnetite
Mo molybdenite
Py pyrrhotite
Py pyrite
Sw stockwork pyrite
V.G. visible gold

Intensity Code

Cpy trace to 1%
[Cpy] 1-3%
CPY 3-7%
[CPY] 7-15%
[CPY] >15%

Appendix 2: Drill Logs

MINK VENTURES CORPORATION

Prospect: Montcalm Project
 DDH: MT23-1 Azimuth/Dip: 210/-67
 Grid: N/A Tests: see last page
 CLAIM: 324323 EOH: 237.00

Grid Location: N/A
 UTM: 415280E 5387940N Nad 83 Zone 17
 Date Drilled: Feb. 28 2023 to March 13 2023
 Date Logged: March 02 2023 to March 10 2023

Drill Company:
 NPLH Drilling
 Logged by:
 K. Filo

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
0.00	16.40	Casing	Cas										
16.40	20.40	Pyroxenite	6P	This a green colored unit on wet surface, unit is of medium hardness when scratched. It feels very weakly talc altered. Larger distinctive pyroxene minerals evident and in the unit. Overall the unit is fine to medium grained with pyroxene minerals slightly coarser in unit. The unit is locally weakly magnetic. Unit has fairly massive in appearance, no major structure observed. No HCL response. Trace of pyrite & pyrrhotite noted. Extremely competent unit. Lower contact with fault at 20 deg to core axis.									
20.40	22.00	Fault zone	FZ	Blocky broken fault zone hosted with within pyroxenite. Multiple low angle slip planes throughout unit and very minor fault gouge observed near upper contact. Pyroxenite within fault zone as per description above. Again, moderate hardness, very weakly talcose, minor pyrrhotite and py (<1/2%) and locally weakly magnetic. Lower contact of fault at 10 deg to CA.									
22.00	25.90	Pyroxenite	6P	Unit is again greenish in color, a more finer grained section of pyroxenite with pyroxene crystals not as coarse or distinct as first interval. From 22.75 to 24 meters numerous quartz calcite veinlets 2-3 cm generally oriented at 45 deg to CA. Again very weak talc altered. Moderate hardness. Very weak HCL reaction. No response to magnet. Trace of pyrrhotite. A stringer of pyrrhotite a mm wide noted at 25.8 otherwise no significant sulphide. Very weak local shear fabric from 22.75 to 24 meters at 10 deg to CA. A few fractures at 50 deg to CA. Overall relatively competent interval. Lower contact at 30 deg to CA.	953551	22.00	22.80	0.80	9	< 5	< 5		
					953552	22.80	24.00	1.20	7	< 5	< 5		
					953553	24.00	25.00	1.00	8	< 5	< 5	117	260
					953554	25.00	26.00	1.00	7	< 5	< 5	159	289
					953555	26.00	27.00	1.00	6	< 5	< 5	161	200
25.90	26.84	Mafic Dyke	6U por	Grey colored mafic dyke that has feldspar phenocrysts in a dark finer grained mafic matrix, porphyritic. Minor quartz calcite stringers, no significant sulphide noted. A minor slip plane at 26.20 at 10 deg to CA but no major structure and competent unit. No HCL reaction but quartz calcite stringers noted have obvious reaction, no magnetic response. Very hard unit and difficult to scratch with knife. Lower contact sharp and 35 deg to CA.									
26.84	29.90	Pyroxenite	6P	Again a green color on fresh surface. This is very similar to section described from 22.00 to 25.90 basically a continuation of unit after dyke. This particular interval again is finer grained and pyroxene crystals finer grained. Unit is non magnetic and has no HCL reaction. It is of mod. hardness and can be scratched with knife. A few fracture planes noted but overall competent unit, no major structure. No significant alteration. Rare quartz calcite stringer or two noted. Trace to 1/2% pyrite and pyrrhotite disseminated. Lower contact somewhat gradational.									

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
29.90	33.00	Pyroxenite	6P cg	Lighter greyish green unit with coarser pyroxene in a finer grained matrix of mafic minerals. Weak but consistent mag response in unit. No HCL response. Very competent unit with no major structure observed. Very weak talc alteration as slight greasy feel to unit. Soft to moderate hardness as relatively easy to scratch with knife. Trace of pyrite and pyrrotholite <1/2% disseminated. No veining noted. Again somewhat gradataional contact.									
33.00	49.80	Pyroxenite	6P	Consistent interval of fine to medium grained pyroxenite that is green in color. Distinct pyroxene crystals present in more mafic finer matrix. In some instances pyroxene crystals larger and more distinct because of fineness or slightly more coarser sections throughout section. Very weak and very loacalized response to magnet, in essence non magnetic interval. No HCL response, and no veining noted. No major structure present with the exception of a few fracture planes at 50 deg to CA and a 3 cm fault gouge at 41.85 to 41.90. Moderate hardness, can be scratched with knife. Very slight greasy feel, slightly talc altered at best. Very sparse pyrite and pyrrotholite <1/2% diss overall through unit									
49.80	53.90	Lost Core	LC	Box was lost in transit.									
53.90	76.10	Diorite	6D	This unit is a light grey color on dry surface and is medium to coarse grained. Substantial feldspar component, 50% plus, quartz and mafic minerals. Moderate consistent magnetic response from 53.90 to 60 m. At 60 to 61.25 there is a pyroxenite section likely a raft within diorite. The pyroxenite raft is fine grained and similar to pyroxene section described above. It is non mangetic. Below the raft unit has no magnetic response. Very weak to non existant HCL response and localized. No major structures observed. Minor slip plane at 62.5 at 10 deg to CA. A number of fractures at 40-50 deg to CA. Small blocky brokent section from 70.45 to 70.75 associated with small felsic dyke with K felspsar. Overall a very competent unit. Fairly hard unit but can be scratched with knife with some difficulty. A few microstringers of quartz calcite locally <1% of unit. Sparse pyrite <1% disseminated overall. With regard to texture from 67 to lower contact more pronounced phenocrysts, particularly from 71 to lower contact with zoned feldspar (Porphyritic appearace) phenocrysts. Lower contact at 76.10 along a minor slip at 15 deg to CA.	933556	61.25	62.00	0.75	3	< 5	< 5	41	62
					933557	62.00	63.00	1.00	3	< 5	< 5	31	60
					933558	63.00	64.00	1.00	4	< 5	< 5	34	54
76.10	112.80	Gabbro Variable	6G v	At 76.10 to 101.35 This is dominantly a fine grained gabbro unit that has is a grey green color on dry surface. Within the interval there is short intervals of coarse grained material. Dominant mafic mineral component, 75%. This interval description wise comparable GAB var in pancon historical logs. Note,rafts of various types of intrusive at 93.25 to 94.05 suggesting possible breccia fragments in gabbro. Fragments few in number. Of note, lighter coarser 81.20 to 83.50 and distinct at 100.50 to 101.60. Section from 81.20 o 83.50 may be borderline gabbro / diorite or raft within gabbro unit. Unit has no HCL reaction. All portions of this unit of moderate									

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				hardness and can be scratched with knife, exception is some of the fragments such as 93.25-94.05. Weakly magnetic from 85 meters to 94.05 stronger mag response from 93.25 94.05, outside of this interval basically non magnetic. Very weak shear fabric between 77 and 78 m oriented 45-50 deg to CA, fractures at 20-30 deg to CA and a few slip planes (minor) at 10-15 deg to CA. No major structure, overall competent unit. No significant veining noted. Trace of pyrite to <1/2%.									
				At 101.35 to 112.80									
				Continuation of interval described above. Again a fine grained gabbro that has a grey green color on dry surface. This initial description dominant in this interval with sections of coarse grained gabbro a couple of meters overall max. and a rare raft of other intrusives noted. No HCl reaction. No response to magnet in this section except for 108.20 to 108.30 where strong response over 10 cm. Very hard unit can be scratched with knife but with effort. No significant veining noted. Estimate of 1/2% pyrite, very sparse & where present generally localized.									
				Massive unit with no fabric or major structure observed. Again some minor fractures as above at 20-30 deg to CA and 40-50 deg to CA in general. Lower contact is sharp at 40 deg to CA.									
112.80	118.80	Pyroxenite	6P	This is a green colored unit on dry surface and it is med. to fine grained. Distinct pyroxene crystals present in a predominately mafic ground mass. No response to magnet. No reaction from HCL. Fairly hard unit, can be scratched with knife with some effort. Trace to 1/2% pyrite noted. No veining observed. No significant alteration or structure noted, extremely competent interval. Lower contact at 20 degrees to CA.									
118.80	131.60	Diorite	6D	This is a coarse grained dull white color on dry surface, unit dominated by feldspar & qtz, minor mica & 15% mafics. Extremely hard unit, can be barely scratchd with knife with effort. Non magnetic and no HCL reaction. Exception, magnetic where pyrrhotite clots or blebs noted. Rare quartz vein noted such as at 122.05 - 122.20 with clot of pyrrhotite and pyrite, conducts with ohm meter test. Within unit there are a series of gabbro rafts which make up 15% of this interval. No alteration noted. Localized bleb and clots of pyrrhotite and pyrite present generally over 10-15 cm., within these short intervals 3% sulphide but over entire interval 1% maximum. Note second conductive clot of pyrrhotite and pyrite at 131.45. Rare speck of chalcopyrite noted such as at 130.60. Overall very competent unit with no major structure observed. Rare minor slip at 10 deg to CA and a few fractures at 50 and 70 deg to CA in general.	953559	118.80	119.65	0.85	6	< 5	< 5	96	72
					953560	119.65	120.10	0.45	2	< 5	< 5	72	291
					953561	120.10	121.05	0.95	4	< 5	< 5	35	62
					953562	121.05	122.05	1.00	8	< 5	< 5	114	76
					953563	122.05	122.75	0.70	5	< 5	< 5	187	1010
					lostcore	122.75	123.00	0.25					
					953564	123.00	123.55	0.55	6	< 5	< 5	60	76
					953565	blank			3	< 5	< 5	3	7
					953566	123.55	124.50	0.95	3	< 5	< 5	12	52
					953567	124.50	125.50	1.00	3	< 5	< 5	16	73
					953568	125.50	126.60	1.10	4	< 5	< 5	17	70
					953569	126.60	127.45	0.85	6	< 5	< 5	202	144
					953570	stdor681			51	245	538		
					953571	127.45	128.50	0.95	5	< 5	< 5	67	113
					953572	128.50	129.00	0.50	3	< 5	< 5	16	42
					953573	129.00	129.70	0.70	5	< 5	< 5	80	77
					953574	129.70	130.70	1.00	13	< 5	< 5	269	216
					953575	stdor70b			14	< 5	21		
131.60	150.40	Gabbro	6G	At 131.60 to 136.45	953576	130.70	131.60	0.90	14	7	< 5	331	819
				Grey green medium to coarse grained unit that is locally weakly magnetic. The unit has no HCL reaction. Estimate of 35-40 % feldspar and balance mafic minerals in unit. Hard unit but can be scratched with knife. A few rafts of diorite	953577	131.60	132.50	0.90	2	< 5	< 5	31	123
					953578	132.50	133.50	1.00	5	< 5	< 5	116	128
					953579	133.50	134.36	0.86	5	< 5	< 5	82	94
					953580	134.36	135.30	0.94	6	< 5	< 5	183	187

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				unit described immediately above found within unit making up 15% of unit approximately. No veining of significance noted and no major structure. A few fractures generally at 40 deg to CA., overall very competent interval. Unit has trace to 1/2% pyrite and pyrrhoite. Sulphide mainly in diorite rafts within unit.	953581	135.30	136.40	0.80	4	< 5	< 5	81	138
				At 136.45 to 150.40									
				Continuation of gabbro unit described above but unit more medium to finer grained and still a grey green color. Mafic minerals content in this section has estimate of 60-70% mafics and balance feldspar. Unit is a grey green color. Moderately magnetic throughout from 136.45 to 144, significant gap in magnetic response from 144 to 147 and then moderately magnetic to lower contact. No HCL reaction and unit is of moderate hardness and can be scratched with knife with some effort. No veining noted. Estimate of trace to 1/2% pyrite disseminated. No major structure noted, at 30 and 70 deg to CA in general. Very competent interval. Small mafic dyke noted from 145.15 to 145.35, fine grained grey colored sharp contacts 55 deg to CA. Lower contact of unit somewhat gradational.									
150.40	154.90	Pyroxenite	6P cg	This is a green colored unit on dry surface. Distinct larger pyroxene crystals in somewhat medium grained host. The unit is scratched with knife fairly easily but still of moderate hardness. Unit has a very slight greasy feel, weakly talc altered. Moderate response to magnet through entire unit. No HCL response and no veining noted. About 0.5 to 1% pyrite maximum and minor magnetite. No major structure noted. Again more of a gradational contact into gabbro below.	953582 953583 953584 953585 953586 953587 953588 953589 953590	149.40 150.40 151.50 152.50 153.00 153.70 154.20 154.90 blank	150.40 151.50 152.50 153.00 153.70 154.20 154.90 156.00	1.00 1.10 1.00 0.50 0.70 0.50 0.70 1.10	< 2 5 4 6 2 2 5 2	< 5 5 5 5 5 5 5 5	< 5 5 5 5 5 5 6 5	67 97 82 153 79 86 108 77	110 115 105 153 107 105 127 105
154.90	175.90	Gabbro	6G	This is a greyish green medium grained unit with a massive appearance. Unit has consistent moderate magnetic response throughout entire interval. No HCL response. Estimate of 65-70% mafic minerals and balance feldspar. Very hard to extremely hard unit, can be scratched with knife with effort, certain portions cannot be scratched with knife (minor sections) No veining observed in unit. Minor pyrite noted estimate of trace to 0.5% overall, some magnetite noted. Small fault from 162.60 to 163.00; blocky broken section, lower contact 88 deg to CA. For about 5 m above fault a few more fractures than found in units above, still overall a competent unit. Fractures observed at 50 and 70 deg to CA. A few minor slip planes also noted at 30 deg to CA. Lower contact at 40 deg to CA.									
175.90	180.15	Gabbro Shear	6Gsz	This is a gabbro unit that is medium grained and grey green on dry surface. The unit has a distinct shear fabric present throughout it at 30 deg to CA., in some instances fabric more distinctive. Some finer grained rafts of mafic volcanic? or fine grained intrusive noted from 178.5 to 179.1 with some sericite alteration, minor fushite and quartz clot. Some K spar clots also noted within shear zone. The unit is non	953591 953592 953593 953594 953595	177.00 178.00 178.50 179.15	178.00 178.50 179.15 180.15	1.00 0.50 0.65 1.00	18 12 10 5 52	< 5 5 23 24 243	< 5 10 25 19 527	123 67 113 126	112 154 595 697

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				magnetic throughout and has no HCL reaction except from 178.5 to 179.1 where the reaction is weak. Soft to mod. hardness and can be scratched relatively easily with knife. Trace of pyrite to 1/2% max. Lower contact at 10 deg to CA.									
180.15	231.45	Qtz Gabbro	6G Qtz	At 108.15 to 205.00 m.	953596	180.15	181.00	0.85	9	< 5	< 5	60	294
				The unit is generally grey green in color on dry surface and medium grained for the most part with some more minor medium to coarser grained sections. Mafic component about 65% and feldspar 30% plus, with minor quartz clots.	953597	181.00	182.00	1.00	8	< 5	< 5	35	117
				This unit is unusual because of the numerous and distinct blue quartz clots giving it a quartz porphyritic appearance.	953598	182.00	182.85	0.85	6	< 5	< 5	54	137
				The first couple of meters of this unit blue quartz clots few in number but present and clots of K feldspar noted. In general the unit could be categorized as massive.	953599	182.85	183.30	0.45	4	< 5	< 5	112	47
				The unit is non magnetic throughout. Unit is fairly hard but can be scratched with a knife with effort. Trace pyrite present. From 182.9 to 183.3 meters, lower contact 20 deg to CA. No major structure observed, extremely competent unit. A few fractures at 60 deg to CA and rare minor slips at 20 deg to CA. in general. Note some rafts of diorite noted in this unit very minor example, 186-186.55.	953600	stdor70b						47	1970
				At 205.00 to 231.45m.	953601	183.30	184.00	0.70	6	< 5	< 5	45	117
				Continuation of unit described above from 108.15 to 205.00									
				Quartz clots about 2-3 mm still present through out although concentration not always as many as above unit. The unit is medium to coarser grained with the exception 219.20 to 221.80 where unit is more finer grained. Again unit could be described as massive. This particular interval very hard and difficult to scratch with knife with effort. The unit has no HCL reaction, HCL reaction locally where micro stringer of quartz calcite noted; this is rare. Baically non magnetic from to 213 m but beyond this to lower contact fairly moderate to strong consistent mag response. Estimate of 0.5 to 1% disseminated pyrite in this interval overall and magnetite noted. Small diorite dyke noted from 222.30 to 222.9 associated with slip plane at 10 deg to CA on lower contact. Overall a competent unit with minor fractures at 30 and 60 deg to CA in general. A few slips at 10 deg to CA in general, minor. Small broken blocky fault zone at 226.40 to 227.15, contacts broken.	953602	210.00	211.00	1.00	3	< 5	< 5	35	69
					953603	211.00	212.00	1.00	16	< 5	< 5	9	60
					953604	212.00	213.00	1.00	5	< 5	< 5	75	48
					953605	213.00	214.00	1.00	6	< 5	< 5	276	36
					953606	214.00	215.00	1.00	5	< 5	< 5	81	27
					953607	215.00	216.00	1.00	3	< 5	< 5	74	21
					953608	216.00	217.00	1.00	3	< 5	< 5	41	21
					953609	217.00	218.00	1.00	2	< 5	5	30	24
					953610	218.00	219.00	1.00	3	< 5	< 5	39	35
					953611	223.00	224.00	1.00	3	< 5	< 5	67	36
					953612	224.00	225.00	1.00	3	< 5	6	62	34
					953613	225.00	226.00	1.00	3	< 5	< 5	64	57
					953614	226.00	227.00	1.00	4	< 5	6	50	73
					953615	blank			< 2	< 5	< 5	4	11
					953616	227.00	228.00	1.00	3	< 5	< 5	56	74
231.45	237.00	Gabbro	6G	This is a medium graind grey green colored gabbro on the fresh surface. Upper contact with unit above	953617	228.00	229.00	1.00	4	< 5	< 5	60	82
	EOH			associated with start of small shear at oriented at 30 deg to CA. Small shear in this unit extends from 231.45 to 232;	953618	229.00	230.00	1.00	< 2	< 5	< 5	57	84
				shear fabric oriented at 30 deg to CA. This unit is strongly magnetic throughout and has no HCL reaction. Blocky and broken section associated with brittle fault from 233 to 233.85, lower contact of fault along slip at 20 deg to CA.	953619	230.00	231.00	1.00	2	< 5	< 5	57	95
				Also minor fault zone noted from 235.35 to 235.65.	953620	stdor681			52	243	523		
				No significant veining noted but small quartz vein a couple of cm wide within shear zone at start of unit, vein assoc. with diorite. Small microstringers of quartz calcite within shear zone which react to HCl and follow fabric, minor.	953621	231.00	231.45	0.45	3	< 5	< 5	52	98
					953622	231.45	232.00	0.55	8	< 5	< 5	47	86
					953623	232.00	233.00	1.00	3	< 5	< 5	55	69
					953624	233.00	234.00	1.00	3	< 5	< 5	73	50
				No HCL response outside of shear zone. Note a few	953625	stdor70b						47	1920

MT23-01 Log edit assay

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				very minor blue quartz clots again noted in last meter, not significant. Again very hard unit, can be scratched with knife with some effort and shear zone easily scratched, soft. Trace of pyrite overall but 2-3% of pyrite in shear zone. Mafic mineral content of this unit 60-65% of unit and balance feldspar.									
				EOH 237.00									
				Tests									
				At 54 m: Az 213.62 corrected Dip -66.5									
				At 81 m: Az 214.44 corrected Dip -66.47									
				At 132 m: Az 214.33 corrected Dip -66.32									
				At 183 m: Az 216.49 corrected Dip -66.2									
				At 237 m: Az 215.13 corrected Dip -65.57									
				Core Stored at Pelangio Expl. field office Connaught Ont.									

MINK VENTURES CORPORATION

Prospect: Montcalm Project
 DDH: MT23-2 Azimuth/Dip: 270/-54
 Grid:N/A Tests: see last page
 CLAIM:119501 EOH:585 m

Grid Location: N/A
 UTM:415490E 5387770N Nad 83 Zone 17
 Date Drilled: March 4 2023 to March 13 2023
 Date Logged: March 16 2023 to March 30 2023

Drill Company:
 NPLH Drilling
 Logged by:
 K. Filo

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
0.00	16.90	Casing	Cas	Casing left in ground but when drill moved casing broken.									
16.90	45.80	Gabbro shear zone	6G sz	Greenish colored fine to medium grained gabbro unit with about 65% mafic minerals and 35% feldspar content. Unit is moderately magnetic throughout. Only HCL reaction in this unit is where there is some minor quartz calcite micro stringers locally. No significant veining noted, minor quartz vein from 29.60 to 29.65. The unit has a moderate shear fabric at 20-25 deg to CA in general. Very competent interval overall. A few minor slip planes noted and these tend to follow orientation of shear fabric. The unit is extremely soft and easy to scratch. Weak chloritic alteration noted. Pyrite content in this interval estimated at 1/2% overall. Slightly more pyrite up to 1% locally over very short intervals of 10-15 cm. Pyrite pretty much in disseminated form. Lower contact at 20 deg to CA.	953626 953327 953328	27.00 28.00 29.00	28.00 29.00 30.00	1.00 1.00 1.00	4 6 3	< 5 < 5 < 5	7 10 10	62 78 48	309 360 388
45.80	47.00	Quartz Vein	Qv	Bull white quartz vein with rare speck or two of pyrite with gabbro wall rock within vein (30%). Broken lower contact associated with slip plane at 20 deg to CA.	953629 953630 953631 953632	45.00 45.80 46.40 47.00	45.80 46.40 47.00 48.00	0.80 0.60 0.60 1.00	18 < 2 < 2 6	< 5 < 5 < 5 < 5	8 6 10 7	70 44 13 29	370 110 316 408
47.00	69.00	Gabbro shear zone	6G sz	At 47.00 to 67.40 This interval continuation of interval above quartz vein. Greenish colored on dry surface. Medium grained unit, mafic mineral content about 60% and feldspar about 40%. the unit is moderately to weakly magnetic to about 63 meters but below 63 more sporadic weak magnetic response to end of this interval. Weak chloritic & weak talc alteration, unit is soft and easy to scratch, extremely soft from 63 to end of this interval. No HCL reaction in unit. Again this interval exhibits moderate shear fabric oriented at 20-25 deg to CA. Overall a competent unit, some slip planes noted parallel to shear fabric. Small section of blocky broken ground due to a number of slip planes from 59.90 to 60. Rare quartz veinlet less than 1cm across noted and not significant. Estimate of trace to 1/2% pyrite noted. Lower contact gradational.									
69.00	77.50	Gabbro	6G	Greenish colored on dry surface. Similar to unit above more massive. Med. grained. 60% mafic mineral content & 40% plagioclase feldspar. Strongly and consistently magnetic response to lower contact. Rare breccia fragments noted within unit. Very competent unit a few fractures noted at about 40 deg to CA. Minor 2 cm faults with some gouge noted at 71.20 and 73.60 both at 20 deg to CA. Moderate hardness can be scratched with knife with a little effort. No HCL reaction. Trace of pyrite and no significant veining noted. Local chloritic alteration over short intervals such as proximal to rare slip plane or breccia fragment over short 10-15 cm section. Lower contact again gradational into sheared gabbro below.									

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
77.50	89.70	Gabbro Shear zone	6G sz	Again a medium grained green colored unit on dry surface. Mafic content of unit 60% and approximately 40% feldspar. Distinct shear fabric again present oriented at 15 to 20 deg to CA. Relatively competent interval with minor slips and fractures parallel to shear fabric. Unit is very soft and easy to scratch with knife. The unit is weakly to moderately chlorite altered throughout. Some minor quartz veins and stringers form 86 to 88 m., of note a quartz vein with some K spar from 87.3 to 87.70. Trace of pyrite and magnetite in this unit. This unit has a sporadic response to magnet where locally there is some magnetite but over all a poor to non existant response to magnet. The unit has no HCL reponse. The unit has sharp lower contact at 20 deg to CA.	953633	85.00	86.00	1.00	13	< 5	12	81	452
					953634	86.00	87.00	1.00	6	< 5	8	40	402
					953635	87.00	88.00	1.00	6	< 5	9	59	314
					953636	88.00	89.00	1.00	6	6	9	56	435
					953637	89.00	89.70	0.70	6	6	8	44	460
89.70	90.95	Quartz Vein	Qv	Bull white quartz vein with about 25% chloritic wall rock rafts within it. Trace of pyrite noted in vein. Lower contact at 20 deg to CA.	953638	89.70	91.00	1.30	< 2	< 5	6	2	231
					953639	91.00	91.55	0.55	4	5	10	31	394
					953640	blank			< 2	< 5	< 5	4	10
					953641	91.55	92.00	0.45	7	7	8	92	465
90.95	105.10	Gabbro	6G	Medium grained grey green colored unit with 65-70 % mafics and 30-35% feldspar. Some shear fabric to about 92.75 meters at about 20 deg to CA. Beyond this a more massive unit with some localized weak shear fabric. Sporadic response to magnet over short intervals 10-15 cm but over all non magnetic section. No HCL reaction. Moderate to soft unit, fairly easy to scratch with knife; weak chlorite alteration present in unit, more localized than pervasive. Extremely competent interval with rare minor slip plane at 15-20 deg to CA. Trace of pyrite, disseminated. Some minor quartz stringers and veinlets from 103.70 to 105.10. Lower contact is at 85 deg to CA and sharp.	953642	92.00	93.00	1.00	3	7	10	97	448
					953643	103.00	103.75	0.75	3	6	11	89	478
					953644	103.75	104.50	0.75	4	7	13	29	499
					953645	stdor681			306	230	511		
105.10	114.10	Quartz Vein	Qv	This section is predominantly a bull white quartz vein with clots of fushite. Within the vein there are gabbroic rafts of wall rock, some of the wall rock is also fushitic. Largest sections of wall rock in vein from 107.75 to 109.85 and 110.75 to 111.75. Substantial fushite alteration in wall rock from 108-108.60. Trace of pyrite at best in this entire interval, mainly in wall rock rafts. On occasion some K spar present in quartz vein. Erratic lower contact on vein.	953646	104.50	105.10	0.60	10	7	16		
					953647	105.10	106.00	0.90	3	< 5	< 5		
					953648	106.00	107.00	1.00	< 2	< 5	6		
					953649	107.00	108.00	1.00	2	< 5	< 5		
					953650	stdor70b						47	1910
					953651	108.00	109.00	1.00	2	< 5	7	19	378
					953652	109.00	109.85	0.85	5	9	13	68	530
					953653	109.85	111.00	1.15	< 2	< 5	7	< 1	247
					953654	111.00	112.00	1.00	3	6	12	18	494
114.10	120.55	Gabbro shear zone	6G sz	This section is green colored on dry surface and is medium to fine grained. Again there is a distinct moderate to weak shear fabric present throughout unit oriented at 15-20 deg to CA. The unit is chlorite altered; patchy alteration and unit can be scrached with knife fairly easy less altered portion slightly harder. Unit is non magnetic and has no HCL reaction, with the exception of a few short intervals generally 10-15 cm or so with a weak response. Trace pyrite at best and no significant veining. Competent unit with a few minor slips and fractures generally parallel to shear fabric. Mafic mineral content of unit at about 60% and feldspar 40% becoming more mafic towards lower contact. Lower contact at 20 deg to CA.	953655	112.00	113.00	1.00	< 2	< 5	< 5	2	78
					953656	113.00	114.10	1.10	2	< 5	< 5	7	102
					953657	114.10	115.00	0.90	3	< 5	10	8	351
120.55	122.45	Quartz Vein Breccia	Qv Bx	This is a section with what appears to be a broken up quartz vein or brecciated quartz vein with substantial	953658	119.50	120.55	1.05	3	7	14	55	407
					953659	120.55	121.50	0.95	4	< 5	< 5	24	204

