TALON METALS CORP

First Technical Report on the Tamarack South Project

Effective Date: December 12, 2018

Prepared by: James McDonald

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1.0 EXECUTIVE SUMMARY

1.1 Scope of Work

Talon Metals Corp. has prepared this Technical Report in accordance with NI 43-101 guidelines. This document represents the first Technical Report on the Tamarack South Project. The author has endeavoured to complete this document with the most current information available. There are no mineral resources calculated or proposed in this report.

1.2 Location and Ownership

The Tamarack South Project is located in north-central Minnesota approximately 100 kilometres (km) west (W) of Duluth and 200 km north (N) of Minneapolis, in Aitkin and Carlton Counties. The Tamarack South Project covers approximately 11,633 acres and is located south (S) of the town of Tamarack.

On June 25, 2014, Talon's wholly-owned, indirect subsidiary, Talon Nickel (USA) LLC (collectively, Talon), entered into an exploration and option agreement (the 2014 Tamarack Earn-in Agreement) with Kennecott (part of the Rio Tinto Group), pursuant to which Talon, subject to certain funding conditions, received the right to acquire a 30% interest in the Tamarack Project, which comprises both the Tamarack North Project and the Tamarack South Project.

On November 25, 2015, Kennecott and Talon amended the 2014 Tamarack Earn-in Agreement to provide that, subject to certain funding conditions, Talon would earn an 18.45% interest in the Tamarack Project.

On January 11, 2018, Talon and Kennecott entered into a mining venture agreement (the Original MVA). Pursuant to the Original MVA, Talon elected not to financially participate in the 2018 winter exploration program at the Tamarack Project. Consequently, Talon's interest in the Tamarack Project was diluted below 18.45%.

On November 7, 2018, Talon and Kennecott entered into a new agreement (the 2018 Tamarack Earn-in Agreement) pursuant to which Talon has the right to increase its interest in the Tamarack Project to a maximum 60% interest and become the manager/operator of the Tamarack Project.

Pursuant to the 2018 Tamarack Earn-in Agreement, Talon initially has the right to increase its interest in the Tamarack Project to 51% by:

- Paying Kennecott US$6M cash and issuing US$1.5M worth of common shares in Talon to Kennecott on the effective date of the 2018 Tamarack Earn-in Agreement; and
- Within three years of the effective date of the 2018 Tamarack Earn-in Agreement, by Talon (a) incurring US$10M in exploration expenditures on the Tamarack Project, or (b) delivering a PFS in accordance with NI 43-101, whichever comes first; and
- Also, within three years of the effective date of the 2018 Tamarack Earn-in Agreement, Talon paying Kennecott the additional sum in cash of US$5M.

In the event Talon successfully earns a 51% interest in the Tamarack Project, Talon will then have the right, within seven years of the effective date of the 2018 Tamarack Earn-in Agreement, to further increase its interest in the Tamarack Project to 60% by:

- Completing a Feasibility Study in accordance with NI 43-101; and
- Paying Kennecott an additional cash payment US$10M.

Upon Talon earning a 60% interest in the Tamarack Project, the parties have agreed to enter into a new mining venture agreement (the New MVA) under which Talon would assume the role of Manager of the Tamarack Project, and the parties would each be required to fund their *pro rata* share of expenditures in respect of the Tamarack Project or be diluted.

Section **Error! Reference source not found.** of this Technical Report contains further details regarding Talon's interest in the Tamarack Project.

1.3 Geology and Mineralization

The Tamarack Intrusive Complex (TIC) is an ultramafic to mafic intrusive complex that hosts nickel (Ni)-copper (Cu) sulphide mineralization with associated cobalt (Co), platinum (Pt), palladium (Pd) (PGEs) and gold (Au). The TIC is a multi-magmatic phase intrusion, that consists of a minimum of 2 pulses: The fine grained olivine (FGO) and the coarse grained olivine (CGO) intrusion of the TIC (dated at 1105 Ma+/-1.2 Ma, Goldner 2011). The FGO and CGO intrusions are related to the early evolution of the approximately 1.1 Ga Mid-Continent Rift (MCR) and have intruded into slates and greywackes of the Thomson Formation of the Animikie Group, which formed as a foreland basin during the Paleoproterozoic Penokean Orogen (approximately 1.85 Ga, Goldner 2011). The TIC is completely buried beneath approximately 35 m to 55 m of Quaternary age glacial and fluvial sediments. The TIC is consistent with other earlier intrusions associated with the MCR that are often characterized by more primitive melts.

The geometry of the TIC, as outlined by a well-defined aeromagnetic anomaly, consists of a curved, elongated intrusion striking north-south (NS) to southeast (SE) over 18 km. The configuration has been likened to a tadpole shape with its elongated, northern tail up to 1 km wide and large, 4 km wide, ovoid shaped body in the S (see Figure 7-5). The southern portion of the TIC (the Tamarack South Project) is composed of a Neck Zone and a Bowl Zone (see Figure 7-6 A) and is approximately 9 km long and is the focus of this Technical Report.

There has been limited drilling over the Tamarack South Project to date considering the volume of material to be investigated. Despite the paucity of data, there are currently two areas with anomalous mineralization; 1) the Neck Zone which has demonstrated widespread, low grade Ni-Cu-PGE sulphide mineralization at depth, and 2) low sulphide PGE mineralization located along the outer margins of the Bowl Zone where intrusive layers become constricted.

1.4 Exploration

The TIC and associated mineralization were discovered as part of a regional program by Kennecott initiated in 1991. The focus on Ni and Cu sulphide mineralization was intensified in 1999 based on a model proposed by Dr. A. J. Naldrett of the potential for smaller feeder conduits associated with continental rift volcanism and mafic intrusions to host Ni sulphide deposits similar to Norilsk and Voisey's Bay.

To date, exploration by Kennecott has included a wide range of geophysical surveys including: airborne magnetic and electromagnetic (EM-MEGATEM and AeroTEM), ground magnetic, surface electromagnetic (EM) and magneto-telluric (MT), induced polarization (IP), gravity, seismic, mise-à-la-masse (MALM) and drill hole electromagnetic (DHEM). Kennecott has conducted limited, reconnaissance style drilling at the Tamarack South Project since 2002. This drilling is comprised of 27 diamond drill holes totalling 17,314 m with holes between 97.5 m and over 1,230 m depth.

1.5 Sample Preparation, QA/QC, and Security

Talon has reviewed Kennecott's sampling and quality assurance (QA)/quality control (QC) protocols along with the chain of custody of samples. Kennecott samples core continuously through the mineralization, and their sampling and logging procedures are consistent with industry standards and the assay methods are appropriate for the base metal sulphide mineralization found at the Tamarack South Project.

Their QA/QC program is based on insertion of certified reference materials (CRM), including a variety of standards, blanks and duplicate samples, used to monitor the precision and accuracy of their primary assay lab, and to prevent inaccurate data from being accepted into their assay database. The Kennecott QA/QC protocol is consistent with industry best practices.

Kennecott uses a system of metal seals to secure pails used to ship samples from the core shack to the assay lab ensuring that they have not been tampered with. Samples are prepared and stored in a secure facility and are monitored each step of the way to the lab. Talon is confident that the samples accurately reflect the mineralization and that there is little opportunity for samples to be tampered with. All procedures were found to meet or exceed industry standard practices.

1.6 Data Validation

Talon has compared assay data (2014 and 2017) from the Kennecott database to the original assay certificates from ALS Minerals. No errors were identified during this review. An initial qualified person (QP) site visit in occurred in March of 2014 by James McDonald (QP). Further site visits occurred in March 2015, April 2015, and September 2016 where core logging and/or drilling was observed. The most recent visit to site occurred during September 2018. No collars have been verified or check samples taken. No significant issues were identified during the review of data collection procedures or sample chain of custody. The core logging matches the core well and all processes have been found to meet or exceed industry standards. Over numerous site visits and data validation, Talon has concluded that the logging and sampling procedures meet or exceed industry standards.

1.7 Conclusions

The Tamarack South Project drilling data indicates that the FGO intrusive is identical to the FGO found within the Tamarack North Project. As well, the magmatic layering appears continuous. Limited exploration drilling in the Bowl portion of the intrusion also confirmed the presence of Norite and Dunite layering.

In the current exploration state, the Tamarack South Project remains an early stage project with great potential for a Ni-Cu-PGE massive sulphide deposit. The next work phase needs to focus on defining targets via recently enhanced, surface geophysical surveys.

1.8 Recommendations

Proposed next steps in exploration for the Neck Zone consist of ground geophysics with further reconnaissance style drilling on selected targets. Talon is proposing to utilize a University of Toronto Electromagnetic System (UTEM) 5 ground survey within the Neck Zone as seen in Figure 1-1.

The estimated budget for the surface UTEM 5 survey is approximately $350,000 and would be completed within two months of work. An estimated 2-3 holes, to test resultant targets, is budgeted at $2,000,000 (US) and is expected to take approximately 45 days.

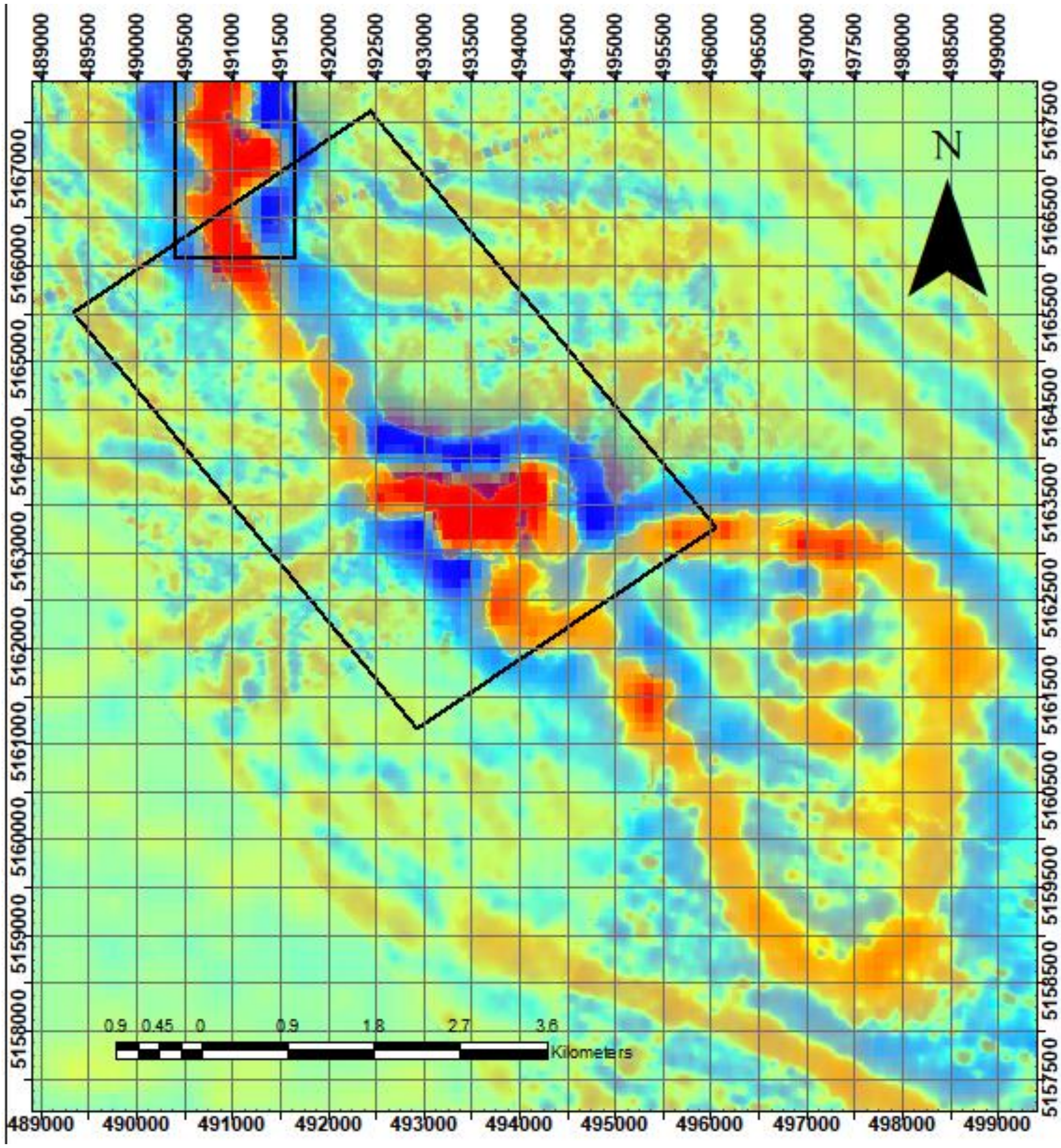


Figure 1-1: Proposed UTEM 5 Survey Area at South Tamarack Project.
(1st VD aeromagnetic Map).

2.0 INTRODUCTION

This Technical Report represents the initial public disclosure of geology for the Tamarack South Project in accordance with NI 43-101 guidelines. The Tamarack South Project is located within Aitkin and Carlton Counties, Minnesota, USA.

As of the date of this Technical Report, Talon holds a 17.56% interest, and Kennecott holds an 82.44% interest, in the Tamarack Project, which comprises the Tamarack North Project and the Tamarack South Project.

On November 7, 2018, Talon and Kennecott entered into the 2018 Tamarack Earn-in Agreement pursuant to which Talon has the right to increase its interest in the Tamarack Project to a maximum 60% interest and become the manager/operator of the Tamarack Project. The 2018 Tamarack Earn-in Agreement is subject to approval by the Talon shareholders of a financing required to be completed by Talon in connection with the Tamarack Project, such shareholder approval to be sought at a meeting to be held on or before January 31, 2019. The 2018 Tamarack Earn-in Agreement is described in Section **Error! Reference source not found.** below.

Prior to the 2018 Tamarack Earn-in Agreement, the relationship between Talon and Kennecott was governed by a number of other agreements (2014 Tamarack Earn-in Agreement, Original MVA, etc.), which are further described below.

No Mineral Resources have been identified or quantified for the Tamarack South Project. No metallurgical test work has been completed on material from the Tamarack South Project.

This Technical Report was prepared as an NI 43-101 technical report for Talon. The quality of information, conclusions and estimates contained herein is based upon:

- information available at the time of preparation;
- data supplied by outside sources; and
- the assumptions, conditions and qualifications set forth in this report.

2.1 Source of Information

The sources of information that were used in the preparation of the technical report were sourced by Talon, under the direction of Mr. James McDonald (P. Geo), and by Kennecott under the direction of Mr. Robert Rush. This report is based on the following data and pre-existing reports:

- The 2014 Tamarack Earn-in Agreement (and all amendments thereto);
- The Original MVA;
- The 2018 Tamarack Earn-in Agreement;
- The New MVA;
- The Amended MVA;
- Tamarack Magmatic Nickel Copper Sulfide Due Diligence (Talon) report;
- Kennecott internal reports;
- Kennecott database of surface drill holes that included:
  - Ni, Cu, Co, Pt, Pd, Au, lithology sample/assay data;
  - Sample bulk density;
  - Drill hole collar survey data and down-hole survey data; and
  - QA/QC summary data and graphs.
- Geophysical data;
- Assay certificates from ALS Minerals.

Further sources of information utilized by the authors are listed in Section 3.0.

2.2 Units of Measure and Abbreviations

All units of measure used in this report are in the metric system, unless stated otherwise. Currencies outlined in the report are in US dollars unless otherwise stated.

The following symbols and abbreviations may be used in this Technical Report.

<	Less than
>	Greater than
#	number
%	Percent
°	Degree
°C	Degrees Celsius
3D	three dimensional
µm	Micron
Ag	Silver
AMT	Audio-frequency magneto-tellurics
An	Anorthite
As	Arsenic
Au	Gold
BH	Borehole
Bi	Bismuth
BNSF	Burlington Northern Santa Fe (railway company)
Cd	Cadmium

CGO	Coarse grained olivine
cm	Centimetre
cm^3	Cubic centimetre
Co	Cobalt
Cpy	Chalcopyrite
Cr	Chromium
CRM	Certified Reference Material
CSAMT	Controlled source audio-frequency magneto-tellurics
Cu	Copper
$CuSO_4$	Copper Sulphate
DHEM	Drill hole electromagnetic
E	East
EM	Electromagnetic
EPA	Environmental Protection Agency
Fe	Iron
FGO	Fine grained olivine
Fo	Forsterite
ft	Feet
g	Gram
g/t	Grams per tonne
GLTZ	Great Lakes Tectonic Zone
GPS	Global positioning system
Hg	Mercury
HQ	Hole (outside diameter): 96 mm; core (inside diameter): 63.5 mm
ICP	Inductively coupled plasma
ICP-AES	Inductively coupled plasma atomic emission spectroscopy
ICP-MS	Inductively coupled plasma mass spectroscopy
In	Indium
IP	Induced polarization
Kennecott	Kennecott Exploration
km	Kilometre
km^2	Square kilometre
Li	Lithium
M	Million
m	Metre
m^2	Square metre
m^3	Cubic metre
MALM	Mise-à-la-masse (test method)
mASL	Metres above sea level
MCR	Mid-Continent Rift

MDH	Minnesota Department of Health
MDNR	Minnesota Department of Natural Resources
Mg	Magnesium
MgO	Magnesium oxide, magnesia
MGS	Minnesota Geological Survey
mm	Millimetre
MMS	Mixed massive sulphide
Mo	Molybdenum
MPCA	Minnesota Pollution Control Agency
MRV	Minnesota River Valley
MSU	Massive sulphide unit
MT	Magneto-telluric
MVA	Mining Venture Agreement
MZ	Mixed zone
n/a	Not applicable
N	North
NE	Northeast
NI 43-101	National Instrument 43-101
Ni	Nickel
NQ	Hole (outside diameter): 75.7 mm; core (inside diameter): 47.6 mmm
NS	North-South
NSR	Net smelter return
NW	Northwest
OB	Overburden
P. Geo.	Professional Geologist
Pb	Lead
Pd	Palladium
PEM	Privacy enhanced mail (electronic file format)
PGE	Platinum group element
Pn	Pentlandite
Po	Pyrrhotite
ppm	Parts per million
Pt	Platinum
QA	Quality assurance
QC	Quality control
QP	Qualified Person
Re	Rhenium
ROFR	Right of first refusal
S	Sulphur
S	South

Sb	Antimony
Sc	Scandium
SE	Southeast
Se	Selenium
SG	Specific gravity
SiO_2	Silicon dioxide
SMSU	Semi-massive sulphide unit
.stp	Step file (electronic file format)
SW	Southwest
Te	Tellurium
TEM	Transient electromagnetic
TIC	Tamarack Intrusive Complex
Tl	Thallium
UCS	Uniaxial compressive strength
US	United States
US$	United States Dollars
UTEM	University of Toronto Electromagnetic System
UTM	Universal Transverse Mercator (coordinate system)
VTEM	Versa tile Time Domain Electromagnetic
W	West
Zn	Zinc

3.0 RELIANCE ON OTHER REPORTS

This Technical Report has been prepared by Talon. The information, conclusions, opinions and estimates contained herein are based on:

- Information available to Talon at the time of the report preparation;
- Assumptions, conditions and qualifications as set forth in this report; and
- Data, reports and other information supplied by Kennecott and other third-party sources.

In Sections 4.2 (Property Ownership), 4.3 (Exploration Permits and Approvals) and 4.4 (Environmental) of this Technical Report, the QP has relied upon, and believe there is a reasonable basis for this reliance on, information provided regarding mineral tenure, surface rights, ownership details, the Tamarack Earn-in Agreement and other agreements relating to the Tamarack South Project, royalties, environmental obligations, permitting requirements and applicable legislation relevant to the Tamarack South Project.

4.0 PROPERTY LOCATION AND DESCRIPTION

4.1 Property Location

The Tamarack South Project is located in N central Minnesota approximately 100 km W of Duluth and 200 km N of Minneapolis, in Aitkin and Carlton Counties. The Tamarack South Project covers approximately 11,633 acres. The boundary between the Tamarack North and Tamarack South Projects is located approximately along the 5165000 North Universal Transverse Mercator (UTM) line. More specifically, it occurs along the northern extremity of State Mineral Leases MM-9769-P, MM-9770-P, MM-10126-N, and MLMN-200019. The Tamarack South Project is centered at approximately 496600 E/5161500 N NAD 83 15 N. The town of Tamarack, which gives the project its name, lies to the immediate N of the Tamarack South Project area.

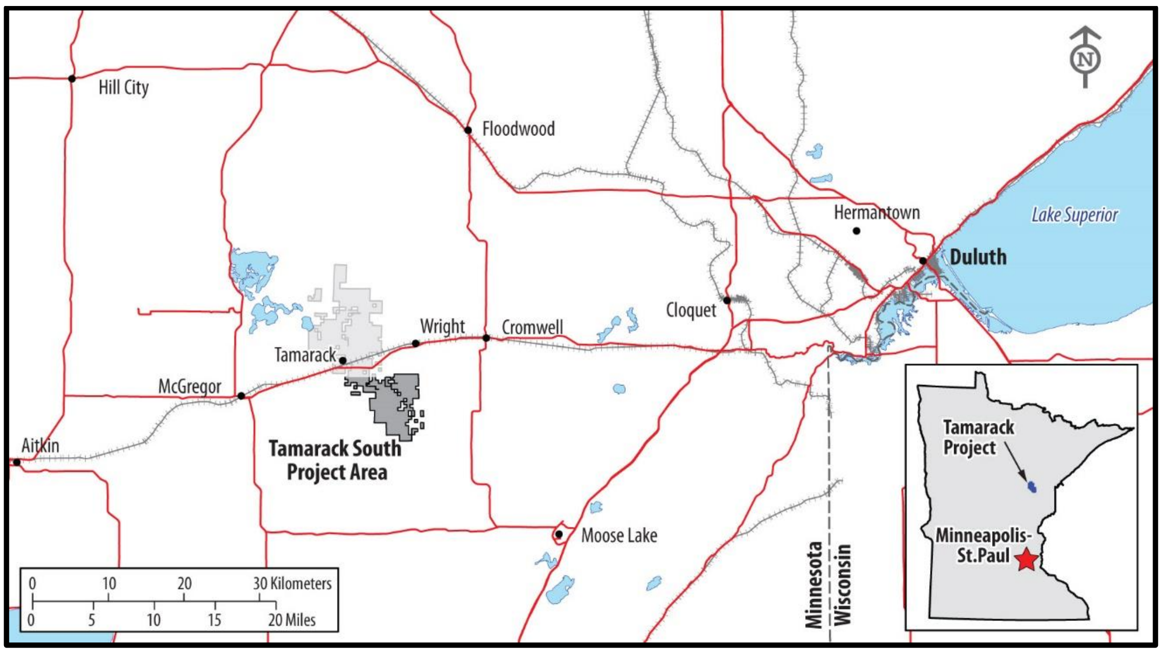


Figure 4-1: Location of the Tamarack South Project

4.2 Property Ownership

Both Kennecott and Talon hold interests in the Tamarack Project, which comprises the Tamarack North Project and the Tamarack South Project. As of the date of this Technical Report, Talon holds a 17.56% interest, and Kennecott holds an 82.44% interest, in the Tamarack Project.