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				wall rock within it. Some K spar noted in association with quartz breccia. No significant mineralization. Erratic lower contact associated with broken fragments of K spar.	953660	121.50	122.45	0.95	6	< 5	< 5	37	242
					953661	122.45	123.50	1.05	2	< 5	6	43	371
122.45	134.15	Gabbro shear zone	6G sz	This is a greenish colored medium grained unit that appears to have a more substantial mafic mineral component, about 70% plus mafic minerals and feldspar 25-30%. The unit has weak shear fabric almost parallel to CA. Shear fabric becoming less distinct towards lower contact. Patchy chlorite alteration present. No response from magnet in this interval. In general there is no reaction to HCL but there is a section of this unit containing numerous clots and stringers of quartz calcite which do react; this section from 124.5 to 127.25. Variable hardness ranging from soft to moderate. Chloritic sections (patchy) are softer and other sections can be scratched with knife with a little effort. Trace of pyrite and few minor quartz clots and veinlets. Lower contact with fault at 40 deg to CA.									
134.15	135.00	Fault Zone	Fz	Brittle blocky broken fault zone. Lower contact at 30 deg to CA. Minor but distinctive fault zone. No gouge noted.									
135.00	158.60	Gabbro Shear zone	6G sz	This unit similar to unit above fault. It is greenish in color on dry surface and is medium grained. Again substantial mafic component, estimate of 70% and approximately 30% feldspar. Shear fabric 10 degrees to CA in general but weakly developed and in some section over a few meters bordering on more massive. Unit is chloritic altered but patchy chlorite alteration. The unit is soft to moderate in hardness & can be scratched with a knife relatively easily. Trace of pyrite and a few minor quartz veinlets and fragments. For the most part a non magnetic unit but strongly magnetic over short 10 cm or so sections locally. Unit has no HCL reaction. Extremely competent section with minor slip or two and 10-15 deg to CA. and few fractures at 30 and 60 deg to CA in general. Lower contact sharp at 20 deg to CA.	953662	151.00	152.00	1.00	6	8	5	8	320
					953663	152.00	153.00	1.00	4	22	10	34	369
					953664	153.00	154.00	1.00	13	60	29	212	562
					953665	blank			< 2	< 5	< 5	3	6
158.60	176.35	Gabbro coarse gr.	6G cg	This is a coarse grained grey green gabbro with about 50% mafic minerals and 50% feldspar. The unit is massive in appearance. Unit is of moderate hardness and can be scratched with knife fairly easily. No response from HCL. Unit is non magnetic. Weak chloritic alteration of mafic minerals throughout unit. No significant veining, rare quartz veinlet generally less than 3 cm and occasional quartz fragment. Small fine to medium grained mafic dyke (magnetic) from 159.80 to 160.90, contacts at 10 deg to CA. Similar non magnetic mafic dyke noted from 168.90-169.25 and lower contact on smaller dyke at 10 deg to CA. No significant veining noted. Minor brittle fault, with blocky broken ground from 172 to 172.40 oriented at 5 deg to CA. Some slickensides on fault plane at 30 deg to CA. Overall very competent unit. Some ground core about 25 cm or so between 173-174 meters. Trace to 1/2% pyrite. Lower contact at 15 deg to CA.	953666	161.00	162.00	1.00	10	< 5	< 5	63	160

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
176.35	180.00	Gabbro shear zone	6G sz	This a greenish colored unit on dry surface and it is fine to medium grained with mafic minerals making up about 60% of unit and about 40% feldspar. The unit has a distinct weak shear fabric that basically parallels core axis. The unit is soft and easily scratched with knife. There is patchy chloritic alteration. Unit is non magnetic. The unit itself does not react to HCL but there are numerous quartz calcite stringers and clots generally paralleling the fabric and these do react to HCL. A few quartz stingers and veinlets noted as well but these are fairly minor. Trace of pyrite at best. Lower contact gradational as sporadic shearing eventually disappears.									
180.00	191.40	Gabbro	6G	The unit is greenish in color on dry surface and vey similar compositionally to sheared unit above except no real shear fabric. The unit is fine grained and of moderate hardness. It appears massive in appearance and unlike unit above does not appear altered. Again fairly high mafic mineral content at least 60-65% with balance mainly feldspar. Non magnetic to about 187 and beyond locally magnetic over short 10 cm intervals to lower contact. From 187.5 to lower contact numerous clots and stringer of quartz calcite which react to HCL, unit itself does not react to HCL. Again trace of pyrite in this unit. Competent unit to about 187.5 but beyond this proximal to fault numerous numerous slip planes and fractures. Lower contact with fault zone ground rubble.	953667	187.00	188.00	1.00	5	< 5	< 5	147	58
					953668	188.00	189.00	1.00	9	< 5	< 5	212	58
					953669	189.00	190.00	1.00	5	< 5	< 5	128	79
					953670	stdor681			51	239	534		
					953671	190.00	191.00	1.00	5	< 5	< 5	199	72
					953672	191.00	191.45	0.45	5	< 5	< 5	189	42
191.40	199.70	Major Fault Zone	Fz	This a blocky broken fault zone. Up to about 187.50 there is some coarse grained gabbro, but at 192.85 there is a contact with a very fine grained light grey colored (on dry surface) unit thought to be a mafic dyke. The initial contact with coarser gabbro at 192.85 is sharp at 20 degrees to CA. This dyke appears to have intruded fault zone and it contains a number of rafts of gabbroic material. The fault could be described as a brittle fault, no gouge observed. Lower contact ground.									
199.70	205.35	Mafic Dyke	6U	Outside of fault zone there appears to be a continuation of the fine grained light grey colored mafic dyke noted initially within the fault zone. It still contains rafts of gabbro within it. The dyke is extremely hard and very difficult to scatch with a knife. It has no HCL reaction and it has a localized response to magnet. There is a trace of pyrite and rare quartz veinlet observed. Numerous fractures at 30 deg to CA and a few slip planes at 20 deg to CA. Somewhat broken up unit due to proximity to fault. Lower contact is sharp at 10 deg to CA.									
205.35	207.00	Gabbro coarse gr.	6G cg	This is a grey green coarse grained unit, it is made up of about 50% mafic minerals and about 50% plagioclase. The unit does not react to HCL and has no magnetic response. Moderate hardness can be scratched fairly easily with knife. Weak chlorite alteration noted. No significant veining observed and trace pyrite noted.									

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				Numerous minor slip planes at 10 deg to CA. Lower contact with fault associated with slip at 25 deg to CA. A number of small slip planes in this unit at 10 deg to CA due to proximity to faults.									
207.00	210.00	Fault Zone	Fz	Brittle blocky broken fault zone with slip planes paralel to core axis. Within fault mainly a gabbro host rock but again a small mafic dyke as previously described above in association with faulting from 207.80 to 208.05, lower contact of dyke at 5 deg to CA. Lower fault contact at 20 deg to CA.									
210.00	219.40	Gabbro	6G	This is a medium grained grey green colored unit on dry surface. Mafic component of unit more like 60% & feldspar minerals 40%. Non magnetic unit with no HCL reaction. A few rare quartz veinlets generally less than 4 cm. Hard unit, can be scratched with knife with effort. No significant alteration noted. Trace pyrite at best. Note, mafic dyke present from 216.46 to 217.90, contacts of dyke at 10 deg to CA. Lower contact of unit at 5-10 deg to CA. This is a relatively competent unit with no major structure. There are a number of minor slip planes at 10 deg to CA in general and fractures at 40 deg to CA. Note, some minor pyrite observed in dyke described in this unit.									
219.40	222.00	Diorite dyke	7GD	This is medium grained white colored unit comprised mainly of plagioclase feldspar, minor K spar, quartz and less than 10% mafics. The unit is extremely hard & cannot be scratched with a knife. Unit is magnetic and has no HCL reaction.No significant mineralization noted, competent unit. Upper contact at about 5 deg to CA and lower contact at about 5 deg to CA.									
222.00	228.40	Gabbro	6G	This is a grey green colored unit that is medium grained and mafic minerals make up about 65% of unit while feldspar about 35%. The unit is fairly hard and difficult to scratch with a knife, no response to magnet and no HCL reaction to gabbro itself. However some minor quartz calcite stringers, veinlets and clots which do react. Diorite dyke similar in composition to that described immediately above from 224.04-224.80. Also some minor smaller diorite dykes as well but less than 10 cm. Distinct minor fault noted from 226.95 to 227.65 at 5 deg to CA. Locally some weak shear fabric noted, such as at 223.80 to 224 at 30 deg to CA. Unit is a fairly competent unit overall. Entire interval has trace to 1/2% pyrite. Locally over short intervals of a meter up to 1%. Lower contact is sharp but erratic.	953673	227.00	228.40	1.40	3	< 5	< 5	81	56
228.40	230.90	Mafic Dyke	6U	This unit is a bleached light grey unit on dry surface and finer grained. Mainly made up of mafic minerals & compositionally likely close to gabbro. The unit is magnetic and has no HCL reaction. Very hard and difficult to scratch but can be scratched with knife with effort. No veining observed in dyke but about 2% disseminated pyrite. Some minor rafts of gabbro unit described immediately above noted proximal to lower contact. Lower contact 5 deg to CA	953674 953675 953676 953677	228.40 std70b 229.50 230.20	229.50 230.20 230.90	1.10 0.70 0.70	5 3 4	< 5 < 5 < 5	< 5 < 5 < 5	92 46 29 44	55 1810 51 51

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
230.90	232.45	Granodiorite	6GD	Similar to diorite unit described above except more Kspar in this interval and very high quartz content. Extremely hard unit, cannot be scratched with knife. Localized magnetic response over 10 cm or so but most of this unit non magnetic. No HCL response and no significant sulphide content. Some small rafts of gabbro within unit. Competent interval overall, small brittle blocky fault zone from 232 to 232.15. Lower contact sharp and at 50 deg to CA.	953678 953679	230.90 232.45	232.45 233.50	0.55 1.05	3 2	< 5 < 5	< 5 < 5	54 86	14 28
232.45	234.30	Gabbro	6G	Section of grey green gabbro that is medium grained, possibly a raft of gabbro caught up in a series of dykes. This particular section contains 2-3% disseminated pyrite and pyrrhotite. Unit is magnetic and very hard but can be scratched with knife with effort. Weak local shear fabric at 50 deg to CA. Lower contact with dyke sharp and 10 deg to CA.	953680 953681	233.50 234.30	234.30 235.50	0.80 0.80	5 < 2	< 5 < 5	< 5 < 5	119 70	32 48
234.30	236.20	Mafic Dyke	6U	This short interval basically same dyke as described above from 228.40 to 230.90. Again unit has a number of rafts of medium grained gabbro within it. The dyke is extremely hard and strongly magnetic. It has no HCL reaction and has about 1% pyrite. No HCL reaction. Lower contact at 5 deg to CA, and sharp	953682	235.50	236.20	0.70	3	< 5	< 5	25	70
236.20	241.95	Gabbro Feldspar Porphyry	6G por	The unit is a light grey color on the dry surface. There is white feldspar phenocrysts within the unit in a matrix that is fine to medium grained and dominantly mafic minerals. The porphyritic texture is not consistent throughout unit and becomes less noticeable at times and unit becomes more of a fine to medium grained gabbro. At 239.70-241.05 there is a fine grained mafic dyke similar to those described above; it has an erratic upper contact and lower contact at 30 deg to CA along a minor slip plane. The porphyritic gabbro is non magnetic and is of moderate hardness and can be scratched with a knife relatively easily. Trace to 1/2% pyrite overall, about 1% pyrite in the dyke within unit. No HCL reaction in unit, a few minor quartz calcite stringers react to HCL. Relatively competent unit but a number of slip planes at 15-20 deg to CA; some fractures at 60 deg to CA in general. Lower contact erratic.									
241.95	261.00	Gabbro	6G	This is a grey green colored unit on dry surface. It is medium grained with some minor sections more medium to coarse grained. Strongly magnetic unit to 253 meters, beyond 253 little or no magnetic response to 258 and then magnetic up to 261 meters. A few very minor quartz calcite stringers noted which react to HCL, unit itself has no reaction. Of moderate hardness, unit difficult to scratch with knife but possible with effort. No distinct alteration observed. Overall very competent unit. Again some minor slip planes at 10-15 deg to CA in general and fractures at 50-60 deg to CA in general. Estimate of 2-3% pyrite and pyrrhotite in this section with substantial magnetite in more magnetic section described above. Stringers and diss. sulphide, some mm to 2 mm or so sized stringers conduct with ohm meter. Note sulphide content decreases after 253 meters in less magnetic portion of unit.	953683 953684 953685 953686 953687 953688 953689 953690 953691	241.95 243.00 244.50 246.00 247.50 249.00 250.50 252.00 blank 252.00	243.00 244.50 246.00 247.50 249.00 250.50 252.00 253.00	1.05 1.50 1.50 1.50 1.50 1.50 1.50 1.50 blank 1.00	8 5 5 6 4 3 6 2 3	< 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5	< 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5	110 120 163 201 130 114 161 6 156	18 18 27 31 23 180 236 8 255

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
261.00	266.00	Gabbro	6G	Again a medium grained gabbro with sections that are more medium to coarse grained. This unit is more green in color on dry surface and differs from section above as more mafic component to unit estimate of 70% mafics and 30% feldspar opposed to interval immediately above at 60:40 mafics to feldspar. Strongly magnetic unit and extremely hard unit that cannot be scratched with knife. No HCL response and no significant veining or structure of significance. Competent unit with only a few fractures at 60 deg to CA in general. No obvious alteration noted. Estimate of 1/2 to 1% disseminated pyrite, and significant magnetite. Gradational contact into coarser grained gabbro unit below.									
266.00	277.40	Coarse Grained Gabbro	6G cg	This is a grey green colored unit on dry surface. Mafic mineral content around 50-60% and feldspar content making up balance. Unit is of moderate hardness and can be scratched with a knife. The unit contains substantial magnetite and it is strongly magnetic. Unit has no HCL reaction. A few minor quartz calcite stringers noted									
				from 274.2 to 275.5. Note from 275.5-275.85 there is a small K spar rich felsic dyke. No significant alteration observed. Estimate of 0.5 to 1% pyrite mainly disseminated. Lower contact at 10 deg to CA.	953692	271.00	272.00	1.00	< 2	< 5	< 5	107	45
					953693	272.00	273.00	1.00	3	< 5	< 5	124	60
					953694	273.00	274.00	1.00	< 2	< 5	< 5	114	53
					953695	stdor681			49	237	497		
277.40	278.85	Diorite Dyke	6GD	A white colored medium grained unit that is comprised mainly of plagioclase feldspar, quartz and minor mafic minerals. The unit is hard, non magnetic overall but local weak magnetic response over a few cm. The unit has minor quartz veinlets and some k spar also present. Competent unit with a number of small slips at 15 deg to CA in general and a fractures at 30 deg to CA. Trace pyrite. Lower contact at 50 deg to CA. Note some rafts of gabbro proximal to lower contact.									
278.85	288.10	Gabbro Shear zone	6G sz	Light grey green unit on dry surface that is finer grained. Weak to moderate but distinctive shear fabric is present in this unit generally oriented at about 20 deg to CA. There are number of quartz calcite clots and minor felsic stringers with K spar oriented parallel to shear fabric within this unit. Mafic minerals appear to make up about 55-60% of gabbro and 40-45 plagioclase. Unit is fairly soft and relatively easy to scratch with a knife. No magnetic response in unit. HCL response with quartz calcite stringers but actual gabbro has no response. This a competent unit, fractures and minor slip planes that are present. Slip planes tend to follow the shear fabric but there are a few fractures which are generally oriented at 40 deg to CA. Lower contact gradational. Estimate of 0.5% disseminated pyrite.									
288.10	291.80	Gabbro	6G	This unit is basically the same unit as described immediately above except it does not have a distinct shear fabric, it does still contain quartz calcite stringers. Again unit is non magnetic, and has no HCL reaction with the exception of quartz calcite stringers present which do react. The unit is fairly soft to moderate in hardness and can be scratched with knife relatively easily. Competent unit with a few fractures at 40 deg to CA similar to unit above.									

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				With respect to color still a grey green unit as above and finer grained. Trace pyrite. Lower contact appears gradational over a few cm.									
291.80	295.70	Gabbro	6G	This unit is a medium grained with sections that are medium to coarse grained. The unit has a grey green color on dry surface. Mafic content of unit 60% and about 40% plagioclase. The unit is non magnetic and has no HCL reaction. A few tiny K spar microstringers noted in unit, other than this no significant veining present. Very hard unit and can be scratched with knife with effort. Trace of pyrite present. Competent unit with a few slip planes at 15 deg to CA and fractures noted at 40-50 deg to CA. Lower contact with dyke at 30 deg to CA and sharp.									
295.70	299.10	Mafic Dyke Porphyritic	6U por	This is a light grey colored dyke on dry surface with numerous tiny phenocrysts of plagioclase feldspar. On broken surface there is a sugary fine grained texture. The unit is strongly magnetic and extremely hard, difficult to scratch with knife. No HCL reaction and a few rafts of gabbro in dyke (minor). Lower contact sharp and at 25 deg to CA.									
299.10	309.00	Gabbro Shear Zone	6G sz	Again a grey green colored gabbro on dry surface. About 55:45 for mafics minerals to feldspar. This unit is medium to coarse grained with distinct weak to moderate shear fabric with the exception of last meter of interval which is more of a coarse grained gabbro. Shear fabric oriented at 25 deg to CA. Numerous quartz calcite clots & stringers in shear generally parallel to fabric. Estimate of 0.5-1% disseminated pyrite. Very hard unit, difficult to scratch with knife. Unit is non magnetic and has no HCL reaction. Overall competent unit a few minor slips at 20 deg to CA or parallel to fabric. A few fractures noted particularly in last meter where fractures at 60 deg to CA. Lower contact is sharp and at 20 deg to CA.									
309.00	311.10	Mafic Dyke Porphyritic	6U por	As above from 295.70-299.10 a light grey colored dyke on dry surface with numerous tiny phenocrysts of plagioclase. From 310 to 310.75 appears to be a raft of bleached altered gabbro. Again on broken surface sugary fine grained texture. Again no HCL reaction, extremely hard unit and magnetic. A few stringers of pyrite noted between 310-310.75. Competent section of rock. Lower contact is sharp and at 15 deg to CA.									
311.10	315.05	Gabbro coarse grained	6G cg	This is again a grey green unit that is coarse grained and massive in appearance. Bordering on 50:50 mafics and plagioclase feldspar. Moderate hardness, can be scratched with a knife. Non magnetic unit with no HCL reaction. Small grey black mafic dyke present in unit from 312.88-313.70. Lower contact at 50 deg to CA and upper dyke contact at 40 deg to CA. No veining of significance noted. Competent unit with no major structure observed. Estimate of 0.5% disseminated pyrite. Lower contact somewhat erratic and a chill margin on contact.									

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
315.05	326.00	Diorite Intrusive	6GD	This is a bleached white to very light grey white unit on dry surface. Dominantly made up of quartz and feldspar and about 10% mafic minerals. Unit is very hard and cannot be scratched with a knife. The unit is med. grained. It has a massive appearance. Unit is magnetic. From about 321.5 to lower contact rafts of more mafic material within unit prior to dyke below. No HCL reaction in this unit. Blocky broken zone associated with K spar rich dyke from 316.70-317.15, minor fault. Outside of this very competent unit, fractures which are fairly few in number at 60 deg to CA and occasional slip plane generally at 10-15 deg to CA. small quartz vein sub parallel to CA from 317.3-317.8 with a few pyrite stringers. Overall pyrite content estimated at trace to 0.5% in this interval. Lower contact with dyke at 30 deg to CA.	953696 953697 953698 953699 953700	315.05 316.00 317.00 318.00 stdor70b	316.00 317.00 318.00 319.00	0.95 1.00 1.00 1.00	7 429 13 6	< 5 < 5 < 5 < 5	< 5 < 5 < 5 < 5	24 24 46 23 47	12 9 8 8 1850
326.00	331.45	Mafic Dyke	6U	Dark grey to black colored dyke on dry surface and extremely fine grained to aphanitic. Extremely hard unit that cannot be scratched with knife. Non magnetic unit. No HCL reaction. Some tiny quartz micro stringers about 1 mm or so wide generally oriented 30 deg to CA. A few minor slips noted also at 30 deg to CA and a few fractures at 50 deg to CA. Competent section of core overall. Some traces of pyrite in dyke, not significant. Occasional small raft of diorite in unit proximal to lower contact. Lower contact erratic.									
331.45		Diorite	6GD	At 331.45 to 356.15 Again similar to diorite interval described above. This section is a bleached white to very light grey colored unit on dry surface. It is predominantly made up of quartz, plagioclase feldspar and about 10% mafic minerals. Some K spar present on occasion. Very localized magnetic response from 331.45 to about 342 meters, beyond this increase in magnetite and fairly good magnetic response to 356.15. Unit is extremely hard and cannot be scratched with knife. No HCL response and no significant veining noted. Unit could be described as massive. Extremely competent interval with no major structure and only a few fractures and minor slips. Fractures generally at 40 deg to CA and slips at 20 deg to CA in general; no major structure noted. The unit is considered medium grained.	953701 953702 953703	334.30 335.30 336.15	335.30 336.15 337.00	1.00 0.85 0.85	3 134 3	< 5 < 5 < 5	< 5 < 5 < 5	2 11 10	15 16 22
				A Kspar (syenite) rich dyke present from 335.30-335.15 with upper contact at 5 deg to CA and lower contact at 336.25. Some quartz veinlets associated with dyke and minor fine pyrite <1%. Some K spar within diorite for about a meter or so each side of dyke. This unit has very little sulphide mineralization, overall trace. However locally some pyrite and pyrrhotite clots such as at 339.15 to 339.40 where clots and stringers conductive when tested with ohm meter. The unit is unaltered.	953704 953705 953706	338.50 339.00 339.40	339.00 339.40 340.00	0.50 0.40 0.60	3 11 3	< 5 < 5 < 5	< 5 < 5 < 5	63 273 56	23 35 16
				At 356.15 to 380.00 This is a continuation of the diorite unit. Unit is medium grained with the exception of some minor sections which are more medium to fine grained such as at 360.50-362 and some short intervals between 370-372. The unit is									

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm	
				a bleached white to very light grey color. The unit could be described as massive and up to this point has a "speckled" appearance with the exception of the medium to finer grained sections. The unit in this interval is again extremely hard and cannot be scratched with a knife. The unit has no HCL reaction. Overall a fairly magnetic unit with considerable amount of magnetite present. This interval has no obvious alteration. Small fault zone from 362.40-363.15; upper contact at 10 deg to CA and lower contact is ground. Also small fault at 373.75 to 374, upper contact at 10 deg to CA. Also brittle fault zone from 377-377.75 blocky broken zone. Aside from fault zones mentioned overall a competent unit. No significant veining observed in this section. Pyrite content minimal, overall trace to 1/2%. Rare stringer noted as at 369.6, conductive over a couple of cm. Note a few black dykes less than 10 cm noted typical of that noted at 326 m. Lower contact with fault at 15 deg to CA.										
380.00	381.05	Fault Zone	Fz	Blocky broken fault zone. Fault zone appears to have been intruded by K spar rich dyke (syenite?) and a more sheared silicified mafic intrusive? From 380.6 to 381.05. Some gouge within fault zone in K spar rich section and minor quartz stringer at 380.5 -380.60. Lower contact at 45 deg to CA.										
381.05	400.20	Diorite	6GD	At 381.50 to 390.20 As per previous diorite descriptions this unit is a bleached white to light grey color with a "speckled" appearance and it is medium grained. It is mainly composed of quartz & plagioclase feldspar and minor mafic minerals. Some very minor sections with some K spar present. The unit continues to be extremely hard and cannot be scratched with a knife. Unit has no HCL reaction. Overall a moderately magnetic unit with considerable magnetite present. No veining of note present and unit is unaltered. Series of small blocky brittle faults from 385-386 meters. Outside of this relatively competent unit with some minor slips at 10 to 15 deg to CA generally. Trace to 0.5% pyrite in disseminated form. Small slip plane at 389.25 and K spar associated with this slip from 389.25-389.45. At 390.20 to 400.20 Continuation of diorite unit. Unit is a bleached white to light grey colored unit on dry surface still. It has a "speckled" appearance still and in medium to coarse grained. The unit is again composed of quartz, feldspar and minor amount of mafic minerals. Strongly magnetic to 392 meters, and beyond this to lower contact non magnetic. Unit extremely hard and cannot be scratched with knife. The unit is not altered and contains no significant veining. This particular section relatively competent but a fair number of slips at 10-15 deg to CA and some fractures generally at 30 deg to CA. This interval has no HCL reaction. Trace of pyrite in unit, magnetite present in magnetic section described above. Lower contact is sharp at 50 deg to CA.										
400.20	405.25	Mafic Dyke	6U	This is somewhat of an unusual looking dyke as their										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm	
				are many rafts of diorite within the dyke, somewhat of a mixed unit. The diorite fragments are finer grained and often contain K spar. The dyke is a dark grey to almost black color on dry surface and comprised mainly of mafic minerals. Dyke is fine grained and of variable hardness, some sections scratched easily with knife and other sections more difficult to scratch. Short interval between 404-404.5 that is magnetic but rest of unit non magnetic. Dyke itself has 3% pyrite but over entire interval about 1/2 to 1% pyrite as diorite rafts not mineralized. Some unusual banding present from 401 to 402.3 in diorite raft at 45 deg to CA. and dyke (gneissic?). Small HCL reaction to a few tiny microstringers of quartz calcite in dyke but outside of these no significant reaction. Overall a fairly competent unit, but a number of fractures noted at 50 deg to CA. Lower contact at 25 deg to CA.										
405.25	413.70	Diorite	6GD	Continuation of typical diorite unit with a bleached white to light grey color on dry surface and "speckled" appearance. The unit is medium grained with some sections more fine to medium grained. Extremely hard unit. Magnetic unit except for interval beteen 408.5 to 411. Magnetite present in magnetic portion. No HCL reaction in this unit and basically unaltered. Rare quartz stringer or two noted, not significant. Very competent interval, no major structural features noted. Again a few fractures at 40 deg to CA and some minor slips at 10-15 deg to CA in general. Note, this unit primarily made of quartz, feldspar and mafic minerals (10%). Unit contains minor pyrite, trace. Gradational contact into more medium to fine grained section of diorite below.										
413.70	422.30	Diorite	6GD	This section of diorite more medium to fine grained and leaning towards a light grey color on dry surface. Lacks speckled appearance usually seen in more medium grained intervals. Still dominantly made up of quartz, plagioclase feldspar minor mafics generally <10% and some K spar. Again, extremely hard unit that cannot be scratched with a knife. Magnetite present in this unit and unit is strongly magnetic. No major structure observed, similar to above unit, very competent interval, a few distinct fractures again at 40 deg to CA and minor slip planes at 10-15 deg to CA. Unit does not react to HCL. No significant veining noted and unit appears unaltered. Trace pyrite at best. Lower contact at 80 deg to CA and sharp.										
422.30	446.70	Qtz Gabbro	6G Qtz	At 422.30 to 446.70 This same intrusive unit was observed in MT23-1 at 180.15 meters and was designated a quartz gabbro. The unit is a grey green color on dry surface. It is medium grained & predominantly made up of mafic minerals and 20-25% plagioclase. This unit is unusual as it contains clots of blue quartz. The blue quartz clots & blebs more visible in certain sections of this interval and in some sections very evident throughout. Occasional raft of diorite present in unit as well. Trace sulphide at best throughout this section but at 430.50 minor stringers of pyrrhotite and minor chalcopyrite (conductive). Unit could be described as										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				massive with no evidence of any major structure. At									
				425.50 minor fault for a few cm with some blocky broken									
				core, oriented 20 deg to core axis. Unit contains	953707	429.50	430.40	0.90	2	< 5	< 5	46	74
				considerable amount of magnetite and it is strongly	953708	430.40	430.80	0.40	4	< 5	< 5	162	131
				magnetic throughout most of unit, minor sections around	953709	430.80	431.50	0.70	2	< 5	< 5	67	71
				429 meters which are non magnetic. The unit does not									
				contain any significant veining and it is very hard, some									
				sections it is not possible to scratch with knife and others									
				just barely possible. The unit does not react to HCL.									
				Gradational contact with unit below. Very similar looking									
				unit but lacking blue quartz clots.									
446.70	486.30	Gabbro	6G	At 446.70 to 477									
				This unit is dark grey green colored unit on dry surface. It									
				is medium grained but has some minor slightly coarser									
				grained sections. It has a high mafic mineral content,									
				estimate of 70-75% (pyroxene) and 20-25% feldspar.									
				This unit has substantial magnetite in it and it is strongly									
				magnetic throughout entire interval. Extremely hard unit									
				that can be scratched with knife with substantial effort.									
				Unit has no HCL reaction but some very minor quartz calcite									
				stringers proximal to 454 meters do react to HCL. Unit									
				has few small quartz stringers and veinlets, not significant									
				but one vein at 474.85-475 was noted to have clots of									
				pyrrhotite which conduct with ohm meter over a couple cm.									
				Overall unit has trace pyrite, a few tiny mm wide stringers									
				with some pyrrhotite and pyrite noted between 472.5 and									
				475.25. Some small brittle faults present in this unit at									
				452.55 at 10 deg to CA., as well as at 458.10 to 458.30 &									
				this minor fault at 30 deg to CA. Also a fair number of minor									
				slip planes at 10 deg to CA. A number of fractures at	953710	471.50	472.00	0.50	11	< 5	< 5	228	35
				about 40 deg to CA. Overall a competent unit with the	953711	472.00	473.00	1.00	4	< 5	< 5	169	32
				exception of interval from 452.5 to 459 where there are	953712	473.00	474.00	1.00	5	< 5	< 5	162	29
				more fractures and slip planes and the minor faults. The	953713	474.00	475.00	1.00	5	< 5	< 5	196	36
				section from from 452.5-459 is still a relatively competent	953714	475.00	476.00	1.00	3	< 5	< 5	107	32
				section despite small faults and slips.	953715	blank			2	< 5	< 5	4	7
					953716	476.00	476.75	0.75	10	< 5	< 5	61	34
				At 477 to 486.30									
				Continuation of unit described from 446.70 to 477 above.									
				Again, dark grey green unit that is medium grained, and									
				extremely hard unit. Unit has substantial mafic minerals									
				(pyroxene) and less feldspar, approx ratio 75:25. Small									
				quartz vein associated with small felsic (diorite) intrusive									
				from 482.05 to 482.50. Outside of this no significant veining									
				Again a strongly magnetic section due to magnetite.									
				Very little mineralization, overall a trace of pyrite but									
				from 484 to 485 m some minor 1 mm wide stringers with									
				pyrrhotite, pyrite and rare speck of chalcopyrite. This									
				interval has no HCL reaction. No major structure noted; a									
				number of slips and fractuers similar orientation to interval									
				above and ove all a compent section. Lower contact									
				associated with a small diorite raft and contact sharp at									
				25 deg to CA.									
486.30	497.90	Gabbro	6G	This is still a gabbro unit but it is finer to med. grained & light	953717	483.00	484.00	1.00	7	< 5	< 5	62	31
				grey green color and distinctly non magnetic. Mafic minerals	953718	484.00	485.00	1.00	3	< 5	< 5	31	21
				and feldspar ratio estimated at 65:35 for this unit. No HCL	953719	485.00	486.00	1.00	4	< 5	< 5	86	18
				reaction. Unit is of moderate hardness and can be scratched	953720	stdor681			51	244	525		

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				with knife with a little effort. Overall a competent interval but a few small faults, 487.20-487.30, 488.75-489, and 492.50-492.80; 495.5-495.15, small brittle blocky faults & broken ground. Also a number of slip planes at 10-15 deg to CA and fractures at 40 deg to CA in general. Distinctive sharp lower contact at 15 deg to CA. Trace of pyrite in this unit.									
497.90	504.75	Gabbro Porphyritic	6G por	This unit is fine grained and light grey in color on the dry surface. Unit is mainly made up of mafic minerals with white feldspar phenocrysts present, some phenocrysts of feldspar look zoned, also rare blue quartz eye noted. Unit is magnetic with a variable response ranging from weak to moderate. No HCL reaction in unit, rare qtz calcite stringer or two noted which reacts to HCL. Unit is of moderate hardness and can be scratched with knife. Trace pyrite in unit at best. At 502.75-503 small blocky ground up fault zone and on contact with unit below, blocky brittle fault zone for about 10 cm from 504.65-504.75 these faults very minor. A few fractures at 60 deg to CA, and overall a competent unit. Contact ground in small fault at contact.									
504.75	517.30	Gabbro	6G	This is a medium grained grey green colored gabbro unit. Mafic mineral content at about 65% & feldspar about 35%. Unit is non magnetic, and has no HCL reaction. A few diorite rafts present generally less than 10 cm from 514 - 516. In latter part of interval from 513 to 517 some medium to finer grained gabbro, gradational into finer grained unit below. No significant veining of any sort noted and rare speck of pyrite at best. Small ground brittle blocky fault zone from 509.60 to 510. Outside of this fault very competent interval with a few fractures at 40 deg to CA and some minor slip planes at 10-15 deg to CA. Distinctly finer grained unit starting at 517.30.									
517.30	525.00	Gabbro	6G	Distinctly fine to medium grained gabbro unit; light grey color on dry surface. Again a substantial mafic component in this unit mafics to feldspar estimate at 65:35. Unit is non magnetic and has no HCL reaction. No veining noted and trace of pyrite at best. Very competent unit, no major structural features noted. A few fractures 40-50 deg to CA and a few minor slips at 10-15 deg to CA. Unit is of mod. hardness and can be scratched with knife. Gradational lower contact.									
525.00	541.50	Gabbro	6G	Medium grained grey green colored unit exhibiting typical gabbroic texture. More feldspar in this unit, estimate of mafic minerals to feldspar 55:45. The unit is extremely hard and can be barely scratched with a knife. It has no HCL response & only one small qtz veinlet at 530.9. Some small rafts of diorite noted from 532-533 and at 535.50. Unit is non magnetic. Some slightly more fine to medium grained sections from 537-540 meters. Trace pyrite noted. No major structure noted, competent interval with minor slip planes at 20-25 deg to CA, and few fractures generally at 40-50 deg to CA. Lower contact gradational.	953721 953722	530.00 531.00	531.00 532.00	1.00 1.00	7 < 2	< 5 < 5	< 5 < 5	35 35	112 107

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
541.50	551.20	Gabbro	6G	This unit is very similar to gabbro section from 517.30-525 and it is light grey in color with a high mafic component (pyroxene) and some plagioclase estimate of 75:25. No major structure except at lower contact which is marked by a broken blocky fault zone from 550.90-551.20. Competent unit with a few slips at 20 deg to CA and a few fractures at 30 deg to CA in general. No veining of significance noted, no HCL reaction in unit and unit has no response to magnet. Trace of pyrite present. Unit is of moderate hardness and can be scratched with knife. Note some rafts of slightly coarser gabbroic material and gabbroic material with feldspar phenocrysts as described above between 544.30-545.30.									
551.20	566.55	Gabbro	6G	This is a grey colored medium grained gabbro that has a ratio of 65:35 mafic composition to feldspar composition. Overall a weakly magnetic unit with certain sections having a stronger response. Unit has no HCL reaction and no significant veining noted. Extremely hard unit, can be scratched with knife with effort. Estimate of 1% diss. pyrite in unit. No major structure noted. Again some slip planes at 20 deg to CA and some fractures at 40 deg to CA in general. Lower contact sharp at 60 deg to CA.	953723 953724 953725 953726 953727 953728 953729 953730	555.00 556.50 orstd70b 558.00 559.50 563.00 564.00 565.00	556.50 558.00 559.50 561.00 564.00 565.00 566.55	1.50 1.50 1.50 1.50 1.00 1.00 1.55	2 < 2 2 < 2 2 < 2 3	< 5 < 5 < 5 < 5 < 5 < 5 < 5	< 5 < 5 < 5 < 5 < 5 < 5 < 5	68 55 49 68 76 60 68 58	26 23 1880 30 34 51 56 52
566.55	567.45	Granodiorite	6GD	Bleached white unit that is medium to coarse grained, made up of quartz, plagioclase feldspar and 10% mafic minerals and minor K spar. No mineralization or veining of significance. Unit is extremely hard and non magnetic and no HCL reaction. Blocky broken unit up to 567 m and beyond this competent. Lower contact is sharp and at 50 deg to CA.									
567.45	585.00	Gabbro EOH	6G	The gabbro unit has a strong chill margin to about 569 m. It is compositionally similar to unit above from 521.20-566.55 except it is very fine grained after the intrusive to about 572 meters. Beyond 572 to EOH could be described as per gabbro interval immediately above; grey colored medium grained. It is strongly magnetic throughout and there is considerable magnetite in this unit. Minor pyrite present estimate of trace at best. Mafic component of unit 65% and plagioclase about 35% of unit. Extremely hard and not possible to scratch with a knife. No significant veining observed and no HCL response. Extremely competent unit with no major structure. A few slip planes at 20 deg to CA and a few fractures at 40 deg to CA. Note, within this unit occasionally a few green colored phenocrysts thought to be altered plagioclase, fairly rare. EOH 585	953731 953732	576.00 577.50	577.50 579.00	1.50 1.50	3 3	< 5 < 5	< 5 < 5	173 168	16 17
				Downhole Tests 30m: 268.5 Az. Dip -51.78 Magnetic not used 81m: 268.6 Az. Dip -50.96 Good used in section and plan 132m: 268.5 Az. Dip -49.9 Good used in section and plan 183m: 269.04 Az. Dip -48.53 Good used in section and plan 234m: 268.62 Az Dip -48.59 Good used in section and plan 285m: 268.70 Az. Dip -48.35 Good used in section and plan 336m: 270.85 Az Dip --48.20 Good used in section and plan 387m: 271.17 Az Dip -48.27 Good see note below									

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Pd ppb	Pt ppb	Cu ppm	Ni ppm
				429m: 271.5 Az Dip -47.78 Good used in section and plan									
				480m: 266.98 Az Dip -47.8 Some mag but used in sect&plan									
				585m. 265.30 Az Dip -47.46 Strong mag not used.									
				Note weird reading at 387 so averaged az reading for									
				336 m and 429 and used for 387									

APPENDIX 3: COPY OF ASSAY SHEETS



Mink Ventures Corp
1080 Michelano Drive
Timmins, ON
Canada

Report No.: A23-03221
Report Date: 17-Mar-23
Date Submitted: 08-Mar-23
Your Reference: MONTCALM

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

40 Rock samples were submitted for analysis.

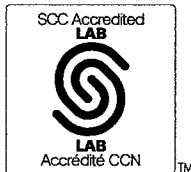
The following analytical package(s) were requested:		Testing Date:
1C-OES-Timmins	QOP PGE-OES (Fire Assay ICPOES)	2023-03-13 14:35:32

REPORT A23-03221

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.



LabID: 709

ACTIVATION LABORATORIES LTD.
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CERTIFIED BY:

Mark Vandergeest
Quality Control Coordinator

Mink Ventures Corp
 1080 Michelano Drive
 Timmins, ON
 Canada

Report No.: A23-03221
 Report Date: 17-Mar-23
 Date Submitted: 08-Mar-23
 Your Reference: MONTCALM

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

40 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1E3	QOP AquaGeo (Aqua Regia ICPOES)	2023-03-16 11:01:44

REPORT **A23-03221**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.



LabID: 266

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CERTIFIED BY:

Mark Vandergeest
 Quality Control Coordinator

Results

Activation Laboratories Ltd.

Report: A23-03221

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953551	9	< 5	< 5																				
953552	7	< 5	< 5																				
953553	8	< 5	< 5	< 0.2	< 0.5	117	836	< 1	260	< 2	30	3.24	< 2	23	< 10	< 0.5	< 2	4.62	29	280	3.25	< 10	< 1
953554	7	< 5	< 5	< 0.2	< 0.5	159	476	< 1	289	< 2	28	3.48	< 2	23	< 10	< 0.5	< 2	2.39	32	245	2.90	< 10	< 1
953555	6	< 5	< 5	< 0.2	< 0.5	161	330	< 1	200	< 2	20	3.58	< 2	24	11	< 0.5	< 2	2.78	21	135	2.13	< 10	< 1
953556	3	< 5	< 5	< 0.2	< 0.5	41	484	< 1	62	< 2	54	2.13	< 2	25	261	< 0.5	< 2	1.96	18	50	3.67	< 10	< 1
953557	3	< 5	< 5	< 0.2	< 0.5	31	466	2	60	< 2	53	2.13	4	24	82	< 0.5	< 2	1.99	18	47	3.54	< 10	< 1
953558	4	< 5	< 5	< 0.2	< 0.5	34	447	1	54	< 2	53	2.12	3	26	156	< 0.5	< 2	1.87	18	39	3.42	< 10	< 1
953559	5	< 5	< 5	< 0.2	< 0.5	96	402	3	72	< 2	24	1.25	19	23	123	< 0.5	< 2	2.46	20	70	2.65	< 10	< 1
953560	2	< 5	< 5	< 0.2	< 0.5	72	898	1	291	3	39	1.58	3	25	573	0.8	< 2	5.94	51	138	5.71	< 10	< 1
953561	4	< 5	< 5	< 0.2	< 0.5	35	364	1	52	< 2	28	2.58	3	20	42	< 0.5	< 2	2.22	20	55	3.11	< 10	< 1
953562	8	< 5	< 5	< 0.2	< 0.5	114	437	< 1	76	< 2	32	4.16	< 2	25	34	< 0.5	< 2	3.12	28	82	3.40	< 10	< 1
953563	5	< 5	< 5	< 0.2	< 0.5	187	526	1	1010	< 2	53	3.15	3	20	14	< 0.5	< 2	3.06	109	59	5.59	< 10	< 1
953564	6	< 5	< 5	< 0.2	< 0.5	60	479	< 1	76	< 2	46	4.02	< 2	21	70	< 0.5	< 2	2.69	26	76	4.14	< 10	< 1
953565	3	< 5	< 5	< 0.2	< 0.5	3	84	< 1	7	< 2	< 2	0.04	4	18	11	< 0.5	< 2	> 10.0	< 1	< 1	0.14	< 10	< 1
953566	3	< 5	< 5	< 0.2	< 0.5	12	364	< 1	52	< 2	32	3.54	< 2	20	69	< 0.5	< 2	2.58	18	42	2.85	< 10	< 1
953567	3	< 5	< 5	< 0.2	< 0.5	16	508	1	73	< 2	33	3.75	2	20	47	< 0.5	< 2	3.61	20	79	3.44	< 10	< 1
953568	4	< 5	< 5	< 0.2	< 0.5	17	417	< 1	70	< 2	34	4.65	< 2	21	46	< 0.5	< 2	3.04	20	48	3.11	< 10	< 1
953569	6	< 5	< 5	< 0.2	< 0.5	202	501	< 1	144	< 2	39	4.66	< 2	18	55	< 0.5	< 2	3.25	35	146	4.35	10	< 1
953570	51	245	538																				
953571	5	< 5	< 5	< 0.2	< 0.5	57	371	< 1	113	< 2	39	5.27	< 2	18	82	< 0.5	< 2	3.23	26	114	3.51	10	< 1
953572	3	< 5	< 5	< 0.2	< 0.5	15	311	< 1	42	< 2	36	5.44	< 2	16	51	< 0.5	< 2	3.39	16	37	2.73	10	< 1
953573	5	< 5	< 5	< 0.2	< 0.5	60	342	< 1	77	< 2	39	5.82	< 2	19	67	< 0.5	< 2	3.33	22	62	3.21	10	< 1
953574	13	< 5	< 5	< 0.2	< 0.5	269	330	< 1	216	< 2	29	5.16	2	17	129	< 0.5	< 2	3.29	32	123	3.68	10	< 1
953575	14	< 5	21																				
953576	14	7	< 5	< 0.2	< 0.5	331	441	< 1	819	< 2	33	4.86	< 2	16	57	< 0.5	< 2	3.66	85	149	5.13	< 10	1
953577	2	< 5	< 5	< 0.2	< 0.5	31	559	< 1	123	< 2	43	4.29	< 2	17	47	< 0.5	< 2	3.18	28	140	4.54	< 10	< 1
953578	5	< 5	< 5	< 0.2	< 0.5	116	506	< 1	128	< 2	47	4.65	< 2	19	48	< 0.5	< 2	2.66	34	142	4.87	< 10	< 1
953579	5	< 5	< 5	< 0.2	< 0.5	82	465	1	94	< 2	39	4.70	2	19	29	< 0.5	< 2	2.99	26	127	4.18	< 10	< 1
953580	6	< 5	< 5	< 0.2	< 0.5	183	328	< 1	187	< 2	37	5.14	2	17	67	< 0.5	< 2	3.17	30	149	3.86	10	< 1
953581	4	< 5	< 5	< 0.2	< 0.5	81	401	< 1	138	< 2	41	4.39	2	18	32	< 0.5	< 2	2.54	27	96	3.65	< 10	< 1
953582	< 2	< 5	< 5	< 0.2	< 0.5	67	343	< 1	110	< 2	32	3.89	< 2	18	14	< 0.5	< 2	2.33	24	202	3.37	< 10	< 1
953583	5	< 5	< 5	< 0.2	< 0.5	97	327	< 1	115	< 2	29	3.27	< 2	18	23	< 0.5	< 2	2.26	22	146	3.00	< 10	< 1
953584	4	< 5	< 5	< 0.2	< 0.5	82	277	< 1	105	< 2	28	3.70	< 2	17	38	< 0.5	< 2	2.47	22	161	3.08	< 10	< 1
953585	6	< 5	< 5	< 0.2	< 0.5	153	283	< 1	153	< 2	29	4.21	< 2	18	42	< 0.5	< 2	2.75	28	170	3.28	< 10	< 1
953586	< 2	< 5	< 5	< 0.2	< 0.5	79	276	< 1	107	< 2	29	4.13	< 2	17	36	< 0.5	< 2	2.71	23	176	3.31	< 10	< 1
953587	< 2	< 5	< 5	< 0.2	< 0.5	85	257	< 1	105	< 2	25	4.27	< 2	17	40	< 0.5	< 2	2.82	21	154	2.95	< 10	< 1
953588	2	< 5	6	< 0.2	< 0.5	108	303	< 1	127	< 2	28	4.99	< 2	19	16	< 0.5	< 2	3.26	25	155	3.36	< 10	< 1
953589	5	< 5	< 5	< 0.2	< 0.5	77	413	1	105	< 2	29	4.08	3	19	10	< 0.5	< 2	3.10	23	154	3.20	< 10	< 1
953590	< 2	< 5	< 5	< 0.2	< 0.5	3	74	< 1	7	< 2	< 2	0.05	3	20	14	< 0.5	< 2	> 10.0	< 1	1	0.07	< 10	< 1

Results

Activation Laboratories Ltd.

Report: A23-03221

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953551																		
953552																		
953553	0.01	< 10	4.03	0.145	0.003	0.02	< 2	5	55	0.02	< 20	< 1	< 2	< 10	35	15	1	1
953554	0.02	< 10	3.15	0.196	0.003	0.08	< 2	2	69	0.02	< 20	< 1	< 2	< 10	20	< 10	< 1	< 1
953555	0.04	< 10	1.97	0.247	0.002	0.05	< 2	3	107	0.04	< 20	< 1	< 2	< 10	19	< 10	1	< 1
953556	0.89	15	1.53	0.167	0.051	0.09	< 2	9	32	0.23	< 20	< 1	< 2	< 10	69	< 10	9	15
953557	0.30	13	1.50	0.133	0.051	0.04	2	7	40	0.22	< 20	3	< 2	< 10	64	< 10	8	14
953558	0.58	14	1.43	0.148	0.054	0.06	< 2	7	38	0.22	< 20	5	< 2	< 10	61	< 10	8	19
953559	0.19	15	1.51	0.147	0.042	0.14	5	6	122	0.13	< 20	4	< 2	< 10	49	< 10	4	13
953560	1.06	46	6.61	0.132	0.094	0.13	< 2	11	818	0.19	< 20	3	< 2	< 10	109	< 10	8	4
953561	0.07	< 10	1.51	0.236	0.018	0.06	< 2	5	54	0.06	< 20	1	< 2	< 10	58	< 10	3	2
953562	0.05	< 10	1.71	0.420	0.008	0.15	< 2	4	93	0.07	< 20	< 1	< 2	< 10	90	< 10	2	2
953563	0.03	< 10	1.91	0.253	0.004	1.41	< 2	7	59	0.05	< 20	< 1	< 2	< 10	56	< 10	3	3
953564	0.19	< 10	1.99	0.391	0.015	0.06	< 2	6	82	0.12	< 20	< 1	< 2	< 10	96	< 10	4	2
953565	0.01	< 10	1.65	0.009	0.006	0.03	< 2	< 1	56	< 0.01	< 20	1	< 2	< 10	< 1	< 10	1	< 1
953566	0.13	< 10	1.51	0.297	0.007	0.02	< 2	4	69	0.05	< 20	< 1	< 2	< 10	36	< 10	2	2
953567	0.08	< 10	1.90	0.308	0.010	0.03	< 2	7	71	0.06	< 20	2	< 2	< 10	59	< 10	3	2
953568	0.07	< 10	1.79	0.447	0.006	0.01	< 2	5	102	0.05	< 20	< 1	< 2	< 10	34	< 10	3	1
953569	0.12	< 10	1.90	0.474	0.006	0.36	2	6	93	0.09	< 20	1	< 2	< 10	106	< 10	3	2
953570																		
953571	0.21	< 10	1.58	0.564	0.006	0.08	< 2	3	108	0.07	< 20	< 1	< 2	< 10	71	< 10	1	1
953572	0.12	< 10	1.40	0.594	0.006	< 0.01	< 2	2	117	0.04	< 20	< 1	< 2	< 10	22	< 10	1	1
953573	0.17	< 10	1.69	0.630	0.005	0.04	< 2	4	125	0.06	< 20	< 1	< 2	< 10	47	< 10	1	1
953574	0.21	< 10	1.31	0.601	0.007	0.55	2	3	126	0.08	< 20	2	< 2	< 10	89	< 10	1	2
953575																		
953576	0.08	< 10	1.70	0.503	0.007	1.41	< 2	5	106	0.07	< 20	< 1	< 2	< 10	66	< 10	1	3
953577	0.08	< 10	2.40	0.423	0.005	0.05	3	7	75	0.14	< 20	< 1	< 2	< 10	94	< 10	2	1
953578	0.08	< 10	2.27	0.498	0.005	0.17	3	5	84	0.15	< 20	< 1	< 2	< 10	117	< 10	1	2
953579	0.06	< 10	1.83	0.576	0.021	0.09	< 2	5	98	0.14	< 20	< 1	< 2	< 10	92	< 10	2	1
953580	0.15	< 10	1.53	0.625	0.008	0.22	3	3	121	0.07	< 20	3	< 2	< 10	93	< 10	< 1	1
953581	0.06	< 10	1.94	0.544	0.036	0.10	< 2	4	97	0.08	< 20	< 1	< 2	< 10	43	< 10	1	1
953582	0.03	< 10	1.80	0.503	0.010	0.08	< 2	5	75	0.12	< 20	< 1	< 2	< 10	58	< 10	2	1
953583	0.04	< 10	1.59	0.463	0.030	0.10	< 2	5	66	0.13	< 20	2	< 2	< 10	44	< 10	3	2
953584	0.08	< 10	1.44	0.554	0.025	0.11	2	5	78	0.15	< 20	< 1	< 2	< 10	63	< 10	2	2
953585	0.12	< 10	1.52	0.607	0.035	0.20	< 2	5	89	0.17	< 20	< 1	< 2	< 10	72	< 10	3	2
953586	0.09	< 10	1.48	0.617	0.024	0.12	< 2	5	86	0.18	< 20	3	< 2	< 10	84	< 10	3	2
953587	0.09	< 10	1.37	0.660	0.017	0.11	3	5	94	0.16	< 20	< 1	< 2	< 10	69	< 10	2	1
953588	0.04	< 10	1.56	0.678	0.008	0.15	2	5	107	0.13	< 20	2	< 2	< 10	80	< 10	2	1
953589	0.03	< 10	1.75	0.514	0.004	0.08	< 2	6	92	0.15	< 20	3	< 2	< 10	62	< 10	2	1
953590	0.01	< 10	0.53	0.010	0.006	< 0.01	< 2	< 1	60	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	2	< 1

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 922 (Aqua Regia) Meas				0.8	< 0.5	2190	756	< 1	34	58	246	2.71	7		75	0.7	7	0.40	20	43	5.24	< 10	
OREAS 922 (Aqua Regia) Cert				0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62	
OREAS 907 (Aqua Regia) Meas				1.2	< 0.5	6310	349	4	4	32	140	1.16	37		235	1.0	17	0.28	48	8	8.30	20	
OREAS 907 (Aqua Regia) Cert				1.30	0.540	6370	330	5.64	4.74	34.1	139	0.945	37.0		225	0.870	22.3	0.280	43.7	8.59	8.18	14.7	
CDN-PGMS-29 Meas	100	675	562																				
CDN-PGMS-29 Cert	88.000	677.000	550.000																				
CDN-PGMS-29 Meas	93	690	613																				
CDN-PGMS-29 Cert	88.000	677.000	550.000																				
OREAS 263 (Aqua Regia) Meas				0.2	< 0.5	88	508	< 1	76	34	125	1.86	29		188	1.3	< 2	1.06	35	56	3.80	< 10	< 1
OREAS 263 (Aqua Regia) Cert				0.285	0.270	87.0	490	0.570	72.0	34.0	127	1.29	30.8		175	1.22	0.570	1.03	31.0	48.0	3.68	4.92	0.170
OREAS 130 (Aqua Regia) Meas				5.5	27.2	229	1590	6	33	1190	> 10000	1.15	196				3	1.65	27	23	7.06	< 10	< 1
OREAS 130 (Aqua Regia) Cert				6.27	28.8	226	1630	8.25	35.2	1300	16900	1.10	205				3.05	1.81	27.1	23.2	7.27	4.78	0.670
Oreas 620 (Aqua Regia) Meas				36.4	159	1780	450	7	14	> 5000	> 10000	1.21	50		21	0.6	< 2	1.32	14	17	2.78	< 10	2
Oreas 620 (Aqua Regia) Cert				38.4	161	1750	414	9	14	7740	31200	1.12	47		450	0.6	2	1.29	12	17	2.58	6	2
Oreas 610 (Aqua Regia) Meas				48.8	13.7	9800	78	5	27	557	1920	1.22	3030			< 0.5	202	0.13	9	40	2.45	< 10	< 1
Oreas 610 (Aqua Regia) Cert				48.4	12.3	9720	66	4	24	512	1760	0.847	2810			0.3	220	0.12	8	33	2.27	6	0.8
OREAS 682 (Fire Assay) Meas	73	425	842																				
OREAS 682 (Fire Assay) Cert	74	444	868																				
OREAS 682 (Fire Assay) Meas	76	443	882																				
OREAS 682 (Fire Assay) Cert	74	444	868																				
953560 Orig	3	< 5	< 5																				
953560 Dup	2	< 5	< 5																				
953566 Orig				< 0.2	< 0.5	12	366	< 1	52	< 2	32	3.56	< 2	19	70	< 0.5	< 2	2.58	18	43	2.86	< 10	< 1
953566 Dup				< 0.2	< 0.5	12	363	1	52	< 2	32	3.53	3	20	69	< 0.5	< 2	2.58	18	42	2.84	< 10	< 1
953571 Orig	5	< 5	< 5																				
953571 Dup	5	< 5	< 5																				
953580 Orig	7	< 5	5																				
953580 Dup	5	< 5	< 5																				
953585 Orig				< 0.2	< 0.5	153	283	< 1	152	< 2	29	4.23	< 2	18	42	< 0.5	< 2	2.76	29	170	3.28	< 10	< 1
953585 Dup				< 0.2	< 0.5	153	282	< 1	153	< 2	28	4.19	< 2	17	42	< 0.5	< 2	2.74	28	170	3.29	< 10	< 1
Method Blank	3	< 5	< 5																				
Method Blank	< 2	< 5	< 5																				

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank	< 2	< 5	< 5																				
Method Blank	3	< 5	< 5																				
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	2	33	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	
OREAS 922 (AQUA REGIA) Meas	0.43	35	1.31	0.020	0.063	0.38	4	4	16		< 20		< 2	< 10	33	< 10	18	24	
OREAS 922 (AQUA REGIA) Cert	0.376	32.5	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3	
OREAS 907 (Aqua Regia) Meas	0.33	36	0.22	0.085	0.024	0.06	4	2	13	0.03	< 20		3	< 2	< 10	6	< 10	6	32
OREAS 907 (Aqua Regia) Cert	0.286	36.1	0.221	0.0860	0.0240	0.0660	2.28	2.16	11.7	0.0170	8.04	0.230	0.120	2.15	5.12	0.980	6.52	43.7	
CDN-PGMS-29 Meas																			
CDN-PGMS-29 Cert																			
CDN-PGMS-29 Meas																			
CDN-PGMS-29 Cert																			
OREAS 263 (Aqua Regia) Meas	0.38		0.62	0.078	0.043	0.12	10	4	18		< 20	< 1	< 2	< 10	28		11		
OREAS 263 (Aqua Regia) Cert	0.288		0.593	0.0790	0.0410	0.126	7.37	3.52	16.9		10.6	0.210	0.530	1.28	22.8		12.0		
OREAS 130 (Aqua Regia) Meas	0.51	20	0.90		0.086	6.55	6	4	19	0.03	< 20		2	2	< 10	36	20	11	25
OREAS 130 (Aqua Regia) Cert	0.500	26.4	0.892		0.0860	6.02	4.69	3.42	23.2	0.0270	10.3	0.170	5.92	8.36	33.1	1.40	13.0	19.0	
Oreas 620 (Aqua Regia) Meas	0.30	25	0.27	0.116	0.032	2.73	63		19		< 20		< 2	< 10	8	< 10	7	57	
Oreas 620 (Aqua Regia) Cert	0.31	25	0.27	0.117	0.031	2.47	62		20		7		0.5	2.2	7	0.79	7	57	
Oreas 610 (Aqua Regia) Meas	0.29	< 10	0.12	0.055	0.032	3.15	265	1	45		< 20	41	< 2	< 10	15	< 10	3	14	
Oreas 610 (Aqua Regia) Cert	0.21	6.7	0.11	0.049	0.025	2.65	265	0.8	39		3	42	1	1.1	12	3.6	3	11	
OREAS 682 (Fire Assay) Meas																			
OREAS 682 (Fire Assay) Cert																			
OREAS 682 (Fire Assay) Meas																			
OREAS 682 (Fire Assay) Cert																			
953560 Orig																			
953560 Dup																			
953566 Orig	0.13	< 10	1.52	0.299	0.007	0.02	< 2	4	69	0.05	< 20	< 1	< 2	< 10	36	< 10	2	2	
953566 Dup	0.13	< 10	1.50	0.295	0.007	0.02	< 2	4	69	0.05	< 20	3	< 2	< 10	35	< 10	2	2	
953571 Orig																			
953571 Dup																			
953580 Orig																			
953580 Dup																			
953585 Orig	0.11	< 10	1.52	0.611	0.035	0.20	< 2	5	89	0.17	< 20	< 1	< 2	< 10	72	< 10	3	2	
953585 Dup	0.12	< 10	1.52	0.604	0.035	0.20	2	5	88	0.17	< 20	< 1	< 2	< 10	72	< 10	3	2	
Method Blank																			
Method Blank																			

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank																		
Method Blank																		
Method Blank	< 0.01	< 10	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1



Mink Ventures Corp
 1080 Michelano Drive
 Timmins, ON
 Canada

Report No.: A23-03350
 Report Date: 22-Mar-23
 Date Submitted: 13-Mar-23
 Your Reference: MONTCALM

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

35 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1C-OES-Timmins	QOP PGE-OES (Fire Assay ICPOES)	2023-03-16 10:24:53

REPORT A23-03350

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.