On November 7, 2018, Talon and Kennecott entered into the 2018 Tamarack Earn-in Agreement pursuant to which Talon has the right to increase its interest in the Tamarack Project to a maximum 60% interest and become the manager/operator of the Tamarack Project. The 2018 Tamarack Earn-in Agreement is subject to approval by the Talon shareholders of a financing required to be completed by Talon in connection with the Tamarack Project, such shareholder approval to be sought at a meeting to be held on or before January 31, 2019. The 2018 Tamarack Earn-in Agreement is described in Section **Error! Reference source not found.** below.

Prior to the 2018 Tamarack Earn-in Agreement, the relationship between Talon and Kennecott was governed by a number of other agreements (2014 Tamarack Earn-in Agreement, Original MVA, etc.), which are further described below.

4.2.1 2014 Tamarack Earn-in Agreement

On June 25, 2014, Talon entered into the 2014 Tamarack Earn-in Agreement with Kennecott, part of the Rio Tinto Group, pursuant to which Talon was granted the right to acquire an interest in the Tamarack Project.

Pursuant to the original terms of the 2014 Tamarack Earn-in Agreement, Talon had the right to acquire a 30% interest in the Tamarack Project over a three-year period (the Earn-in Period) by making US$7.5M in installment payments to Kennecott, and incurring US$30M in exploration expenditures (the Tamarack Earn-in Conditions). In addition, Talon agreed to make certain land option payments on behalf of Kennecott, which were payable over the Earn-in Period (and, when payable, were to be included as part of the Tamarack Earn-in Conditions).

On March 26, 2015, Kennecott and Talon amended the 2014 Tamarack Earn-in Agreement (the 2014 Tamarack Earn-in First Amending Agreement) to defer one of the option payments (the Deferred Option Payment) and delay further cash calls from being made by Kennecott.

On November 25, 2015, Kennecott and Talon entered into a further agreement to amend the 2014 Tamarack Earn-in Agreement (the 2014 Tamarack Earn-in Second Amending Agreement), to provide, among other things:

- That upon receipt by Kennecott from Talon of the sum of US$15M (which was in addition to previous amounts paid to Kennecott of US$10.52M), Talon would earn an 18.45% interest in the Tamarack Project and Talon would have no further funding requirements to earn its interest in the Tamarack Project;
- Once Kennecott had spent the funds advanced by Talon on exploration activities in respect of the Tamarack Project, subject to certain self-funding rights by Kennecott during such period, Kennecott would have 180 days to elect whether to: (a) proceed with an 81.55/18.45 joint venture with respect to the Tamarack Project in accordance with the terms of a mining venture agreement, with Kennecott owning an 81.55% participating interest, and Talon owning an 18.45% participating interest; or (b) grant

Talon the right to purchase Kennecott's interest in the Tamarack Project for a total purchase price of US$114M (the Tamarack Purchase Option). In the event Kennecott granted Talon the Tamarack Purchase Option, and Talon elected to proceed with the Tamarack Purchase Option, Talon would have up to 18 months to close the transaction, provided it made an upfront non-refundable payment of US$14M; and

- Until Kennecott made its decision as to whether to grant Talon the Tamarack Purchase Option, Talon would be responsible for certain costs to keep the Tamarack Project in good standing based on its 18.45% interest. If Talon failed to make any of such payments, its interest in the Tamarack Project would be diluted in accordance with the terms of the Tamarack Earn-in Agreement.

On January 4, 2016, Talon made the US$15M payment to Kennecott (the Final 2014 Earn-in Payment) and earned an 18.45% interest in the Tamarack Project.

The total amount paid by Talon to Kennecott to earn its 18.45% interest in the Tamarack Project was US$25,520,800, broken down as follows:

Option payments	$ 1,000,000
Exploration	21,200,000
Land purchases	3,320,800
	$ 25,520,800

On December 16, 2016, Talon entered into a third amending agreement with Kennecott (the 2014 Tamarack Earn-in Third Amending Agreement) in respect of the 2014 Tamarack Earn-in Agreement.

Pursuant to the 2014 Tamarack Earn-in Third Amending Agreement, Talon and Kennecott agreed to co-fund a 2016/2017 winter exploration program at the Tamarack Project in the approximate amount of US$3.5M, with Talon funding its proportionate share of 18.45% thereof. The 2014 Tamarack Earn-in Third Amending Agreement also provided that Kennecott could elect at any time up to and including September 25, 2017 to grant Talon the Tamarack Purchase Option or proceed with the Original MVA (the Kennecott Decision Deadline).

On the Kennecott Decision Deadline, Talon received notification from Kennecott that it had decided to grant Talon the Tamarack Purchase Option on the terms of the 2014 Tamarack Earn-in Agreement. Pursuant to the 2014 Tamarack Earn-in Agreement, Talon had until November 6, 2017 to advise Kennecott as to whether or not it would exercise the Tamarack Purchase Option.

On November 1, 2017, Talon entered into a fourth amending agreement with Kennecott (the 2014 Tamarack Earn-in Fourth Amending Agreement) in respect of the 2014 Tamarack Earn-in Agreement. Pursuant to the 2014 Tamarack Earn-in Fourth Amending Agreement, Kennecott agreed to grant Talon an extension until December 31, 2017 to make its election as to whether it would exercise the Tamarack Purchase Option. In return for the granting of such extension by Kennecott, Talon agreed to grant Kennecott a 0.5% net smelter return (NSR) in the event Talon elected to exercise the Tamarack Purchase Option.

On November 16, 2017, Talon advised Kennecott that it had elected not to exercise the Tamarack Purchase Option. Consequently, under the terms of the 2014 Tamarack Earn-in Agreement, in February 2018 the parties were required to proceed to execute and deliver and operate under the Original MVA.

4.2.2 Original Mining Venture Agreement (Original MVA)

On January 11, 2018, Talon entered into a fifth amending agreement with Kennecott (the 2014 Tamarack Earn-in Fifth Amending Agreement) in respect of the 2014 Tamarack Earn-in Agreement. Pursuant to the 2014 Tamarack Earn-in Fifth Amending Agreement, Talon and Kennecott agreed to accelerate the timeframe for entering into the Original MVA, such that the parties would enter into the agreement with immediate effect (on January 11, 2018), rather than in February 2018.

Some notable characteristics of the Original MVA include the following:

- Kennecott was appointed Manager of the Tamarack Project, with a number of explicit duties and obligations articulated under the Original MVA;
- Talon and Kennecott agreed to establish a management committee to determine overall policies, objectives, procedures, methods and actions under the Original MVA, and to provide general oversight and direction to the manager who was vested with full power and authority to carry out day-to-day management under the Original MVA. The management committee consisted of two members appointed by Talon and two members appointed by Kennecott;
- Upon formation of the Original MVA, and beginning with the first program and budget under the Original MVA, each proposed program and budget had to provide for an annual expenditure of at least US$6.15M until the completion of a Feasibility Study (as defined under the Original MVA). The failure of either party to fund its share of each proposed program and budget was to result in dilution (and in certain circumstances accelerated dilution) in accordance with the terms of the Original MVA;
- In the event either party's participating interest in the Tamarack Project diluted below 10%, such party's interest would be converted into a 1% NSR royalty; and

- In the event of a proposed transfer of either party's interest in the Tamarack Project to a third party, the other party had a right of first refusal (ROFR). In the event the non-transferring party elected not to exercise its ROFR, the non-transferring party had a tag-along right, while the transferring party had a drag-along right.

On January 11, 2018, pursuant to the terms of the Original MVA, Talon elected to not financially participate in the 2018 winter exploration program at the Tamarack Project. Consequently, Talon's interest in the Tamarack Project was diluted below 18.45%.

4.2.3 2018 Tamarack Earn-in Agreement

On November 7, 2018, Talon and Kennecott entered into the 2018 Tamarack Earn-in Agreement, pursuant to which Talon received the right to increase its interest in the Tamarack Project up to a maximum 60% interest. Under the 2018 Tamarack Earn-in Agreement, the Original MVA is in abeyance.

Pursuant to the 2018 Tamarack Earn-in Agreement, Talon initially has the right to increase its interest in the Tamarack Project to 51% by:

- Paying Kennecott US$6M cash and issuing US$1.5M worth of common shares in Talon to Kennecott on the effective date of the 2018 Tamarack Earn-in Agreement; and
- Within three years of the effective date of the 2018 Tamarack Earn-in Agreement, by Talon (a) incurring US$10M in exploration expenditures on the Tamarack Project, or (b) delivering a PFS in accordance with NI 43-101, whichever comes first; and
- Also within three years of the effective date of the 2018 Tamarack Earn-in Agreement, Talon paying Kennecott the additional sum in cash of US$5M.

In the event Talon successfully earns a 51% interest in the Tamarack Project, Talon will then have the right, within seven years of the effective date of the 2018 Tamarack Earn-in Agreement, to further increase its interest in the Tamarack Project to 60% by:

- Completing a Feasibility Study in accordance with NI 43-101; and
- Paying Kennecott an additional cash payment US$10M.

4.2.4 The New MVA

In the event Talon earns a 60% interest in the Tamarack Project, Talon and Kennecott have agreed to enter into a new mining venture agreement (the New MVA).

Some notable characteristics of the New MVA include the following:

- Talon will be appointed Manager of the Tamarack Project, with a number of explicit duties and obligations articulated under the New MVA;
- Each party will be required to find its *pro rata* share of expenditures or be diluted;
- Talon and Kennecott will establish a management committee to determine overall policies, objectives, procedures, methods and actions under the New MVA, and to provide general oversight and direction to the Manager who will be vested with full power and authority to carry out the day-to-day management under the New MVA. The management committee will consist of two members appointed by Talon and two members appointed by Kennecott;
- In the event either party's participating interest in the Tamarack Project dilutes below 10%, such party's interest will be converted into a 1% NSR;
- In the event of a proposed transfer of either party's interest in the Tamarack Project to a third party, the other party will have a ROFR.

4.2.5 Other Potential Agreements

In addition to the 2018 Tamarack Earn-in Agreement and the New MVA, Talon and Kennecott have contemplated two potential scenarios that would necessitate the entering into of alternative forms of mining venture agreements.

First, in the event Talon does not earn a 51% interest in the Tamarack Project, the Original MVA will come back into force (excluding the requirement for an annual expenditure of at least US$6.15M until the completion of a Feasibility Study), with Kennecott once again taking on the role of the manager of the Tamarack Project, and Talon commencing with a 17.56% interest in the Tamarack Project.

Second, in the event Talon earns a 51% interest in the Tamarack Project, but does not earn a 60% interest in the Tamarack Project, the parties have agreed to enter into an amended mining venture agreement (Amended MVA) pursuant to which Talon will continue to be the Manager of the Tamarack Project, and will be required to free-carry Kennecott through to the completion of a Feasibility Study (as defined under the Amended MVA). Under the Amended MVA and beginning with the first program and budget under the Amended MVA, each proposed program and budget by Talon must provide for an annual expenditure of at least US$6.15M until the completion of a Feasibility Study (as defined under the Amended MVA), failing which Talon will be subject to dilution.

4.2.6 Mineral Tenure

4.2.6.1 *Introduction*

Land in Minnesota is held by a combination of private, state and federal ownership. In addition, surface estate owner(s) may be the same or different to the mineral estate owner(s) (i.e. the mineral interest may be severed from the surface interest and form its own property ownership right).

The Tamarack South Project is comprised of:

- Minnesota State Leases (many of which also include the surface rights); and
- Private Mineral Leases, Surface Use Agreements and Options to Purchase.

These various interests are summarized in Table 4-1. The mineral rights owned or controlled by Kennecott are shown in Figure 4-2 and the surface rights owned or controlled by Kennecott are shown in Figure 4-3. All of the Tamarack South Project mineral and surface interests are held in Kennecott's own name.

Table 4-1: Summary of Kennecott's Interests

Type	Number	Acreage
Minnesota State Leases	29	10,553
Private Mineral Leases	6	920
Fee Mineral and Surface Interests	1	160
Total	**36**	**11,633**

Note that all of the locations for mineral leases and other property locations are described in the United States Public Land Survey System in Township, Range, Section and Section subdivisions.

4.2.6.2 *Minnesota State Leases*

State Leases to Explore, Mine and Remove Metallic Minerals (State Leases) are issued by the Minnesota Department of Natural Resources (MDNR) and may be held for up to 50 years. "Metallic Minerals" are defined in the State Leases as "any mineral substances of a metalliferous nature, except iron (Fe) ores and taconite ores". State Leases allow a mining company to engage in mineral exploration and mineral development located on the state-owned property, subject to compliance with all laws and issued permits.

The Tamarack South Project is comprised of 29 State Leases, covering an area of approximately 10,533 acres (see Table 4-2 for further details of the State Leases).

The State Leases are issued on standard lease forms and generally contain uniform terms and conditions.

In order to keep the State Leases in good standing, certain quarterly and/or annual payments must be made to the state and/or county. Rental payments must be made to the State, and are paid quarterly in arrears on each February 20, May 20, August 20 and November 20 for the previous calendar quarter. The quantum of such rental payments are as follows:

1. Initially, US$1.50 per acre for the unexpired portion of the then current year, and US$1.50 per acre for each of the two succeeding years;
2. US$5 per acre for the next three calendar years;
3. US$15 per acre for the next five calendar years; and
4. US$30 per acre for the duration of the lease.

A county tax is also levied on the State Leases, with the current amount being US$0.40 per acre, payable on May 15th of each year.

An operating mining company must also pay a production royalty. The base royalty consists of a base rate (3.95%) and in some cases an additional bid rate (applicable only to those leases acquired through state bids or negotiations with the state). Details are included in Table 4-2. State Leases also contain a royalty escalation clause that increases the base royalty as the net return value per ton of raw ore increases. This escalation of the royalty rate begins at a net return value per ton of US$75.01. It rises to the maximum of 20% if such net return value exceeds US$444 per ton of raw ore.

The State of Minnesota has an option to cancel a State lease after the end of the 20th year if, by that time, a lessee is not actively engaged in mining ore under the lease from the mining unit, a mine within the same government township as the mining unit or an adjacent government township and has not paid at least US$100,000 to the State in earned royalty under a state lease in any one calendar year. The State must exercise that option within the 21st year of the lease. If the State does not cancel within the 21st year, the lessee has until the end of the 35th calendar year to meet the conditions. If the lessee has not met the conditions by the end of the 35th year, the State has another window to cancel the lease during the 36th calendar year of the lease.

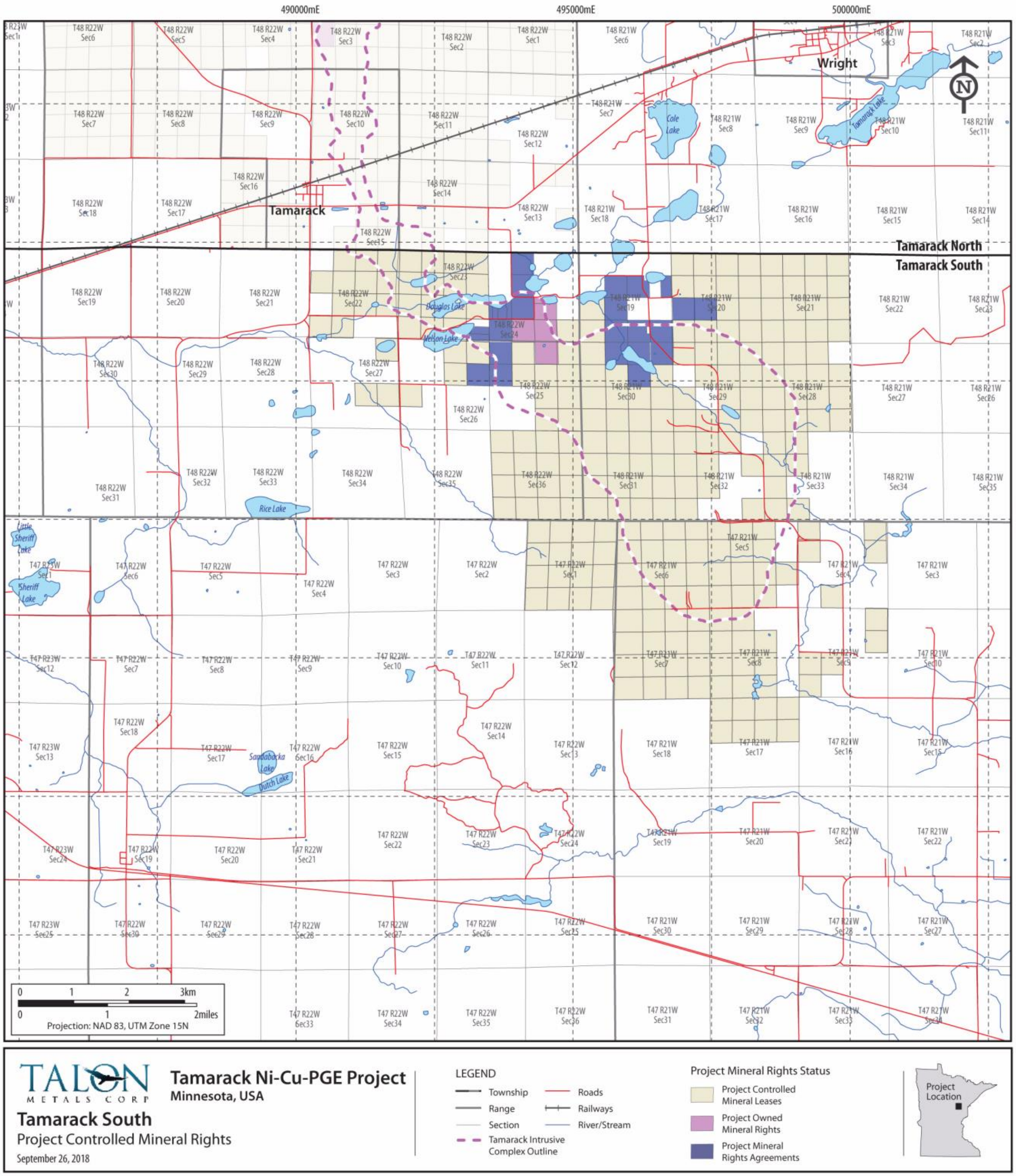


Figure 4-2: Talon Metals Corp Tamarack South Project Mineral Ownership

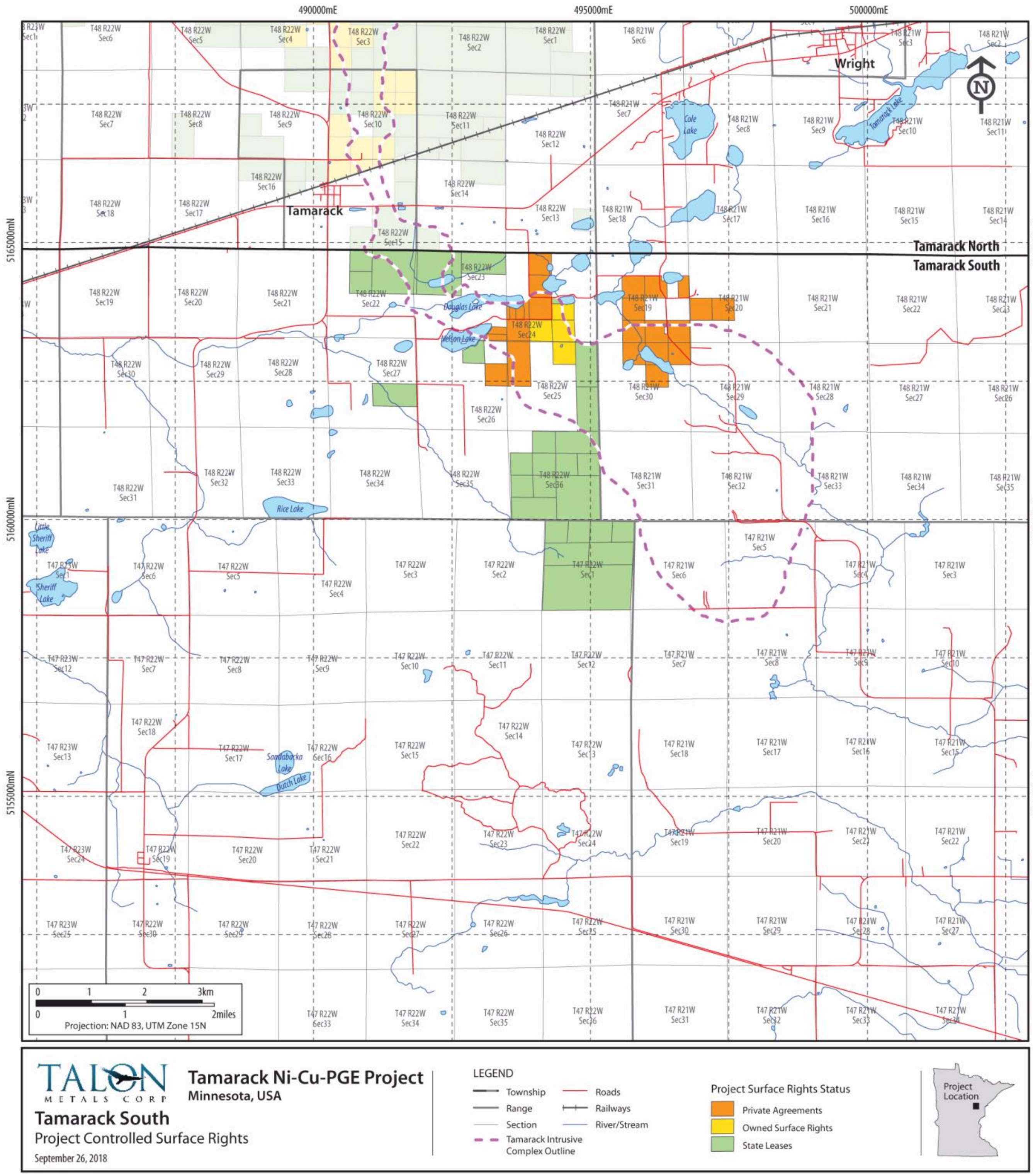


Figure 4-3: Talon Metals Corp Tamarack South Project Surface Rights

Table 4-2: Tamarack South Project State Lease Details

State Lease Number	Start Date	Term	Base Royalty	Additional Royalty	Royalty Escalator Applies	Lands	Acreage
MM 9769-P	9/7/2000	50 years	3.95%	N/A	Yes	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 22: SE/4NW/4 *–Minerals, mineral rights and surface* Sec. 22: SW/4NW/4, NE/4SW/4, NW/4SE/4, S/2SW/4, NE/4SE/4 *–Minerals and mineral rights* Sec. 22: NE/4, NE/4NW/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	480
MM 9770-P	9/7/2000	50 years	3.95%	N/A	Yes	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 23: S/2NE/4, SW/4, N/2SE/4, SW/4SE/4 *–Minerals and mineral rights* Sec. 23: N/2NE/4, NW/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	600
MM 9771-P	9/7/2000	50 years	3.95%	N/A	Yes	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 24: SE/4SE/4 *–Minerals and mineral rights*	40
MM 9772-P	9/7/2000	50 years	3.95%	N/A	Yes	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 25: SW/4NE/4, NW/4, W/2SE/4 *–Minerals and mineral rights* Sec. 25: E/2NE/4, E/2SE/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	440
MM 9773-P	9/7/2000	50 years	3.95%	N/A	Yes	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 26: NW/4SW/4, E/2NE/4, SW/4NE/4 except 4 rods for road right-of-way *–Minerals and mineral rights* Sec. 26: NW/4NE/4, SW/4NE/4 4 rods for road right-of-way *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	200
MM 9774-P	9/7/2000	50 years	3.95%	N/A	Yes	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 36: N/2NE/4, SW/4NE/4, NE/4NW/4 *–Minerals, mineral rights and surface* Sec. 36: SE/4NE/4, W/2NW/4, NW/4SW/4, NE/4SE/4, S/2SE/4 *–Minerals and mineral rights* Sec. 36: SE/4NW/4, NE/4SW/4, S/2SW/4, NW/4SE/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	640