LabID: 709

ACTIVATION LABORATORIES LTD.
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CERTIFIED BY:

Mark Vandergeest
 Quality Control Coordinator

Mink Ventures Corp
 1080 Michelano Drive
 Timmins, ON
 Canada

Report No.: A23-03350
 Report Date: 22-Mar-23
 Date Submitted: 13-Mar-23
 Your Reference: MONTCALM

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

35 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1E3	QOP AquaGeo (Aqua Regia ICPOES)	2023-03-17 19:06:49

REPORT A23-03350

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.



LabID: 266

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CERTIFIED BY:

Mark Vandergeest
 Quality Control Coordinator

Results

Activation Laboratories Ltd.

Report: A23-03350

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953591	18	<5	<5	<0.2	<0.5	123	594	<1	112	<2	35	2.32	<2	17	<10	<0.5	<2	2.46	23	169	3.49	<10	<1
953592	12	<5	10	<0.2	<0.5	67	659	<1	154	<2	41	2.49	<2	16	36	<0.5	<2	2.23	27	348	3.89	<10	<1
953593	10	23	25	<0.2	<0.5	113	853	<1	595	<2	53	3.19	<2	15	<10	<0.5	<2	3.96	66	661	7.41	<10	2
953594	5	24	19	<0.2	<0.5	126	752	<1	697	<2	54	2.70	<2	16	13	<0.5	<2	3.55	72	586	6.67	<10	<1
953595	52	243	527																				
953596	9	<5	<5	<0.2	<0.5	60	564	<1	294	<2	54	2.80	<2	16	20	<0.5	<2	2.28	34	299	4.33	<10	<1
953597	8	<5	<5	<0.2	<0.5	35	447	<1	117	<2	38	2.29	<2	16	13	<0.5	<2	1.82	19	214	2.97	<10	<1
953598	6	<5	<5	<0.2	<0.5	54	498	<1	137	<2	39	2.31	<2	17	<10	<0.5	<2	1.54	22	257	3.56	<10	<1
953599	4	<5	<5	<0.2	<0.5	112	377	<1	47	<2	24	1.45	<2	17	59	<0.5	<2	1.82	15	72	2.54	<10	<1
953600				<0.2	<0.5	47	607	3	1970	7	67	1.54	134	31	35	<0.5	<2	0.67	65	712	4.14	<10	<1
953601	6	<5	<5	<0.2	<0.5	45	470	<1	117	<2	46	2.51	<2	17	16	<0.5	<2	1.63	22	180	3.40	<10	<1
953602	3	<5	<5	<0.2	<0.5	35	572	<1	69	<2	41	2.03	2	22	18	<0.5	<2	2.78	24	103	3.78	<10	<1
953603	16	<5	<5	<0.2	<0.5	9	552	<1	60	<2	40	2.03	33	20	11	<0.5	<2	2.31	23	97	3.94	<10	<1
953604	5	<5	<5	<0.2	<0.5	75	546	<1	48	<2	40	1.87	7	19	21	<0.5	<2	2.36	25	55	3.92	<10	<1
953605	5	<5	<5	<0.2	<0.5	276	554	<1	36	<2	44	2.06	3	20	28	<0.5	<2	2.62	35	14	4.86	<10	<1
953606	5	<5	<5	<0.2	<0.5	81	487	<1	27	<2	55	2.14	5	17	<10	<0.5	<2	2.08	37	12	5.69	<10	<1
953607	3	<5	<5	<0.2	<0.5	74	488	<1	21	<2	51	1.99	<2	17	<10	<0.5	<2	2.20	33	9	5.74	<10	<1
953608	3	<5	<5	<0.2	<0.5	41	501	<1	21	<2	52	1.91	<2	19	<10	<0.5	<2	1.90	27	11	4.76	<10	<1
953609	2	<5	5	<0.2	<0.5	30	451	<1	24	<2	37	1.82	2	19	<10	<0.5	<2	1.52	17	29	3.24	<10	<1
953610	3	<5	<5	<0.2	<0.5	39	479	<1	35	<2	41	1.80	3	19	<10	<0.5	<2	2.00	25	16	4.12	<10	<1
953611	3	<5	<5	<0.2	<0.5	67	538	<1	36	<2	50	2.01	<2	17	12	<0.5	<2	2.39	31	22	5.79	<10	<1
953612	3	<5	6	<0.2	<0.5	62	538	<1	34	<2	47	2.15	<2	19	11	<0.5	<2	2.33	30	25	5.55	<10	<1
953613	3	<5	<5	<0.2	<0.5	64	544	<1	57	<2	42	2.48	3	17	17	<0.5	<2	2.39	29	83	4.29	<10	<1
953614	4	<5	6	<0.2	<0.5	50	541	<1	73	<2	42	2.60	3	19	16	<0.5	<2	2.35	26	98	4.20	<10	<1
953615	<2	<5	<5	<0.2	<0.5	4	75	<1	11	<2	<2	0.03	<2	17	12	<0.5	<2	>10.0	<1	<1	0.07	<10	<1
953616	3	<5	<5	<0.2	<0.5	56	493	<1	74	<2	41	2.19	2	17	21	<0.5	<2	2.20	26	95	4.06	<10	<1
953617	4	<5	<5	<0.2	<0.5	60	491	<1	82	<2	40	2.29	<2	18	20	<0.5	<2	2.12	26	113	4.04	<10	<1
953618	<2	<5	<5	<0.2	<0.5	57	492	<1	84	<2	41	2.57	2	20	20	<0.5	<2	2.16	26	113	4.06	<10	<1
953619	2	<5	<5	<0.2	<0.5	57	538	<1	95	<2	44	2.91	<2	20	15	<0.5	<2	2.40	27	120	4.34	<10	<1
953620	52	243	523																				
953621	3	<5	<5	<0.2	<0.5	52	535	<1	98	<2	44	2.67	4	18	<10	<0.5	<2	2.56	27	113	4.23	<10	<1
953622	8	<5	<5	<0.2	<0.5	47	732	<1	86	<2	57	2.43	<2	17	<10	<0.5	<2	3.71	32	86	5.30	<10	<1
953623	3	<5	<5	<0.2	<0.5	55	546	<1	69	<2	44	2.07	<2	18	<10	<0.5	<2	2.72	32	39	4.97	<10	<1
953624	3	<5	<5	<0.2	<0.5	73	570	<1	50	<2	51	2.36	<2	16	<10	<0.5	<2	2.66	39	18	6.79	<10	<1
953625				<0.2	<0.5	47	611	2	1920	7	66	1.54	130	33	35	<0.5	<2	0.70	64	712	4.09	<10	<1

Results

Activation Laboratories Ltd.

Report: A23-03350

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953591	0.02	< 10	2.24	0.153	0.035	0.06	< 2	9	26	0.09	< 20	1	< 2	< 10	72	< 10	4	1
953592	0.03	< 10	2.63	0.146	0.009	0.03	3	9	28	0.04	< 20	< 1	< 2	< 10	54	< 10	2	1
953593	< 0.01	< 10	6.06	0.017	0.008	0.16	5	17	17	0.01	< 20	< 1	< 2	< 10	76	< 10	3	2
953594	0.03	< 10	5.09	0.029	0.010	0.28	5	11	22	0.04	< 20	< 1	< 2	< 10	68	< 10	3	2
953595																		
953596	0.02	< 10	3.26	0.115	0.016	0.04	2	7	15	0.05	< 20	< 1	< 2	< 10	38	< 10	3	1
953597	0.04	< 10	2.05	0.213	0.025	0.02	2	6	29	0.08	< 20	< 1	< 2	< 10	33	< 10	3	1
953598	0.03	< 10	2.49	0.155	0.016	0.03	2	7	19	0.06	< 20	< 1	< 2	< 10	47	< 10	3	1
953599	0.11	< 10	1.16	0.124	0.015	0.23	< 2	4	28	0.06	< 20	2	< 2	< 10	57	< 10	3	2
953600	0.18	11	9.20	0.056	0.022	0.28	3	5	14	0.08	< 20	< 1	< 2	< 10	37	< 10	4	5
953601	0.04	< 10	2.31	0.179	0.015	0.03	2	5	25	0.06	< 20	3	< 2	< 10	27	< 10	2	1
953602	0.05	< 10	1.78	0.203	0.015	0.06	2	10	21	0.17	< 20	3	< 2	< 10	98	< 10	3	1
953603	0.05	< 10	1.73	0.246	0.015	0.03	< 2	12	19	0.16	< 20	< 1	< 2	< 10	112	< 10	4	1
953604	0.05	< 10	1.53	0.205	0.017	0.14	< 2	10	18	0.20	< 20	1	< 2	< 10	123	< 10	3	1
953605	0.06	< 10	1.44	0.239	0.015	0.54	3	11	20	0.23	< 20	3	< 2	< 10	170	< 10	4	2
953606	0.04	< 10	1.40	0.213	0.013	0.34	3	9	25	0.24	< 20	< 1	< 2	< 10	214	< 10	3	2
953607	0.04	< 10	1.19	0.241	0.016	0.20	2	10	33	0.27	< 20	2	< 2	< 10	182	< 10	3	2
953608	0.03	< 10	1.24	0.204	0.021	0.13	< 2	8	33	0.25	< 20	2	< 2	< 10	132	< 10	3	2
953609	0.02	< 10	1.15	0.227	0.014	0.10	< 2	6	28	0.12	< 20	< 1	< 2	< 10	45	< 10	2	1
953610	0.03	< 10	1.09	0.254	0.015	0.12	< 2	10	28	0.33	< 20	< 1	< 2	< 10	148	< 10	3	1
953611	0.05	< 10	1.16	0.309	0.012	0.18	3	10	37	0.27	< 20	5	< 2	< 10	202	< 10	3	2
953612	0.04	< 10	1.18	0.339	0.013	0.17	3	10	41	0.32	< 20	< 1	< 2	< 10	172	< 10	3	2
953613	0.05	< 10	1.40	0.368	0.010	0.18	2	10	45	0.24	< 20	3	< 2	< 10	98	< 10	4	2
953614	0.05	< 10	1.54	0.270	0.013	0.13	2	9	44	0.26	< 20	3	< 2	< 10	104	< 10	4	3
953615	< 0.01	< 10	0.66	0.008	0.006	< 0.01	< 2	< 1	64	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	2	< 1
953616	0.05	< 10	1.35	0.284	0.011	0.16	2	8	37	0.22	< 20	< 1	< 2	< 10	134	< 10	3	2
953617	0.05	< 10	1.40	0.330	0.010	0.16	< 2	8	41	0.21	< 20	< 1	< 2	< 10	136	< 10	4	3
953618	0.05	< 10	1.44	0.353	0.007	0.15	2	8	46	0.18	< 20	< 1	< 2	< 10	95	< 10	3	2
953619	0.05	< 10	1.58	0.414	0.010	0.15	< 2	8	53	0.20	< 20	3	< 2	< 10	93	< 10	3	2
953620																		
953621	0.03	< 10	1.67	0.326	0.018	0.13	3	9	44	0.18	< 20	1	< 2	< 10	85	< 10	3	1
953622	0.03	< 10	2.15	0.199	0.014	0.17	3	12	17	0.18	< 20	< 1	< 2	< 10	124	< 10	4	1
953623	0.03	< 10	1.33	0.302	0.006	0.20	< 2	11	34	0.21	< 20	< 1	< 2	< 10	174	< 10	3	2
953624	0.04	< 10	1.29	0.380	0.004	0.24	3	13	50	0.33	< 20	< 1	< 2	< 10	301	< 10	3	2
953625	0.18	11	9.21	0.057	0.021	0.27	3	5	14	0.09	< 20	< 1	< 2	< 10	37	< 10	4	6

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	
OREAS 45d (Aqua Regia) Meas						362	418		206	12	35	5.25	6			73		< 2	0.09	26	464	13.8	20	
OREAS 45d (Aqua Regia) Cert						345	400		176	17	30.6	4.86	6.50			80		0.30	0.09	26.2	467	13.7	17.9	
OREAS 922 (AQUA REGIA) Meas				0.7	< 0.5	2170	756	< 1	36	50	252	2.59	7			73	0.7	8	0.39	19	43	5.11	< 10	
OREAS 922 (AQUA REGIA) Cert				0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12			70	0.65	10.3	0.324	19.4	40.7	5.05	7.62	
OREAS 922 (AQUA REGIA) Meas				0.9	< 0.5	2230	771	< 1	36	51	251	2.66	4			74	0.7	7	0.40	19	43	5.22	< 10	
OREAS 922 (AQUA REGIA) Cert				0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12			70	0.65	10.3	0.324	19.4	40.7	5.05	7.62	
OREAS 907 (Aqua Regia) Meas				1.2	< 0.5	6320	354	4	6	32	145	1.16	37			235	1.0	22	0.28	47	8	8.23	20	
OREAS 907 (Aqua Regia) Cert				1.30	0.540	6370	330	5.64	4.74	34.1	139	0.945	37.0			225	0.870	22.3	0.280	43.7	8.59	8.18	14.7	
CDN-PGMS-29 Meas	94	703	567																					
CDN-PGMS-29 Cert	88.000	677.000	550.000																					
OREAS 263 (Aqua Regia) Meas				0.2	< 0.5	82	503	< 1	71	30	125	1.75	29			174	1.2	< 2	1.00	31	54	3.70	< 10	< 1
OREAS 263 (Aqua Regia) Cert				0.285	0.270	87.0	490	0.570	72.0	34.0	127	1.29	30.8			175	1.22	0.570	1.03	31.0	48.0	3.68	4.92	0.170
OREAS 263 (Aqua Regia) Meas				0.3	< 0.5	89	529	< 1	75	32	130	1.85	32			187	1.3	< 2	1.05	33	57	3.90	< 10	< 1
OREAS 263 (Aqua Regia) Cert				0.285	0.270	87.0	490	0.570	72.0	34.0	127	1.29	30.8			175	1.22	0.570	1.03	31.0	48.0	3.68	4.92	0.170
OREAS 130 (Aqua Regia) Meas				5.7	27.6	229	1600	6	33	1130	> 10000	1.14	210					3	1.68	26	23	7.10	< 10	< 1
OREAS 130 (Aqua Regia) Cert				6.27	28.8	226	1630	8.25	35.2	1300	16900	1.10	205					3.05	1.81	27.1	23.2	7.27	4.78	0.670
Oreas 620 (Aqua Regia) Meas				36.9	164	1720	449	8	14	> 5000	> 10000	1.25	49			< 10	0.6	< 2	1.32	14	17	2.74	< 10	2
Oreas 620 (Aqua Regia) Cert				38.4	161	1750	414	9	14	7740	31200	1.12	47			450	0.6	2	1.29	12	17	2.58	6	2
Oreas 620 (Aqua Regia) Meas				37.6	165	1750	452	7	14	> 5000	> 10000	1.21	49			16	0.6	< 2	1.32	13	18	2.75	< 10	2
Oreas 620 (Aqua Regia) Cert				38.4	161	1750	414	9	14	7740	31200	1.12	47			450	0.6	2	1.29	12	17	2.58	6	2
OREAS 682 (Fire Assay) Meas	78	449	878																					
OREAS 682 (Fire Assay) Cert	74	444	868																					
OREAS 603c (Aqua Regia) Meas				> 100	33.7	> 10000	654	49	26	> 5000	8730	0.93	1630				0.7	79	0.81	16	18	3.87	< 10	3
OREAS 603c (Aqua Regia) Cert				296	30.4	12000	600	56	25.8	10228	7860	1	1530				0.61	90	1	14.1	16.6	4	5.40	1.35
953597 Orig				< 0.2	< 0.5	35	445	< 1	116	< 2	38	2.28	< 2	15	13	< 0.5	< 2	1.81	18	213	2.96	< 10	< 1	
953597 Dup				< 0.2	< 0.5	35	450	< 1	118	< 2	38	2.30	2	17	14	< 0.5	< 2	1.83	19	216	2.97	< 10	< 1	

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953599 Orig	4	< 5	< 5																				
953599 Dup	4	< 5	< 5																				
953610 Orig	3	< 5	< 5																				
953610 Dup	2	< 5	< 5																				
953615 Orig				< 0.2	< 0.5	4	75	< 1	12	< 2	< 2	0.03	< 2	17	12	< 0.5	< 2	> 10.0	< 1	1	0.07	< 10	< 1
953615 Dup				< 0.2	< 0.5	4	74	< 1	10	< 2	< 2	0.03	< 2	18	12	< 0.5	< 2	> 10.0	< 1	< 1	0.07	< 10	< 1
953621 Orig	3	< 5	< 5																				
953621 Dup	2	< 5	< 5																				
Method Blank	3	< 5	< 5																				
Method Blank	3	< 5	< 5																				
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	25	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	24	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	34	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	33	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	
OREAS 45d (Aqua Regia) Meas	0.11	11	0.16	0.031	0.034	0.04		43	13		< 20			< 10	182			4	
OREAS 45d (Aqua Regia) Cert	0.097	10.0	0.144	0.031	0.035	0.045		41.50	11.0		11.3			1.64	201			5.08	
OREAS 922 (AQUA REGIA) Meas	0.41	35	1.30	0.019	0.062	0.37	3	4	16		< 20		< 2	< 10	32	< 10	18	12	
OREAS 922 (AQUA REGIA) Cert	0.376	32.5	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3	
OREAS 922 (AQUA REGIA) Meas	0.42	36	1.32	0.019	0.065	0.38	3	4	16		< 20		< 2	< 10	33	< 10	18	18	
OREAS 922 (AQUA REGIA) Cert	0.376	32.5	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3	
OREAS 907 (Aqua Regia) Meas	0.33	37	0.22	0.083	0.025	0.06	5	2	13	0.03	< 20	< 1	< 2	< 10	5	< 10	7	29	
OREAS 907 (Aqua Regia) Cert	0.286	36.1	0.221	0.0860	0.0240	0.0660	2.28	2.16	11.7	0.0170	8.04	0.230	0.120	2.15	5.12	0.980	6.52	43.7	
CDN-PGMS-29 Meas +																			
CDN-PGMS-29 Cert																			
OREAS 263 (Aqua Regia) Meas	0.35		0.58	0.072	0.041	0.12	9	4	18		< 20	< 1	< 2	< 10	26			11	
OREAS 263 (Aqua Regia) Cert	0.288		0.593	0.0790	0.0410	0.126	7.37	3.52	16.9		10.6	0.210	0.530	1.28	22.8			12.0	
OREAS 263 (Aqua Regia) Meas	0.39		0.62	0.076	0.044	0.12	10	4	19		< 20	< 1	< 2	< 10	28			12	
OREAS 263 (Aqua Regia) Cert	0.288		0.593	0.0790	0.0410	0.126	7.37	3.52	16.9		10.6	0.210	0.530	1.28	22.8			12.0	
OREAS 130 (Aqua Regia) Meas	0.51	23	0.90		0.088	6.31	7	3	21	0.03	< 20	< 1	4	< 10	35	< 10	11	26	
OREAS 130 (Aqua Regia) Cert	0.500	26.4	0.892		0.0860	6.02	4.69	3.42	23.2	0.0270	10.3	0.170	5.92	8.36	33.1	1.40	13.0	19.0	
Oreas 620 (Aqua Regia) Meas	0.31	25	0.27	0.120	0.030	2.65	70		20		< 20		< 2	< 10	9	< 10	7	34	
Oreas 620 (Aqua Regia) Cert	0.31	25	0.27	0.117	0.031	2.47	62		20		7		0.5	2.2	7	0.79	7	57	
Oreas 620 (Aqua Regia) Meas	0.30	25	0.27	0.118	0.033	2.70	70		20		< 20		< 2	< 10	8	< 10	7	58	
Oreas 620 (Aqua Regia) Cert	0.31	25	0.27	0.117	0.031	2.47	62		20		7		0.5	2.2	7	0.79	7	57	
OREAS 682 (Fire Assay) Meas																			
OREAS 682 (Fire Assay) Cert																			
OREAS 603c (Aqua Regia) Meas	0.29	14	0.09	0.055	0.031	3.70	338	1	37	0.02	< 20	24	6	< 10	8	< 10	6	49	
OREAS 603c (Aqua Regia) Cert		14.6					3	339	1.18	37.3		5.44	23.2	3.68	2.19	6.27	2.99	5.55	42.7
953597 Orig	0.04	< 10	2.04	0.211	0.025	0.02	2	6	29	0.08	< 20	< 1	< 2	< 10	32	< 10	3	1	
953597 Dup	0.04	< 10	2.06	0.214	0.025	0.02	2	6	30	0.08	< 20	< 1	< 2	< 10	33	< 10	3	1	

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953599 Orig																		
953599 Dup																		
953610 Orig																		
953610 Dup																		
953615 Orig	< 0.01	< 10	0.66	0.008	0.006	< 0.01	< 2	< 1	64	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	2	< 1
953615 Dup	< 0.01	< 10	0.66	0.008	0.006	< 0.01	< 2	< 1	64	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	2	< 1
953621 Orig																		
953621 Dup																		
Method Blank																		
Method Blank																		
Method Blank	< 0.01	< 10	< 0.01	0.004	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	< 10	< 0.01	0.004	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	< 10	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	< 10	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	< 10	< 0.01	< 0.001	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1



Mink Ventures Corp
 1080 Michelano Drive
 Timmins ON
 Canada

Report No.: A23-04410
 Report Date: 25-Apr-23
 Date Submitted: 03-Apr-23
 Your Reference: MONTCALM

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

50 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1C-OES-Timmins	QOP PGE-OES (Fire Assay ICPOES)	2023-04-18 11:40:01
1E3-Timmins	QOP AquaGeo (Aqua Regia ICPOES)	2023-04-17 09:02:34

REPORT A23-04410

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.



LabID: 709

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CERTIFIED BY:

Mark Vandergeest
 Quality Control Coordinator

Results

Activation Laboratories Ltd.

Report: A23-04410

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953526	4	< 5	7	< 0.2	< 0.5	62	1150	< 1	309	< 2	82	4.16	< 2	23	< 10	< 0.5	6	3.98	42	698	8.31	AR-ICP	< 1
953527	5	< 5	10	< 0.2	< 0.5	78	1200	< 1	350	< 2	78	4.22	< 2	19	< 10	< 0.5	6	4.25	46	720	8.06	10	1
953528	3	< 5	10	< 0.2	< 0.5	48	989	< 1	388	< 2	80	4.41	< 2	23	< 10	< 0.5	6	3.43	47	830	7.59	10	1
953529	18	< 5	8	< 0.2	< 0.5	70	1300	< 1	370	4	78	3.96	< 2	19	< 10	< 0.5	6	4.97	44	1100	8.46	10	1
953530	< 2	< 5	6	0.7	< 0.5	44	756	< 1	110	< 2	40	1.51	< 2	23	< 10	< 0.5	< 2	2.62	17	308	3.60	< 10	< 1
953631	< 2	< 5	10	< 0.2	< 0.5	13	1010	< 1	316	< 2	92	4.32	< 2	20	< 10	< 0.5	7	3.20	43	800	8.31	20	< 1
953632	5	< 5	7	< 0.2	< 0.5	29	973	< 1	408	< 2	100	5.24	< 2	19	< 10	< 0.5	9	3.10	49	921	8.87	20	1
953633	13	< 5	12	< 0.2	< 0.5	81	1160	< 1	452	< 2	84	4.90	< 2	20	< 10	< 0.5	8	3.83	48	926	7.85	10	< 1
953634	6	< 5	8	< 0.2	< 0.5	40	1080	< 1	402	< 2	78	4.63	< 2	21	16	< 0.5	8	3.89	46	906	7.44	10	1
953635	6	< 5	9	< 0.2	< 0.5	59	994	< 1	314	3	51	3.35	< 2	22	59	< 0.5	6	3.90	36	674	5.92	< 10	< 1
953636	5	6	9	< 0.2	< 0.5	55	1110	< 1	435	< 2	69	4.37	< 2	18	< 10	< 0.5	8	4.45	45	997	7.20	10	< 1
953637	6	6	8	< 0.2	< 0.5	44	1040	< 1	460	< 2	87	5.43	< 2	24	< 10	< 0.5	9	3.56	51	1160	8.50	20	< 1
953638	< 2	< 5	6	< 0.2	< 0.5	2	783	< 1	231	< 2	53	2.95	< 2	22	10	< 0.5	5	2.52	31	610	4.73	< 10	< 1
953639	4	5	10	< 0.2	< 0.5	31	612	< 1	394	< 2	93	5.64	< 2	24	< 10	< 0.5	10	1.40	48	1000	8.07	20	< 1
953640	< 2	< 5	< 5	< 0.2	< 0.5	4	121	< 1	10	< 2	< 2	0.04	< 2	23	12	< 0.5	< 2	> 10.0	< 1	4	0.10	< 10	< 1
953641	7	7	8	< 0.2	< 0.5	92	1290	< 1	465	< 2	56	3.74	< 2	22	< 10	< 0.5	7	4.43	46	1230	7.70	10	< 1
953642	3	7	10	< 0.2	< 0.5	97	1080	< 1	448	< 2	67	4.42	< 2	21	< 10	< 0.5	8	3.54	54	1130	8.35	10	< 1
953643	3	6	11	< 0.2	< 0.5	89	1270	< 1	478	3	85	4.24	< 2	21	< 10	< 0.5	7	4.38	51	996	7.85	10	1
953644	4	7	13	< 0.2	< 0.5	29	1040	< 1	499	2	95	5.19	< 2	20	11	< 0.5	9	3.10	51	1030	8.06	10	2
953645	306	230	511																				
953646	10	7	16																				
953647	3	< 5	< 5																				
953648	< 2	< 5	6																				
953649	2	< 5	< 5																				
953650				< 0.2	< 0.5	47	613	4	1910	9	70	1.71	143	43	34	< 0.5	< 2	0.75	66	765	4.32	< 10	< 1
953651	2	< 5	7	< 0.2	< 0.5	19	1010	< 1	378	< 2	51	3.54	< 2	12	75	< 0.5	7	3.10	45	670	8.43	< 10	2
953652	5	9	13	< 0.2	< 0.5	68	1190	< 1	530	< 2	72	4.57	< 2	20	< 10	< 0.5	8	4.20	57	1020	8.41	10	1
953653	< 2	< 5	7	< 0.2	< 0.5	< 1	369	< 1	247	< 2	63	3.16	< 2	21	< 10	< 0.5	5	0.60	33	629	4.66	< 10	< 1
953654	3	6	12	< 0.2	< 0.5	18	1010	< 1	494	4	89	5.39	< 2	22	< 10	< 0.5	10	2.86	53	1090	8.60	20	2
953655	< 2	< 5	< 5	0.5	< 0.5	2	217	1	78	< 2	18	0.90	< 2	24	< 10	< 0.5	< 2	0.55	10	223	1.55	< 10	< 1
953656	2	< 5	< 5	< 0.2	< 0.5	7	1030	< 1	102	< 2	27	1.36	< 2	21	10	< 0.5	4	3.85	14	246	3.20	< 10	< 1
953657	3	< 5	10	< 0.2	< 0.5	8	986	< 1	351	< 2	73	4.25	< 2	24	< 10	< 0.5	7	3.36	41	732	6.50	10	< 1
953658	3	7	14	< 0.2	< 0.5	55	485	< 1	407	3	50	2.93	< 2	23	< 10	< 0.5	4	1.57	43	797	4.28	< 10	< 1
953659	4	< 5	< 5	< 0.2	< 0.5	24	439	< 1	204	< 2	64	3.32	< 2	24	< 10	< 0.5	5	0.63	31	511	4.52	10	< 1
953660	6	< 5	< 5	< 0.2	< 0.5	37	1400	< 1	242	< 2	64	3.79	< 2	21	< 10	< 0.5	6	4.93	33	333	6.02	10	< 1
953661	2	< 5	6	< 0.2	< 0.5	43	772	< 1	371	< 2	111	6.09	< 2	20	< 10	< 0.5	9	1.27	50	795	8.28	20	1
953662	6	8	5	< 0.2	< 0.5	8	472	< 1	320	< 2	43	3.40	< 2	22	< 10	< 0.5	4	0.65	39	1120	4.52	< 10	< 1
953663	4	22	10	< 0.2	< 0.5	34	648	< 1	369	< 2	40	3.69	< 2	23	< 10	< 0.5	6	1.25	39	1500	5.30	10	< 1
953664	13	60	29	< 0.2	< 0.5	212	561	< 1	562	< 2	29	3.57	< 2	22	< 10	< 0.5	4	0.85	51	1870	5.91	10	< 1
953665	< 2	< 5	< 5	< 0.2	< 0.5	3	76	< 1	5	< 2	2	0.03	< 2	23	11	< 0.5	< 2	> 10.0	< 1	3	0.07	< 10	< 1
953666	10	< 5	< 5	< 0.2	< 0.5	63	465	< 1	160	< 2	35	2.43	< 2	23	< 10	< 0.5	3	2.23	22	341	3.12	< 10	< 1
953667	5	< 5	< 5	< 0.2	< 0.5	147	605	< 1	58	< 2	52	3.13	< 2	19	< 10	< 0.5	3	3.11	46	58	5.55	< 10	< 1
953668	9	< 5	< 5	< 0.2	< 0.5	212	601	< 1	58	< 2	50	2.85	< 2	22	< 10	< 0.5	4	3.09	54	16	5.61	< 10	< 1
953669	5	< 5	< 5	< 0.2	< 0.5	128	641	< 1	79	< 2	102	3.31	< 2	22	< 10	< 0.5	3	3.06	48	20	6.05	< 10	< 1
953670	51	239	534																				
953671	5	< 5	< 5	< 0.2	< 0.5	199	659	< 1	72	< 2	124	3.10	< 2	23	< 10	< 0.5	3	3.31	60	13	6.33	< 10	< 1
953672	5	< 5	< 5	< 0.2	< 0.5	189	820	< 1	42	< 2	49	2.99	< 2	24	< 10	< 0.5	4	3.07	48	6	6.51	< 10	< 1
953673	3	< 5	< 5	< 0.2	< 0.5	81	626	< 1	56	< 2	51	2.38	< 2	22	44	< 0.5	2	3.80	33	19	5.07	< 10	< 1
953674	5	< 5	< 5	< 0.2	< 0.5	92	485	< 1	55	< 2	48	1.99	< 2	20	33	< 0.5	2	2.35	27	68	5.22	10	< 1
953675				1.6	< 0.5	46	624	2	1810	9	67	1.66	135	40	33	< 0.5	2	0.74	64	738	4.20	< 10	< 1

Results

Activation Laboratories Ltd.