State Lease Number	Start Date	Term	Base Royalty	Additional Royalty	Royalty Escalator Applies	Lands	Acreage
MM 9805	12/14/2000	50 years	3.95%	0.12%	Yes	**Township 47 North, Range 21 West, Carlton County, Minnesota** Sec. 5: Lots 2-4, NE/4SE/4 *–Minerals and mineral rights* Sec. 5: SW/4NE/4, S/2NW/4, SW/4, W/2SE/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	498.34
MM 9806	12/14/2000	50 years	3.95%	0.12%	Yes	**Township 47 North, Range 21 West, Carlton County, Minnesota** Sec. 6: SW/4NE/4 *–Minerals, mineral rights and surface* Sec. 6: Lots 1-7, SE/4NE/4, SE/4NW/4, E/2SW/4, SE/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	650.57
MM 9807	12/14/2000	50 years	3.95%	0.12%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 28: SE/4SW/4 *–Minerals and mineral rights* Sec. 28: W/2NE/4, SE/4NE/4, NW/4, W/2SW/4, SE/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	560
MM 9808	12/14/2000	50 years	3.95%	0.12%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 29: SW/4NE/4, NW/4NW/4 except 1 acre, N/2SE/4, SE/4SE/4 *–Minerals and mineral rights* Sec. 29: N/2NE/4, SE/4NE/4, NE/4NW/4, NW/4NW/4 1 acre, NW/4SW/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	400
MM 9809	12/14/2000	50 years	3.95%	0.30%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 30: SW/4SE/4 *–Minerals, mineral rights and surface* Sec. 30: NW/4NE/4, SE/4NE/4, SW/4NE/4, NE/4NW/4, N/2SE/4 *–Minerals and mineral rights* Sec. 30: Lots 1-4, SE/4NW/4, E/2SW/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	583.20
MM 9810	12/14/2000	50 years	3.95%	0.30%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 31: Lots 1-4, W/2NE/4, SE/4NE/4, E/2NW/4, E/2SW/4, SE/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	620.40

State Lease Number	Start Date	Term	Base Royalty	Additional Royalty	Royalty Escalator Applies	Lands	Acreage
MM 9811	12/14/2000	50 years	3.95%	0.12%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 32: SE/4NE/4, SE/4SE/4 *–Minerals and mineral rights* Sec. 32: S/2NW/4, N/2SW/4, SW/4SW/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	280
MM 9850-N	9/6/2001	50 years	3.95%	0.50%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 19: Lots 3-4 *–Minerals and mineral rights*	91.40
MM 9851-N	9/6/2001	50 years	3.95%	0.12%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 28: NE/4SW/4 *–Minerals and mineral rights*	40
MM 9852-N	9/6/2001	50 years	3.95%	0.12%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 29: SE/4NW/4, SW/4SW/4, undivided one-half interest in SE/4SW/4, undivided one-half interest in SE/4SW/4, SW/4SE/4 *–Minerals and mineral rights*	160
MM 9853-N	9/6/2001	50 years	3.95%	0.30%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 30: SE/4SE/4 *–Minerals and mineral rights*	40
MM 9854-N	9/6/2001	50 years	3.95%	0.30%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 31: NE/4NE/4 *–Minerals and mineral rights*	40
MM 9855-N	9/6/2001	50 years	3.95%	0.12%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 32: NW/4NE/4, NE/4NW/4, NW/4NW/4 *–Minerals and mineral rights*	120
MM 9856-N	9/6/2001	50 years	3.95%	0.50%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 33: SW/4NW/4, NW/4SW/4, S/2SW/4 *–Minerals and mineral rights* Sec. 33: N/2NW/4, SE/4NW/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	280
MM 10124-N	3/9/2006	50 years	3.95%	0.30%	Yes	**Township 47 North, Range 21 West, Carlton County, Minnesota** Sec. 7: Lots 1-4, E/2, E/2NW/4, E/2SW/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	692.16
MM 10125-N	3/9/2006	50 years	3.95%	0.30%	Yes	**Township 47 North, Range 21 West, Carlton County, Minnesota** Sec. 8: SW/4NE/4 *–Minerals and mineral rights* Sec. 8: W/2, W/2SE/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	440

State Lease Number	Start Date	Term	Base Royalty	Additional Royalty	Royalty Escalator Applies	Lands	Acreage
MM 10126-N	3/9/2006	50 years	3.95%	0.30%	Yes	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 20: SW/4SW/4, SE/4SE/4 *–Minerals, mineral rights and surface* Sec. 20: SW/4NE/4, SE/4NW/4, SW/4NW/4, NE/4SW/4 *–Minerals and mineral rights* Sec. 20: N/2NE/4, SE/4NE/4, N/2NW/4, SE/4SW/4, N/2SE/4, SW/4SE/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	560
MM 10176	12/6/2007	50 years	3.95%	0.26%	Yes	**Township 47 North, Range 21 West, Carlton County, Minnesota** Sec. 4: Lots 1 & 4, SE/4NE/4, SW/4NW/4, SE/4SW/4 *–Minerals and mineral rights*	187.28
MM 10325	2/26/2010	50 years	3.95%	0.611%	Yes	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 27: NE/4NE/4 except a tract commencing at the NE corner, thence W to the NW corner, thence S 40 rods, thence NE to place of commencement *–Minerals and mineral rights* Sec. 27: N/2SE/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	110
MLMN200009	2/24/2017	50 years	3.95%	0.50%	Yes	**Township 47 North, Range 22 West, Aitkin County, Minnesota** Sec. 1: Lot One, Lot Two, S1/2-NE1/4, Lot Three, Lot Four, S1/2 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	639.59
MLMN200015	2/24/2017	50 years	3.95%	0.50%	Yes	**Township 47 North, Range 21 West, Aitkin County, Minnesota** Sec. 17: N1/2 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	320
MLMN200019	2/24/2017	50 years	3.95%	0.50%	Yes	**Township 48 North, Range 21 West, Aitkin County, Minnesota** Sec. 21: *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	640
MLMN200013	2/24/2017	50 years	3.95%	0.50%	Yes	**Township 47 North, Range 21 West, Aitkin County, Minnesota** Sec. 9: E1/2-NE1/4, N1/2-SW1/4 *–Minerals and mineral rights,* Sec. 9: SW1/4-SW1/4 *–Minerals and mineral rights, including the interest in the surface thereof owned by the state, if any*	200

4.2.6.3 *Private Mineral Leases, Surface Use Agreements and Options to Purchase*

In addition to the State Leases, the joint venture partners hold mineral leases, surface use agreements and options to purchase, covering privately owned surface and mineral interests (Private Agreements). There are seven Private Agreements which cover approximately 1,080 acres of surface and/or mineral interests within the Tamarack South Project. The provisions and terms of each Private Agreement are specific to each Private Agreement. Certain Private Agreements include royalties payable if and when the Tamarack South Project begins production on lands covered by such Private Agreements. These royalties range from a 0.75% NSR to a 2% NSR and certain of them include certain buy-back rights. Table 4-3 provides further information on the Private Agreements.

Table 4-3: Summary of Private Agreements

Type of Agreement	Term	Annual Fee (US$)	Lands	Acreage
Mineral Lease Agreement	Jan 9/01 to Jan 9/21	$2,158	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 19: SE/4SE/4 subject to county road easement, 40 acres; SW/4SE/4, excluding a 2-acre parcel, 38 acres; E/2SE/4NE/4, 20 acres; SW/4NE/4, excluding 2½ sq. ac in NE/4, 37.88 acres Sec. 20: NW/4SW/4, 40 acres; NE/4SW/4, 40 acres *- Surface and minerals*	215.88
Mineral Lease Agreement	July 1/01 to July 1/21	$1,200	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 19: E/2SW/4, SE/4NW/4 *- Surface and minerals*	120
Mineral Lease Agreement	Jan 1/03 to Jan 1/28	$10,000	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 23: 13-acre parcel in SE/4SE/4 (Surface and Minerals) Sec. 24: SW/4SW/4, NW/4SW/4 excepting a parcel of land (Surface and Minerals) Sec. 25: NW/4NW/4, SW/4NW/4 (Surface) *- Part surface and minerals; part surface only*	173
Mineral Lease Agreement	Jan 1/03 to Jan 1/19	$1,500	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 23: 13-acre parcel in the S/2 of the SE/4SE/4 (Surface and minerals) Sec. 26: SW/4NE/4, E/2NE/4 (Surface) *- Part surface and minerals, part surface only*	131
Mineral Lease Agreement	July 1/01 to July 1/21	$1,200	**Township 48 North, Range 22 West, Aitkin County, Minnesota** Sec. 24: NE/4SW/4, E/2NW/4 *– Surface and minerals*	120
Mineral Lease Agreement	Mar 22/01 to Mar 22/21	$1,600	**Township 48 North, Range 21 West, Carlton County, Minnesota** Sec. 30: NE/4NE/4 Sec. 30: SW/4NE/4, NE/4NW/4, NW/4NE/4 *- Part surface and minerals, part surface only*	160

4.2.6.4 *Fee and Mineral Surface Interests*

The joint venture parties also own fee surface and/or mineral interests which cover approximately 160 acres of land within the Tamarack South Project. Details of the fee surface and mineral interests are detailed in Table 4-4.

In certain instances, as part of the purchase price paid for the mineral rights, Kennecott agreed (in its capacity of Manager under the Original MVA) to pay a royalty to the previous mineral rights owner. The royalties, typically, have ranged from 0.75% NSR to a 3.9% NSR.

Table 4-4: Summary of Fee Mineral and Surface Interests

Township	Range	Section	Acreage
48 North	22 West	Sec. 24: SE/4SW/4, NW/4SE/4, SW/4SE/4 Sec. 25: NW/4NE/4	160 (Surface and Mineral)

4.2.7 Surface Rights

The State Leases also grant the joint venture parties the right to use surface lands owned by the State of Minnesota within the leased land.

From a legal standpoint, where surface rights are owned by third parties, the State Leases provide that written notice to the owner of the surface estate must be provided at least 20 days in advance of surface activities and contemplate compensation payable by lessees to surface owners for any disturbance of the surface estate. Many states also address the rights of surface owners in case law, and although the Minnesota Supreme Court has not specifically opined on the issue, the general rule is that mineral rights carry with them the right to use as much of the surface as reasonably necessary to reach and remove the minerals, unless otherwise restricted by the mineral severance deed. Guidance provided by the MDNR takes this approach.

Notwithstanding the above, to date, Kennecott's approach (initially as sole owner of the Tamarack South Project and then in its capacity as Manager under the Original MVA) for surface access over areas that it is interested in drilling has been to negotiate with the applicable surface land owner a surface use agreement. Also, in certain cases, Kennecott (initially as sole owner of the Tamarack South Project and now in its capacity as Manager under the Original MVA) has negotiated an option to purchase the surface lands.

In the case of Private Agreements where there has been no severance of the surface and mineral estates, surface use is provided as part of the mineral lease. Where the mineral and surface estates are severed and where surface rights are held privately, surface access has typically been negotiated with the surface owner.

The surface rights held by the parties are detailed in Figure 4-3.

4.2.8 Tax Forfeiture and Leasing of Mineral Rights

The Minnesota Severed Mineral Interests Law (Forfeiture Law) requires owners of severed mineral interests (i.e., mineral rights that are owned separately from the surface interest) to register their interests with the office of the county recorder.

Severed mineral interests are taxed. If the mineral interest owner does not file the severed mineral interest statement within the deadline provided by the law, the mineral interest forfeits to the state after notice and an opportunity for a hearing.

The owner, to avoid forfeiture, must prove to the court that the taxes were timely paid and that the county records specified the true ownership, or, in the alternative, that procedures affecting the title of the interest had been timely initiated and pursued by the true owner during the time when the interest should have been registered. To the extent the owner fails to prove this, the forfeiture to the state is deemed to be absolute. Additionally, if the owner of record fails to show up to the hearing, the forfeiture to the state is also deemed to be absolute.

The State may lease mineral rights prior to the completion of the forfeiture procedures, provided that the leased rights are limited to exploration activities, exploratory boring, trenching, test pitting, test shafts and drifts, and related activities. A lessee under such a lease may not mine the leased mineral rights until the forfeiture procedures are completed.

The State may have obtained interests in certain of the mineral rights leased under one or more of the State Leases pursuant to the Forfeiture Law and the forfeiture procedures may not have been completed for all the lands covered by these State Leases (forfeiture procedures are not required to have been completed until a lessee is looking to mine a property).

Until the forfeiture procedures have been completed, there is a remote risk that the owner of a mineral interest that the State has leased for the Tamarack South Project will demonstrate at a required hearing that the owner was in compliance with the registration and taxation requirements as detailed above. In such a case, the mineral rights would revert back to this original owner.

4.3 Exploration Permits and Approvals

The Tamarack South Project is currently in the exploration phase. It is understood that Kennecott (previously as Operator under the 2014 Tamarack Earn-in Agreement, and then in its capacity as Manager under the MVA) has been diligent with respect to permitting of previous exploration efforts. There is currently no exploration planned at the site in 2018. Federal, state, and local entities all have regulatory authority over various elements of the project. Key agencies involved with project permitting will include the US Army Corps of Engineers, US Fish and Wildlife Service, MDNR, State Historic Preservation Office, Minnesota Department of Health (MDH), Minnesota Pollution Control Agency (MPCA), Aitken County, Carlton County, and City of Tamarack. Information on permits and approvals required for pursuing exploration operations at the Tamarack South Project is provided in Table 4-5 below.

Table 4-5: Summary of Current and Potential Exploration Permits / Approvals

Federal	
Agency	**Permit/Approval**
US Army Corps of Engineers	Clean Water Act – Section 404 Permit
US Army Corps of Engineers	National Historic Preservation Act – Section 106
US Fish & Wildlife Service	Endangered Species Act Compliance – Section 7
State	
Agency	**Permit/Approval**
MDNR	Exploration Plan
MDH	Explorer's License and Designated Responsible Individual; Exploratory Boring Notification
MDH	Temporary and Permanent Sealing Reports
MPCA	NPDES/SDS Construction Storm Water Permit (General Permit)
MPCA	NPDES/SDS Industrial & Storm Water Discharge Permit (General Permit)
MPCA	Storm Water Pollution Prevention Plan
MDNR	Burning Permit
MDNR	Permit to Work in Public Waters, including Public Waters Wetlands
MDNR	Water Appropriation Permit
MDNR	Wetland Conservation Act approvals for activities impacting certain wetlands
MDNR	Threatened and Endangered Species Review
Local	
Agency	**Permit/Approval**
City of Tamarack	Zoning and Building Permits
County	Interim Use Permit
County	Zoning Permits

4.4 Environmental

4.4.1 Baseline Work

The Tamarack South project is in an early stage exploration phase and as such, no environmental baseline work has begun.

4.4.2 Environmental Liabilities

Talon it is not aware of any environmental liabilities at the Tamarack South Project. A review of the MPCA's "What's in my Neighbourhood" database was completed for the property, and no contaminated site records were identified.

4.5 Significant Risk Factors

Talon is not aware of any significant factors and risks, other than what has been described in this section of the report, which may affect access, title, or the right or ability to perform work on the Tamarack South Project.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE

5.1 Introduction

The Tamarack South Project is located in N central Minnesota, approximately 100 km W of Duluth and 200 km N of Minneapolis, in Aitkin County. The area is characterized by farms, forested areas and abundant surface waters. The town of Tamarack (population 88, 2016 US Census Bureau), which gives the project its name, lies to the N of the boundaries of the Tamarack South Project at an elevation of 386 m above sea level (mASL). Kennecott's field office is also located in town of Tamarack. Other small towns in the area are Wright (10 km east (E) from Tamarack) and McGregor (15 km W from Tamarack).

5.2 Accessibility

Access to the Tamarack South Project is via paved state and county highways and roads. From the city of Duluth, the Tamarack South Project can be accessed by Interstate 35 S for 32 km and then onto State Highway 210 W for 61 km to the town of Tamarack. The Tamarack South Project is accessible from the town of Tamarack by paved and unpaved all-weather roads.

5.3 Physiography

The Tamarack South Project is primarily within the Minnesota/ Wisconsin Upland Till Plain and transitions to the Glacial Lakes Upham and Aitkin ecoregion as defined by the Environmental Protection Agency (EPA) (Level III and IV Ecoregions of Minnesota, June 2) towards the N of the project. The topography is level to gently rolling as is typical of old glacial lake plains. The soils are dominated by clay-silt to silty-sand Culver associated moraine deposits or by silty sand to sandy silt with clay interpreted as reworked pre-existing lake and stream sediments. Peat bogs are also found overlying the glacial till in the area (Jennings and Kostka, 2014). Relief is minimal, and where found is generally a result of small till moraines. As a result of the flat to gentle relief, poor drainage has allowed the area to be dominated by lowland conifers surrounding sedge meadows and marshland. Areas of higher relief will support aspen-birch and upland conifers.

5.4 Climate

The climate of Minnesota is typical of a continental climate, with hot summers and cold winters. Minnesota's location in the Upper Midwest allows it to experience some of the widest variety of weather in the United States, with each of the four seasons having its own distinct characteristics. The annual average temperature at the Tamarack South Project is 5°C. The temperature averages a high of -7°C and a low of -18°C in January and a high of 26°C and a low of 13°C in July. Annual rainfall averages approximately 764 millimetres (mm). Annual snowfall averages 142 centimetres (cm) (Tamarack Weather Averages, November 2017). Exploration operations at the Tamarack South Project can be conducted throughout the whole year (subject to any permitting restrictions) and future mining activities could be conducted on a year-round basis.

5.5 Local Resources

The mining support industries and industrial infrastructure in Minnesota are well developed and of a high standard, though most of the mining in the state occurs in the Mesabi Iron Range approximately 150 km to the northeast (NE). There is a large pool of skilled and unskilled labour in the area that could be used for exploration and potential development activities at the Tamarack South Project.

5.6 Infrastructure

The local infrastructure for mining is excellent. An active railroad Burlington Northern Santa Fe (BNSF) runs E/W approximately 2 km from the northern boundary of the Tamarack South Project and connects into the extensive United States and Canadian rail network, including direct access into the Port of Duluth, approximately 100 km to the E. The Port of Duluth, on Lake Superior, provides worldwide shipping access via the Great Lakes and St. Lawrence Seaway.

The Great River Energy Transmission Line is located to the immediate N of Tamarack South Project. The line connects through substations close to the towns of Wright and Cromwell.

There is an abundance of groundwater within the area of the Tamarack South Project.

5.7 Sufficiency of Surface Rights

The Tamarack South Project is currently within an exploration stage. Kennecott has sufficient rights to allow for further exploration and supporting infrastructure at the Tamarack South Project.

6.0 PROJECT HISTORY

The Tamarack South Project has, until recently (2001), been subject to only very limited exploration efforts. There has been no prior mineral production from the Tamarack South Project area. The relatively thick, post mineralization, glacial fluvial sediment cover and nearly complete lack of bedrock exposure severely hampered any early exploration (the nearest known bedrock exposure to the Tamarack South Project is located approximately 15 km to the SE).

Starting in 1972, the Minnesota Geological Survey (MGS) oversaw a 12-year program to collect high-resolution airborne magnetic data over the entire State, including the Tamarack area. The program was paid for by a penny per pack tax on cigarettes sold in the State. This program ran concurrently to a MDNR sponsored program of regional lake sediment sampling. As part of the follow up to the airborne surveys, the state carried out a program of scientific drilling to try and identify the bedrock source of selected magnetic anomalies. Information from MDNR staff involved with the program indicates that the magnetic anomalies were prioritized by the presence of anomalous lake sediment geochemistry. This is reported as being the case for the TIC, with two local lakes being anomalous in Ni, Cu and chromium (Cr).

In 2000, Kennecott leased mineral title in Aitkin and Carlton Counties from the State of Minnesota covering areas of the Tamarack South Project. An additional mineral title has been added to Kennecott's land position in the area since then as detailed in Section 4.0 – Property Description and Location of this Technical Report.

Kennecott began exploration on the Tamarack South Project in 2001 when Kennecott flew an airborne MEGATEM and magnetic survey covering most of the TIC, including parts of the Tamarack South Project. Ground EM and gravity surveys were also carried out to refine anomalies identified in the airborne survey.

In 2002, Kennecott began drilling at the Tamarack South Project and by 2012 had completed 18 holes in the Tamarack South Area (see Section 9.0 – Exploration) for further details of the exploration work conducted by Kennecott).

Between 2014 and 2017, pursuant to the 2014 Tamarack Earn-in Agreement a further 9 exploration holes were drilled in the Tamarack South Project (see Section 9.0 – Exploration for further details).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geological Setting; Introduction

The TIC is an ultramafic to mafic intrusive, hosting Ni-Cu sulphide mineralization with associated PGEs and Au. The intrusion of the TIC (dated at 1105 Ma+/-1.2 My, Goldner 2011) is related to the early evolution of the approximately 1.1 Ga Mesoproterozoic MCR and has intruded into slates and greywackes of the Thomson Formation of the Animikie Group which formed as a foreland basin during the Paleoproterozoic Penokean Orogen (approximately 1.85 Ga, Goldner 2011). The TIC is completely buried beneath approximately 40 meters of Quaternary age glacial and fluvial sediments.

The lack of outcrop has limited the understanding of the regional geological context of the TIC relative to its location in the deformed southern margin of the Animikie Basin. The TIC is also adjacent to the northern part of the Penokean accreted terrain which was in turn dissected by subsequent rifting associated with the MCR and thus has contributed to a complex geological and structural setting. The regional geological setting is described below within the context of the major depositional periods and tectonic events (Figure 7-1 and Figure 7-2).

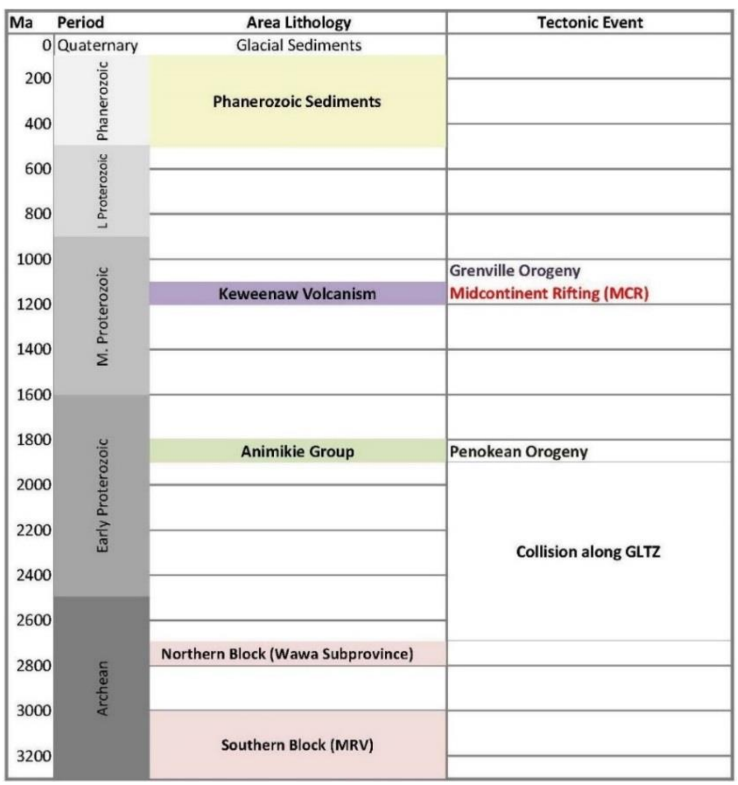


Figure 7-1: Major depositional periods and structural events effecting the geological emplacement and history of the TIC. Modified after Lundin Mining Corporation (2013).

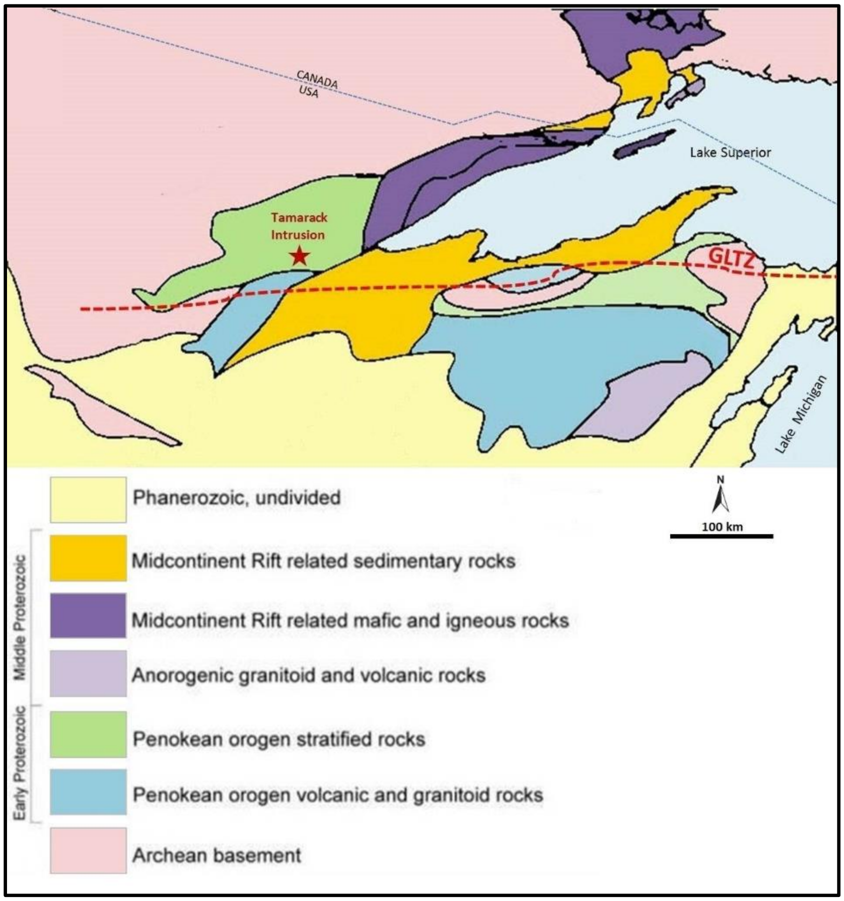


Figure 7-2: Regional Geological and Tectonic Setting for the TIC. The GLTZ structure represents an inferred position due to younger, overlying lithology. Modified from Khirkham (1995) and Lundin Mining Corporation (2013).

7.1.1 Archean Stratigraphy and the GLTZ

Archean basement and supra-crustal rocks underlie the Paleoproterozoic Animikie sedimentary Basin. The nearest outcrop of Archean basement rocks is located 35 km to the south of Tamarack in the McGrath gneiss dome. In western Minnesota, the Archean is divided into an older southern block referred to as the Minnesota River Valley (MRV) Terrane and the northern Wawa Sub-province of the Archean Superior Craton (Figure 7-1).

The southern Paleoarchean MRV Terrane comprises 3.3 Ga gneiss, migmatite and amphibolite of predominantly Middle Archean age, intruded by Late Archean granitoids.

The northern Wawa Sub-province is comprised of late Archean (2.6-2.7 Ga) supra-crustal rocks intruded by a variety of intrusions. Wawa Sub-province rocks are believed to form the basement beneath the southern part of the Animinkie Basin at Tamarack.

A broad E-W striking regional structural zone marks the boundary between the MRV Terrane and the Wawa Sub-province and is referred to as the Great Lakes Tectonic Zone (GLTZ, Figure 7-2). The GLTZ can be inferred eastward from western Minnesota into Northern Michigan and perhaps into Ontario. Kinematic analysis in the only known outcrop of the GLTZ south of Marquette, Michigan suggests the GLTZ at this location dips steeply southward, and that vergence was to the northwest (NW), indicative of an oblique collision that brought the Paleoarchean rocks over the younger Archean rocks of the Wawa Sub-province (Sims et al., 1993). The collision along the GLTZ is believed to have occurred between 2692-2686 Ma (Schneider et al., 2002).

The GLTZ appears to have played a direct role in localizing later Paleoproterozoic sedimentation and volcanism. Possible structures related to the GLTZ, may have localized other Paleoproterozoic sedimentary basins and later Midcontinent Rift related intrusions in the region (Owen et al., 2013). Although the exact location of GLTZ beneath the Animikie Basin is uncertain, it has been interpreted by Holm et al. (2007) to occur just south of the TIC. Based on this interpretation it may be possible that it played a role in the localisation of the Tamarack Intrusion.

7.1.2 Paleoproterozoic; the Animikie Basin and the Penokean Orogen

The depositional and tectonic history of the Penokean Orogen is dated at around 1.85 Ga and in Minnesota consists of two main components. One is a fold and thrust belt representing an accreted terrain to the S while the other is a foreland basin (Animikie Basin) formed to the N as a result of a collision between the continental margin of the Archean Superior Province Craton and the Pembine-Wausau oceanic arc (Southwick et al., 1988, 1991; Schulz and Cannon, 2007) (Figure 7-3).

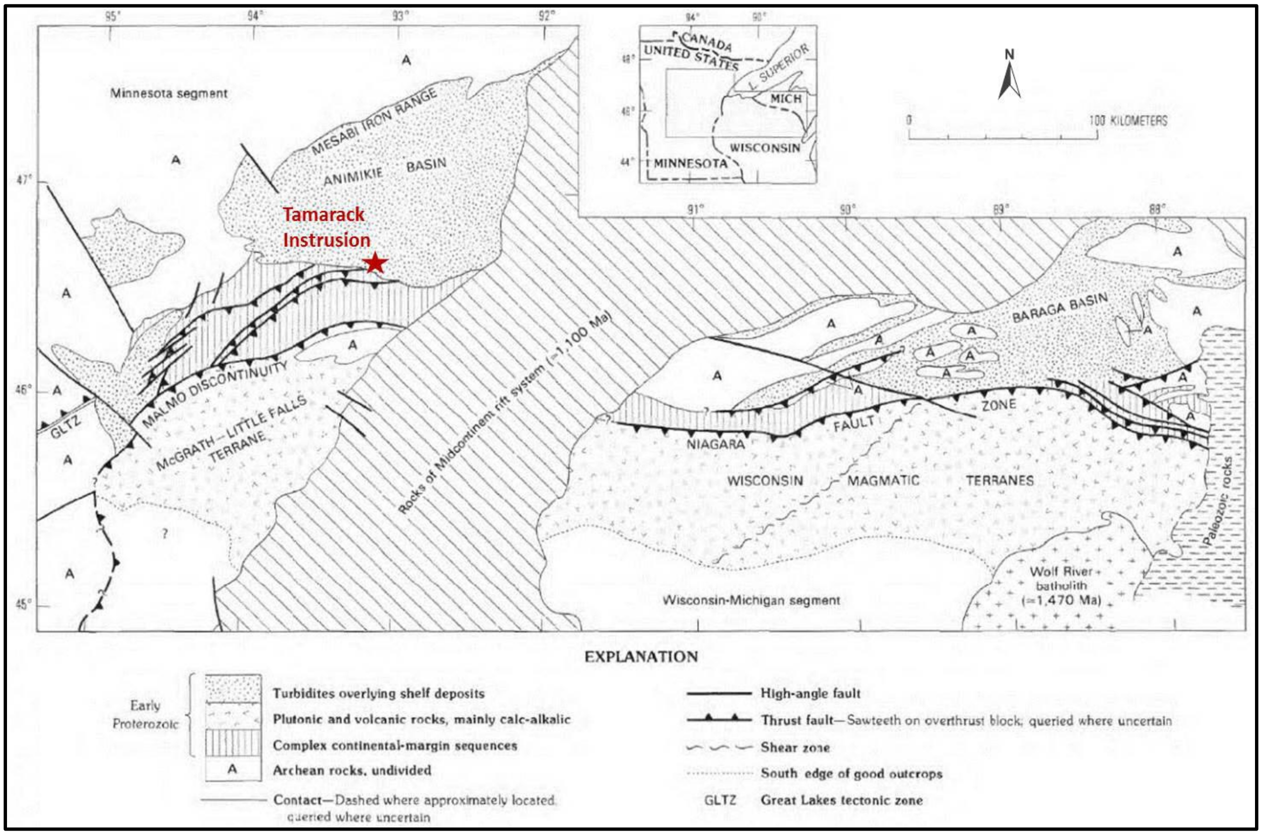


Figure 7-3: Location of the TIC in relation to the MCR and southern boundary of the Animikie Basin with the tectonic Imbrication and Foredeep Development of the Penokean Orogen. An Interpretation based on Regional Geophysics and the Results of Test-Drilling by Southwick et al., 1991.

In east-central Minnesota, the Animikie Group sediments which are weakly to moderately folded and metamorphosed, unconformably overlie the more intensely deformed North Range Group and Mille Lacs Group and the Archean basement. The Animikie Group sediments include the basal quartzite and conglomerate of the Pokegama Formation; the Biwabik banded Fe formation and inter-bedded argillite, siltstone and sandstone of the Virginia Formation which are exposed in the Fe ore mines of the Mesaba Iron Range along the northern margin of the Animikie Basin. In the N of the basin these sediments are only weakly metamorphosed, but metamorphism and deformation increase towards the south where similar sediments have a well-developed axial planer foliation and are folded into N verging upright folds which become increasingly tighter and possibly overturned along the south margin of the basin. These more deformed and metamorphosed sediments are referred to as the Thomson Formation and have been interpreted to be the deformed equivalents of the Virginia Formation (Severson et al, 2003). Boerboom (2009) has subdivided the Thomson Formation into Upper and Lower sequences. The Lower sequence comprises carbonaceous siltstone and mudstone that is locally sulphide rich; and a proposed source for the sulphide in the TIC. The Upper Thomson consists of turbidite-like siltstone and sandstone.

At the Tamarack South Project the host rocks to the TIC are the Upper Thomson Formation. The Lower Thomson Formation subcrops to the south of Tamarack dipping towards the N (beneath the Upper Thomson Formation) and is interpreted to underlie the TIC at depth. A prominent seismic reflector under the TIC at a depth of 4.6 to 4.8 km may represent the base of the Thompson Formation in the Tamarack area (Goldner 2011).

7.1.3 Mesoproterozoic (Mid-Continental Rift)

The Mesoproterozoic MCR is represented by a large igneous province that formed from intra-continental rifting at approximately 1.1 Ga (Hutchinson et al., 1990) resulting from a mantle plume. The MCR extends along a 2000 km arcuate path from the Lake Superior region to the southwest (SW) as far as Kansas and to the SE beneath Lower Michigan (Hinze et al., 1997). Although only exposed in the Lake Superior area, the extent of the MCR beneath younger cover can be interpreted from its pronounced gravity and aeromagnetic signature.

In the Lake Superior region, the Keweenaw Flood Basalt province represents the exposed portion of the MCR system. Seismic data indicates the rift below Lake Superior is filled with more than 25 km of volcanic rocks buried beneath a total thickness of up to 8 km of rift sediments (Bornhorst et al., 1994).

The Keweenaw Flood Basalt province was formed over a period of approximately 23 Ma (Miller and Vervont, 1996) and shows various magnetic polarity reversals. Volcanism occurred in distinct phases, with an earlier phase dominated by low alumina basalts (<15% Al2O3) that include both olivine and pyroxene phyric picrites. These may have been derived from primitive magmas tapping a deep mantle source. The later volcanic phases are dominated by high alumina basalts (>15% Al_2O_3) with Mid Ocean Ridge Basalt like chemistry. The evolution of the MCR closely resembles that of other large igneous provinces such as the North Atlantic Igneous Province and the Siberian Traps. In the North Atlantic Igneous Province, picritic volcanic rock, associated with an early phase of "plateau like" flood basalts, are spread out over an area of 2000 km (Larsen et al., 2000).

In addition to the extrusive rocks, a large volume of intrusive rocks was emplaced and include the Duluth Complex, the Mellen Complex, the Coldwell Complex, the Beaver Bay Complex and the Nipigon Sill Complex, in addition to numerous dyke swarms and sills that may have acted as feeders for lava flows along the flanks of the rift. The TIC is one of the numerous smaller satellite intrusions which also include Eagle; Echo Lake; Bovine Intrusive Complex intrusions in upper Michigan; the Coldwell Complex near Marathon, Ontario; the Seagull Lake; Kitto, and Disraeli Lake intrusions in the Lake Nipigon area; and the Crystal Lake Gabbro in the Thunder Bay area (Goldner 2011, Figure 7-4). Many of these smaller intrusions, relative to the MCR volcanics, are older (3-15 Ma), occur distally, and have more primitive melt signatures. They are interpreted to represent the early evolution of the MCR.

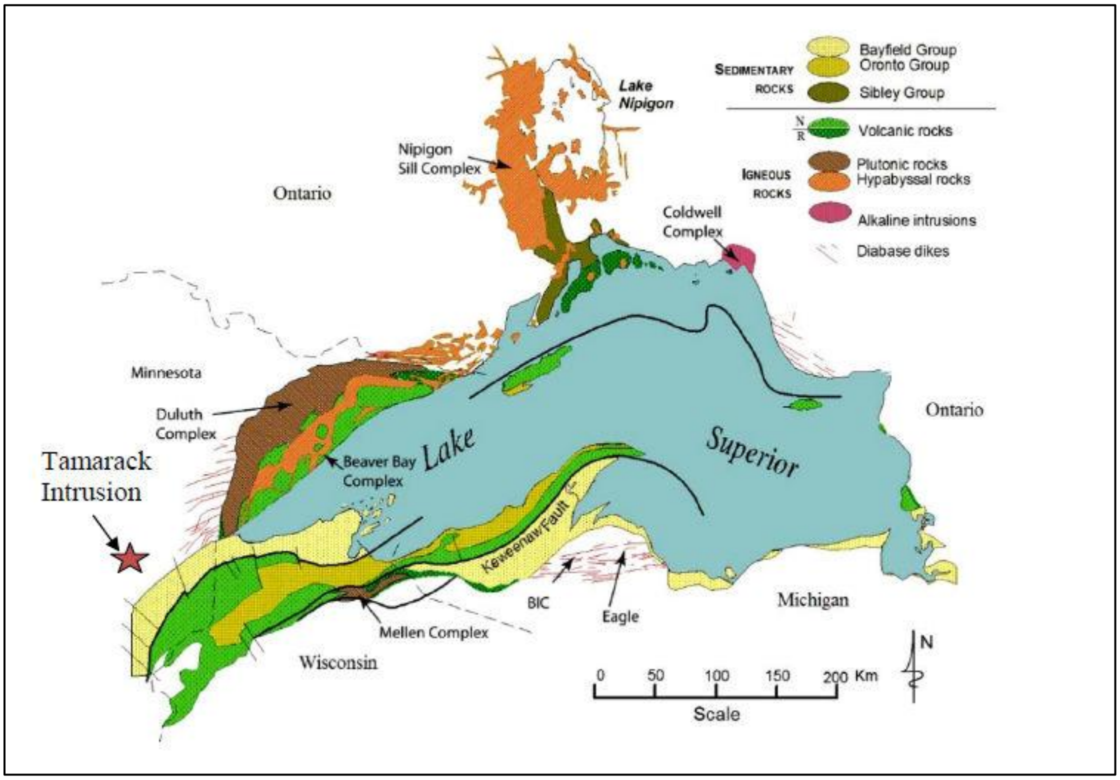


Figure 7-4: Map showing the Locality of the TIC and the geology of the Lake Superior Region with the location of other intrusive components of the MCR (Goldner 2011, modified from Miller et al., 1995).

The MCR was terminated by a compressional tectonic phase resulting in the inversion of original, graben bounding, normal faults, into reverse faults. The compressional event has been interpreted to possibly be the result of the Grenville Orogeny which may have started as early as 1080 Ma and was probably completed by 1040 Ma (Bornhorst et al., 1994). The orogeny resulted in rotation of blocks towards the rift axis with local sediments derived from the erosion of uplifted horst blocks (e.g.: Hinckley Sandstone formation in Minnesota). There is currently no evidence to suggest that the TIC has been affected by this rotational event.

7.1.4 Cretaceous

Cretaceous sediments that include fluvial conglomerates and sandstones, overlain by transgressive tidal flats deposits (including lignite layers) and progressively deeper marine sediments representing a transgression, are preserved in western and central Minnesota. These sediments often overly a well-developed paleo-lateritic weathering profile. At Tamarack, Cretaceous siltstone and sandstone unconformably overly parts of the TIC in the N and a layer of up to 30 m thick of mudstone occurs in the NE of the TIC. The extent of Cretaceous sediments in South Tamarack is unknown as it has not been defined by the current drilling. The clays associated with the Cretaceous sediments are similar to other deposits that have been mined in the MRV for manufacturing brick and tiles.

7.1.5 Quaternary

Thick glacial-lacustrine deposits cover most of the Tamarack area as they do other large areas of Minnesota. The deposits are a complex sequence of lobes representing multiple advances and retreats from the last Pleistocene glaciation which spanned a period from 10,000 to 100,000 years ago. Fluvial reworked glacial sediments and varved clay layers occur between various lobe layers. Varved clay layers underlie widespread peat bogs in the Tamarack project area and are believed to have been deposited in Glacial Lake Upham which covered much of northeastern Aitkin County.

7.2 Property Geology

7.2.1 Introduction

The TIC consists of a multistage magmatic event composed of mafic to ultramafic body that is associated with the early evolution of the MCR (with the youngest intrusion dated at 1105 Ma +/- 1.2 Ma, Goldner, 2011). This age is significantly older than other Duluth Complex Intrusions which consistently date at 1099 Ma. The TIC is consistent with other earlier intrusions associated with the MCR that are often characterized by more primitive melts.

The TIC has intruded into Thomson Formation siltstones and sandstones of the Animikie Group and is preserved beneath remnant shallow Cretaceous fluvial and tidal sediments and Quaternary glacial sediments which unconformably overlie the intrusive. The geometry of the TIC, as outlined by the well-defined aeromagnetic anomaly (see Figure 7-5), consists of a curved, elongated intrusion striking NS to SE over 18 km. The configuration has been likened to a tadpole shape with its elongated, northern tail up to 1 km wide and large, 4 km wide, ovoid shaped body in the S (Figure 7-5). The southern portion of the TIC (the Tamarack South Project), is over 9 km long and is the focus of this Technical Report.