Report: A23-04410

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953526	< 0.01	< 10	5.85	0.014	0.002	0.12	7	16	54	0.07	< 20	< 1	< 2	< 10	133	< 10	2	3
953527	< 0.01	< 10	6.10	0.011	0.002	0.14	6	19	59	0.06	< 20	< 1	< 2	< 10	120	< 10	2	2
953528	< 0.01	< 10	6.18	0.013	0.002	0.08	7	16	53	0.05	< 20	< 1	< 2	< 10	109	< 10	2	2
953529	< 0.01	< 10	6.57	0.018	0.003	0.18	8	11	84	0.09	< 20	< 1	< 2	< 10	130	< 10	2	3
953530	0.01	< 10	2.52	0.023	0.050	0.14	3	9	52	0.07	< 20	< 1	< 2	< 10	52	< 10	3	4
953631	0.03	< 10	5.89	0.021	< 0.001	0.04	6	10	61	0.07	< 20	< 1	< 2	< 10	119	< 10	2	3
953632	< 0.01	< 10	6.91	0.015	0.003	0.03	7	11	56	0.08	< 20	< 1	< 2	< 10	132	< 10	2	3
953633	< 0.01	< 10	6.89	0.012	0.003	0.02	7	20	77	0.01	< 20	1	< 2	< 10	100	< 10	3	2
953634	< 0.01	< 10	6.49	0.019	0.003	0.03	7	19	78	0.01	< 20	< 1	< 2	< 10	108	< 10	3	2
953635	0.02	< 10	4.93	0.049	0.005	0.05	6	14	77	< 0.01	< 20	< 1	< 2	< 10	67	< 10	3	2
953636	0.01	< 10	6.73	0.009	0.002	0.01	7	21	83	0.01	< 20	< 1	< 2	< 10	91	< 10	3	2
953637	< 0.01	< 10	7.74	0.008	0.003	0.03	8	23	66	0.02	< 20	< 1	< 2	< 10	118	< 10	2	3
953638	< 0.01	< 10	4.28	0.014	< 0.001	0.02	4	11	47	< 0.01	< 20	< 1	< 2	< 10	67	< 10	1	2
953639	< 0.01	< 10	7.07	0.007	0.002	0.04	8	19	25	0.02	< 20	< 1	< 2	< 10	123	< 10	1	3
953640	< 0.01	< 10	0.50	0.015	0.005	< 0.01	< 2	< 1	69	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	2	< 1
953641	< 0.01	< 10	7.00	0.011	0.005	0.13	8	19	88	0.03	< 20	< 1	< 2	< 10	103	< 10	3	3
953642	< 0.01	< 10	7.27	0.007	0.004	0.18	7	21	73	0.02	< 20	2	< 2	< 10	107	< 10	2	3
953643	< 0.01	< 10	7.17	0.008	0.003	0.20	7	18	79	0.01	< 20	< 1	< 2	< 10	101	< 10	3	2
953644	< 0.01	< 10	7.40	0.010	0.003	0.04	8	19	57	0.01	< 20	< 1	< 2	< 10	87	< 10	2	3
953645																		
953646																		
953647																		
953648																		
953649																		
953650	0.18	12	9.27	0.077	0.021	0.29	5	5	14	0.08	< 20	< 1	< 2	< 10	38	< 10	5	6
953651	0.07	< 10	6.87	0.051	0.004	0.04	7	19	59	< 0.01	< 20	4	< 2	< 10	85	< 10	4	3
953652	0.01	< 10	7.50	0.009	0.002	0.14	7	20	76	< 0.01	< 20	< 1	< 2	< 10	109	< 10	2	3
953653	< 0.01	< 10	3.84	0.011	0.001	< 0.01	4	11	12	< 0.01	< 20	2	< 2	< 10	70	< 10	< 1	2
953654	0.02	< 10	7.19	0.010	< 0.001	0.04	8	20	54	0.01	< 20	< 1	< 2	< 10	129	< 10	1	3
953655	< 0.01	< 10	1.20	0.008	< 0.001	< 0.01	< 2	3	10	< 0.01	< 20	2	< 2	< 10	24	< 10	< 1	< 1
953656	0.03	< 10	2.80	0.030	0.015	< 0.01	3	8	65	0.01	< 20	1	< 2	< 10	35	< 10	3	2
953657	0.04	< 10	5.96	0.023	0.006	< 0.01	5	12	55	0.05	< 20	< 1	< 2	< 10	87	< 10	3	2
953658	< 0.01	< 10	3.57	0.028	0.004	0.13	6	4	21	0.09	< 20	< 1	< 2	< 10	47	< 10	1	2
953659	0.03	13	3.55	0.039	0.014	0.04	4	8	14	0.06	< 20	< 1	< 2	< 10	68	< 10	2	2
953660	0.02	21	5.51	0.033	0.002	0.04	4	11	75	0.07	< 20	< 1	< 2	< 10	77	< 10	3	3
953661	0.03	< 10	6.70	0.026	0.010	0.08	8	14	21	0.06	< 20	< 1	< 2	< 10	120	< 10	3	3
953662	< 0.01	< 10	4.39	0.023	0.012	0.02	6	4	5	0.08	< 20	< 1	< 2	< 10	56	< 10	1	2
953663	< 0.01	< 10	4.66	0.042	0.005	0.05	9	7	27	0.03	< 20	< 1	< 2	< 10	75	< 10	2	2
953664	0.03	< 10	3.64	0.089	0.004	0.37	11	6	64	0.09	< 20	< 1	< 2	< 10	107	< 10	1	2
953665	< 0.01	< 10	0.57	0.015	0.005	< 0.01	< 2	< 1	63	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	2	< 1
953666	0.02	< 10	2.28	0.168	0.008	0.03	3	6	22	0.09	< 20	2	< 2	< 10	57	< 10	2	1
953667	0.02	< 10	2.45	0.131	0.005	0.57	3	5	33	0.17	< 20	2	< 2	< 10	112	< 10	1	2
953668	0.02	< 10	2.23	0.129	0.010	0.81	3	6	32	0.19	< 20	1	< 2	< 10	140	< 10	3	3
953669	0.02	< 10	2.66	0.128	0.005	0.44	2	7	30	0.19	< 20	2	< 2	< 10	166	< 10	2	2
953670																		
953671	0.03	< 10	2.27	0.166	0.003	0.75	3	7	33	0.21	< 20	3	< 2	< 10	202	< 10	2	2
953672	0.02	< 10	2.24	0.150	0.011	0.76	2	6	38	0.23	< 20	1	< 2	< 10	189	< 10	2	3
953673	0.12	< 10	1.89	0.178	0.011	0.30	2	10	19	0.15	< 20	< 1	< 2	< 10	182	< 10	3	2
953674	0.13	13	1.63	0.176	0.102	0.41	3	8	17	0.15	< 20	< 1	< 2	< 10	102	< 10	11	9
953675	0.18	12	9.04	0.076	0.021	0.27	5	5	14	0.08	< 20	< 1	< 2	< 10	37	< 10	5	6

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg		
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm		
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1		
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP		
OREAS 923 (AQUA REGIA) Meas				17.7	< 0.5	4290	866	< 1	32	78	327	2.87	5			59	0.7	18	0.41	19	42	6.01	10		
OREAS 923 (AQUA REGIA) Cert				1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07			54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		
CDN-PGMS-29 Meas	95	699	576																						
CDN-PGMS-29 Cert	88.000	677.000	550.000																						
CDN-PGMS-29 Meas	84	664	570																						
CDN-PGMS-29 Cert	88.000	677.000	550.000																						
Oreas 621 (Aqua Regia) Meas				65.9	265	3490	511	13	24	> 5000	> 10000	1.69	76				0.6	< 2	1.54	28	31	3.44	10	4	
Oreas 621 (Aqua Regia) Cert				68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0				0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	
OREAS 130 (Aqua Regia) Meas				5.8	26.8	223	1580	7	32	1250	> 10000	1.25	201					5	1.68	23	23	7.01	< 10	1	
OREAS 130 (Aqua Regia) Cert				6.27	28.8	226	1630	8.25	35.2	1300	16900	1.10	205					3.05	1.81	27.1	23.2	7.27	4.78	0.670	
Oreas 623 (Aqua Regia) Meas				19.4	46.9	> 10000	526	7	15	2250	8900	1.74	74					< 0.5	< 2	0.97	205	16	12.6	10	< 1
Oreas 623 (Aqua Regia) Cert				20.4	52.0	17200	570	8.38	15.6	2520	10100	1.80	76.0					0.370	16.9	1.09	216	19.4	13.0	11.9	0.830
OREAS 682 (Fire Assay) Meas	82	452	894																						
OREAS 682 (Fire Assay) Cert	74	444	868																						
OREAS 682 (Fire Assay) Meas	79	455	905																						
OREAS 682 (Fire Assay) Cert	74	444	868																						
953635 Orig	7	< 5	8																						
953635 Dup	6	< 5	10																						
953639 Orig				< 0.2	< 0.5	31	616	< 1	398	< 2	94	5.69	< 2	24	< 10	< 0.5	10	1.41	48	1000	8.16	20	< 1		
953639 Dup				< 0.2	< 0.5	31	608	< 1	391	2	92	5.58	< 2	24	< 10	< 0.5	9	1.39	48	997	7.98	20	1		
953644 Orig	4	7	13																						
953644 Dup	4	6	12																						
953656 Orig	2	< 5	< 5																						
953656 Dup	2	< 5	< 5																						
953657 Orig				< 0.2	< 0.5	8	976	< 1	347	< 2	73	4.20	< 2	26	< 10	< 0.5	7	3.33	41	725	6.42	10	< 1		
953657 Dup				< 0.2	< 0.5	8	996	< 1	355	< 2	73	4.29	< 2	22	< 10	< 0.5	7	3.38	40	740	6.59	10	2		
953671 Orig				< 0.2	< 0.5	198	663	< 1	72	< 2	125	3.13	< 2	22	< 10	< 0.5	3	3.33	60	14	6.36	< 10	1		
953671 Dup				< 0.2	< 0.5	200	654	< 1	73	< 2	124	3.07	< 2	24	< 10	< 0.5	3	3.28	61	13	6.30	< 10	< 1		
953674 Orig	5	< 5	< 5	< 0.2	< 0.5	92	485	< 1	55	< 2	48	1.99	< 2	20	33	< 0.5	2	2.35	27	68	5.22	10	< 1		
953674 Split PREP DUP	3	< 5	< 5	< 0.2	< 0.5	92	494	< 1	56	< 2	49	2.02	< 2	25	34	< 0.5	< 2	2.40	27	69	5.34	10	< 1		
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	27	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1		
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	28	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1		
Method Blank	3	< 5	< 5																						
Method Blank	< 2	< 5	< 5																						
Method Blank	2	< 5	< 5																						
Method Blank	3	< 5	< 5																						

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 923 (AQUA REGIA) Meas	0.36	34	1.36		0.059	0.67	2	3	14		< 20		< 2	< 10	32	< 10	19	29
OREAS 923 (AQUA REGIA) Cert	0.322	30.0	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
CDN-PGMS-29 Meas																		
CDN-PGMS-29 Cert																		
CDN-PGMS-29 Meas																		
CDN-PGMS-29 Cert																		
Oreas 621 (Aqua Regia) Meas	0.32	18	0.40	0.169	0.031	4.47	112	2	17		< 20		< 2	< 10	11	< 10	7	57
Oreas 621 (Aqua Regia) Cert	0.333	19.4	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91		0.770	1.63	10.9	1.00	6.87	55.0
OREAS 130 (Aqua Regia) Meas	0.52	25	0.87		0.083	5.79	11	3	21	0.03	< 20	< 1	3	< 10	35	< 10	12	36
OREAS 130 (Aqua Regia) Cert	0.500	26.4	0.892		0.0860	6.02	4.69	3.42	23.2	0.0270	10.3	0.170	5.92	8.36	33.1	1.40	13.0	19.0
Oreas 623 (Aqua Regia) Meas	0.17	17	0.99	0.076	0.045	8.96	24	4	14		< 20	< 1	< 2	< 10	16	< 10	8	80
Oreas 623 (Aqua Regia) Cert	0.175	17.9	1.11	0.0680	0.0400	8.75	20.2	4.63	14.2		4.72	0.570	0.260	1.43	15.8	2.62	7.43	50.0
OREAS 682 (Fire Assay) Meas																		
OREAS 682 (Fire Assay) Cert																		
OREAS 682 (Fire Assay) Meas																		
OREAS 682 (Fire Assay) Cert																		
953635 Orig																		
953635 Dup																		
953639 Orig	< 0.01	< 10	7.13	0.007	0.002	0.04	9	19	25	0.02	< 20	< 1	< 2	< 10	123	< 10	1	3
953639 Dup	< 0.01	< 10	7.00	0.007	0.002	0.04	7	19	24	0.02	< 20	< 1	< 2	< 10	122	< 10	1	3
953644 Orig																		
953644 Dup																		
953656 Orig																		
953656 Dup																		
953657 Orig	0.04	< 10	5.89	0.024	0.006	< 0.01	4	12	54	0.05	< 20	< 1	< 2	< 10	86	< 10	3	2
953657 Dup	0.04	< 10	6.03	0.023	0.006	< 0.01	5	13	55	0.05	< 20	< 1	< 2	< 10	88	< 10	3	2
953671 Orig	0.03	< 10	2.27	0.168	0.003	0.74	3	8	34	0.21	< 20	2	< 2	< 10	206	< 10	2	2
953671 Dup	0.03	< 10	2.27	0.164	0.003	0.75	3	7	32	0.21	< 20	3	< 2	< 10	199	< 10	2	2
953674 Orig	0.13	13	1.63	0.176	0.102	0.41	3	8	17	0.15	< 20	< 1	< 2	< 10	102	< 10	11	9
953674 Split PREP DUP	0.13	14	1.67	0.184	0.102	0.41	3	8	17	0.14	< 20	2	< 2	< 10	104	< 10	12	10
Method Blank	< 0.01	< 10	< 0.01	0.003	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	< 10	< 0.01	0.004	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank																		
Method Blank																		
Method Blank																		



Report No.: A23-04720
Report Date: 25-Apr-23
Date Submitted: 10-Apr-23
Your Reference: MONTCALM

Mink Ventures Corp
1080 Michelano Drive
Timmins ON
Canada

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

25 Rock samples were submitted for analysis.

Table with 3 columns: Analytical package requested, Testing Date, and details. Rows include 1C-OES-Timmins, 1E3-Timmins, QOP PGE-OES (Fire Assay ICPOES), and QOP AquaGeo (Aqua Regia ICPOES).

REPORT A23-04720

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.



LabID: 709

ACTIVATION LABORATORIES LTD.
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CERTIFIED BY:

Handwritten signature of Mark Vandergeest

Mark Vandergeest
Quality Control Coordinator

Results

Activation Laboratories Ltd.

Report: A23-04720

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953676	3	<5	<5	<0.2	<0.5	29	445	<1	51	<2	48	1.94	<2	22	<10	<0.5	3	1.93	20	63	4.57	10	<1
953677	4	<5	<5	<0.2	<0.5	44	412	<1	51	<2	47	1.77	<2	25	18	<0.5	<2	1.78	23	53	4.14	<10	<1
953678	3	<5	<5	<0.2	<0.5	54	318	<1	14	<2	23	1.22	<2	25	25	<0.5	<2	2.09	11	11	2.19	<10	<1
953679	2	<5	<5	0.5	<0.5	86	671	<1	28	<2	68	3.04	<2	22	89	<0.5	3	2.64	36	14	6.39	10	<1
953680	5	<5	<5	<0.2	<0.5	119	609	<1	32	<2	56	2.43	<2	22	61	<0.5	2	3.24	39	14	5.59	<10	<1
953681	<2	<5	<5	<0.2	<0.5	70	574	<1	48	<2	52	2.11	<2	21	30	<0.5	2	2.77	29	52	4.65	<10	<1
953682	3	<5	<5	<0.2	<0.5	25	554	<1	70	<2	54	2.18	<2	25	26	<0.5	2	2.61	21	110	3.73	<10	<1
953683	8	<5	<5	<0.2	<0.5	110	487	<1	18	<2	45	2.46	<2	24	40	<0.5	4	2.71	47	7	6.31	<10	<1
953684	5	<5	<5	<0.2	<0.5	120	517	<1	18	<2	48	2.33	<2	23	48	<0.5	<2	2.81	47	2	7.40	<10	<1
953685	5	<5	<5	<0.2	<0.5	153	526	<1	27	<2	46	2.20	<2	26	11	<0.5	<2	2.87	56	3	7.93	<10	<1
953686	5	<5	<5	<0.2	<0.5	201	470	<1	31	<2	45	2.01	<2	25	12	<0.5	2	2.50	61	2	7.93	<10	<1
953687	4	<5	<5	<0.2	<0.5	130	481	<1	23	<2	43	1.99	<2	26	<10	<0.5	<2	2.77	51	1	7.61	<10	<1
953688	3	<5	<5	<0.2	<0.5	114	516	<1	150	<2	50	2.81	<2	23	12	<0.5	3	2.52	48	54	6.07	<10	1
953689	6	<5	<5	<0.2	<0.5	151	459	<1	236	<2	39	2.08	<2	22	10	<0.5	3	2.40	47	48	5.72	<10	<1
953690	2	<5	<5	<0.2	<0.5	5	216	<1	8	<2	<2	0.04	<2	23	19	<0.5	<2	>10.0	<1	<1	0.09	<10	<1
953691	3	<5	<5	<0.2	<0.5	156	492	<1	255	<2	42	2.24	<2	22	16	<0.5	<2	2.97	51	47	5.79	<10	<1
953692	<2	<5	<5	<0.2	<0.5	107	477	<1	45	<2	47	2.39	<2	26	<10	<0.5	3	2.70	55	6	8.12	10	<1
953693	3	<5	<5	<0.2	<0.5	124	484	<1	60	<2	50	2.53	<2	28	<10	<0.5	3	2.53	58	6	9.34	10	1
953694	<2	<5	<5	<0.2	<0.5	114	506	<1	53	4	46	2.70	<2	25	10	<0.5	2	2.88	52	12	7.98	10	<1
953695	49	237	497																				
953696	7	<5	<5	<0.2	<0.5	24	335	9	12	<2	26	1.15	<2	26	73	<0.5	<2	1.10	6	18	2.41	<10	<1
953697	429	<5	<5	<0.2	<0.5	24	287	<1	9	<2	29	1.90	<2	27	51	<0.5	3	2.07	5	16	2.33	10	<1
953698	13	<5	<5	0.8	<0.5	46	363	1	8	<2	28	1.14	<2	27	60	<0.5	<2	1.65	8	17	2.36	<10	<1
953699	5	<5	<5	<0.2	<0.5	23	297	1	8	<2	34	0.98	<2	27	69	<0.5	<2	0.73	6	22	2.53	<10	<1
953700				<0.2	<0.5	47	611	2	1850	8	67	1.68	136	41	33	<0.5	2	0.74	64	752	4.26	<10	<1

Results

Activation Laboratories Ltd.

Report: A23-04720

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953676	0.05	13	1.57	0.145	0.103	0.17	2	7	13	0.12	<20	<1	<2	<10	89	<10	10	7
953677	0.10	13	1.41	0.151	0.099	0.26	<2	7	10	0.11	<20	2	<2	<10	86	<10	10	6
953678	0.06	14	0.74	0.087	0.028	0.21	<2	6	20	0.07	<20	<1	<2	<10	57	<10	8	5
953679	0.28	<10	2.43	0.228	0.011	0.40	2	13	14	0.24	<20	2	<2	<10	262	<10	7	4
953680	0.24	<10	1.89	0.207	0.008	0.85	<2	9	14	0.17	<20	4	<2	<10	169	<10	6	6
953681	0.14	<10	1.68	0.170	0.085	0.36	3	7	13	0.14	<20	<1	<2	<10	113	<10	9	9
953682	0.10	<10	1.98	0.157	0.026	0.11	3	7	11	0.13	<20	<1	<2	<10	90	<10	4	5
953683	0.16	<10	1.60	0.308	0.004	0.38	3	13	24	0.25	<20	1	<2	<10	282	<10	3	3
953684	0.18	<10	1.58	0.302	0.003	0.39	4	14	24	0.29	<20	<1	2	<10	353	<10	3	3
953685	0.08	<10	1.53	0.284	0.002	0.47	4	14	22	0.27	<20	2	<2	<10	407	<10	3	3
953686	0.08	<10	1.35	0.267	0.004	0.58	3	13	21	0.28	<20	2	<2	<10	392	<10	3	3
953687	0.06	<10	1.34	0.248	0.001	0.44	3	13	24	0.30	<20	<1	<2	<10	392	<10	3	3
953688	0.08	<10	2.02	0.263	0.004	0.29	3	12	30	0.24	<20	2	<2	<10	247	<10	3	2
953689	0.07	<10	1.34	0.235	0.002	0.38	3	10	26	0.26	<20	<1	<2	<10	299	<10	3	2
953690	<0.01	<10	1.28	0.018	0.005	<0.01	<2	<1	62	<0.01	<20	<1	<2	<10	<1	<10	4	<1
953691	0.09	<10	1.44	0.263	0.003	0.44	3	12	29	0.27	<20	3	<2	<10	301	<10	3	2
953692	0.06	<10	1.30	0.356	0.002	0.45	3	13	36	0.28	<20	4	<2	<10	425	<10	3	3
953693	0.07	<10	1.31	0.370	0.003	0.51	4	12	37	0.28	<20	<1	<2	<10	480	<10	3	4
953694	0.08	<10	1.46	0.356	0.002	0.47	3	12	34	0.27	<20	4	<2	<10	390	<10	2	3
953695																		
953696	0.17	<10	0.49	0.170	0.024	0.14	<2	3	18	0.08	<20	1	<2	<10	20	<10	3	3
953697	0.13	<10	0.42	0.116	0.021	0.15	<2	3	23	0.09	<20	2	<2	<10	15	<10	4	2
953698	0.18	<10	0.38	0.105	0.024	0.50	<2	3	15	0.07	<20	2	<2	<10	13	<10	5	2
953699	0.17	<10	0.39	0.134	0.027	0.17	<2	3	12	0.09	<20	3	<2	<10	15	<10	5	3
953700	0.18	12	9.20	0.077	0.021	0.29	5	5	14	0.08	<20	<1	<2	<10	38	<10	5	6

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 923 (AQUA REGIA) Meas				17.7	< 0.5	4290	866	< 1	32	78	327	2.87	5		59	0.7	18	0.41	19	42	6.01	10	
OREAS 923 (AQUA REGIA) Cert				1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01	
CDN-PGMS-29 Meas	86	695	558																				
CDN-PGMS-29 Cert	88.000	677.000	550.000																				
Oreas 621 (Aqua Regia) Meas				65.9	265	3490	511	13	24	> 5000	> 10000	1.69	76			0.6	< 2	1.54	28	31	3.44	10	4
Oreas 621 (Aqua Regia) Cert				68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93
OREAS 130 (Aqua Regia) Meas				5.8	26.8	223	1580	7	32	1250	> 10000	1.25	201				5	1.68	23	23	7.01	< 10	1
OREAS 130 (Aqua Regia) Cert				6.27	28.8	226	1630	8.25	35.2	1300	16900	1.10	205				3.05	1.81	27.1	23.2	7.27	4.78	0.670
OREAS 682 (Fire Assay) Meas	72	425	816																				
OREAS 682 (Fire Assay) Cert	74	444	868																				
953685 Orig	3	< 5	< 5																				
953685 Dup	6	< 5	< 5																				
953689 Orig				< 0.2	< 0.5	150	457	< 1	237	< 2	39	2.07	< 2	23	10	< 0.5	3	2.38	47	48	5.70	< 10	< 1
953689 Dup				< 0.2	< 0.5	152	462	< 1	234	< 2	39	2.10	< 2	21	10	< 0.5	3	2.42	47	49	5.73	< 10	< 1
953694 Orig	< 2	< 5	< 5																				
953694 Dup	3	< 5	< 5																				
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	27	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	28	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank	< 2	< 5	< 5																				
Method Blank	2	< 5	< 5																				

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 923 (AQUA REGIA) Meas	0.36	34	1.36		0.059	0.67	2	3	14		< 20		< 2	< 10	32	< 10	19	29
OREAS 923 (AQUA REGIA) Cert	0.322	30.0	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
CDN-PGMS-29 Meas																		
CDN-PGMS-29 Cert																		
Oreas 621 (Aqua Regia) Meas	0.32	18	0.40	0.169	0.031	4.47	112	2	17		< 20		< 2	< 10	11	< 10	7	57
Oreas 621 (Aqua Regia) Cert	0.333	19.4	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91		0.770	1.63	10.9	1.00	6.87	55.0
OREAS 130 (Aqua Regia) Meas	0.52	25	0.87		0.083	5.79	11	3	21	0.03	< 20	< 1	3	< 10	35	< 10	12	36
OREAS 130 (Aqua Regia) Cert	0.500	26.4	0.892		0.0860	6.02	4.69	3.42	23.2	0.0270	10.3	0.170	5.92	8.36	33.1	1.40	13.0	19.0
OREAS 682 (Fire Assay) Meas																		
OREAS 682 (Fire Assay) Cert																		
953685 Orig																		
953685 Dup																		
953689 Orig	0.07	< 10	1.34	0.234	0.002	0.38	3	10	26	0.26	< 20	< 1	< 2	< 10	298	< 10	3	2
953689 Dup	0.07	< 10	1.35	0.236	0.002	0.38	3	10	27	0.26	< 20	2	< 2	< 10	301	< 10	3	2
953694 Orig																		
953694 Dup																		
Method Blank	< 0.01	< 10	< 0.01	0.003	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	< 10	< 0.01	0.004	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank																		
Method Blank																		

Mink Ventures Corp
 1080 Michelano Drive
 Timmins ON
 Canada

ATTN: Kevin Filo

Report No.: A23-04737
 Report Date: 25-Apr-23
 Date Submitted: 10-Apr-23
 Your Reference: MONTCALM

CERTIFICATE OF ANALYSIS

32 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1C-OES-Timmins	QOP PGE-OES (Fire Assay ICPOES)	2023-04-25 07:47:04
1E3-Timmins	QOP AquaGeo (Aqua Regia ICPOES)	2023-04-17 09:02:34

REPORT **A23-04737**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.