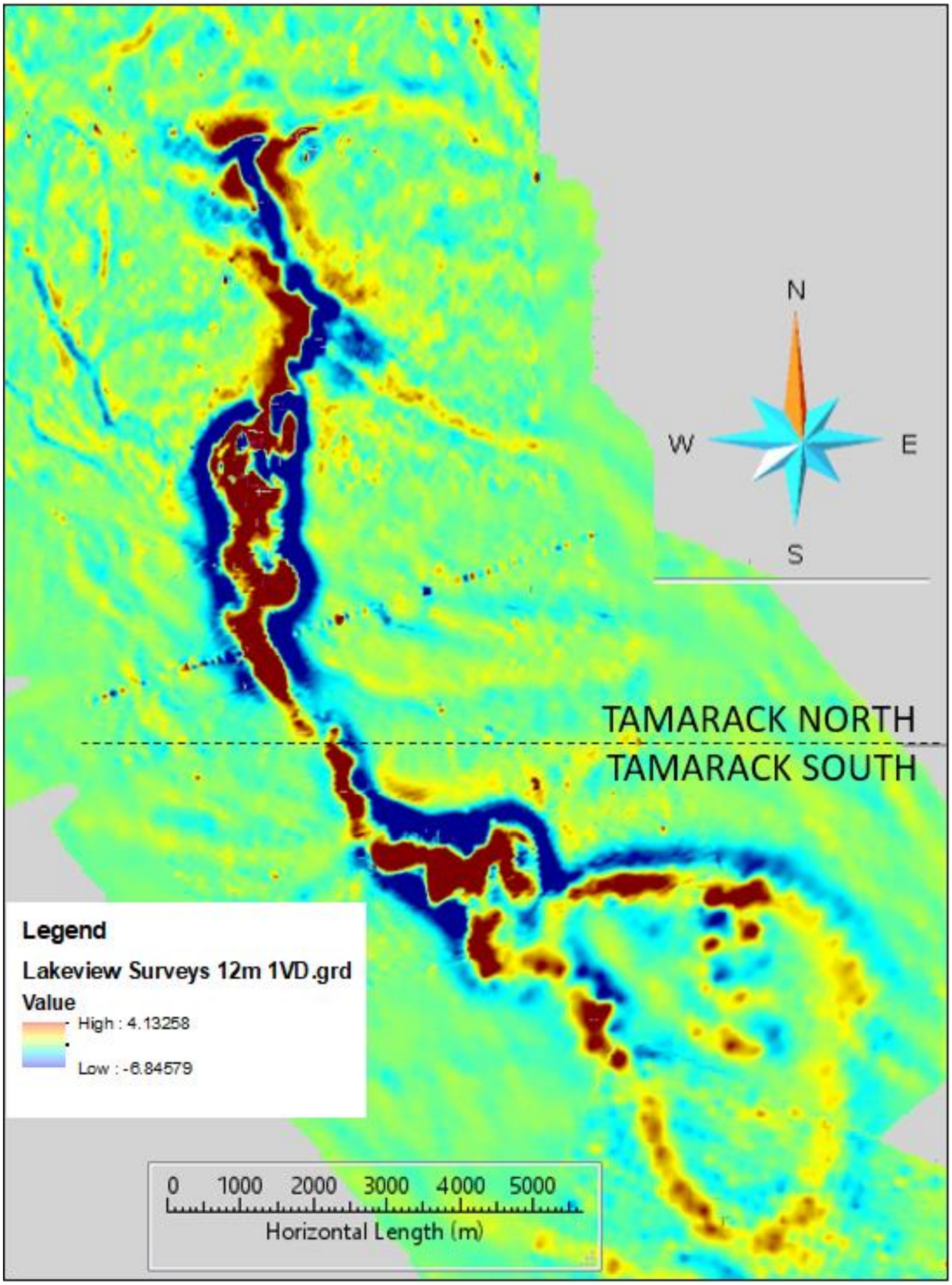
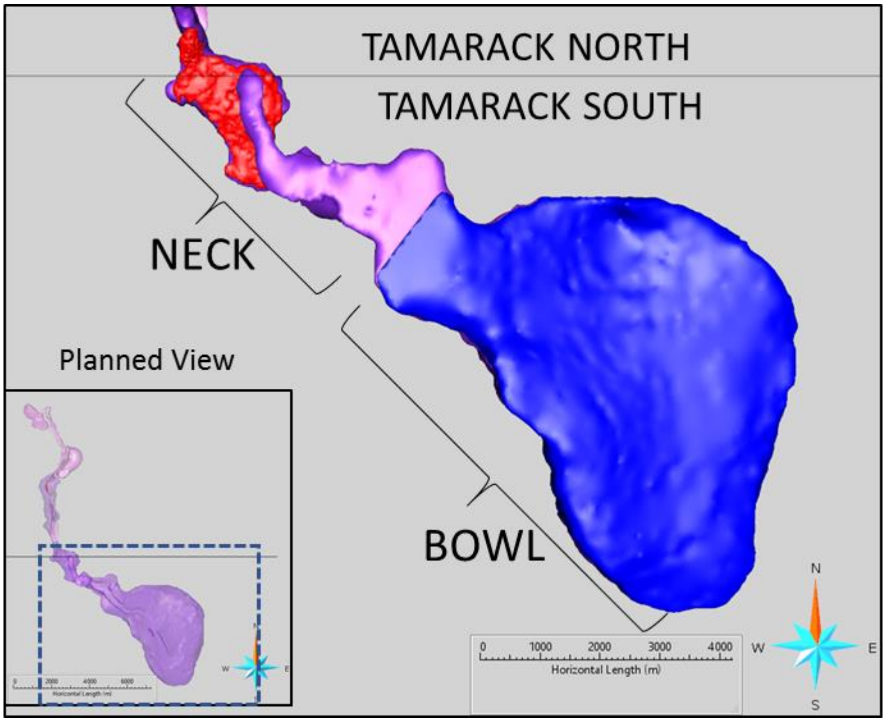


Figure 7-5: Aeromagnetic survey showing the 18 km long strike of the TIC where the shape has been compared to a tadpole with the large layered intrusion to the south (Tamarack South) termed the "Body" (also known as the neck and bowl) and the long narrow intrusion that hosts the currently defined mineralization (Tamarack North Project) termed the "Tail" (Kennecott Aeromagnetic Survey, Modified by Talon, 2017)

A)



B)

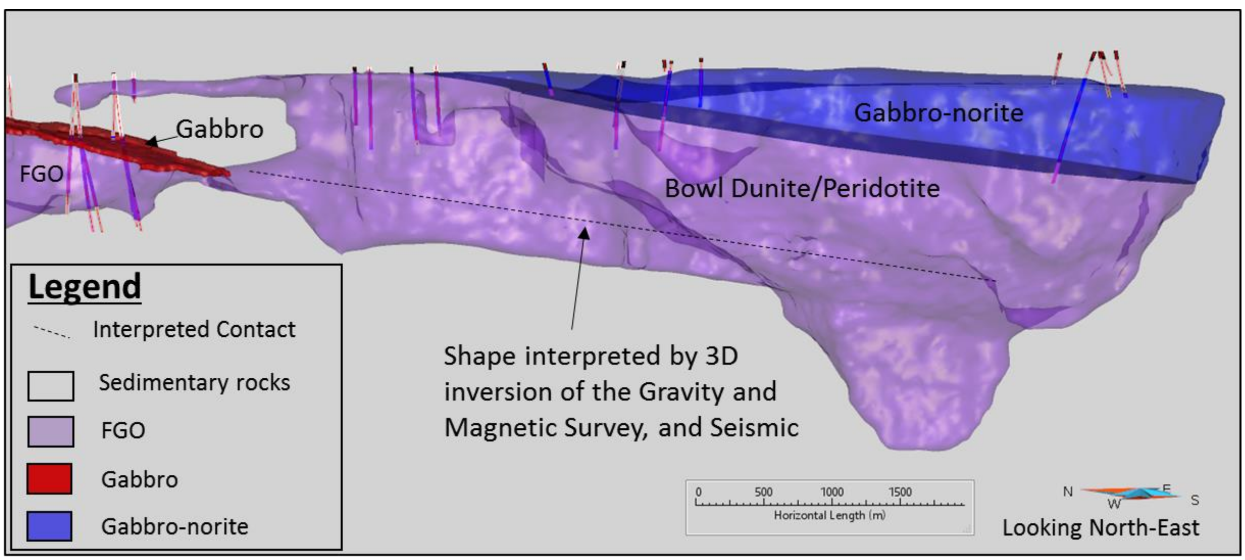


Figure 7-6: A) Bedrock (sub-glacial) Geological Map of the TIC, showing the progressively eroded profile of the TIC South portion with the Neck and Body (Bowl) of the Tamarack South Project. Section Line (dashed) (modified from Kennecott Exploration Internal Report, May 2017). B) Long section looking NE of the Tamarack South project, dashed line represents the extrapolation of the FGO upper contact.

7.2.2 Paleoproterozoic (Thomson Formation)

The TIC is intruded into a folded and metamorphosed (greenschist facies) sequence of siltstone and sandstone turbiditic sediments of the Upper Thompson Formation of the Animikie Group that dip shallowly towards the N. Contact metamorphism peripheral to the TIC ranges from granoblastic to spotted hornfels. Observations from core indicate that sedimentary and structural fabrics have largely been obliterated by the metamorphism. The Upper Thompson Formation sediments are eroded in the N but are still preserved overlying the TIC in parts of the S (Figure 7-6 A&B).

7.2.3 Geological Setting of the Tamarack South Project

The Tamarack South Project represents the Neck Zone and Bowl Zone of the TIC (Figure 7-6 A). The Neck has been interpreted as a chonolith intrusion estimated to be about 1.5 km thick (based on limited drilling) and comprising a differentiated suite which includes an upper gabbroic sequence and a thick basal zone of olivine cumulates. Most of the petrography and geochemical work at Tamarack South was conducted by Goldner (2011).

The igneous layering in the body of the TIC at the Tamarack South Project dips to the SE by approximately 15 to 20 degrees (Figure 7-6 B). The body of the TIC is interpreted to intruded into sediments of the Upper Thompson Formation. Drilling in the northern portion of the body (the Neck Zone) has encountered the upper olivine ortho-cumulates suggesting that the overlying gabbroic units (as seen further south – the Bowl Zone) have been eroded and at depth the Fine-Grained Olivine peridotite of the FGO extending S in the Neck Zone plunging below the Bowl Zone. The drilling also as identified the identical stratigraphy of the FGO found in the Tamarack Zone in the N part of the Tamarack South Project named the Neck Zone.

The generalized, magmatic stratigraphy at the Tamarack South Project has been determined from the limited drilling and seismic data.

- Magnetite rich gabbronorite in the upper part of the intrusion; thickness of 324 m has been drilled in hole 07L039 (collared in the northern part of the Bowl Zone). The upper part of the gabbronorite is coarse-grained with clinopyroxene crystals intergrown with plagioclase and orthopyroxene with granophyric patches of quartz and amphibole. The gabbronorite becomes progressively finer grained and more equi-granular in texture with depth. Magnetite content generally increases downward in the upper part of the gabbronorite to about 10% and then steadily decreases in content to <5% at the base of the gabbro. Chalcopyrite (Cpy) and pyrrhotite (Po) are found only in trace amounts and PGE content is mainly below detection limits;

- Transition zone of fine-grained, equi-granular pyroxenite (lherzolite and websterite) with cumulate clinopyroxene and orthopyroxene and minor olivine up to 20m thick. The transition from gabbronorite to pyroxenite is difficult to log visually but can be determined from cryptic increase in Cr with corresponding decrease in the trend for Ni content (see Section 7.2.3.1);
- Lower zone of medium to fine-grained, massive olivine meso-cumulate to ortho-cumulate lherzolite of significant thickness. None of the holes have intersected the entire olivine cumulate sequence. Hole 05L023 (in the northern portion of the Bowl Zone) intersected 605m of olivine ortho-cumulates before being lost. Hole 12LV140 also in the N of the Bowl Zone intersected 588m of olivine cumulates before intersecting ~100m of granofels and granophyre. The olivine cumulates are comprised of 60-90% medium to fine-grained, cumulate olivine grains (Fo 77-84), 10-20% poikilitic to sub-poikilitic clinopyroxene and late crystallizing plagioclase. The olivine ortho-cumulates vary in modal composition from dunite to lherzolite but do not visually appear to be modally layered;
- Within the Neck Zone, based on the 2015-16 drilling, the stratigraphy consists of massive olivine meso-cumulate to ortho-cumulate lherzolite (defined above) part of the bowl, meta-sedimentary rocks, Upper FGO Gabbro and the FGO intrusion. The FGO intrusion represents an extension of the Tamarack North Project which underlies the Neck Zone and plunges further south likely under the bowl. The nature of the contact between the Bowl Olivine Cumulate and FGO remains undetermined. Within the Neck area, the Olivine Cumulate is separated from the FGO intrusion by ~450m thick sequence of Meta-sedimentary rock of the Animikie Basin and a thin sequence of Gabbro capping the FGO;
- FGO: The FGO forms an elongated, S plunging, gutter-shaped intrusion primarily in the N portion of the Tamarack South Project. The FGO intrusion is approximately 1 km wide and up to 525 m thick. The intrusion is composed primarily of dunite/peridotite with fine-grained olivine. Currently no mineralization was observed other than disseminated sulphides. When comparing Ni content of olivine versus the Magnesium (Mg) Number, we can determine that the FGO was sulphur saturated.

Of note is the occurrence of a magmatic (postulated) derived breccia (Salo Breccia) that intrude the upper Thompson formation that lies directly above the TIC Bowl Zone. These breccia's form pipes or dykes and contain graphite rich clasts that are believed to have been derived from graphite and sulphide rich sediments of the Lower Thompson Formation (Section 7.1.2). The breccia's are thought to be related to the early evolution of the TIC. No significant accumulations of sulfide have been identified from the limited drilling to date, however, an interval more than 160 m thick at the top of the basal olivine cumulate contains anomalous PGE mineralization (07L038).

7.2.3.1 *Igneous Petrology and Geochemistry*

The different intrusive lithologies of the Tamarack South Project includes a variety of rock types associated with the broad stratigraphy described in Section 7.2.3, ranging from lherzolite to gabbronorite. The main sequence of lithologic units from bottom to top are a poikilitic lherzolite; an intergranular olivine-bearing websterite; an intergranular lherzolite; an intergranular gabbronorite; an oxide gabbronorite, and an olivine-bearing granophyric gabbronorite (Figure 7-11; Goldner 2011).

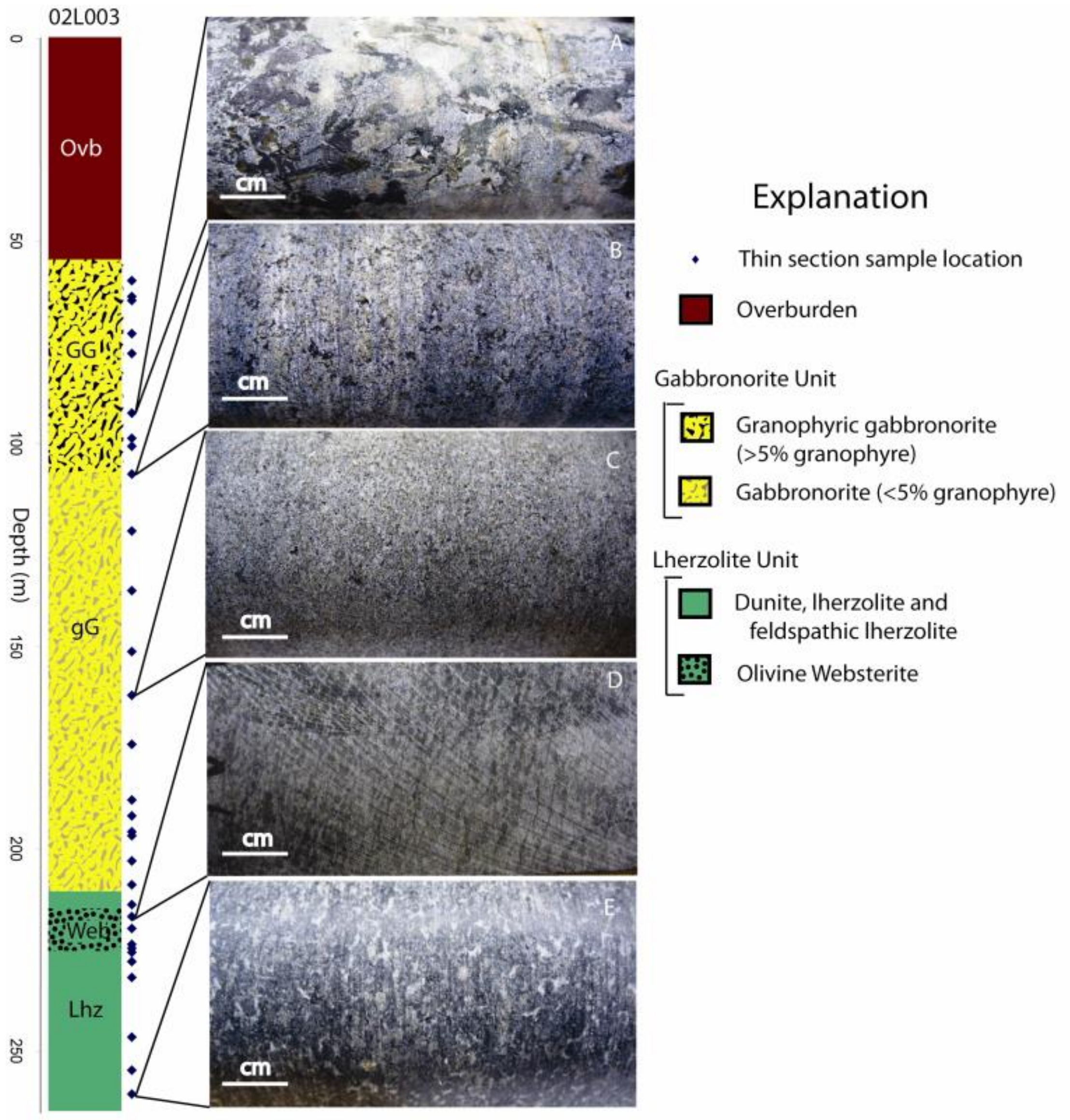


Figure 7-7: Stratigraphy of core 02L003 (located in N part of the bowl) with photographs showing representative samples from the various lithologies. A) Coarse granophyric (15% granophyre) gabbronorite. B) Medium gabbronorite C) Gabbronorite. D) Websterite. E) Feldspathic lherzolite, the white mineral is sub-poikilitic plagioclase (Goldner 2011).

The different intrusive lithologies have been divided into two main groups related to the main magmatic stratigraphic described in Section 7.2.3. The lherzolite occurs towards the base of the intrusion and has only been intersected in the N of the Tamarack South Project, whereas the gabbro to gabbronorite forms the top of the intrusive body.

Gabbros and Gabbronorites in the upper layers of the Bowl are composed of medium-grained, poorly foliated, intergranular gabbronorite to olivine gabbronorite and rare norite. The principal phases of plagioclase, clinopyroxene, and orthopyroxene are consistently subhedral granular and, except near pockets rich in granophyre, are consistently medium grained. Subhedral granular olivine is present only in the upper granophyric gabbronorite unit, whereas inverted pigeonite occurs exclusively in the lower gabbronorite. Irregular-shaped areas of coarse-grained to pegmatitic granophyre occur within the granophyric gabbronorite unit and can range in size from a few cm to over a m. These granophyre patches are composed of orthoclase feldspar, quartz, plagioclase and clinopyroxene (Figure 7-8, Goldner 2011).

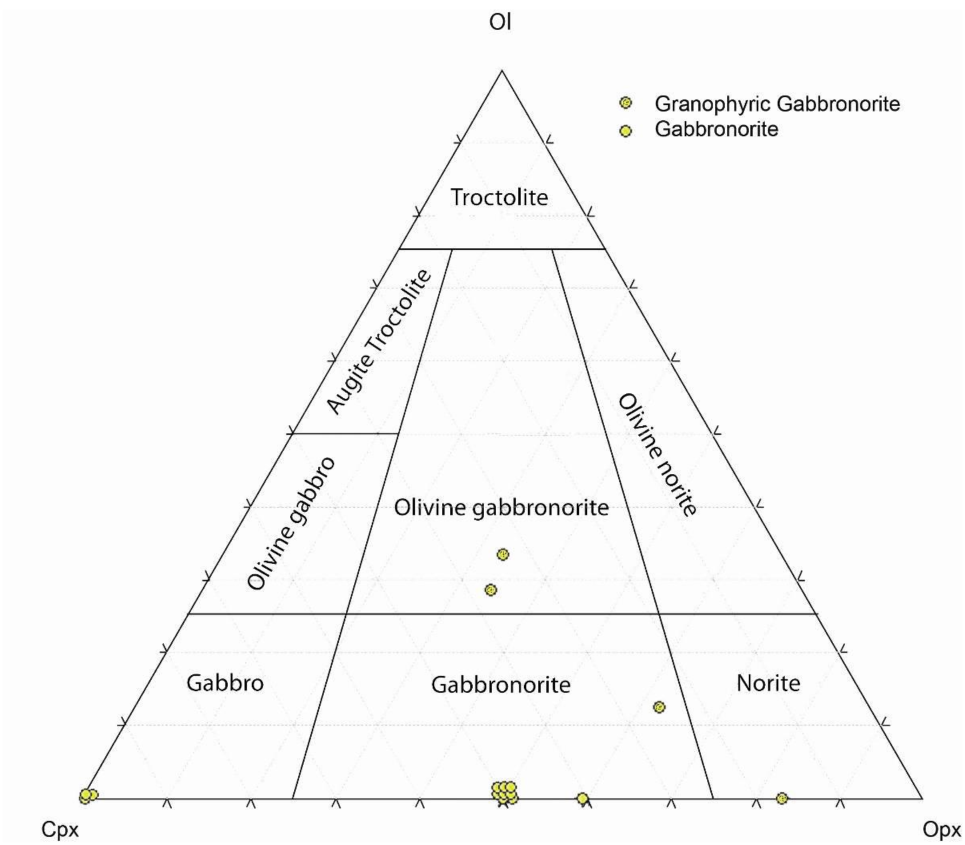


Figure 7-8: Model Composition of the Gabbro-Gabbronorite series (Goldner 2011)

Lherzolite and Olivine Websterite in the lower cumulates. Lherzolite and Olivine Websterite can be distinguished based on mineralogy. The lherzolite units are generally medium-grained, non-foliated, non-layered, devoid of inverted pigeonite, and range in alteration from strong to weak. Major phases in these units include olivine, clinopyroxene, orthopyroxene, and plagioclase while minor phases include sulfides (Po, Cpy, and pentlandite (Pn)), magnetite, biotite, and hornblende. Local intense alteration, modal compositions were estimated from alteration assemblages and the preservation of primary igneous textures. Modal rock types comprising the lherzolite subunits include dunite, lherzolite, wehrlite, and feldspathic lherzolite. The olivine websterite subunit occurs towards the top of the lower lherzolite unit. Although difficult to distinguish lithologically it can be discriminated based on the geochemistry (Figure 7-9, Goldner 2011).