LabID: 709

ACTIVATION LABORATORIES LTD.

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CERTIFIED BY:



Mark Vandergeest
 Quality Control Coordinator

Results

Activation Laboratories Ltd.

Report: A23-04737

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953701	3	<5	<5	<0.2	<0.5	2	289	<1	15	<2	18	1.33	<2	26	30	<0.5	2	1.64	6	19	2.22	<10	<1
953702	134	<5	<5	<0.2	<0.5	11	311	<1	16	<2	17	0.95	<2	18	90	<0.5	<2	2.41	7	16	2.92	<10	<1
953703	3	<5	<5	<0.2	<0.5	10	403	<1	22	<2	25	1.83	<2	21	34	<0.5	2	1.84	10	26	3.31	<10	<1
953704	3	<5	<5	<0.2	<0.5	63	243	2	23	<2	19	1.05	<2	28	53	<0.5	<2	0.96	11	26	2.15	<10	<1
953705	11	<5	<5	<0.2	<0.5	273	271	2	35	<2	20	1.10	<2	28	40	<0.5	<2	1.01	52	23	3.76	<10	<1
953706	3	<5	<5	<0.2	<0.5	56	243	1	16	<2	15	0.95	<2	24	58	<0.5	<2	0.96	12	22	1.93	<10	<1
953707	2	<5	<5	<0.2	<0.5	46	644	<1	74	<2	48	2.42	<2	24	32	<0.5	3	2.70	24	70	4.15	<10	<1
953708	4	<5	<5	<0.2	<0.5	162	356	1	131	<2	32	2.49	<2	24	47	<0.5	2	2.04	32	54	3.62	<10	<1
953709	2	<5	<5	<0.2	<0.5	67	193	<1	71	<2	17	2.79	<2	26	29	<0.5	3	2.17	17	81	3.04	<10	<1
953710	11	<5	<5	<0.2	<0.5	228	717	<1	35	<2	63	2.29	<2	23	<10	<0.5	<2	3.47	40	9	6.73	<10	<1
953711	4	<5	<5	<0.2	<0.5	169	563	<1	32	<2	57	2.29	<2	24	<10	<0.5	<2	2.63	38	19	6.95	<10	<1
953712	5	<5	<5	<0.2	<0.5	162	541	<1	29	<2	60	2.26	<2	26	<10	<0.5	<2	2.53	39	19	6.78	<10	1
953713	5	<5	<5	<0.2	<0.5	196	450	<1	36	<2	50	1.95	<2	24	<10	<0.5	<2	2.27	53	20	7.17	<10	<1
953714	3	<5	<5	<0.2	<0.5	107	376	<1	32	<2	49	2.11	<2	23	<10	<0.5	<2	2.08	35	17	7.07	10	<1
953715	2	<5	<5	<0.2	<0.5	4	100	<1	7	<2	<2	0.04	<2	24	12	<0.5	<2	>10.0	<1	<1	0.13	<10	<1
953716	10	<5	<5	<0.2	<0.5	61	246	<1	34	<2	36	2.41	<2	23	13	<0.5	2	1.95	28	28	6.52	10	<1
953717	7	<5	<5	<0.2	<0.5	62	208	<1	31	<2	34	2.15	<2	22	10	<0.5	3	1.75	28	23	6.40	10	1
953718	3	<5	<5	<0.2	<0.5	31	654	<1	21	<2	54	2.51	<2	23	10	<0.5	2	2.67	20	17	4.85	<10	<1
953719	4	<5	<5	<0.2	<0.5	85	572	<1	18	<2	47	2.13	<2	25	<10	<0.5	<2	2.47	23	15	5.06	<10	<1
953720	51	244	525																				
953721	7	<5	<5	<0.2	<0.5	35	453	<1	112	<2	38	2.94	3	21	10	<0.5	3	2.88	25	135	3.66	<10	1
953722	<2	<5	<5	<0.2	<0.5	35	396	<1	107	<2	36	3.22	<2	23	13	<0.5	3	2.91	23	118	3.55	<10	<1
953723	2	<5	<5	<0.2	<0.5	68	656	<1	26	<2	65	2.91	<2	24	11	<0.5	3	3.35	37	8	7.84	10	<1
953724	<2	<5	<5	<0.2	<0.5	55	553	<1	23	<2	63	2.54	<2	25	<10	<0.5	3	2.64	34	16	6.58	<10	2
953725				<0.2	<0.5	49	606	2	1880	8	67	1.68	141	38	33	<0.5	<2	0.73	66	749	4.28	<10	<1
953726	2	<5	<5	<0.2	<0.5	68	623	<1	30	<2	68	2.63	<2	22	<10	<0.5	4	3.01	36	15	6.72	10	1
953727	<2	<5	<5	<0.2	<0.5	76	621	<1	34	<2	66	2.60	<2	24	<10	<0.5	3	2.52	35	12	6.50	10	<1
953728	2	<5	<5	<0.2	<0.5	60	551	<1	51	<2	66	2.49	<2	25	<10	<0.5	3	2.52	31	29	5.39	<10	<1
953729	<2	<5	<5	<0.2	<0.5	68	506	<1	55	<2	50	2.58	<2	25	<10	<0.5	4	2.51	29	39	5.36	<10	<1
953730	3	<5	<5	<0.2	<0.5	56	475	<1	52	<2	53	2.37	<2	24	<10	<0.5	3	2.26	25	43	4.51	<10	<1
953731	3	<5	<5	<0.2	<0.5	173	375	<1	16	6	47	1.72	<2	25	57	<0.5	<2	1.41	23	4	6.55	10	<1
953732	3	<5	<5	<0.2	<0.5	168	415	<1	17	6	48	1.85	<2	29	60	<0.5	2	1.60	23	6	6.67	10	<1

Results

Activation Laboratories Ltd.

Report: A23-04737

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
953701	0.08	< 10	0.75	0.121	0.055	0.02	< 2	6	26	0.08	< 20	< 1	< 2	< 10	23	< 10	7	2
953702	0.12	< 10	0.79	0.104	0.044	0.28	< 2	5	30	0.01	< 20	3	< 2	< 10	21	< 10	6	2
953703	0.06	11	1.00	0.104	0.067	0.09	< 2	6	41	0.07	< 20	< 1	< 2	< 10	37	< 10	8	2
953704	0.11	< 10	0.60	0.140	0.049	0.20	< 2	2	13	0.05	< 20	< 1	< 2	< 10	12	< 10	5	2
953705	0.12	< 10	0.61	0.169	0.049	1.11	2	2	12	0.04	< 20	2	< 2	< 10	7	< 10	5	2
953706	0.11	< 10	0.55	0.154	0.045	0.17	< 2	3	13	0.05	< 20	< 1	< 2	< 10	8	< 10	6	2
953707	0.10	< 10	1.70	0.358	0.060	0.14	< 2	11	33	0.11	< 20	2	< 2	< 10	76	< 10	7	2
953708	0.14	< 10	1.13	0.428	0.029	0.44	< 2	7	48	0.12	< 20	2	< 2	< 10	71	< 10	6	3
953709	0.08	< 10	0.48	0.578	0.041	0.18	< 2	4	74	0.15	< 20	1	< 2	< 10	148	< 10	3	3
953710	0.05	< 10	1.55	0.352	0.029	1.09	3	16	30	0.23	< 20	< 1	2	< 10	206	< 10	5	3
953711	0.04	< 10	1.19	0.386	0.056	0.69	3	12	42	0.23	< 20	3	< 2	< 10	231	< 10	5	3
953712	0.04	< 10	1.10	0.382	0.054	0.56	3	13	42	0.20	< 20	< 1	< 2	< 10	233	< 10	5	3
953713	0.03	< 10	0.74	0.353	0.050	0.97	4	10	44	0.21	< 20	3	< 2	< 10	263	< 10	5	3
953714	0.03	< 10	0.61	0.396	0.064	0.47	3	8	54	0.22	< 20	< 1	< 2	< 10	325	< 10	5	3
953715	0.01	< 10	1.79	0.015	0.007	< 0.01	< 2	< 1	63	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	2	< 1
953716	0.03	< 10	0.35	0.498	0.047	0.24	2	5	72	0.24	< 20	< 1	< 2	< 10	337	< 10	3	3
953717	0.03	< 10	0.28	0.434	0.051	0.25	< 2	4	65	0.21	< 20	< 1	< 2	< 10	347	< 10	3	3
953718	0.06	< 10	1.24	0.380	0.119	0.12	< 2	12	32	0.14	< 20	< 1	< 2	< 10	114	< 10	7	2
953719	0.05	< 10	1.07	0.332	0.198	0.34	2	10	29	0.11	< 20	2	< 2	< 10	93	< 10	9	2
953720																		
953721	0.04	< 10	1.74	0.370	0.031	0.10	< 2	8	54	0.14	< 20	< 1	< 2	< 10	83	< 10	4	2
953722	0.04	< 10	1.48	0.401	0.018	0.11	< 2	6	64	0.13	< 20	3	< 2	< 10	86	< 10	3	2
953723	0.06	< 10	1.51	0.321	0.071	0.29	3	15	56	0.28	< 20	1	< 2	< 10	276	< 10	8	4
953724	0.03	< 10	1.37	0.171	0.077	0.23	3	11	55	0.29	< 20	2	< 2	< 10	201	< 10	6	4
953725	0.18	12	9.23	0.076	0.021	0.29	4	5	14	0.07	< 20	< 1	< 2	< 10	38	< 10	5	5
953726	0.04	< 10	1.50	0.234	0.072	0.26	4	13	41	0.25	< 20	1	< 2	< 10	220	< 10	6	3
953727	0.04	< 10	1.50	0.242	0.060	0.25	< 2	12	33	0.23	< 20	2	< 2	< 10	218	< 10	5	3
953728	0.04	< 10	1.41	0.227	0.071	0.19	3	10	42	0.21	< 20	< 1	< 2	< 10	169	< 10	6	3
953729	0.03	< 10	1.19	0.191	0.092	0.23	< 2	8	63	0.23	< 20	1	< 2	< 10	192	< 10	6	3
953730	0.03	< 10	1.10	0.173	0.067	0.18	2	7	54	0.21	< 20	3	< 2	< 10	149	< 10	5	3
953731	0.35	18	0.55	0.281	0.083	0.14	< 2	5	25	0.26	< 20	5	< 2	< 10	301	< 10	21	11
953732	0.34	19	0.61	0.311	0.081	0.13	2	6	29	0.26	< 20	< 1	< 2	< 10	294	< 10	22	11

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 923 (AQUA REGIA) Meas				17.7	< 0.5	4290	866	< 1	32	78	327	2.87	5		59	0.7	18	0.41	19	42	6.01	10	
OREAS 923 (AQUA REGIA) Cert				1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01	
CDN-PGMS-29 Meas	78	682	538																				
CDN-PGMS-29 Cert	88.000	677.000	550.000																				
Oreas 621 (Aqua Regia) Meas				65.9	265	3490	511	13	24	> 5000	> 10000	1.69	76			0.6	< 2	1.54	28	31	3.44	10	4
Oreas 621 (Aqua Regia) Cert				68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93
OREAS 130 (Aqua Regia) Meas				5.8	26.8	223	1580	7	32	1250	> 10000	1.25	201				5	1.68	23	23	7.01	< 10	1
OREAS 130 (Aqua Regia) Cert				6.27	28.8	226	1630	8.25	35.2	1300	16900	1.10	205				3.05	1.81	27.1	23.2	7.27	4.78	0.670
Oreas 623 (Aqua Regia) Meas				19.4	46.9	> 10000	526	7	15	2250	8900	1.74	74			< 0.5	< 2	0.97	205	16	12.6	10	< 1
Oreas 623 (Aqua Regia) Cert				20.4	52.0	17200	570	8.38	15.6	2520	10100	1.80	76.0			0.370	16.9	1.09	216	19.4	13.0	11.9	0.830
OREAS 682 (Fire Assay) Meas	70	403	795																				
OREAS 682 (Fire Assay) Cert	74	444	868																				
953706 Orig				< 0.2	< 0.5	56	239	1	16	< 2	15	0.93	< 2	26	57	< 0.5	< 2	0.95	12	22	1.89	< 10	< 1
953706 Dup				< 0.2	< 0.5	57	246	1	17	< 2	15	0.96	< 2	22	58	< 0.5	2	0.97	13	22	1.96	< 10	< 1
953709 Orig	3	< 5	< 5																				
953709 Dup	2	< 5	< 5																				
953719 Orig	4	< 5	< 5																				
953719 Dup	3	< 5	< 5																				
953723 Orig				0.2	< 0.5	68	655	< 1	25	< 2	64	2.90	< 2	24	11	< 0.5	3	3.35	36	9	7.82	10	< 1
953723 Dup				< 0.2	< 0.5	68	657	< 1	26	< 2	66	2.92	< 2	24	11	< 0.5	4	3.36	37	8	7.86	10	< 1
953730 Orig	2	< 5	< 5																				
953730 Dup	3	< 5	< 5																				
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	27	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	28	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank	3	< 5	< 5																				
Method Blank	2	< 5	< 5																				

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 923 (AQUA REGIA) Meas	0.36	34	1.36		0.059	0.67	2	3	14		< 20		< 2	< 10	32	< 10	19	29
OREAS 923 (AQUA REGIA) Cert	0.322	30.0	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
CDN-PGMS-29 Meas																		
CDN-PGMS-29 Cert																		
Oreas 621 (Aqua Regia) Meas	0.32	18	0.40	0.169	0.031	4.47	112	2	17		< 20		< 2	< 10	11	< 10	7	57
Oreas 621 (Aqua Regia) Cert	0.333	19.4	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91		0.770	1.63	10.9	1.00	6.87	55.0
OREAS 130 (Aqua Regia) Meas	0.52	25	0.87		0.083	5.79	11	3	21	0.03	< 20	< 1	3	< 10	35	< 10	12	36
OREAS 130 (Aqua Regia) Cert	0.500	26.4	0.892		0.0860	6.02	4.69	3.42	23.2	0.0270	10.3	0.170	5.92	8.36	33.1	1.40	13.0	19.0
Oreas 623 (Aqua Regia) Meas	0.17	17	0.99	0.076	0.045	8.96	24	4	14		< 20	< 1	< 2	< 10	16	< 10	8	80
Oreas 623 (Aqua Regia) Cert	0.175	17.9	1.11	0.0680	0.0400	8.75	20.2	4.63	14.2		4.72	0.570	0.260	1.43	15.8	2.62	7.43	50.0
OREAS 682 (Fire Assay) Meas																		
OREAS 682 (Fire Assay) Cert																		
953706 Orig	0.11	< 10	0.54	0.152	0.045	0.16	< 2	3	13	0.05	< 20	< 1	< 2	< 10	8	< 10	6	2
953706 Dup	0.11	< 10	0.56	0.156	0.046	0.17	< 2	3	13	0.05	< 20	< 1	< 2	< 10	8	< 10	6	2
953709 Orig																		
953709 Dup																		
953719 Orig																		
953719 Dup																		
953723 Orig	0.06	< 10	1.51	0.322	0.071	0.29	2	15	55	0.28	< 20	1	< 2	< 10	276	< 10	8	4
953723 Dup	0.06	< 10	1.52	0.321	0.071	0.28	3	15	56	0.28	< 20	1	< 2	< 10	277	< 10	8	4
953730 Orig																		
953730 Dup																		
Method Blank	< 0.01	< 10	< 0.01	0.003	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	< 10	< 0.01	0.004	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank																		
Method Blank																		

APPENDIX 4: COPY OF OREAS STANDARDS



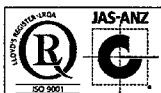
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CERTIFICATE OF ANALYSIS FOR
PLATINUM GROUP ELEMENT (PGE) ORE
CERTIFIED REFERENCE MATERIAL
OREAS 681

Table 1. Certified Values, SDs, 95% Confidence and Tolerance Limits for OREAS 681.

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Pb Collection Fire Assay						
Au, Gold (ppb)	51	3.1	49.7	52.2	48.5	53.4
Pd, Palladium (ppb)	243	13	237	249	237	249
Pt, Platinum (ppb)	526	16	518	534	514	538
NiS Collection Fire Assay						
Au, Gold (ppb)	47	4.7	44.0	50.1	45.0	49.2
Ir, Iridium (ppb)	11	1.3	9.5	12.5	IND	IND
Pd, Palladium (ppb)	238	14	230	246	227	248
Pt, Platinum (ppb)	496	33	471	522	473	520
Rh, Rhodium (ppb)	32	2.8	31.1	33.7	30.6	34.1
Ru, Ruthenium (ppb)	63	7.6	59.6	67.2	61.2	65.6
Peroxide Fusion ICP						
Al, Aluminium (wt.%)	7.96	0.238	7.84	8.08	7.83	8.09
Ba, Barium (ppm)	429	23	415	443	418	440
Be, Beryllium (ppm)	1.84	0.26	1.54	2.14	IND	IND
Ca, Calcium (wt.%)	6.15	0.165	6.07	6.24	6.02	6.29
Ce, Cerium (ppm)	41.3	1.01	40.6	42.1	40.0	42.7
Co, Cobalt (ppm)	54	6	51	56	51	56
Cr, Chromium (ppm)	2252	129	2189	2316	2188	2317
Cs, Cesium (ppm)	4.02	0.245	3.82	4.22	3.77	4.27
Cu, Copper (ppm)	272	17	265	280	259	285

Note: intervals may appear asymmetric due to rounding



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Table 1 continued.

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Peroxide Fusion ICP continued						
Dy, Dysprosium (ppm)	3.49	0.220	3.34	3.65	3.29	3.69
Er, Erbium (ppm)	1.95	0.116	1.87	2.04	1.86	2.05
Eu, Europium (ppm)	1.42	0.091	1.35	1.48	1.33	1.50
Fe, Iron (wt.%)	7.62	0.244	7.50	7.75	7.51	7.74
Ga, Gallium (ppm)	18.0	0.60	17.7	18.3	IND	IND
Gd, Gadolinium (ppm)	4.29	0.58	3.77	4.81	4.09	4.50
Ho, Holmium (ppm)	0.64	0.051	0.60	0.69	0.60	0.69
K, Potassium (wt.%)	1.36	0.065	1.33	1.39	1.32	1.39
La, Lanthanum (ppm)	19.0	1.52	17.8	20.1	18.3	19.6
Li, Lithium (ppm)	13.9	0.94	12.9	14.9	IND	IND
Lu, Lutetium (ppm)	0.26	0.04	0.21	0.30	0.24	0.28
Mg, Magnesium (wt.%)	5.26	0.190	5.16	5.35	5.16	5.35
Mn, Manganese (wt.%)	0.135	0.004	0.133	0.138	0.133	0.138
Nb, Niobium (ppm)	5.88	1.03	5.09	6.67	IND	IND
Nd, Neodymium (ppm)	21.9	0.99	21.1	22.7	21.3	22.5
Ni, Nickel (ppm)	518	35	503	533	492	544
P, Phosphorus (wt.%)	0.136	0.014	0.128	0.145	IND	IND
Pr, Praseodymium (ppm)	5.26	0.171	5.16	5.37	5.02	5.51
Rb, Rubidium (ppm)	82	1.8	81	83	80	85
S, Sulphur (wt.%)	0.106	0.013	0.098	0.113	0.085	0.126
Sc, Scandium (ppm)	26.6	2.11	23.8	29.4	25.3	27.8
Si, Silicon (wt.%)	24.17	0.672	23.84	24.50	23.69	24.65
Sm, Samarium (ppm)	4.64	0.300	4.42	4.87	4.23	5.05
Sr, Strontium (ppm)	470	12	464	475	457	483
Tb, Terbium (ppm)	0.59	0.045	0.56	0.62	0.55	0.62
Th, Thorium (ppm)	6.39	0.395	6.17	6.60	5.61	7.16
Ti, Titanium (wt.%)	0.597	0.018	0.588	0.605	0.583	0.610
Tm, Thulium (ppm)	0.26	0.04	0.23	0.29	0.23	0.29
U, Uranium (ppm)	1.44	0.089	1.39	1.49	1.35	1.53
V, Vanadium (ppm)	257	20	243	271	248	266
Y, Yttrium (ppm)	17.9	0.50	17.6	18.2	17.3	18.5
Yb, Ytterbium (ppm)	1.76	0.20	1.64	1.88	IND	IND
Zn, Zinc (ppm)	92	21	81	102	84	99
4-Acid Digestion						
Ag, Silver (ppm)	0.118	0.022	0.098	0.138	IND	IND
Al, Aluminium (wt.%)	7.91	0.213	7.80	8.01	7.76	8.05
Ba, Barium (ppm)	442	11	437	446	425	459
Be, Beryllium (ppm)	1.41	0.15	1.34	1.48	1.20	1.61
Bi, Bismuth (ppm)	0.098	0.007	0.094	0.102	IND	IND
Ca, Calcium (wt.%)	5.98	0.197	5.88	6.08	5.83	6.13
Ce, Cerium (ppm)	40.6	1.77	39.7	41.5	39.5	41.7
Co, Cobalt (ppm)	51	3.2	49	52	49	52

Note: intervals may appear asymmetric due to rounding

Table 1 continued.

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
4-Acid Digestion continued						
Cr, Chromium (ppm)	1642	264	1510	1773	1558	1725
Cs, Cesium (ppm)	4.02	0.104	3.97	4.07	3.85	4.18
Cu, Copper (ppm)	264	11	259	269	257	271
Dy, Dysprosium (ppm)	3.40	0.166	3.25	3.54	3.26	3.54
Er, Erbium (ppm)	1.97	0.066	1.92	2.01	1.84	2.09
Eu, Europium (ppm)	1.37	0.101	1.29	1.45	1.31	1.44
Fe, Iron (wt.%)	7.47	0.280	7.34	7.61	7.32	7.63
Ga, Gallium (ppm)	17.6	0.43	17.3	17.8	17.0	18.2
Gd, Gadolinium (ppm)	4.06	0.270	3.85	4.28	3.91	4.22
Hf, Hafnium (ppm)	1.70	0.19	1.60	1.81	1.59	1.81
Ho, Holmium (ppm)	0.69	0.017	0.68	0.71	0.67	0.72
In, Indium (ppm)	0.042	0.004	0.040	0.044	0.039	0.045
K, Potassium (wt.%)	1.35	0.064	1.32	1.38	1.31	1.39
La, Lanthanum (ppm)	18.8	1.01	18.4	19.3	18.1	19.6
Li, Lithium (ppm)	13.0	0.46	12.8	13.2	12.5	13.5
Lu, Lutetium (ppm)	0.27	0.012	0.26	0.28	0.25	0.28
Mg, Magnesium (wt.%)	5.19	0.174	5.11	5.27	5.08	5.30
Mn, Manganese (wt.%)	0.131	0.006	0.128	0.134	0.127	0.134
Mo, Molybdenum (ppm)	1.38	0.18	1.29	1.47	1.24	1.51
Na, Sodium (wt.%)	1.61	0.050	1.58	1.63	1.57	1.64
Nb, Niobium (ppm)	6.17	0.351	5.97	6.36	5.86	6.47
Nd, Neodymium (ppm)	21.9	0.59	21.4	22.4	21.2	22.6
Ni, Nickel (ppm)	503	26	492	515	489	517
P, Phosphorus (wt.%)	0.141	0.007	0.137	0.144	0.136	0.146
Pb, Lead (ppm)	10.2	0.90	9.6	10.7	9.5	10.8
Pr, Praseodymium (ppm)	5.32	0.130	5.24	5.41	5.13	5.52
Rb, Rubidium (ppm)	80	4.2	78	82	78	82
S, Sulphur (wt.%)	0.109	0.008	0.104	0.114	0.103	0.115
Sb, Antimony (ppm)	0.24	0.05	0.22	0.26	0.20	0.28
Sc, Scandium (ppm)	27.7	1.52	27.0	28.5	26.7	28.8
Sm, Samarium (ppm)	4.82	0.176	4.68	4.96	4.62	5.02
Sn, Tin (ppm)	1.89	0.179	1.79	2.00	IND	IND
Sr, Strontium (ppm)	478	24	465	491	468	489
Ta, Tantalum (ppm)	0.42	0.033	0.39	0.44	0.40	0.44
Tb, Terbium (ppm)	0.58	0.031	0.56	0.60	0.56	0.61
Th, Thorium (ppm)	6.55	0.542	6.30	6.80	6.18	6.92
Ti, Titanium (wt.%)	0.588	0.020	0.578	0.598	0.570	0.606
Tm, Thulium (ppm)	0.28	0.011	0.27	0.29	0.27	0.29
U, Uranium (ppm)	1.44	0.102	1.40	1.48	1.33	1.55
V, Vanadium (ppm)	253	10	248	258	247	260
W, Tungsten (ppm)	1.09	0.109	1.03	1.15	IND	IND
Y, Yttrium (ppm)	17.5	1.12	16.9	18.1	17.0	18.0

Note: intervals may appear asymmetric due to rounding

Table 1 continued.

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
4-Acid Digestion continued						
Yb, Ytterbium (ppm)	1.77	0.093	1.72	1.83	1.71	1.84
Zn, Zinc (ppm)	88	5.8	85	91	85	91
Zr, Zirconium (ppm)	58	6	55	62	55	62

Note: intervals may appear asymmetric due to rounding

Table 2. Indicative Values for OREAS 681.

Constituent	Unit	Value	Constituent	Unit	Value	Constituent	Unit	Value
NiS Collection Fire Assay								
Os	ppb	9.58	Re	ppb	< 1			
Peroxide Fusion ICP								
Ag	ppm	< 5	In	ppm	< 0.2	Ta	ppm	0.45
As	ppm	< 100	Mo	ppm	1.77	Te	ppm	< 2
B	ppm	27.5	Pb	ppm	< 20	Tl	ppm	< 0.5
Bi	ppm	0.097	Re	ppm	< 0.1	W	ppm	1.47
Cd	ppm	< 10	Sb	ppm	0.25	Zr	ppm	83
Ge	ppm	1.74	Se	ppm	< 20			
Hf	ppm	2.00	Sn	ppm	2.16			
4-Acid Digestion								
As	ppm	1.19	Hg	ppm	< 0.01	Te	ppm	0.16
Cd	ppm	0.078	Re	ppm	0.002	Tl	ppm	0.17
Ge	ppm	0.14	Se	ppm	1.16			
Infrared Combustion								
C	wt. %	0.051	S	wt. %	0.098			

Note: the number of significant figures reported is not a reflection of the level of certainty of stated values. They are instead an artefact of ORE's in-house CRM-specific LIMS.

INTRODUCTION

OREAS reference materials are intended to provide a low cost method of evaluating and improving the quality of analysis of geological samples. To the geologist they provide a means of implementing quality control in analytical data sets generated in exploration from the grass roots level through to prospect evaluation, and in grade control at mining operations. To the analyst they provide an effective means of calibrating analytical equipment, assessing new techniques and routinely monitoring in-house procedures.

SOURCE MATERIALS

OREAS 681 is a platinum group element (PGE) ore certified reference material (CRM) prepared and certified by Ore Research & Exploration Pty Ltd. OREAS 681 has been prepared from PGE ores blended with barren gabbro-norite. The PGE ores were sourced from the Merensky Reef and hanging wall of the Merensky Reef of the Bushveld Complex, from sites owned and operated by Anglo American Platinum, South Africa. The common

minerals of economic importance within a pegmatitic pyroxenite host are sulphides of iron, nickel, copper and alloys of the PGE's. The barren gabbro-norite was sourced from the Late Cambrian Black Hill Norite Complex located 85km east of Adelaide, Australia.

OREAS 681 is one of a suite of five PGE ore CRMs ranging in 4E concentrations (4E = 4 elements; platinum (Pt), palladium (Pd), rhodium (Rh) and gold (Au)) from 0.82 to 6.1ppm.

COMMUNITION AND HOMOGENISATION PROCEDURES

The material constituting OREAS 681 was prepared in the following manner:

- Drying all materials to constant mass at 105°C;
- Crushing and milling of the barren gabbro-norite to >98% minus 75 microns;
- Crushing and milling of ore materials to 100% minus 30 microns;
- Blending in appropriate proportions to achieve the desired grades;
- Packaging in 60g units sealed in laminated foil pouches and 500g units in plastic jars.

ANALYTICAL PROGRAM

Twenty three geochemical laboratories participated in the program to certify the analytes reported in Table 1. The following methods were employed:

- Four acid digestion for full ICP-OES and ICP-MS elemental suites (up to 18 laboratories depending on the element);
- Peroxide fusion for full ICP-OES and ICP-MS elemental suites (up to 18 laboratories depending on the element);
- Au, Pt, Pd, Ir, Rh and Ru by nickel sulphide (NiS) collection fire assay with ICP-MS (8 laboratories) or ICP-OES (1 laboratory) finish (9 laboratories reported Ir, Pd, Pt, Rh and Ru, 7 laboratories reported Au, 2 laboratories reported Os and 1 laboratory reported Re);
- Au, Pt and Pd by lead collection fire assay with ICP-OES (18 laboratories) and ICP-MS (3 laboratories) finish;
- Instrumental neutron activation analysis for Au on 20 x 85mg subsamples to confirm homogeneity (1 laboratory – analyses currently underway with results expected 5 March, 2018).

For the round robin program twenty 1kg test units were taken at predetermined intervals during the bagging stage, immediately following homogenisation and are considered representative of the entire batch. The six samples received by each laboratory were obtained by taking two 100g scoop splits from each of three separate test units. This format enabled nested ANOVA treatment of the results to evaluate homogeneity, i.e. to ascertain whether between-unit variance is greater than within-unit variance. Table 1 presents the 104 certified values together with their associated 1SD's, 95% confidence and tolerance limits and Table 2 below shows 31 indicative values. Table 3 provides performance gate intervals for the certified values based on their pooled 1SD's and Table 4 shows the gold instrumental neutron activation analysis (INAA) results for twenty 85 milligram subsamples determined by ANSTO in Lucas Heights, NSW, Australia.

Tabulated results of all elements together with analytical method codes, uncorrected means, medians, standard deviations, relative standard deviations and per cent deviation of lab means from the corrected mean of means (PDM³) are presented in the detailed certification data for this CRM (**OREAS 681 DataPack.xlsx**).

STATISTICAL ANALYSIS

Certified Values, Confidence Limits, Standard Deviations and Tolerance Limits (Table 1) have been determined for each analyte following removal of individual, laboratory dataset (batch) and 3SD outliers (single iteration). For individual outliers within a laboratory batch the z-score test is used in combination with a second method that determines the per cent deviation of the individual value from the batch median. Outliers in general are selected on the basis of z-scores > 2.5 and with per cent deviations (i) > 3 and (ii) more than three times the average absolute per cent deviation for the batch. In certain instances statistician's prerogative has been employed in discriminating outliers. Each laboratory data set mean is tested for outlying status based on z-score discrimination and rejected if > 2.5. After individual and laboratory data set (batch) outliers have been eliminated a non-iterative 3 standard deviation filter is applied, with those values lying outside this window also relegated to outlying status. The Certified Values are the means of accepted laboratory means after outlier filtering.

The 95% Confidence Limits are inversely proportional to the number of participating laboratories and inter-laboratory agreement. It is a measure of the reliability of the certified value. A 95% confidence interval indicates a 95% probability that the true value of the analyte under consideration lies between the upper and lower limits. *95% Confidence Limits should not be used as control limits for laboratory performance.*

Standard Deviation values (1SDs) are reported in Table 1 and provide an indication of a level of performance that might reasonably be expected from a laboratory being monitored by this CRM in a QA/QC program. The SD's take into account errors attributable to measurement uncertainty and CRM variability. For an effective CRM the contribution of the latter should be negligible in comparison to measurement errors. The SD values thus include all sources of measurement uncertainty: between-lab variance, within-run variance (precision errors) and CRM variability. OREAS prepared reference materials have a level of homogeneity such that the observed variance from repeated analysis has its origin almost exclusively in the analytical process rather than the reference material itself.

The SD for each analyte's certified value is calculated from the same filtered data set used to determine the certified value, i.e. after removal of any individual, lab dataset (batch) and 3SD outliers (single iteration). These outliers can only be removed after the absolute homogeneity of the CRM has been independently established, i.e. the outliers must be confidently deemed to be analytical rather than arising from inhomogeneity of the CRM. **The standard deviation is then calculated for each analyte from the pooled accepted analyses generated from the certification program.**

In the application of SD's in monitoring performance it is important to note that not all laboratories function at the same level of proficiency and that different methods in use at a particular laboratory have differing levels of precision. Each laboratory has its own inherent SD (for a specific concentration level and analyte-method pair) based on the analytical process and this SD is not directly related to the round robin program.

The majority of data generated in the round robin program was produced by a selection of world class laboratories. The SD's thus generated are more constrained than those that would be produced across a randomly selected group of laboratories. To produce more generally achievable SD's the 'pooled' SD's provided in this report include inter-lab bias. This 'one size fits all' approach may require revision at the discretion of the QC manager concerned following careful scrutiny of QC control charts.

Table 3 shows **Performance Gates** calculated for two and three standard deviations. As a guide these intervals may be regarded as warning or rejection for multiple 2SD outliers, or rejection for individual 3SD outliers in QC monitoring, although their precise application should be at the discretion of the QC manager concerned. A second method utilises a 5% window calculated directly from the certified value. Standard deviation is also shown in relative percent for one, two and three relative standard deviations (1RSD, 2RSD and 3RSD) to facilitate an appreciation of the magnitude of these numbers and a comparison with the 5% window. Caution should be exercised when concentration levels approach lower limits of detection of the analytical methods employed as performance gates calculated from standard deviations tend to be excessively wide whereas those determined by the 5% method are too narrow.

Table 3. Performance Gates for OREAS 681.

Constituent	Certified Value	Absolute Standard Deviations					Relative Standard Deviations			5% window	
		1SD	2SD Low	2SD High	3SD Low	3SD High	1RSD	2RSD	3RSD	Low	High
Pb Collection Fire Assay											
Au, ppb	51.0	3.1	44.7	57.2	41.6	60.3	6.14%	12.28%	18.42%	48.4	53.5
Pd, ppb	243	13	216	270	202	283	5.56%	11.12%	16.67%	231	255
Pt, ppb	526	16	493	559	477	575	3.13%	6.27%	9.40%	500	552
NiS Collection Fire Assay											
Au, ppb	47.1	4.7	37.7	56.4	33.0	61.1	9.94%	19.88%	29.81%	44.7	49.4
Ir, ppb	11.0	1.3	8.4	13.6	7.1	14.8	11.76%	23.52%	35.29%	10.4	11.5
Pd, ppb	238	14	210	265	197	279	5.73%	11.46%	17.18%	226	250
Pt, ppb	496	33	431	562	398	594	6.58%	13.15%	19.73%	472	521
Rh, ppb	32.4	2.8	26.8	37.9	24.1	40.7	8.56%	17.11%	25.67%	30.8	34.0
Ru, ppb	63.4	7.6	48.2	78.6	40.7	86.2	11.97%	23.93%	35.90%	60.3	66.6
Peroxide Fusion											
Al, wt.%	7.96	0.238	7.48	8.44	7.24	8.67	2.99%	5.98%	8.97%	7.56	8.36
Ba, ppm	429	23	382	476	359	499	5.46%	10.93%	16.39%	408	451
Be, ppm	1.84	0.26	1.33	2.36	1.07	2.61	13.94%	27.87%	41.81%	1.75	1.94
Ca, wt.%	6.15	0.165	5.82	6.49	5.66	6.65	2.69%	5.38%	8.06%	5.85	6.46
Ce, ppm	41.3	1.01	39.3	43.4	38.3	44.4	2.45%	4.91%	7.36%	39.3	43.4
Co, ppm	54	6	43	65	37	70	10.28%	20.55%	30.83%	51	56
Cr, ppm	2252	129	1995	2509	1866	2638	5.71%	11.42%	17.13%	2140	2365
Cs, ppm	4.02	0.245	3.53	4.51	3.28	4.75	6.10%	12.19%	18.29%	3.82	4.22
Cu, ppm	272	17	238	307	220	324	6.36%	12.72%	19.08%	259	286
Dy, ppm	3.49	0.220	3.05	3.93	2.83	4.15	6.31%	12.61%	18.92%	3.32	3.67
Er, ppm	1.95	0.116	1.72	2.19	1.61	2.30	5.94%	11.88%	17.82%	1.86	2.05
Eu, ppm	1.42	0.091	1.23	1.60	1.14	1.69	6.39%	12.79%	19.18%	1.34	1.49
Fe, wt.%	7.62	0.244	7.14	8.11	6.89	8.35	3.20%	6.40%	9.60%	7.24	8.00
Ga, ppm	18.0	0.60	16.8	19.2	16.2	19.8	3.36%	6.72%	10.09%	17.1	18.9

Note: intervals may appear asymmetric due to rounding.

Table 3 continued.

Constituent	Certified Value	Absolute Standard Deviations					Relative Standard Deviations			5% window	
		1SD	2SD Low	2SD High	3SD Low	3SD High	1RSD	2RSD	3RSD	Low	High
Peroxide Fusion continued											
Gd, ppm	4.29	0.58	3.14	5.45	2.56	6.03	13.47%	26.94%	40.41%	4.08	4.51
Ho, ppm	0.64	0.051	0.54	0.75	0.49	0.80	7.98%	15.95%	23.93%	0.61	0.68
K, wt. %	1.36	0.065	1.23	1.48	1.16	1.55	4.77%	9.54%	14.31%	1.29	1.42
La, ppm	19.0	1.52	15.9	22.0	14.4	23.5	8.02%	16.03%	24.05%	18.0	19.9
Li, ppm	13.9	0.94	12.0	15.8	11.1	16.8	6.78%	13.56%	20.33%	13.2	14.6
Lu, ppm	0.26	0.04	0.19	0.33	0.15	0.36	13.63%	27.26%	40.90%	0.24	0.27
Mg, wt. %	5.26	0.190	4.87	5.64	4.68	5.83	3.62%	7.25%	10.87%	4.99	5.52
Mn, wt. %	0.135	0.004	0.126	0.144	0.122	0.148	3.25%	6.50%	9.75%	0.128	0.142
Nb, ppm	5.88	1.03	3.82	7.93	2.80	8.96	17.47%	34.95%	52.42%	5.59	6.17
Nd, ppm	21.9	0.99	19.9	23.9	18.9	24.9	4.52%	9.04%	13.56%	20.8	23.0
Ni, ppm	518	35	448	588	413	623	6.74%	13.48%	20.22%	492	544
P, wt. %	0.136	0.014	0.108	0.164	0.094	0.178	10.21%	20.42%	30.63%	0.129	0.143
Pr, ppm	5.26	0.171	4.92	5.60	4.75	5.78	3.25%	6.50%	9.75%	5.00	5.53
Rb, ppm	82	1.8	79	86	77	88	2.23%	4.47%	6.70%	78	86
S, wt. %	0.106	0.013	0.081	0.131	0.068	0.143	11.85%	23.69%	35.54%	0.100	0.111
Sc, ppm	26.6	2.11	22.3	30.8	20.2	32.9	7.95%	15.90%	23.85%	25.2	27.9
Si, wt. %	24.17	0.672	22.83	25.51	22.15	26.19	2.78%	5.56%	8.34%	22.96	25.38
Sm, ppm	4.64	0.300	4.04	5.24	3.74	5.54	6.47%	12.94%	19.40%	4.41	4.87
Sr, ppm	470	12	446	493	434	505	2.55%	5.09%	7.64%	446	493
Tb, ppm	0.59	0.045	0.50	0.68	0.45	0.72	7.57%	15.14%	22.71%	0.56	0.62
Th, ppm	6.39	0.395	5.60	7.18	5.20	7.57	6.19%	12.37%	18.56%	6.07	6.71
Ti, wt. %	0.597	0.018	0.560	0.634	0.541	0.652	3.09%	6.19%	9.28%	0.567	0.627
Tm, ppm	0.26	0.04	0.18	0.34	0.14	0.38	14.94%	29.88%	44.82%	0.25	0.27
U, ppm	1.44	0.089	1.26	1.62	1.17	1.71	6.17%	12.33%	18.50%	1.37	1.51
V, ppm	257	20	217	298	196	318	7.88%	15.77%	23.65%	244	270
Y, ppm	17.9	0.50	16.9	18.9	16.4	19.4	2.81%	5.62%	8.44%	17.0	18.8
Yb, ppm	1.76	0.20	1.35	2.16	1.15	2.37	11.54%	23.07%	34.61%	1.67	1.85
Zn, ppm	92	21	51	133	30	153	22.37%	44.73%	67.10%	87	96
4-Acid Digestion											
Ag, ppm	0.118	0.022	0.074	0.161	0.052	0.183	18.55%	37.09%	55.64%	0.112	0.124
Al, wt. %	7.91	0.213	7.48	8.33	7.27	8.55	2.70%	5.39%	8.09%	7.51	8.30
Ba, ppm	442	11	420	463	410	474	2.43%	4.86%	7.29%	420	464
Be, ppm	1.41	0.15	1.11	1.70	0.97	1.85	10.49%	20.97%	31.46%	1.34	1.48
Bi, ppm	0.098	0.007	0.084	0.113	0.076	0.120	7.42%	14.83%	22.25%	0.093	0.103
Ca, wt. %	5.98	0.197	5.59	6.37	5.39	6.57	3.30%	6.59%	9.89%	5.68	6.28
Ce, ppm	40.6	1.77	37.1	44.2	35.3	46.0	4.37%	8.73%	13.10%	38.6	42.7
Co, ppm	51	3.2	44	57	41	60	6.27%	12.54%	18.82%	48	53
Cr, ppm	1642	264	1114	2170	850	2433	16.08%	32.15%	48.23%	1560	1724
Cs, ppm	4.02	0.104	3.81	4.22	3.71	4.33	2.58%	5.16%	7.74%	3.82	4.22
Cu, ppm	264	11	242	286	230	297	4.22%	8.44%	12.66%	251	277
Dy, ppm	3.40	0.166	3.07	3.73	2.90	3.89	4.88%	9.76%	14.64%	3.23	3.57
Er, ppm	1.97	0.066	1.83	2.10	1.77	2.16	3.35%	6.69%	10.04%	1.87	2.06
Eu, ppm	1.37	0.101	1.17	1.57	1.07	1.68	7.39%	14.78%	22.17%	1.30	1.44

Note: intervals may appear asymmetric due to rounding.

Table 3 continued.

Constituent	Certified Value	Absolute Standard Deviations					Relative Standard Deviations			5% window	
		1SD	2SD Low	2SD High	3SD Low	3SD High	1RSD	2RSD	3RSD	Low	High
4-Acid Digestion continued											
Fe, wt.%	7.47	0.280	6.91	8.03	6.63	8.31	3.74%	7.49%	11.23%	7.10	7.85
Ga, ppm	17.6	0.43	16.7	18.4	16.3	18.8	2.42%	4.84%	7.26%	16.7	18.5
Gd, ppm	4.06	0.270	3.52	4.60	3.25	4.87	6.65%	13.29%	19.94%	3.86	4.27
Hf, ppm	1.70	0.19	1.33	2.08	1.14	2.27	11.00%	21.99%	32.99%	1.62	1.79
Ho, ppm	0.69	0.017	0.66	0.73	0.64	0.75	2.50%	5.00%	7.51%	0.66	0.73
In, ppm	0.042	0.004	0.034	0.050	0.030	0.054	9.66%	19.33%	28.99%	0.040	0.044
K, wt.%	1.35	0.064	1.23	1.48	1.16	1.54	4.70%	9.39%	14.09%	1.28	1.42
La, ppm	18.8	1.01	16.8	20.8	15.8	21.8	5.37%	10.73%	16.10%	17.9	19.8
Li, ppm	13.0	0.46	12.1	13.9	11.6	14.4	3.55%	7.10%	10.65%	12.3	13.6
Lu, ppm	0.27	0.012	0.24	0.29	0.23	0.30	4.42%	8.84%	13.26%	0.25	0.28
Mg, wt.%	5.19	0.174	4.84	5.54	4.67	5.71	3.35%	6.70%	10.05%	4.93	5.45
Mn, wt.%	0.131	0.006	0.119	0.143	0.113	0.148	4.48%	8.95%	13.43%	0.124	0.137
Mo, ppm	1.38	0.18	1.02	1.74	0.84	1.92	13.11%	26.23%	39.34%	1.31	1.45
Na, wt.%	1.61	0.050	1.51	1.71	1.46	1.76	3.12%	6.23%	9.35%	1.53	1.69
Nb, ppm	6.17	0.351	5.46	6.87	5.11	7.22	5.70%	11.39%	17.09%	5.86	6.47
Nd, ppm	21.9	0.59	20.7	23.1	20.2	23.7	2.68%	5.35%	8.03%	20.8	23.0
Ni, ppm	503	26	452	555	426	581	5.13%	10.27%	15.40%	478	528
P, wt.%	0.141	0.007	0.127	0.154	0.121	0.161	4.74%	9.49%	14.23%	0.134	0.148
Pb, ppm	10.2	0.90	8.4	12.0	7.5	12.9	8.80%	17.60%	26.39%	9.7	10.7
Pr, ppm	5.32	0.130	5.06	5.58	4.93	5.71	2.44%	4.88%	7.32%	5.06	5.59
Rb, ppm	80	4.2	72	89	67	93	5.29%	10.58%	15.87%	76	84
S, wt.%	0.109	0.008	0.093	0.125	0.086	0.132	7.16%	14.33%	21.49%	0.103	0.114
Sb, ppm	0.24	0.05	0.15	0.33	0.10	0.38	19.46%	38.93%	58.39%	0.23	0.25
Sc, ppm	27.7	1.52	24.7	30.8	23.2	32.3	5.48%	10.95%	16.43%	26.3	29.1
Sm, ppm	4.82	0.176	4.47	5.17	4.29	5.35	3.66%	7.32%	10.98%	4.58	5.06
Sn, ppm	1.89	0.179	1.53	2.25	1.36	2.43	9.46%	18.92%	28.39%	1.80	1.99
Sr, ppm	478	24	430	526	406	550	5.02%	10.04%	15.05%	454	502
Ta, ppm	0.42	0.033	0.35	0.48	0.32	0.52	7.83%	15.65%	23.48%	0.40	0.44
Tb, ppm	0.58	0.031	0.52	0.64	0.49	0.68	5.23%	10.46%	15.69%	0.55	0.61
Th, ppm	6.55	0.542	5.47	7.63	4.92	8.18	8.28%	16.55%	24.83%	6.22	6.88
Ti, wt.%	0.588	0.020	0.548	0.628	0.528	0.649	3.43%	6.86%	10.29%	0.559	0.617
Tm, ppm	0.28	0.011	0.26	0.31	0.25	0.32	3.92%	7.83%	11.75%	0.27	0.30
U, ppm	1.44	0.102	1.24	1.65	1.13	1.75	7.11%	14.21%	21.32%	1.37	1.51
V, ppm	253	10	233	273	223	283	3.91%	7.83%	11.74%	241	266
W, ppm	1.09	0.109	0.87	1.31	0.76	1.42	9.98%	19.97%	29.95%	1.04	1.15
Y, ppm	17.5	1.12	15.3	19.8	14.2	20.9	6.40%	12.80%	19.21%	16.7	18.4
Yb, ppm	1.77	0.093	1.59	1.96	1.49	2.06	5.26%	10.53%	15.79%	1.69	1.86
Zn, ppm	88	5.8	77	100	71	106	6.57%	13.13%	19.70%	84	93
Zr, ppm	58	6	46	71	39	77	10.85%	21.70%	32.55%	55	61

Note: intervals may appear asymmetric due to rounding.

Tolerance Limits (ISO Guide 3207) were determined using an analysis of precision errors method and are considered a conservative estimate of true homogeneity. The meaning of tolerance limits may be illustrated for platinum (Pt) by lead collection fire assay, where 99% of the time ($1-\alpha=0.99$) at least 95% of subsamples ($p=0.95$) will have concentrations lying between 514 and 538 ppb. Put more precisely, this means that if the same number of subsamples were taken and analysed in the same manner repeatedly, 99% of the tolerance intervals so constructed would cover at least 95% of the total population, and 1% of the tolerance intervals would cover less than 95% of the total population (ISO Guide 35). *Please note that tolerance limits pertain to the homogeneity of the CRM only and should not be used as control limits for laboratory performance.*

For gold, tolerance can be determined by INAA using the reduced analytical subsample method which utilises the known relationship between standard deviation and analytical subsample weight (Ingamells and Switzer, 1973). In this approach the latter parameter is substantially reduced to a point where most of the variability in replicate assays is due to inhomogeneity of the reference material and measurement error becomes negligible. In this instance a subsample weight of 85 milligrams was employed and the 1RSD of 0.476% calculated for a 30g lead collection fire assay sample (8.90% at 85mg weights) confirms the high level of gold homogeneity in OREAS 681. The homogeneity is of a level such that **sampling error is almost negligible** for a conventional lead collection fire assay determination.

**Table 4. Instrumental Neutron Activation Analysis of Au (ppb)
on 20 x 85mg subsamples of OREAS 681.**

Replicate No	INAA 85mg
1	51.9
2	50.3
3	53.5
4	50.1
5	59.3
6	52.9
7	55.1
8	56.5
9	54.3
10	47.0
11	51.4
12	55.8
13	55.5
14	51.4
15	51.7
16	49.7
17	59.0
18	43.3
19	46.0
20	42.6
Mean	51.9
Median	51.8
Std Dev.	4.6
Rel.Std.Dev.	8.90%
PDM ³	1.78%

The homogeneity of OREAS 681 has also been evaluated in a **nested ANOVA** of the round robin program. Each of the twenty three round robin laboratories received six samples per CRM and these samples were made up of paired samples from three different, non-adjacent sampling intervals selected from the pool of twenty 1kg test units. The purpose of the ANOVA evaluation is to test that no statistically significant difference exists in the variance between-units to that of the variance within-units. This allows an assessment of homogeneity across the entire prepared batch of OREAS 681. The test was performed using the following parameters:

- Null Hypothesis, H_0 : Between-unit variance is no greater than within-unit variance (reject H_0 if p -value < 0.05);
- Alternative Hypothesis, H_1 : Between-unit variance is greater than within-unit variance.

P-values are a measure of probability where values less than 0.05 indicate a greater than 95% probability that the observed differences in within-unit and between-unit variances are real. The datasets were filtered for both individual and laboratory data set (batch) outliers prior to the calculation of *p*-values. This process derived no significant *p*-values across the entire 104 certified values except for Niobium (Nb) by peroxide fusion and Samarium (Sm) by 4-acid digestion. Nb is present in very low concentration and is close to its lower level of detection (LLD) where reading resolution errors can lead to 'false negatives' ('significant' *p*-values that are in fact irrelevant). Usually data becomes more reliable and meaningful when the concentration levels are at least twenty times the LLD. For the isolated case of Sm, the 'significant' *p*-value is most likely due to random statistical probability as there is no other supporting evidence to suspect greater between-unit variance compared with within-unit variance. The null hypothesis is therefore retained.

It is important to note that ANOVA is not an absolute measure of homogeneity. Rather, it establishes whether or not the analytes are distributed in a similar manner throughout the packaging run of OREAS 681 and whether the variance between two subsamples from the same unit is statistically distinguishable to the variance from two subsamples taken from any two separate units. A reference material therefore, can possess poor absolute homogeneity yet still pass a relative homogeneity test if the within-unit heterogeneity is large and similar across all units.

Based on the statistical analysis of the results of the inter-laboratory certification program it can be concluded that OREAS 681 is fit-for-purpose as a certified reference material (see 'Intended Use' below).

PARTICIPATING LABORATORIES

1. Actlabs, Ancaster, Ontario, Canada
2. AGAT Laboratories, Mississauga, Ontario, Canada
3. ALS, Johannesburg, South Africa
4. ALS, Loughrea, Galway, Ireland
5. ALS, Perth, WA, Australia
6. ALS, Vancouver, BC, Canada
7. Anglo Research Iron Ore Laboratory, Johannesburg, South Africa
8. Bureau Veritas Commodities Canada Ltd, Vancouver, BC, Canada

9. Bureau Veritas Geoanalytical, Adelaide, SA, Australia
10. Bureau Veritas Geoanalytical, Perth, WA, Australia
11. Bureau Veritas Kalassay, Perth, WA, Australia
12. Intertek Genalysis, Perth, WA, Australia
13. Labtium Oy, Saarenkylä, Rovaniemi, Finland
14. MINTEK Analytical Services, Randburg, South Africa
15. Ontario Geological Survey, Sudbury, Ontario, Canada
16. Set Point Laboratory, Mokopane, Limpopo, South Africa
17. SGS, Randfontein, Gauteng, South Africa
18. SGS Australia Mineral Services, Perth, WA, Australia
19. SGS Canada Inc., Vancouver, BC, Canada
20. SGS Lakefield Research Ltd, Lakefield, Ontario, Canada
21. SGS Mineral Services, Townsville, QLD, Australia
22. SGS South Africa Pty Ltd, Rustenburg, South Africa
23. Trojan Ni Mine Lab, Bindura, Zimbabwe

PREPARER AND SUPPLIER

Certified reference material OREAS 681 is prepared, certified and supplied by:



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It is packaged in unit sizes of 60g (single-use laminated foil pouches) and 500g (plastic jars).

INTENDED USE

OREAS 681 is intended for the following uses:

- For the monitoring of laboratory performance in the analysis of analytes reported in Table 1 in geological samples;
- For the verification of analytical methods for analytes reported in Table 1;
- For the calibration of instruments used in the determination of the concentration of analytes reported in Table 1.

STABILITY AND STORAGE INSTRUCTIONS

OREAS 681 has been prepared from primary PGE ores blended with barren gabbro-norite. It is low in reactive sulphide (~0.1% S) and in its unopened state and under normal conditions of storage has a shelf life beyond ten years. Its stability will be monitored at regular intervals and purchasers notified if any changes are observed.

INSTRUCTIONS FOR CORRECT USE

The certified values for OREAS 681 refer to the concentration level in its packaged state. It should not be dried prior to weighing and analysis.

HANDLING INSTRUCTIONS

Fine powders pose a risk to eyes and lungs and therefore standard precautions such as the use of safety glasses and dust masks are advised.

TRACEABILITY

The analytical samples were selected in a manner to represent the entire batch of prepared CRM. This 'representivity' was maintained in each submitted laboratory sample batch and ensures the user that the data is traceable from sample selection through to the analytical results that underlie the consensus values. Each analytical data set has been validated by its assayer through the inclusion of internal reference materials and QC checks during analysis. The laboratories were chosen on the basis of their competence (from past performance in inter-laboratory programs) for a particular analytical method, analyte or analyte suite, and sample matrix. Most of these laboratories have and maintain ISO 17025 accreditation. The certified values presented in this report are calculated from the means of accepted data following robust statistical treatment as detailed in this report.

LEGAL NOTICE

Ore Research & Exploration Pty Ltd has prepared and statistically evaluated the property values of this reference material to the best of its ability. The Purchaser by receipt hereof releases and indemnifies Ore Research & Exploration Pty Ltd from and against all liability and costs arising from the use of this material and information.

QMS ACCREDITED

ORE Pty Ltd is accredited to ISO 9001:2015 by Lloyd's Register Quality Assurance Ltd for its quality management system including development, manufacturing, certification and supply of CRMs.



CERTIFYING OFFICER

16th March, 2018

Craig Hamlyn (B.Sc. Hons - Geology), Technical Manager - ORE P/L

REFERENCES

Ingamells, C. O. and Switzer, P. (1973), *Talanta* 20, 547-568.

ISO Guide 30 (2015), Terms and definitions used in connection with reference materials.

ISO Guide 31 (2015), Reference materials – Contents of certificates and labels.

ISO Guide 3207 (1975), Statistical interpretation of data - Determination of a statistical tolerance interval.

ISO Guide 35 (2017), Certification of reference materials - General and statistical principals.

9. Bureau Veritas Geoanalytical, Adelaide, SA, Australia
10. Bureau Veritas Geoanalytical, Perth, WA, Australia
11. Bureau Veritas Kalassay, Perth, WA, Australia
12. Intertek Genalysis, Perth, WA, Australia
13. Labtium Oy, Saarenkylä, Rovaniemi, Finland
14. MINTEK Analytical Services, Randburg, South Africa
15. Ontario Geological Survey, Sudbury, Ontario, Canada
16. Set Point Laboratory, Mokopane, Limpopo, South Africa
17. SGS, Randfontein, Gauteng, South Africa
18. SGS Australia Mineral Services, Perth, WA, Australia
19. SGS Canada Inc., Vancouver, BC, Canada
20. SGS Lakefield Research Ltd, Lakefield, Ontario, Canada
21. SGS Mineral Services, Townsville, QLD, Australia
22. SGS South Africa Pty Ltd, Rustenburg, South Africa
23. Trojan Ni Mine Lab, Bindura, Zimbabwe

PREPARER AND SUPPLIER

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Fine powders pose a risk to eyes and lungs and therefore standard precautions such as the use of safety glasses and dust masks are advised.