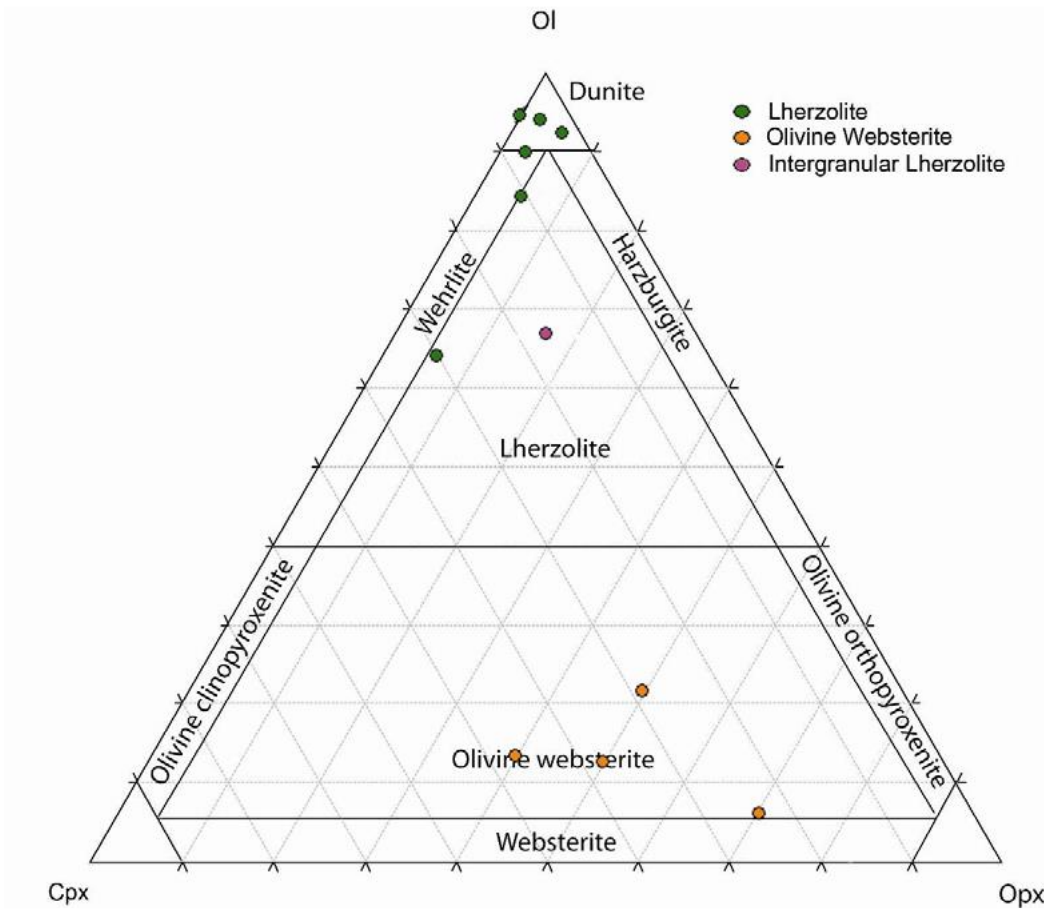


Figure 7-9: Modal Composition of the three sub-units forming the lherzolite/websterite lithology (Goldner 2011)

Geochemical trends based on whole rock XRF analysis highlight the differentiation in the stratigraphy, especially Ni and Cr which discriminate the Olivine Websterite Subunit which has high Cr and decreased Ni trends compared to the Lherzolite subunits (Figure 7-10 Goldner 2011).

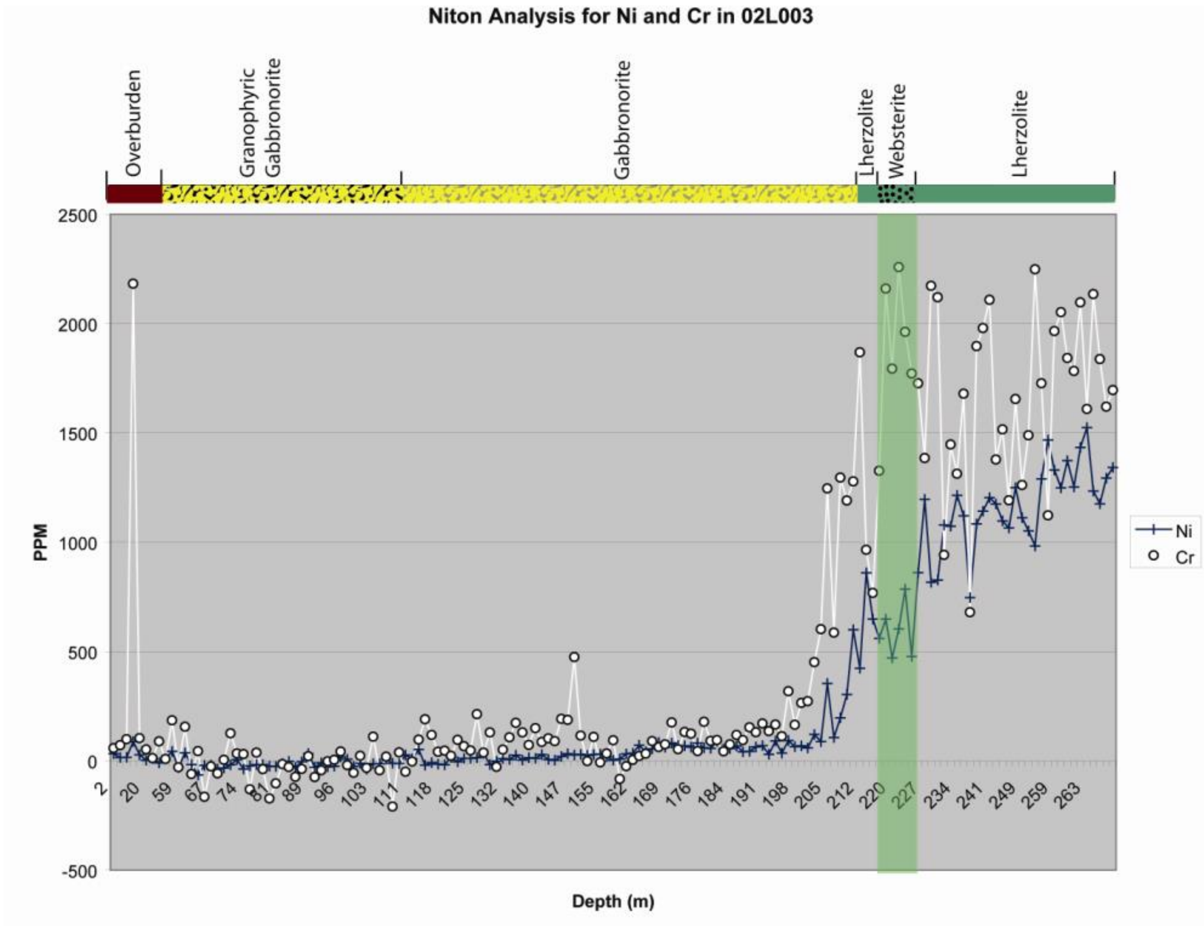


Figure 7-10: Plot of Ni and chrome concentrations (from NITRON XRF analysis) associated with the stratigraphy of core 02L003 (located in N part of the bowl). The green interval indicates the Olivine Websterite Subunit in the transition between the gabbronorite and lower olivine cumulates (Goldner 2011).

Mineral geochemical trends also highlight the differentiation and display cryptic layering. Compositions of olivine, plagioclase and pyroxene from microprobe analysis were studied by Goldner (2011) in drill hole 02L003 and appear to show consistent trends with apparent cryptic layering sometimes independent of logged lithological changes.

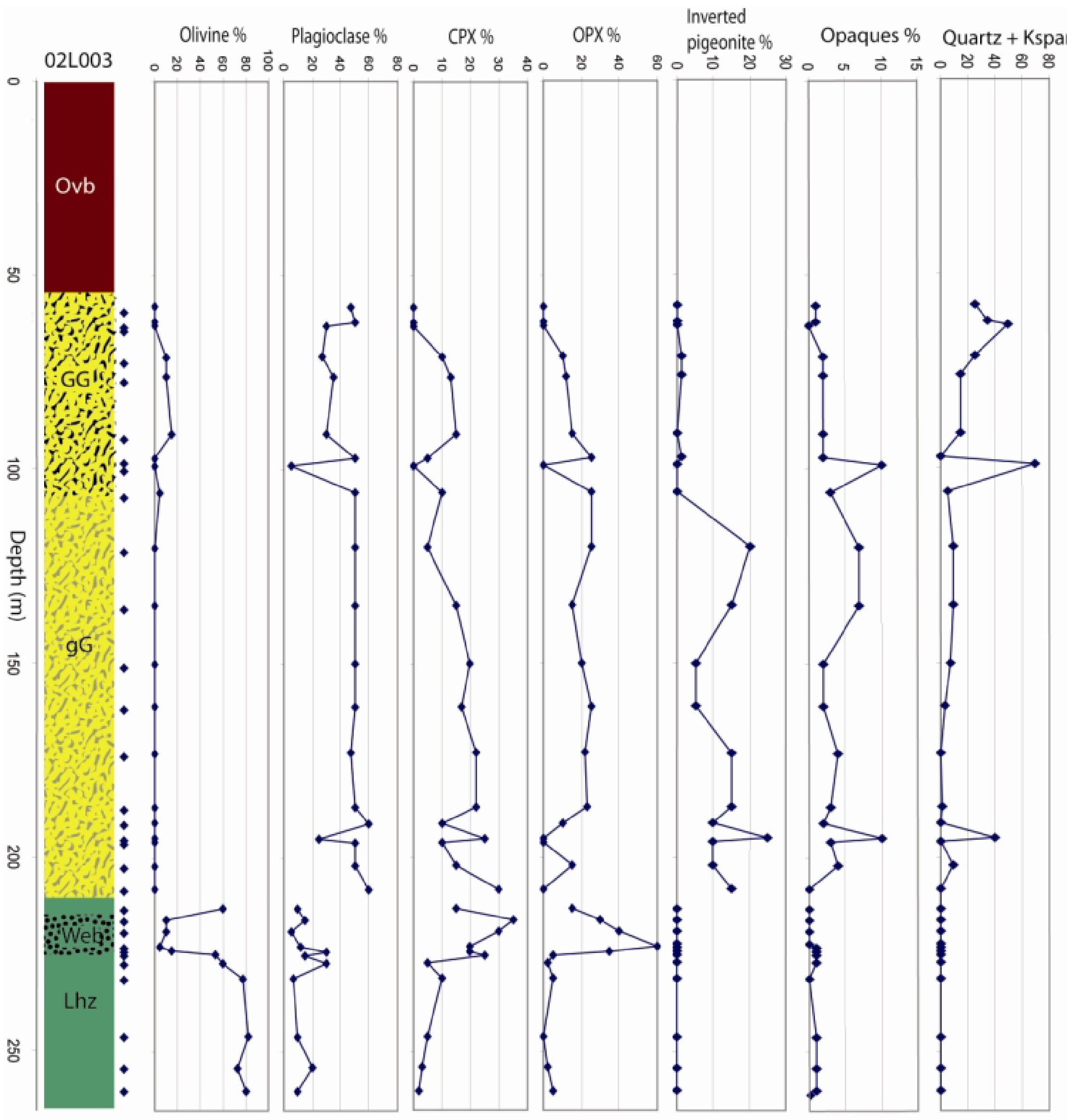


Figure 7-11: Stratigraphic variation in modal mineralogy based on visual estimation showing the upper gabbronorite mineralogy and the lower Lherzolite unit with the Websterite subunit (Goldner 2011)

Olivine composition ranges from Fo84 in the lowermost lherzolite and becomes progressively evolved to Fo10 in the uppermost granophyric gabbronorite. The upper gabbronorite units have the most evolved Mg contents of both pyroxene and olivine that increase with depth (Figure 7-12, Goldner 2011). Where olivine disappears downward in the gabbronorite it is replaced with an increase in the mode of inverted pyroxene. The trend in the mg# continues to increase downward when olivine reappears in the lower lherzolite with the mg# in the pyroxenes also following similar trends (**Error! Reference source not found.**2, Goldner 2011). These numbers however are generally lower than those found in the FGO in the Tamarack North Project.

The An content of plagioclase shows a similar increase with depth (Figure 7-12).

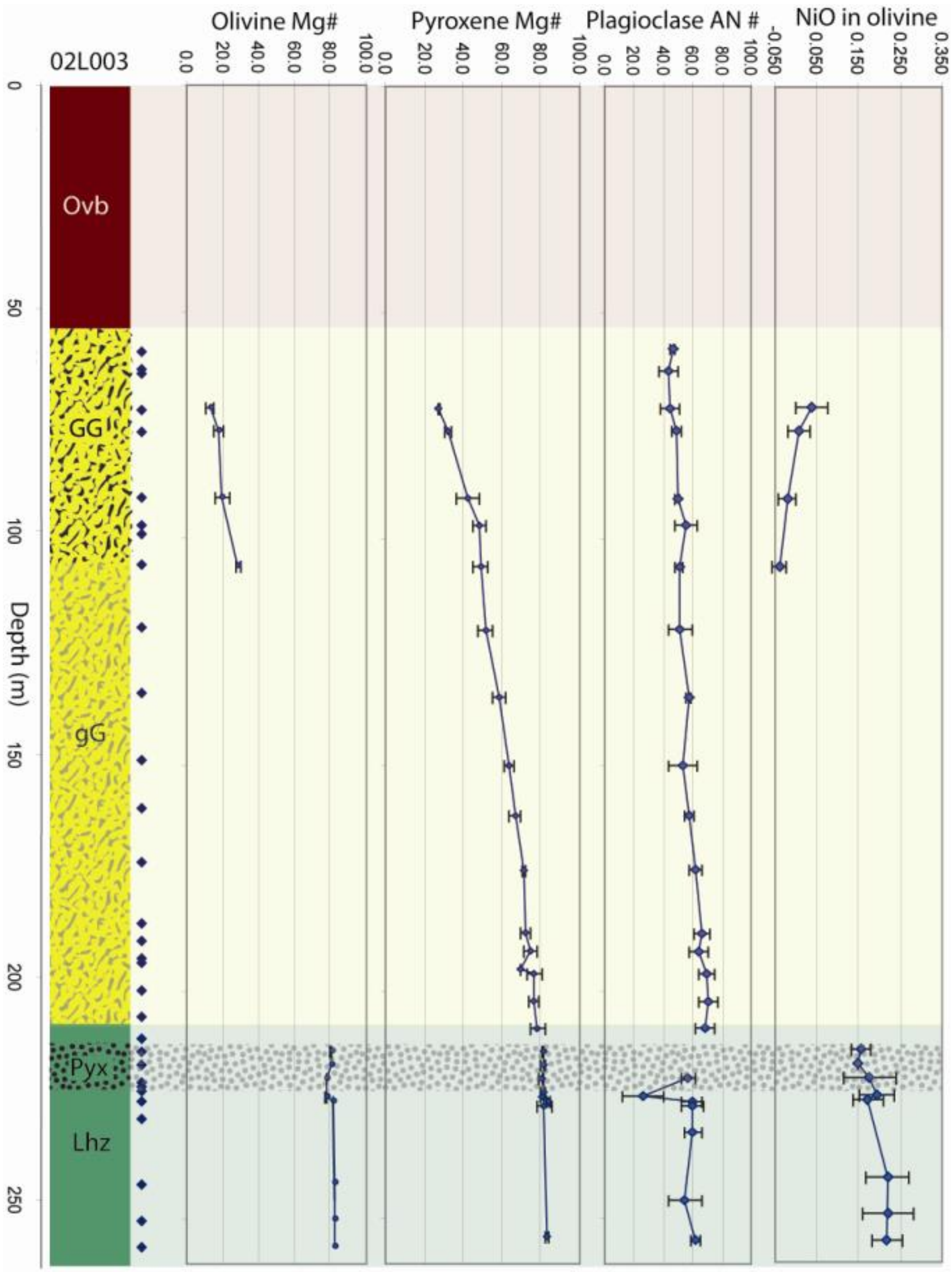


Figure 7-12: Stratigraphic plot showing mineral chemical results from microprobe analysis of samples from core 02L003. (Goldner 2011)

Goldner (2011) estimated the proposed composition of the Tamarack parent magma to be comparable to other early MCR-related basalts with similar primitive Olivine-mg numbers. The trace element abundances of the proposed Tamarack parent magma are reported to have a mantle normalized pattern that is similar to many early MCR basalts.

At the Tamarack South Project, the range in lithologies upward from a poikilitic lherzolite, to an olivine-bearing granophyric gabbronorite shows a progression in mineralogy, textures and geochemistry (whole rock and mineral) that are consistent with cumulate differentiation and fractional crystallization that represents a gradational progression from a single magma of primitive to more evolved composition evolving in a closed-system (Goldner 2011).

Fine-Grained Olivine peridotite FGO. The peridotite geochemical signature is identical to the Tamarack Zone FGO found in the Tamarack North Project. The olivine (fosterite (Fo) at 70-86%, Goldner, 2011) decreases in modal amount downward towards the basal contact. The FGO intrusion is magmatically layered define by specific geochemical markers. Such Geochemical marker consist of a middle layer of Olivine Cumulate with high magnesium oxide (MgO)/silicon dioxide (SiO_2) ratios and a basal FGO unit which correspond to high Cr/MgO ratio. The Magmatic layering dips to the south at 8-12 degrees. The magmatic layering is observed in Geochemical profile which consist, from base to top, a Basal FGO, Mid-Lower FGO, FGO cumulate, Intermediate FGO and upper FGO. In the neck area the upper contact of the FGO intrusion with sediments (country rock) is marked by a fine-grained olivine gabbro.

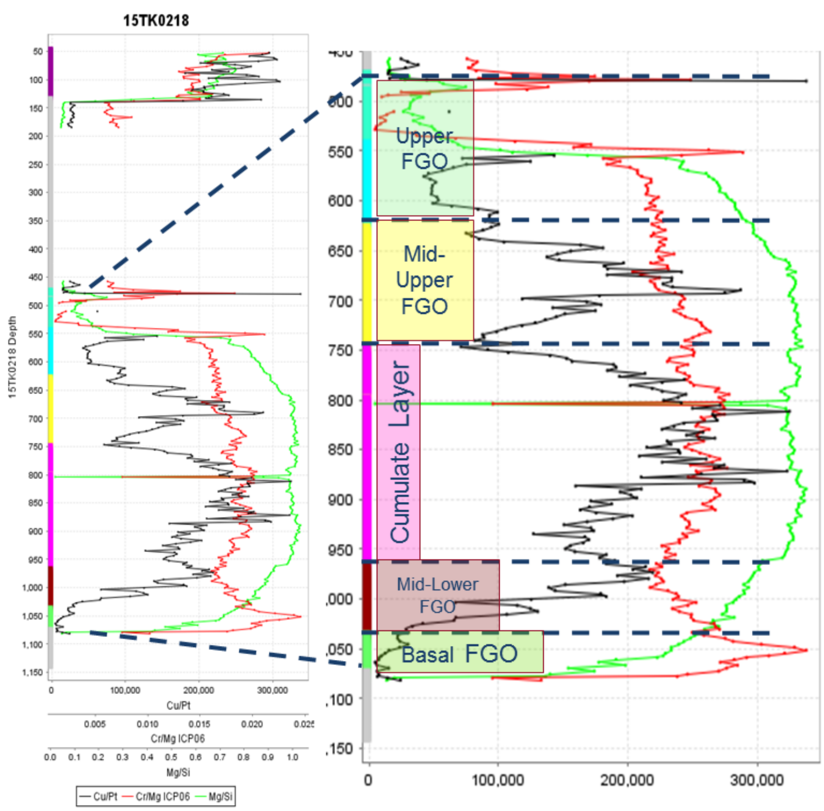


Figure 7-13: Geochemical profile and magmatic layering in the NECK Zone from Hole 15TK0218. The magmatic layering in the neck shows a complete sequence of the FGO in the Neck Zone and is comparable to the Tamarack North Project. Note that the upper sequence of the FGO is not eroded.

7.2.3.2 *Mineralization*

No significant sulphide mineralization has been observed at the Tamarack South Project to date. However, drilling into the Neck Area in the FGO layered sequence (see Figure 7-6 A&B), identified widespread, (600 m (length) x 300 m (width) and ~500 m (thick)) anomalous, low grade Ni-Cu-Co sulphide mineralization (disseminated to 5% sulphides) at depth (see Figure 7-14). Evidently, a result of the winnowing out of droplets of dense sulphide liquid from an overlying flow of sulphide-bearing silicate magma, the conceptual analogous model would be typical of a Norilsk style deposit (i.e. Talnakh) See Table 10-5 for assay results for this area.