TRACEABILITY

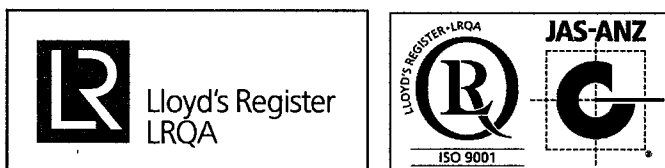
The analytical samples were selected in a manner to represent the entire batch of prepared CRM. This 'representivity' was maintained in each submitted laboratory sample batch and ensures the user that the data is traceable from sample selection through to the analytical results that underlie the consensus values. Each analytical data set has been validated by its assayer through the inclusion of internal reference materials and QC checks during analysis. The laboratories were chosen on the basis of their competence (from past performance in inter-laboratory programs) for a particular analytical method, analyte or analyte suite, and sample matrix. Most of these laboratories have and maintain ISO 17025 accreditation. The certified values presented in this report are calculated from the means of accepted data following robust statistical treatment as detailed in this report.

LEGAL NOTICE

Ore Research & Exploration Pty Ltd has prepared and statistically evaluated the property values of this reference material to the best of its ability. The Purchaser by receipt hereof releases and indemnifies Ore Research & Exploration Pty Ltd from and against all liability and costs arising from the use of this material and information.

QMS ACCREDITED

ORE Pty Ltd is accredited to ISO 9001:2015 by Lloyd's Register Quality Assurance Ltd for its quality management system including development, manufacturing, certification and supply of CRMs.



CERTIFYING OFFICER

16th March, 2018

Craig Hamlyn (B.Sc. Hons - Geology), Technical Manager - ORE P/L

REFERENCES

Ingamells, C. O. and Switzer, P. (1973), Talanta 20, 547-568.

ISO Guide 30 (2015), Terms and definitions used in connection with reference materials.

ISO Guide 31 (2015), Reference materials – Contents of certificates and labels.

ISO Guide 3207 (1975), Statistical interpretation of data - Determination of a statistical tolerance interval.

ISO Guide 35 (2017), Certification of reference materials - General and statistical principals.

CERTIFICATE OF ANALYSIS FOR

NICKEL SULPHIDE ORE REFERENCE MATERIAL

OREAS 70b

Table 1. Fusion XRF - Certified Values, SDs, 95% Confidence and Tolerance Limits for OREAS 70b

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Fusion XRF						
Aluminium, Al (wt.%)	3.81	0.039	3.78	3.84	3.78	3.84
Calcium, Ca (wt.%)	3.07	0.022	3.05	3.09	3.05	3.09
Chromium, Cr (ppm)	1243	43.8	1216	1271	1234	1252
Iron, Fe (wt.%)	5.51	0.086	5.44	5.58	5.46	5.56
Magnesium, Mg (wt.%)	13.54	0.086	13.48	13.61	13.45	13.63
Manganese, Mn (wt.%)	0.115	0.003	0.112	0.117	0.114	0.116
Nickel, Ni (wt.%)	0.223	0.006	0.218	0.229	0.219	0.227
Phosphorus, P (wt.%)	0.024	0.002	0.023	0.025	0.024	0.024
Potassium, K (wt.%)	0.585	0.010	0.577	0.593	0.578	0.592
Silicon, Si (wt.%)	22.42	0.171	22.28	22.56	22.33	22.51
Sodium, Na (wt.%)	0.742	0.016	0.726	0.757	0.725	0.759
Titanium, Ti (wt.%)	0.178	0.004	0.175	0.180	0.175	0.180

Note: intervals may appear asymmetric due to rounding.

Table 2. Fusion ICP - Certified Values, SDs, 95% Confidence and Tolerance Limits for OREAS 70b

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Fusion ICP-OES/MS						
Aluminium, Al (wt.%)	3.80	0.162	3.71	3.88	3.72	3.87
Arsenic, As (ppm)	143	20	135	151	133	153
Barium, Ba (ppm)	202	11.1	194	210	194	210
Calcium, Ca (wt.%)	3.08	0.101	3.03	3.13	3.01	3.14
Cerium, Ce (ppm)	27.5	2.62	25.5	29.5	24.6	30.3
Cesium, Cs (ppm)	3.37	0.293	3.10	3.65	3.22	3.53
Chromium, Cr (ppm)	1252	119.9	1180	1323	1214	1289
Cobalt, Co (ppm)	83	6.7	79	88	80	86
Copper, Cu (ppm)	52	6	48	56	48	55
Dysprosium, Dy (ppm)	1.92	0.149	1.79	2.05	1.79	2.05
Erbium, Er (ppm)	1.18	0.107	1.08	1.29	IND	IND
Europium, Eu (ppm)	0.54	0.037	0.51	0.56	IND	IND
Gadolinium, Gd (ppm)	1.93	0.23	1.70	2.16	1.65	2.21
Gallium, Ga (ppm)	9.71	0.412	9.39	10.03	9.12	10.29
Holmium, Ho (ppm)	0.41	0.05	0.36	0.46	IND	IND
Iron, Fe (wt.%)	5.66	0.234	5.53	5.80	5.58	5.75
Lanthanum, La (ppm)	15.5	1.7	13.8	17.2	14.7	16.3
Lead, Pb (ppm)	13.2	1.8	11.8	14.6	IND	IND
Lithium, Li (ppm)	35.3	5.2	28.5	42.1	32.5	38.2
Magnesium, Mg (wt.%)	13.61	0.434	13.36	13.86	13.39	13.83
Manganese, Mn (wt.%)	0.116	0.004	0.114	0.118	0.112	0.120
Neodymium, Nd (ppm)	11.3	1.4	9.9	12.8	10.6	12.1
Nickel, Ni (wt.%)	0.222	0.008	0.217	0.227	0.215	0.229
Niobium, Nb (ppm)	3.27	0.307	2.89	3.65	3.06	3.47
Phosphorus, P (wt.%)	0.025	0.003	0.022	0.028	IND	IND
Potassium, K (wt.%)	0.617	0.056	0.584	0.650	0.578	0.657
Praseodymium, Pr (ppm)	3.13	0.35	2.75	3.52	2.98	3.29
Rubidium, Rb (ppm)	34	2.9	31	36	32	35
Samarium, Sm (ppm)	2.00	0.155	1.85	2.15	1.57	2.42
Silicon, Si (wt.%)	22.78	0.458	22.51	23.04	22.38	23.18
Strontium, Sr (ppm)	72	5.7	67	77	70	75
Sulphur, S (wt.%)	0.308	0.026	0.291	0.324	0.285	0.330
Terbium, Tb (ppm)	0.32	0.03	0.29	0.34	IND	IND
Thorium, Th (ppm)	6.45	0.578	6.01	6.88	5.97	6.92
Thulium, Tm (ppm)	0.18	0.02	0.16	0.21	IND	IND
Titanium, Ti (wt.%)	0.176	0.006	0.171	0.181	0.166	0.186
Uranium, U (ppm)	1.87	0.32	1.62	2.12	1.64	2.10
Vanadium, V (ppm)	69	6.8	64	74	62	76
Ytterbium, Yb (ppm)	1.16	0.105	1.07	1.25	IND	IND
Yttrium, Y (ppm)	10.7	0.64	10.2	11.2	10.0	11.3
Zinc, Zn (ppm)	107	9.5	101	114	100	114
Zirconium, Zr (ppm)	67	9	61	74	59	76

Note: intervals may appear asymmetric due to rounding.

Table 3. 4-Acid ICP - Certified Values, SDs, 95% Confidence and Tolerance Limits for OREAS 70b

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Four Acid ICP-OES/MS						
Aluminium, Al (wt.%)	3.87	0.182	3.78	3.96	3.79	3.95
Antimony, Sb (ppm)	0.56	0.06	0.53	0.59	0.50	0.62
Arsenic, As (ppm)	148	8.4	145	150	136	159
Barium, Ba (ppm)	202	9.3	197	207	196	208
Beryllium, Be (ppm)	1.04	0.19	0.92	1.15	0.94	1.14
Bismuth, Bi (ppm)	0.84	0.15	0.78	0.90	0.71	0.97
Cadmium, Cd (ppm)	0.36	0.04	0.34	0.38	0.33	0.39
Calcium, Ca (wt.%)	3.05	0.149	2.97	3.14	2.99	3.12
Cerium, Ce (ppm)	28.2	1.97	26.9	29.5	26.5	29.9
Cesium, Cs (ppm)	3.44	0.271	3.25	3.63	3.30	3.59
Cobalt, Co (ppm)	78	5.0	76	81	76	81
Copper, Cu (ppm)	52	4.3	50	55	50	55
Gallium, Ga (ppm)	10.1	0.89	9.5	10.6	9.7	10.4
Hafnium, Hf (ppm)	1.86	0.20	1.73	1.98	IND	IND
Indium, In (ppm)	0.047	0.003	0.044	0.049	0.041	0.052
Iron, Fe (wt.%)	5.52	0.273	5.38	5.66	5.41	5.64
Lanthanum, La (ppm)	15.3	1.41	14.5	16.2	14.6	16.1
Lead, Pb (ppm)	13.7	1.6	12.8	14.6	12.8	14.6
Lithium, Li (ppm)	34.4	2.61	32.8	35.9	33.3	35.5
Magnesium, Mg (wt.%)	13.40	0.783	12.98	13.82	13.15	13.65
Manganese, Mn (wt.%)	0.115	0.004	0.113	0.117	0.112	0.117
Molybdenum, Mo (ppm)	3.30	0.53	3.07	3.53	2.45	4.15
Nickel, Ni (wt.%)	0.218	0.010	0.212	0.223	0.213	0.223
Niobium, Nb (ppm)	3.68	0.335	3.47	3.88	3.44	3.91
Phosphorus, P (wt.%)	0.0224	0.0015	0.0216	0.0233	0.0213	0.0236
Potassium, K (wt.%)	0.620	0.029	0.604	0.637	0.602	0.639
Scandium, Sc (ppm)	12.4	1.08	11.7	13.1	11.9	12.8
Silver, Ag (ppm)	0.175	0.035	0.152	0.198	IND	IND
Sodium, Na (wt.%)	0.769	0.033	0.750	0.788	0.747	0.791
Strontium, Sr (ppm)	74	6.1	70	78	72	77
Sulphur, S (wt.%)	0.309	0.020	0.299	0.320	0.298	0.320
Tantalum, Ta (ppm)	0.30	0.04	0.28	0.31	0.25	0.34
Thallium, Tl (ppm)	0.33	0.04	0.31	0.35	0.31	0.35
Thorium, Th (ppm)	6.91	0.278	6.77	7.04	6.52	7.29
Tin, Sn (ppm)	1.21	0.18	1.10	1.32	IND	IND
Titanium, Ti (wt.%)	0.181	0.006	0.177	0.185	0.176	0.186
Tungsten, W (ppm)	4.92	0.72	4.72	5.13	3.86	5.99
Uranium, U (ppm)	1.72	0.108	1.64	1.79	1.56	1.87
Vanadium, V (ppm)	67	2.6	66	68	65	69
Yttrium, Y (ppm)	9.85	0.520	9.51	10.18	9.41	10.29
Zinc, Zn (ppm)	112	9.0	107	117	108	116
Zirconium, Zr (ppm)	66	5.1	63	69	63	69

Note: intervals may appear asymmetric due to rounding.

Table 4. IR Furnace - Certified Values, SDs, 95% Confidence and Tolerance Limits for OREAS 70b

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
IR Combustion Furnace						
Sulphur, S (wt.%)	0.286	0.020	0.273	0.298	0.273	0.298

Note: intervals may appear asymmetric due to rounding.

Table 5. Thermograv - Certified Values, SDs, 95% Confidence and Tolerance Limits for OREAS 70b

Constituent	Certified Value	1SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Thermogravimetry						
Loss On Ignition, LOI (wt.%)	6.69	0.330	6.43	6.95	6.63	6.75

Note: intervals may appear asymmetric due to rounding.

Table 6. Indicative Values for OREAS 70b

Constituent	Unit	Value	Constituent	Unit	Value	Constituent	Unit	Value
Fusion XRF								
As	ppm	127	Nb	ppm	< 10	Th	ppm	20
Ba	ppm	196	Pb	ppm	< 50	U	ppm	< 10
Bi	ppm	< 80	Rb	ppm	< 50	W	ppm	< 10
Cl	ppm	386	S	wt.%	0.3	Zn	ppm	103
Co	ppm	84	Sb	ppm	< 50	Zr	ppm	< 100
Cu	ppm	< 60	Sn	ppm	< 50			
Mo	ppm	< 10	Sr	ppm	62			
Fusion ICP-OES/MS								
Ag	ppm	< 1	Hg	ppm	< 20	Se	ppm	1.5
B	ppm	28	In	ppm	< 0.2	Sn	ppm	1.0
Be	ppm	1.5	Lu	ppm	0.20	Ta	ppm	0.36
Bi	ppm	< 2	Mo	ppm	3.0	Te	ppm	< 6
Cd	ppm	< 2	Na	wt.%	0.76	Tl	ppm	0.35
Ge	ppm	2.0	Sb	ppm	< 2	W	ppm	4.7
Hf	ppm	1.9	Sc	ppm	11			
Four Acid ICP-OES/MS								
Dy	ppm	1.8	Ho	ppm	0.38	Se	ppm	1.0
Er	ppm	1.1	Lu	ppm	0.17	Sm	ppm	2.0
Eu	ppm	0.5	Nd	ppm	10	Tb	ppm	0.33
Gd	ppm	2.0	Pr	ppm	3.1	Te	ppm	0.07
Ge	ppm	0.2	Rb	ppm	36	Tm	ppm	0.18
Hg	ppm	< 1	Re	ppm	0.001	Yb	ppm	1.0
Infra-red combustion furnace								
C	wt.%	0.07						

INTRODUCTION

OREAS reference materials are intended to provide a low cost method of evaluating and improving the quality of analysis of geological samples. To the geologist they provide a means of implementing quality control in analytical data sets generated in exploration from the grass roots level through to prospect evaluation, and in grade control at mining operations. To the analyst they provide an effective means of calibrating analytical equipment, assessing new techniques and routinely monitoring in-house procedures.

SOURCE MATERIALS

Reference material OREAS 70b is one of a suite of seven nickel sulphide CRMs prepared from high grade massive nickel sulphide ore and barren ultramafic material sourced from Xstrata Nickel's Prospero and Tapinos Nickel mines, located in the Kathleen Valley area approximately 30km north of Leinster in Western Australia within the Agnew-Wiluna portion of the Norseman-Wiluna greenstone belt. It is a typical komatiite-associated, massive sulphide deposit representing an in-situ accumulation of massive and semi-massive primary magmatic Ni-Fe sulphides with minor by-products including Cu, Co and platinum group elements (PGE's).

COMMINUTION AND HOMOGENISATION PROCEDURES

The material constituting OREAS 70b was prepared in the following manner:

- drying to constant mass at 75°C (Ni ore) and 105°C (barren ultramafic);
- crushing;
- milling of the nickel ore to 100% minus 30 microns;
- milling of the barren ultramafic to 98% minus 75 microns;
- combining in appropriate proportions to achieve the desired grade;
- homogenisation;
- packaging into 10g units in laminated foil pouches.

ANALYTICAL PROGRAM

Nineteen commercial analytical laboratories participated in the program to characterise the elements reported in Tables 1 to 6. The following methods were employed:

- Lithium borate fusion with X-ray fluorescence (8 laboratories)
- Sodium peroxide fusion or lithium borate fusion with ICP-OES and ICP-MS (14 laboratories)
- Four acid digestion with ICP-OES and ICP-MS (16 laboratories)
- Infra-red combustion furnace for sulphur (14 laboratories)
- Thermogravimetry for Loss On Ignition (9 laboratories)

For the round robin program twenty 800g test units were taken at predetermined intervals during the bagging stage and are considered representative of the entire batch. The six samples received by each laboratory were obtained by taking two 20g scoop splits from each of three separate 800g test units. This format enabled nested ANOVA treatment of the results to evaluate homogeneity. All test portions distributed to the laboratories were nitrogen flushed and vacuum sealed to prevent oxidation.

Results, together with uncorrected means, medians, standard deviations, relative standard deviations and percent deviation of lab means from the corrected mean of means (PDM³) are presented in the detailed certification report for this CRM (Hamlyn, 2011).

STATISTICAL ANALYSIS

Certified Values, Standard Deviations, Confidence and Tolerance Limits have been determined for each analytical method following removal of individual and laboratory outliers (see Tables 1-5). Certified Values are the mean of means after outlier filtering. The 95% Confidence Limit is a measure of the reliability of the certified value, i.e. the narrower the Confidence Interval the greater the certainty in the Certified Value. It should not be used as a control limit for laboratory performance.

Indicative values (Table 6) are provided where i) the number of laboratories reporting a particular analyte is insufficient (< 5) to support certification; ii) interlaboratory consensus is poor; or iii) a significant proportion of results are outlying or reported as less than detection limits.

Standard Deviation values (1SDs) are reported in Tables 1-5 and provide an indication of a level of performance that might reasonably be expected from a laboratory being monitored by this CRM in a QA/QC program. They take into account errors attributable to measurement uncertainty and CRM variability. For an effective CRM the contribution of the latter should be negligible in comparison to measurement errors. The Standard Deviation values include all sources of measurement uncertainty: between-lab variance, within-run variance (precision errors) and CRM variability. The SD for each analyte's certified value is calculated from the same filtered data set used to determine the certified value, i.e. after removal of all individual, lab dataset (batch) and 3SD outliers (single iteration). These outliers can only be removed after the absolute homogeneity of the CRM has been independently established, i.e. the outliers must be confidently deemed to be analytical rather than arising from inhomogeneity of the CRM. The standard deviation is then calculated for each analyte from the pooled accepted analyses generated from the certification program.

As a guide two or more analytical results lying outside the 2SD window may be regarded as warning or rejection, and rejection for single results lying outside the 3SD window in QC monitoring, although their precise application should be at the discretion of the QC manager concerned.

Tolerance Limits (ISO Guide 3207) were determined using an analysis of precision errors method and are considered a conservative estimate of true homogeneity. The meaning of tolerance limits may be illustrated for nickel by lithium borate fusion XRF, where 99% of the time ($1-\alpha=0.99$) at least 95% of subsamples ($p=0.95$) will have concentrations lying between 2189 and 2274 ppm. Put more precisely, this means that if the same number of subsamples were taken and analysed in the same manner repeatedly, 99% of the tolerance intervals so constructed would cover at least 95% of the total population, and 1% of the tolerance intervals would cover less than 95% of the total population (ISO Guide 35).

The homogeneity of OREAS 70b has also been evaluated in an ANOVA study for all certified analytes. This study indicates no evidence that between-unit variance is greater than within-unit variance.

Based on the statistical analysis of the results of the interlaboratory certification program it can be concluded that OREAS 70b is fit-for-purpose as a certified reference material (see 'Intended Use' below).

A detailed report covering statistical treatment and tabulation of the analytical results is available on request as a separate pdf document (Certification Report for OREAS 70b).

PREPARER AND SUPPLIER OF THE REFERENCE MATERIAL

Nickel sulphide ore reference material OREAS 70b has been prepared, certified and is supplied by:

ORE Research & Exploration Pty Ltd
6-8 Gatwick Road
Bayswater North VIC 3153
AUSTRALIA

Tel: +613-9729 0333
Fax: +613-9761 7878
Web: www.ore.com.au
Email: info@ore.com.au

Due to the presence of reactive sulphides OREAS 70b has been packaged under nitrogen and is available in unit sizes of 10g (single-use laminated foil pouches).

INTENDED USE

OREAS 70b is intended for the following uses:

- for the monitoring of laboratory performance in the analysis of analytes reported in Tables 1-5 in geological samples
- for the verification of analytical methods for analytes reported in Tables 1-5
- for the calibration of instruments used in the determination of the concentration of analytes reported in Tables 1-5

STABILITY AND STORAGE INSTRUCTIONS

OREAS 70b has been sourced from samples of high grade nickel ore and waste rock. It has been packaged under nitrogen in robust laminated foil sachets to prevent oxidation of the sulphides. In its unopened state and under normal conditions of storage it has a shelf life beyond five years. Its stability will be monitored at regular intervals and purchasers notified if any changes are observed. After sampling the open sachets should be re-sealed and stored in a nitrogen-purged desiccator.

INSTRUCTIONS FOR THE CORRECT USE OF THE REFERENCE MATERIAL

The certified values for XRF and for LOI are on a dry basis whilst all other certified values are reported on an "as received" basis. This obviates the need for drying at elevated temperatures, as this can result in oxidation of the sulphide minerals. A moisture content of ~0.4 wt.% has been determined for OREAS 72b in its packaged state.

HANDLING INSTRUCTIONS

Fine powders pose a risk to eyes and lungs and therefore standard precautions such as the use of safety glasses and dust masks are advised.

LEGAL NOTICE

Ore Research & Exploration Pty Ltd has prepared and statistically evaluated the property values of this reference material to the best of its ability. The Purchaser by receipt hereof releases and indemnifies Ore Research & Exploration Pty Ltd from and against all liability and costs arising from the use of this material and information.

CERTIFYING OFFICER

Craig Hamlyn (B.Sc. Hons - Geology), Technical Manager - **ORE**

PARTICIPATING LABORATORIES

Acme Analytical Laboratories, Vancouver, BC, Canada
Activation Laboratories, Ancaster, Ontario, Canada
Activation Laboratories, Thunder Bay, Ontario, Canada
ALS, Brisbane, QLD, Australia
ALS, Callao, Lima, Peru
ALS, Perth, WA, Australia
ALS, Vancouver, BC, Canada
BV Amdel, Adelaide, SA, Australia
BV Kalassay, Perth, WA, Australia
BV Ultra Trace, Perth, WA, Australia
Intertek Genalysis, Perth, WA, Australia
Intertek Testing Services, Beijing, China
Intertek Testing Services, Jakarta, Indonesia
OMAC Laboratories, Loughrea, County Galway, Ireland
SGS Mineral Services, Lakefield, Ontario, Canada
SGS Mineral Services, Perth, WA, Australia
SGS Mineral Services, Toronto, Ontario, Canada
Shiva Analyticals, Bangalore North, Karnataka, India
Zarazma Mineral Studies, Tehran, Iran

REFERENCES

ISO Guide 35 (2006), Certification of reference materials - General and statistical principals.
ISO Guide 3207 (1975), Statistical interpretation of data - Determination of a statistical tolerance interval.
Hamlyn, C. L. (2011), Certification Report for OREAS 70b.

APPENDIX 5: INVOICE SUMMARY AND COPY OF INVOICES

Montcalm 2022 Work Summary of Drilling Program Costs & Additional Geophysics Interpretation Costs (All Costs Exclude HST Charges)

Contractor and Work Summary Receipts for Gowan Drill Program

Contractors	Reference	\$ Amount	Subtotals	Comments
Drilling Related Costs				
NPLH Drilling	invoice 6650	180000.26	180000.26	Cost of actual drilling
Map and Section Work				
Superior Geospatial	filo ex inv 679802	720		paid by filo ex re: field maps
Superior Geospatial	filo ex inv 679803	640		paid by filo ex re: field maps
Superior Geospatial	filoex inv 679804	813.6		paid by filo ex re: field maps
Superior Geospatial	filoex inv 679806	440		paid by filo ex re: field maps
Superior Geospatial	superior inv 2023007	800		Work related to report
	Sub total	3413.6	3413	
Geology	Reference			
Filo Exploration	filoex inv 679806	14000		28 days geology related work
Filo Exploration	Filoex inv 679808	8000		Final report
	Sub total	22000	22000	
Equipment and Supplies				
Supplies	Reference			
Category				
Timmins Print	Filoex inv 679802	52.62		Map copies
Assay standards	Filoex inv 679802	441.38		Standards for QA/QC
Core shack supply	Filoex inv 679803	360		Pallets for outside core storage
Batteries field supply	Filoex inv 679803	18.97		GPS batteries for field
Core shack supply	Filoex inv 679804	157.58		Core box tags for labels
Safety supply	Filoex inv 679804	22.59		glasses for field
	Sub total	1053.14	1053.14	
Meals & Lodging	Reference			
Meal	Filoex inv 679803	9.77		
Meal (supper 2 men)	Filoex inv 679803	127.53		
Lunch (2 men)	Filoex inv 679804	26.97		
Lunch (2 men)	Filoex inv 679804	31.89		
Lunch (2 men)	Filoex inv 679804	12.38		
Lunch (2 men)	Filoex inv 679804	31.89		
Lunch (2 men)	Filoex inv 679804	7.2		
Lunch (2 men)	Filoex inv 679804	29.29		
Lunch (2 men)	Filoex inv 679804	18.58		
Lunch (2 men)	Filoex inv 679804	23.2		
Lunch 1 man	Filoex inv 679804	11.02		
	Sub total	329.72	329.72	
Rentals	Reference			
Truck rental for core	Filoex inv 679803	1318.52		core transport
Core splitter rental	Filoex inv 679804	706.25		From sev expl splitter rental
Truck rental for core	Filoex inv 679804	1890.73		core transport
Ski doo rental	Filoex inv 679806	600		field transport
Core splitter rental	Filoex inv 679806	625		
core shack rental	ingamar inv 2023-01	3850		
	Sub total	8990.5	8990.5	
Transportation	Reference			
Category				
Fuel for truck rental	Filoex inv 679803	74.74		
Ski doo gas	Filoex inv 679803	27.48		
Fuel for truck rental	Filoex inv 679803	185.41		Truck fill up x 2
Ski doo gas	Filoex inv 679804	40.72		
Fuel for truck rental	Filoex inv 679804	92.12		
Fuel for truck rental	Filoex inv 679804	95.64		
Fuel for truck rental	Filoex inv 679804	130.77		
Fuel for truck rental	Filoex inv 679804	97.19		
Fuel for truck rental	Filoex inv 679804	68.51		
Fuel for truck rental	Filoex inv 679804	89.36		
Fuel for truck rental	Filoex inv 679804	92.92		
Filo ex jeep km	Filoex inv 679806	825		1500 km@ 55 cents per km
Shipping cost	Serv Expl invoice	296.68		shipping core splitter back to Quebec
	Sub total	2116.54	2116.54	
Mink Employee Labour Cost				
Gregor Dixon	No invoice payroll	1820	1820	core shack labour
(Note Payroll data to be supplied by company CFO on request)				
Assay Costs				
Category	Reference			
Actlabs	A2303221	2029.4		
	A2303350	1718.8		
	A2304410	2467.1		
	A2304720	1256.15		
	A2304737	1626.45		
	Sub total	9097.9	9097.9	
				228821.06

Total Cost of Montcalm Program:228821.06

FILO EXPLORATION INVOICES

Expenses for Filo Exploration re inv 679804

	Date	Cost	Hst	Reason
Service Exploration	Feb.27/23	157.58	18.13	Box tags for core boxes
Ski doo gas	Feb28/23	40.72	4.68	
Lunch (2 men)	March 1/23	26.97	1.55	
Rental Truck Gas	March 2/23	92.12	10.5	
Lunch (2 men)	March 2/23	31.89	1.84	
Rental Truck Gas	March 3/23	95.64	11	
pioneer energy conv store	March 3/23	22.59	2.6	safety supply re ski doo wind chill
Lunch (2 men)	March 3/23	12.38	0.72	
Lunch (2 men)	March 4/23	31.89	1.84	
Lunch (2 men)	March 5/23	7.2	0.43	
Rental Truck Gas	March 5/23	130.77	14.35	
Lunch (2 men)	March 6/23	29.29	1.69	
Rental Truck Gas	March 7/23	97.19	11.18	
Rental Truck Gas	March 8/23	68.51	7.88	
Lunch (2 men)	March 8/23	18.58	1.07	
Rental Truck Gas	March 10/23	89.36	9.82	
Lunch (2 men)	March 10/23	23.2	1.34	
Lunch 1 man	March 12/23	11.02	0.64	
Service Exploration	March 13/23	706.25	81.25	core splitter rental
Rental Truck Gas	March 14/23	92.92	10.69	
Truck Rental	March 14/23	1890.73	204.49	
Superior Geo	March 15/23	813.6	93.6	Map work
	March 15/23	4490.4	491.29	

Filo Exploration Invoice Summary for Montcalm Drill Program

Field Work for Montcalm Drill Program (Feb.1 to Apr.11/23) Includes: Geological Consulting re: hole location, core logging; liasion with drillers on daily basis 28 field days a 500 dollars per day	Amount	HST	Total
Km on company jeep 1500 x 0.55 cents	825	107.25	
Ski doo rental 10 days at 60 dollars per day	600	78	
Core splitter rental invoice paid by Filo Exploration	625	81.25	
Superior geospatial for map work paid by Filo Exploration	440	57.2	
	16490	2143.7	18633.7