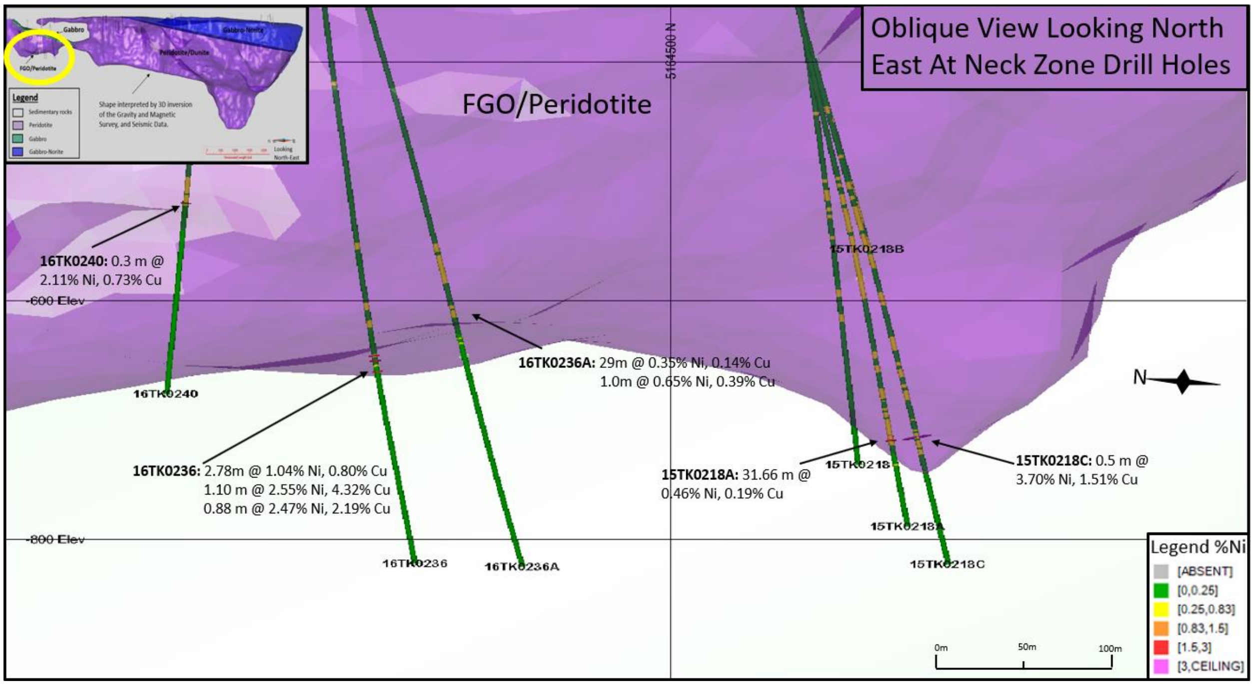


Figure 7-14: Section looking NE summarizing drill hole results in the Neck Zone. (modified from Talon Press Release dated Dec 13, 2016)

Within the Bowl Zone (see Figure 7-6 A&B), anomalous ultramafic PGE+Au concentrations of 0.226 grams per tonne (g/t) over 162.51 m (574.5 m-737.01 m has been intersected at the top of the olivine cumulate in drill hole DH 07L038. The anomalous PGE+Au zone has also been intersected in holes to the N within the Neck Zone demonstrating the laterally extensive nature of the mineralization. The potential exploration target for this horizon is towards the edges of the intrusion where the grade may reach economic concentrations over narrower widths similar to that occurring at Skaergaard, Platreef and the Great Dyke.

7.2.3.3 *Quaternary and Cretaceous cover and Weathering Profile*

The Tamarack South Project does not outcrop at surface as it underlies 28 m to 69 m of Quaternary glacial and fluvial sediments.

In the Tamarack South Project, an ancient lateritic weathering profile is variably preserved with 2 m to 15 m of Saprolite and 11 to 13 m of Saprock with remnant igneous textures.

Serpentinisation of olivine cumulates occurs over a 300 m thickness within the lherzolite and is possibly due to alteration following hydration of the olivine during weathering. Magnetite generated by the serpentinisation process in the upper layers of the lherzolite is the main cause for the ring-like magnetic anomaly representing the edge of the Tamarack South intrusion.

7.2.4 Current Models for the formation of the Tamarack South Project

Exploration to date indicates that the Tamarack South Project is composed of at least three intrusions; the lherzolite, the gabbronorite, and the FGO. This is based on the geochemistry that suggests the three intrusions are derived from the same high-Mg olivine tholeiitic parent magma source (Goldner, 2011), but probably evolved differently. The Gabbronorite is more evolved geochemically and would represent a later phase of residual melt, whereas the lherzolite is a more primitive melt and would represent an earlier phase where cumulates formed. The FGO age and intrusion chronology remains unresolved at this stage.

8.0 DEPOSIT TYPES

Although no significant Ni-Cu-PGE sulphide mineralization has been intersected at the Tamarack South Project, the project by virtue of its geologic setting, does have the potential to host magmatic Ni-Cu-PGE sulphide mineralization.

Ni sulphide deposits form as the result of segregation and concentration of liquid sulphide from mafic or ultramafic magma and the partitioning of chalcophile elements into the sulphide from the silica melt (Naldrett, 1999).

The formation of an economic Ni sulphide deposit requires the sufficient concentration of metals in a magmatic system. A number of basic factors are believed to be necessary including:

- A tectonic rift setting with upwelling mantle and deep-seated structures necessary to generate partial melting of primitive magmas;
- Large volumes of magma flowing through an open system to achieve a high R factor (ratio of melt to sulphide);
- Mid-level external sulphur source from crustal assimilation of sulphur rich rocks to maintain sulphur saturation and continued partitioning with a rising magma;
- Physical and chemical conditions for sulphide accumulation such as cumulate settling, changes in flow velocity, magma mixing etc.

Ni-Cu sulphide deposits are economically important because they present favourable economics compared to the mining and processing of Ni laterite deposits. This is due to their relatively high grade; comparatively low environmental impact and comparatively low capital cost requirements.

In addition to magmatic Ni sulphide style mineralisation, the Tamarack South Project also has the potential to host layered PGE-Au mineralization typical of Skaergaard, Great Dyke or Platreef type mineralization.

9.0 EXPLORATION

9.1 Historical Investigations

The TIC was initially targeted from the Minnesota State airborne magnetic survey flown between 1972 and 1983 and the follow-up drill-testing by the MGS in 1984 of two holes, with peridotite intersected in AB-6 which was drilled on an anomaly N of the town of Tamarack and AB-5 intersecting metamorphosed sediments on the eastern boundary of the Bowl.

9.2 Exploration by Kennecott

The TIC was discovered as part of a regional program initiated by Kennecott in 1991. The focus on Ni and Cu sulphide mineralization was intensified in 1999 based on a model proposed by Dr. A.J. Naldrett of the potential for smaller feeder conduits associated with continental rift volcanism and mafic intrusions to host Ni sulphide deposits similar to Norils'k and Voisey's Bay. This model ('Dynamic Conduit Model') challenged previously held models that Ni sulphide deposits were only associated with large layered complexes.

To date, exploration by Kennecott has included a wide range of geophysical surveys including; aeromagnetic and EM, ground magnetic and EM, Versa tile Time Domain Electromagnetic (VTEM), IP, gravity, seismic, MALM and downhole EM. Drilling in the main target areas of the Tamarack South Project has included 27 diamond drill holes, with 16 holes in the neck and 11 holes testing a regional magnetic anomaly (Bowl), totalling 17,314 m.

9.2.1 Geophysics

The Tamarack South Project is covered by Minnesota government regional magnetic and gravity surveys. The magnetic data in particular is recent and good quality and played a key role in the recognition of the TIC and the targeting of early drilling.

A wide variety of airborne, ground, and borehole (BH) geophysical surveys have been conducted by Kennecott at Tamarack since 2001 (Figure 9-1).

Airborne EM and magnetic surveys have included airborne MEGATEM (2001) and Aerotem (2007, 2008, 2009)

Ground geophysical surveys included EM 37 (2002), Crone transient electromagnetic (TEM) (2003), audio-frequency magneto-tellurics (AMT) (2003), Seismic Reflection (2006), controlled source audio-frequency magneto-tellurics (CSAMT) (2006), UTEM (2006), 3D RES/IP (2008), Gradient & Dipole Dipole IP/Resistivity (2010), and gravity surveys (2001, 2002, and 2011).

A test line to evaluate different surface TEM systems was surveyed with UTEM, Squid and Fluxgate systems in 2012.

Borehole EM (BHEM) was first tested in 2003 and has been used since as an important tool for the detection and delineation of sulphide bodies in and near drill holes. Most holes since 2007 and all holes drilled since 2011 have been surveyed with BHEM.

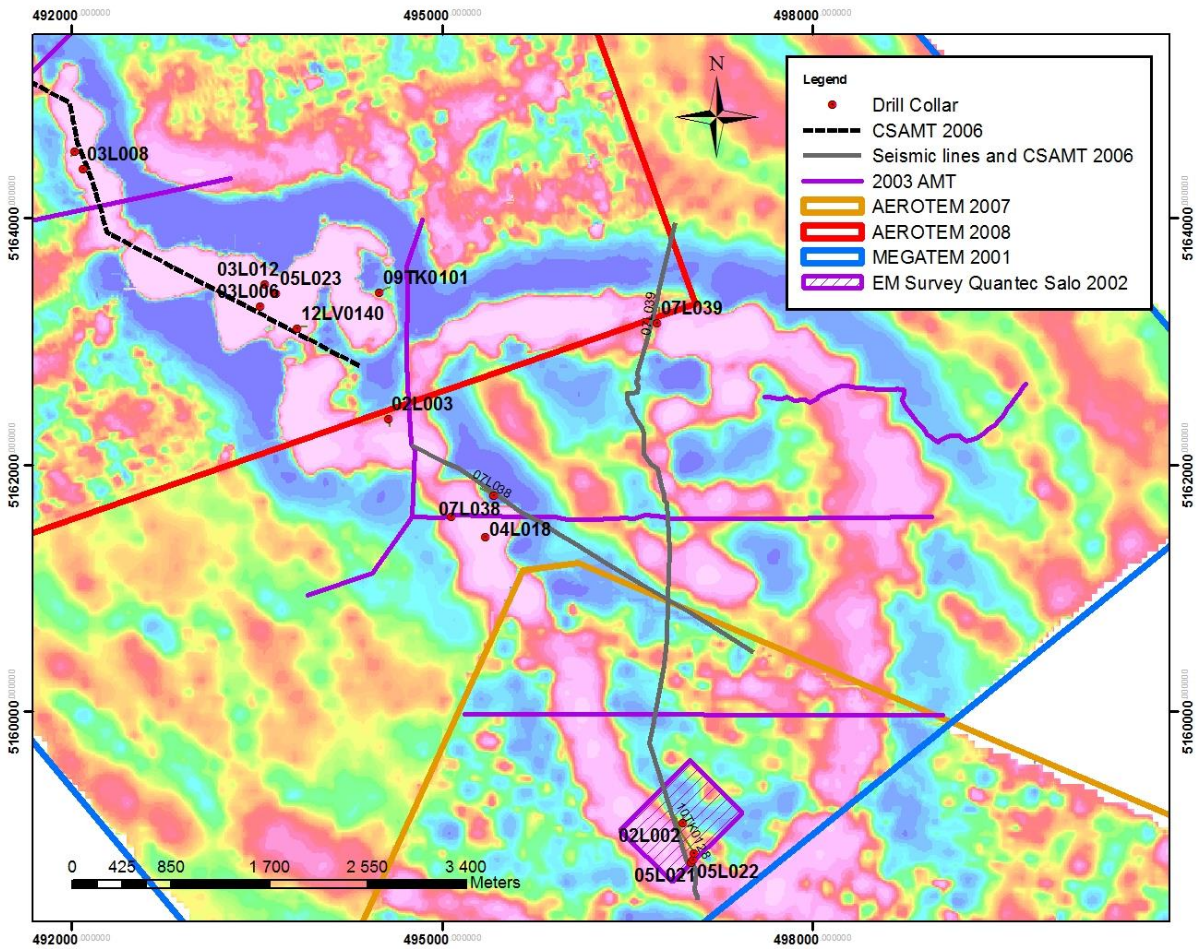


Figure 9-1: Map showing localities of various geophysical surveys conducted over the southern TIC (composite 1VD magnetic image background) Modified from Kennecott Internal Report and Survey Data, 2013).

Airborne Surveys

The MEGATEM survey in 2001 covers most of the TIC including the Tamarack South Project. Subsequent airborne EM surveying was conducted using the Aerotem system which has a smaller footprint than the more powerful but extended MEGATEM system and hence less sensitivity to nearby power lines. Two of the Aerotem surveys cover the Tamarack South Project including the 2007 Programme that covers the southern part of the intrusive and the ESE EM anomaly south of the TIC; and the 2008 Programme that covers the northern part of the intrusion in the Tamarack South Project (Figure 9-1).

The Aerotem system operates at lower power and higher frequency than the MEGATEM system with potentially less penetration through conductive overburden (OB) but has the capability of measurements in the on-time of the transmitted pulse and hence potentially increased sensitivity to very conductive targets. Examination of the Aerotem summary grids suggest that the Aerotem data was less affected by the power lines but more strongly affected by OB responses.

Based on Kennecott's subsequent work it appears that neither AEM surveys detected obvious new large conductive targets that were not due to OB or lithological contrasts within the depth ranges of these two AEM systems.

Ground Surveys

Electrical and EM surveys

A variety of ground electrical and EM have been conducted on the Tamarack South Project. Surveys included EM 37 (2002), AMT (2003), CSAMT (2006 and 2015)

Gravity surveys (2001, 2002, 2011 and 2015)

Kennecott did detail gravity surveying over the property to add to the available Minnesota state data. The new data did not change the larger picture much but provided more detail over the TIC in enabling the modelling of the FGO Neck area through 3D inversion.

Seismic Reflection (2006)

Seismic reflection surveys included two survey lines across the intrusion in the south.

BHEM surveys

Few of the early drill holes at the Tamarack South Project were surveyed with the Crone BHEM system however, since 2010, drill holes are surveyed as a standard procedure.

Data is presented in off-time .PEM files and also the on-time .STP files. There are few conductors (graphite and/or barren sulphides) in the sub- surface at the Tamarack South Project so the BHEM surveys could be successful in locating sulphides in and near the drill holes.

10.0 DRILLING

10.1 Historical Drilling

Historical drilling, investigating the TIC, originated with two drill holes by the MGS that were targeted as follow-up on anomalies generated by the State Aeromagnetic Survey. These included AB-6 (1984) located N of the town of Tamarack (Tamarack North Project) which intersected peridotite and AB-5 (1984) which was drilled further south (Tamarack South Project) and intersected metamorphosed sediments.

10.1.1 Kennecott Drilling Programs (2002-2012)

Drilling at the Tamarack South Project was initiated in the winter of 2002, with L002. Kennecott continued to conduct exploration on the Tamarack South Project from 2002 to 2012 with 18 diamond drill holes, for a total of 8035 m. None of the 18 holes intercepted significant Ni-Cu sulphide mineralization.

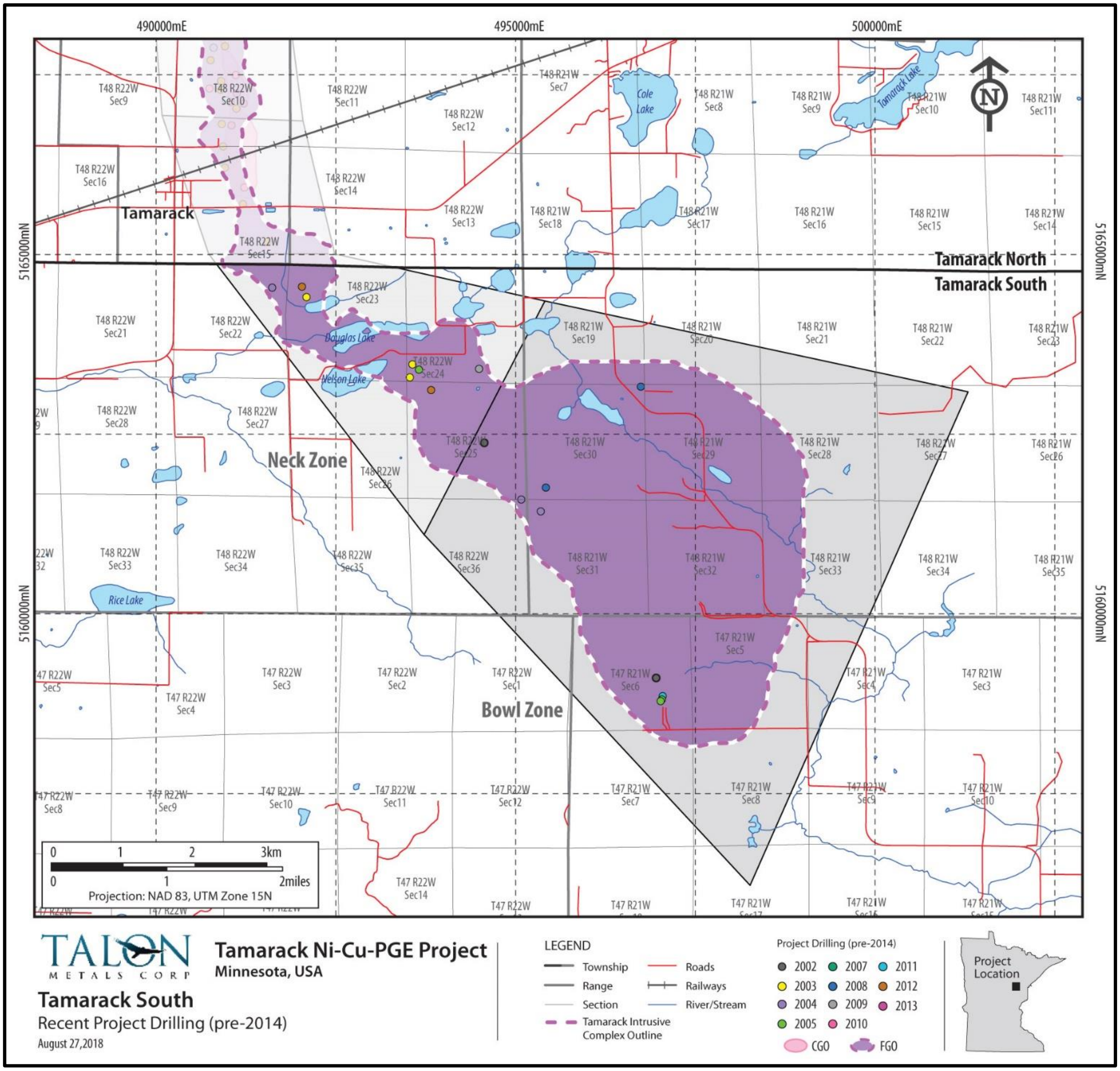


Figure 10-1: Map showing localities of Kennecott drill holes (2002-2012) in the Tamarack South Project

Table 10-1: Tamarack South Drilling conducted by Kennecott (2002-2012)

Year	Number of Holes	Meters	Targets
2002	2	524	02L002; 02L003
2003	3	919	03L006; 03L008; 03L012
2004	4	1,055	04L016; 04L016B; 04L017; 04L018
2005	3	1,290	05L021; 05L022; 05L023
2007	2	1,323	07L038; 07L039
2009	1	591	09TK0101;
2010	1	1,097	10TK0128;
2012	2	1,236	12LV0140; 12LV0144
Total	18	8,035	

Between 2002 and 2012 drilling was limited to a few holes per year, two in 2002, three holes in 2003, four holes in 2004, three holes in 2005, two holes in 2007, one hole in 2009, one hole in 2010 and two in 2012.

Drilling during this period was reconnaissance in nature and helped to define the geology and stratigraphy of the Neck and Bowl however but failed to intersect any significant mineralization.

Table 10-2: Summary of drill holes for the Tamarack South Project (2002-2012)

Hole Number	Easting	Northing	Elevation	Azimuth	Dip	Length
02L002	496954	5159105	386	355.0	75.1	255.7
02L003	494564	5162372	399	168.0	75.0	267.9
03L006	493529	5163283	380	0.0	90.0	219.5
03L008	492091	5164399	374	247.8	89.7	240.3
03L012	493565	5163463	381	0.0	90.0	459.6
04L016	491620	5164537	363	45.0	75.0	200.9
04L016B	491620	5164537	362	46.0	75.1	356.3
04L017	495074	5161580	378	225.0	80.0	97.5
04L018	495349	5161419	399	260.8	89.2	400.5
05L021	497006	5158765	372	214.7	54.9	247.0
05L022	497028	5158796	378	214.1	70.9	397.0
05L023	493655	5163390	377	313.3	89.6	646.5
07L038	495420	5161750	393	300.0	80.0	737.0
07L039	496741	5163153	396	15.0	80.0	585.5
09TK0101	494495	5163404	374	60.0	80.0	590.7
10TK0128	497038	5158861	365	329.3	67.7	1097.4
12LV0140	493824	5163107	393	58.6	84.4	694.6
12LV0144	492026	5164542	362	225.0	84.0	541.0

Notes: [1] No significant mineralization intercepts for these holes
[2] U = Unknown true width
[3] Bold text indicates total hole composite used for mineral resource calculation.
[4] Italicized text indicates a significant intersection within the larger composite.

10.1.2 Kennecott-Talon Drilling Programs (2014-2018)

After a two year hiatus, exploration drilling resumed at the Tamarack South Project with the 2014 Tamarack Earn-in Agreement (see Section 4.2 for further details). The drilling programs were generally to be focused on the discovery of large tonnage economic Ni-Cu mineralization compliant with a Rio Tinto Tier One target (large, long lived, low cost and upper quartile of worldwide commodity specific deposits). Drilling at the Tamarack South Project is, for the most part, still considered reconnaissance style where proposed targets are: 1) based on current geologic models (potential sulphide mineralization towards the base of the lower olivine cumulates and also the potential PGE-Au mineralization target near or at the top of the olivine cumulates), 2) based on geophysical characteristics but no lithologic knowledge, or 3) based on offhole geophysical anomalies coupled with anomalous in hole mineralization.

Table 10-3: Showing breakdown of drilling conducted by Kennecott-Talon

Year	Number of Holes	Meters	Targets
2015	3	2360	Neck, Bowl Zones
2016*	6	6919	Neck Zone
Total	9	9279	

*15TK0218A, B, C daughter holes were drilled during the 2016 exploration campaign.

Drilling during the 2015 season was reconnaissance in nature focusing on the interpolated rim geology of the Bowl Zone (potential PGE-Au mineralization) and the northern portion of the Neck Zone. The 2016 exploration drilling campaign focused on offhole BHEM targets of 15TK0218's wide, anomalous but low-grade sulphide mineralization (mineralization at the base of the olivine cumulates) that was encountered during the 2015 program (see Figure 10-2).

Table 10-4: Summary of drill holes for the Tamarack South Project (2015-2016)

Hole Number	Easting	Northing	Elevation	Azimuth	Dip	Length
15TK0217	496841	5163275	394	359.9	-84.4	831.5
15TK0218	492028	5164542	388	127.5	-86.2	1134.0
15TK0218A*	492028	5164542	388	127.5	-86.2	1195.7
15TK0218B*	492028	5164542	388	127.5	-86.2	959.5
15TK0218C*	492028	5164542	388	127.5	-86.2	1230.5
15TK0223	497009	5158652	402	195.2	-80.9	394.5
16TK0236	491856	5164785	388	153.1	-86.4	1216.8
16TK0236A*	491856	5164785	388	153.1	-86.4	1236.0
16TK0240	491617	5164548	387	31.0	-80.1	1080.0

* implies Daughter Hole

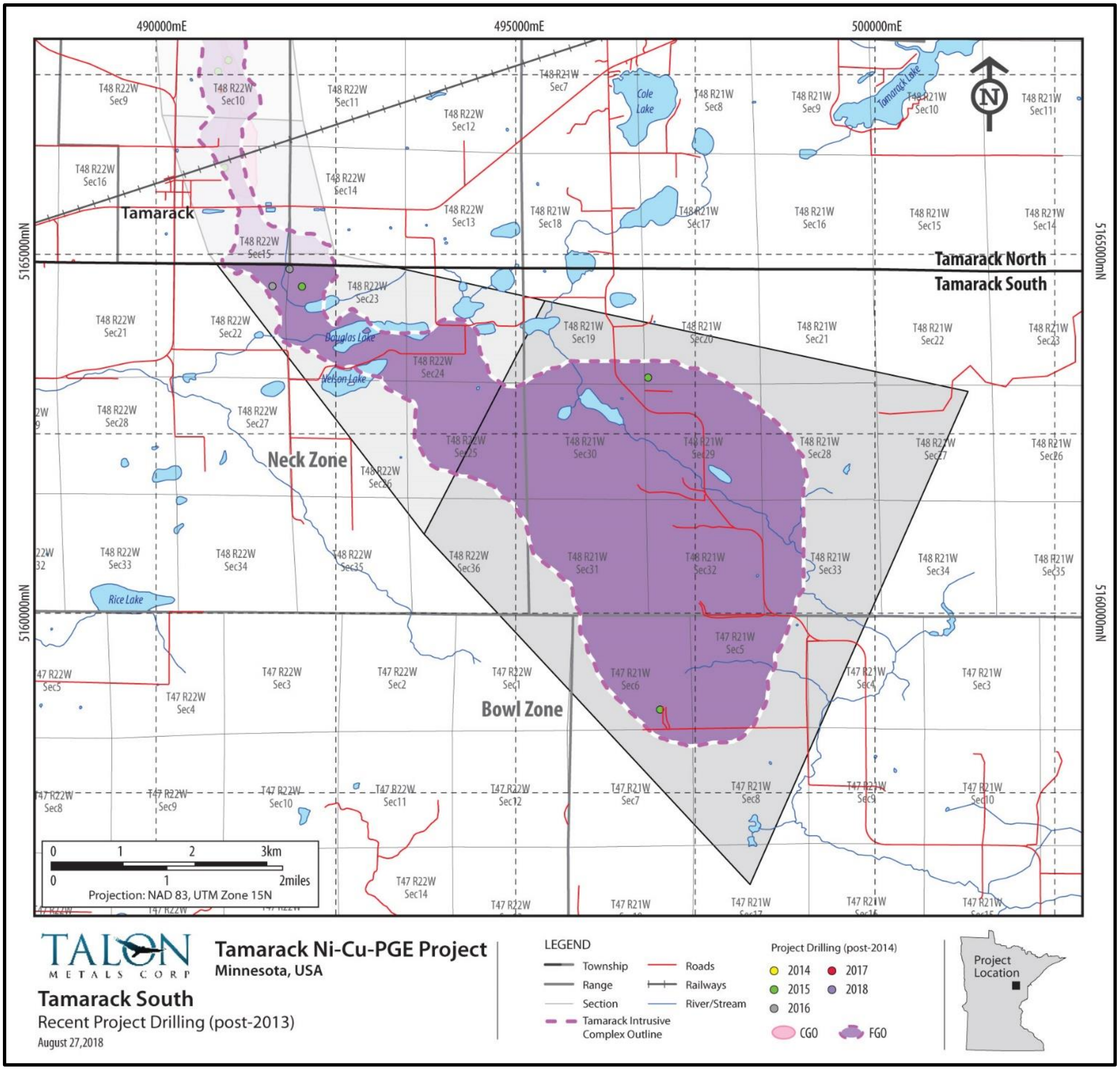


Figure 10-2: Map showing localities of Kennecott-Talon (2015-2016) drill holes in the Tamarack South Project.

10.1.3 Assay Results for all Drilling Programs (2002-2018)

Though activity has occurred at Tamarack South since 2002 the expansive land mass, drilling access and reconnaissance nature of the drilling has provided little encouragement until 2016. Focusing on deep holes in the Neck Zone during the 2016 drill program has returned encouraging assay results for the first time within the South Tamarack Project (See Table 10-5).

Table 10-5: Summary of Assay Results (2002-2016)

Zone	BHID	Host Min	From (m)	To (m)	Length (m)	% Ni	% Cu	% Co	Pt g/t	Pd g/t	Au g/t
Neck	03L006	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	03L008	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	03L012	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	04L016	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	04L016B	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	05L023	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	09TK0101	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	12LV0140	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	12LV0144	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	15TK0218	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	15TK0218A	FGO	1095.34	1127.00	31.66	0.46	0.19	0.02	0.27	0.17	0.11
	including	*FGO*	*1095.34*	*1096.33*	*0.99*	*0.73*	*0.19*	*0.02*	*0.33*	*0.19*	*0.11*
	including	*FGO*	*1115.50*	*1123.49*	*7.99*	*0.70*	*0.33*	*0.02*	*0.38*	*0.25*	*0.18*
	15TK0218B	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	15TK0218C	FGO	1121.25	1121.75	0.50	3.70	1.51	0.07	0.49	0.62	0.11
	16TK0236	FGO-METASED	1039.50	1042.28	2.78	1.04	0.80	0.01	0.56	0.38	0.42
	16TK0236	METASED	1044.45	1045.55	1.10	2.55	4.32	0.04	2.72	0.87	0.82
	16TK0236	METASED	1053.85	1054.73	0.88	2.47	2.19	0.02	2.34	1.43	0.64
	16TK0236A	FGO	958.00	987.00	29.00	0.35	0.14	0.02	0.08	0.05	0.04
	16TK0236A	METASED	1037.00	1038.00	1.00	0.65	0.39	0.02	0.03	0.02	0.02
	16TK0240	MI	919.63	919.93	0.3	2.11	0.73	0.07	0.0818	0.05	0.03

Zone	BHID	Host Min	From (m)	To (m)	Length (m)	% Ni	% Cu	% Co	Pt g/t	Pd g/t	Au g/t
Bowl	02L002	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	02L003	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	04L017	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	04L018	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	05L021	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	05L022	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	07L038	FGO	574.5	737.01	162.51	0.19	0.03	0.02	0.13	0.06	0.04
	07L039	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	10TK0128	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	15TK0217	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM
	15TK0223	-	-	-	-	NSM	NSM	NSM	NSM	NSM	NSM

Length: refers to BH length and not True Width. True Width is unknown at the time of Publication.

NSM: No Significant Mineralization.

All samples were analysed by ALS Minerals. Ni, Cu, and Co grades were first analysed by a 4-acid digestion and inductively coupled plasma atomic emission spectroscopy (ICP-AES) (ME-MS61). Grades reporting greater than 0.25% Ni and/or 0.1% Cu, using ME-MS61, trigger a sodium peroxide fusion with ICP-AES finish (ICP81). Pt, Pd and Au are initially analyzed by a 50g fire assay with an inductively coupled plasma mass spectroscopy (ICP-MS) finish (PGM-MS24). Any samples reporting >1 g/t Pt or Pd trigger an over-limit analysis by ICP-AES finish (PGM-ICP27) and any samples reporting >1 g/t Au trigger an over-limit analysis by AAS (Au-AA26).

10.2 Drill Hole and Core Logging Procedures

Drilling at the Tamarack South Project is challenged by wetlands and surface access. Drilling initially was restricted to winter months with frozen ground to minimize impacts to swamps and wetlands in the project area. Although winter drilling is preferred for ease of access and impact minimization summer drilling has occurred. In 2008, drilling was also initiated in the summer months using swamp mats for both access roads and drill platforms which have been very successful in minimizing the impact on the environment.

Kennecott has implemented and maintained strict environmental and safety protocols with regard to drilling which include; drilling contracts that ensure safety standards are not compromised; the use of swamp mats for drill platforms and access; and photographing the site before and after drilling and rehabilitation.

Diamond drilling diameters utilized at the Tamarack South Project have been primarily NQ and HQ wireline. Sonic drilling has been used extensively to pre-collar holes through the overlying glacial sediments which are then completely cased off prior to commencing diamond core drilling. All casing depths and sizes are recorded in the KEX acQuire database.

Typical industry standard procedures are followed with all drilling and are outlined in the 'Tamarack Core Processing Procedures Manual' including:

- All statutory permits and approvals were received by the appropriate regulatory bodies prior to drilling (see http://www.dnr.state.mn.us/lands_minerals/metallic_nf/regulations.html);
- Drill collars were initially located in the field using a handheld global positioning system (GPS). Following completion of drilling each collar is professionally surveyed or by differential GPS reading and the collar position permanently marked with a marker on a cement cap. If a permanent marker cannot be established because of ground conditions a certificate is issued by the surveyor. Collar positions are subsequently checked against high resolution satellite imagery;
- Closure of holes follow regulatory procedures as outlined by the MDH both for permanently abandoned holes, which are cemented from the base to surface with all casing removed, and temporarily abandoned holes, which are temporarily sealed according to regulations if there is a possibility of the hole being deepened or the hole is awaiting a downhole EM survey.

10.2.1 Core Delivery and Logging

Kennecott has defined and adopted clear procedures for core processing. A split-tube coring system has been adopted for all holes. Exploration holes are designated as either *reconnaissance* or as *resource* with each being treated somewhat differently. Resource core is transferred to V-rails directly from the core tube. Core is then transported a short distance to the core storage site via a customized, secure, v-rail enabled trailer. Core is only transferred to core boxes by the geologist after transport to the core storage site and after being marked-up and processed. This procedure minimises breakage and ensures the core-orientation (by the Reflex Ace Core Orientation Tool - ACT) that is used with each core-run is maintained. Reconnaissance designated core is primarily placed into boxes directly from the core tube although it can also be placed in the v-rail system at the discretion of the project manager.

10.2.2 Geological Logging Procedures

Geological summary logging is completed immediately on receiving the core while still in the V-rails and is intended to provide an overview of the key lithologies and features with accurate estimates of mineralization. The main unit lithologies are recorded with the codes; SED, FGO, CGO, mixed zone (MZ), semi-massive sulphide unit (SMSU), massive sulphide unit (MSU), mixed massive sulphide (MMS) etc. The logs are entered into the acQuire database and also prioritised for detailed logging.

Prioritization of core is determined during the summary logging. High priority core is processed and logged as soon as possible. Lower priority core is retained and stored in V-rails until it can be processed and logged.

Core processing and logging procedures include:

- Reference orientation line marking (based on the Reflex Ace Core Orientation Tool - ACT);
- Measurement conversion and run depth marking (Imperial to Metric);
- Run recovery logging and marking (core loss record);
- Core photography both on rails and boxes;
- Detailed geotechnical logging: (logging interval based on geological domains and varied with detail required typically 3.05 m to 6 m). Standard logging and testing includes:
    - IRS Hardness (Rock strength estimation);
    - L10 (RQD);
    - Micro Defects;
    - Alteration Intensity;
    - Joint and fracture count and categorisation;

  - Open and cemented joint set number;
  - Point load testing (every 20m);
  - UCS Sampling (uniaxial compressive strength);
  - Geotechnical Major Structures (Interval structure logging);
- Detailed Geological Logging: Detailed geological logging is an important process for recording and understanding the geology and mineralization. Kennecott has adopted the system of logging into the acQuire database with specific custom fields and drop-down lists to ensure consistency. The logging includes a lithology log, an alteration log, a mineralization log, a point structure log, a linear structure log (where structure orientations and dips are measured); and a magnetic susceptibility log with a handheld magnetometer (discontinued temporarily in 2008 but subsequently resumed).

10.2.3 Surveying

All collars are professionally surveyed to sub-meter accuracy after completion of the drill hole.

Down-hole deviation surveys are conducted on all holes at the Tamarack South Project and include two independent surveys conducted on the holes completion, these include:

- A multi-shot survey with a magnetic tool (Flexit) provided by the drill contractor (survey shots conducted at least 10 m intervals);
- A multi-shot gyroscopic survey conducted by a down-hole survey contractor (survey shots conducted at a minimum of 20 m intervals).

The Flexit tool is susceptible to poor azimuth accuracy in the presence of strongly magnetic lithologies, such as those found at the Tamarack South Project. However, the dip readings are not affected by in hole magnetics and provide a reliable source of dip measurements as the hole progresses. Multi-shot gyroscopic surveys are not affected by magnetics and provide accurate downhole deviation. Multishot gyroscopic surveys are the downhole survey of record.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Core Sampling and Chain of Custody

Standardized core sampling procedures were introduced by Kennecott in January 2007 and so have been incorporated for all the sampling at the Tamarack South Project with only minor modifications made subsequently. The Tamarack South Project has adopted the use of split-tube coring as a means of minimizing core breakage and facilitating the recording of geotechnical and oriented core data (KEX Internal Doc, 2016). It is standard practice to sample all core irrespective of lithology type or sulphide content, although sulphide intervals are prioritized. Core is sampled on a minimum of 0.5 m intervals to a maximum of 3 m, with 1.5 m being the most common sample length.

The following procedures are adhered to:

- Core is picked up at the drill site by Kennecott staff and returned to the secure core logging facility in the town of Tamarack (Figure 11-1);

Figure 11-1: Photo of Kennecott Core Processing Facility Tamarack, Minnesota

- Once at the core processing facility, the core is "quick-logged" for major lithological units as well as sulphide mineralization and entered directly into the acQuire system database. Further detailed lithological logging will occur later in the process chain once geotechnical logging processes have occurred;

- Sample interval marking: Duplicate sample tags are inserted and displayed on the V-rails for photographing. Once photographed the core is transferred to cardboard core boxes where the tags are stapled to the inside wall of the appropriate rows;
- Core photography is conducted after the sample mark-up is completed on V-rails (definition and some reconnaissance holes);
- Boxed core (reconnaissance holes) is also photographed and was reintroduced in 2012 after being discontinued in 2008;
- In *definition* categorized holes, a 15 cm sample is cut from the core for the purposes of density and UCS measurements approximately every 20m. Preference is given to core representative of the dominant lithology in the 20m interval at the discretion of the geologist (i.e. at changes in lithology). A density measurement via the hydrostatic-gravimetric method is performed with the sample in the core shack. Dry and wet weights for 3 density standards are recorded every 20th primary density sample. The scale is also calibrated using calibration weights at this time. The UCS sample is labelled “UCS” with a unique sample tag associated with it, photographed (as part of the regular core photo process) and ultimately placed in a unique sample bag (with tag) until despatched to an appropriate testing laboratory;
- In *reconnaissance* holes, UCS sampling does not occur; however, density measurements on 10 cm lengths of core are carried out following the same parameters as identified above in *definition* categorized holes;
- Core sawing is conducted after core marking and sample tagging has occurred. Core is consistently cut 1 cm to the right of the orientation line. Both halves are returned to the box;
- Sample packaging: half-core samples (half without the orientation line) are packed, after air drying, in individual plastic bags with the sample ticket inserted inside the bag and the sample number written in permanent marker on the outside. The core is secured, and stored locally, out of the elements, until such time as it can be transported to the state core library in Hibbing, Minnesota;
- The QC protocol is documented by Kennecott and has been generally followed at the Tamarack South Project since the start of the program (reportedly modified to the present procedure in early 2008). Current QC samples include:

- Blanks: inserted at the beginning of every batch, at every 30th sample, at changes in lithology, and specifically, prior to and after highly mineralized samples. Blanks used have included LV Silica Sand; GABBRO-1 (unmineralized half core from hole 07L039); GABBRO-2 (unmineralized half core from 07L038 since July 2008); GABBRO-128 (unmineralized half core from hole 10TK0128); and GABBRO-18 (unmineralized half core from hole 04L018);
- Standards: a matrix-matched standard (corresponding to the sulphide content of the flanking samples) is inserted into the sample stream every 30 samples to monitor sample accuracy. A corresponding standard is also inserted at the beginning of significant changes in mineralization. The standards were prepared from coarse rejects of the Eagle Deposit (Michigan) (EA type) and Tamarack South Project (TAM type) drill holes and are certified by an independent subject matter expert after Round Robin testing at accredited laboratories;
- Duplicates: Field, Coarse Reject, ®and Pulp duplicates are routinely used to monitor sampling and assay precision according to the following protocols:
  - Field Duplicates include two quartered core lengths submitted consecutively every 30 samples and are offset from the standards by 10 samples.
  - Coarse Reject Duplicates are splits from the coarse reject material that are inserted every 20 samples by the lab at the request of Kennecott. See Figure 11-3 and Figure 11-4.
  - Pulp Duplicates are randomly generated and assayed by ALS Minerals as an internal process at a rate of one every 30 samples. See Figure 11-5 and Figure 11-6.
  - Check assays from a secondary laboratory were not utilized by Kennecott to confirm the quality of the ALS Minerals values. However, the quality of the ALS values is monitored using acQuire® protocols for evaluating standards and blanks.

- Sample batches are packed in collapsible plastic bins for shipping. Sample consignments are limited to 200 samples and are grouped in batches of the same rock types and using the same assay methods. A dispatch form is created, with one copy being sealed in the container and the other emailed to the lab. The container is sealed with randomly selected, security tags that are listed in the Chain of Custody Sheet. Access to the samples cannot occur without breaking a seal;
- Samples are shipped to ALS Minerals lab in Thunder Bay, Ontario, Canada via Manitoulin Transport for sample preparation;

- The Chain of Custody Sheet will be signed upon receipt at the lab in Thunder Bay, confirming that they are not damaged or tampered with. These forms are scanned and emailed to Kennecott.

ALS Minerals is independent to Kennecott and Talon and is one of the world's largest and diversified testing services providers and has over 120 laboratories and offices in the Minerals Division. The ALS Thunder Bay and Vancouver laboratories are accredited by the Canadian Association for Laboratory Accreditation and Standards Council of Canada (http://www.alsglobal.com/).

11.2 Sample Preparation and Assay Protocols

Sample Preparation at ALS Minerals in Thunder Bay includes the following procedure:

- Samples are logged into the ALS Minerals database (LOG-21);
- Samples are weighed upon receipt then dried overnight (DRY-21);
- Crush entire sample to 70% -2 mm or better (CRU-31);
- Split off 1000g using a rotary splitter or Boyd crusher/rotary splitter combination (SPL-22);
- Pulverize entire 1000g to better than 85% passing 75 microns (PUL-32);
- Assay aliquots are taken from each sample and packaged for shipment to ALS Vancouver where the samples are digested and analyzed;
- Vacuum seal master pulp and all master pulp material is returned to Kennecott and stored at the Tamarack Site;
- Crushers, splitters and pulverisers are washed with barren material at the start of each batch and as necessary within batches. Between-sample washes (WSH-21 and WSH-22) are used at the request of Kennecott for high grade sample batches;
- Conduct crushing QC test every 20th to 40th sample;
- Conduct pulverizing QC test every 20th to 40th sample.

Sample analyses are conducted at ALS Minerals' Vancouver laboratory. The methodology for mineralized material at Tamarack is reported as follows:

- Ni, Cu, and Co grades are first analyzed by a 4-acid digestion and ICP-AES and ICP-MS (ME-MS61). Grades reporting greater than 0.25% Ni and/or 0.1% Cu, using ME-MS61, trigger a sodium peroxide fusion with ICP-AES finish (ICP81);
- Pt, Pd and Au are initially analyzed by a 50g fire assay with an ICP-MS finish (PGM-MS24). Any samples reporting >1 g/t Pt or Pd trigger an over-limit analysis by ICP-AES finish (PGM-ICP27) and any samples reporting >1 g/t Au trigger an over-limit analysis by AAS (Au-AA26);
- Total Sulphur is analyzed by Leco Furnace (S-IR08).

The methodology for non-mineralized samples is reported as follows:

- Ni, Cu, and Co grades are first analyzed by a 4-acid digestion and mixed ICP-AES and ICP-MS (ME-MS61). Grades reporting greater than 0.25% Ni and/or 0.1% Cu, using ME-MS61, trigger a sodium peroxide fusion with ICP-AES finish (ICP81);
- Pt, Pd and Au are initially analyzed by a 50g fire assay with an ICP-MS finish (PGM-MS24).

The methodology for litho-geochemical characterization of samples is reported as follows:

- ALS Minerals Code ME-ICP06 – Whole rock package for 13 oxides plus loss on ignition (ALS Minerals Code OA-GRA05) and total (ALS Minerals TOT-ICP06) - Lithium (Li) metaborate or tetraborate fusion / ICP-AES finish;
- ALS Minerals Code ME-MS81 – Resistive trace 30 elements by Li metaborate fusion and ICP-MS finish;
- ALS Minerals Code ME-4ACD81 – Eight (8) base metals plus Li and scandium (Sc) by 4-acid digestion with an ICP-AES finish (silver (Ag), cadmium (Cd), Co, Cu, molybdenum (Mo), Ni, lead (Pb), and zinc (Zn));
- ALS Minerals Code ME-MS42 – Nine (9) volatile trace elements by aqua regia digest with an ICP-MS finish (arsenic (As), bismuth (Bi), mercury (Hg), indium (In), rhenium (Re), antimony (Sb), selenium (Se), tellurium (Te), thallium (Tl));
- ALS Minerals Code ME-IR08 – Total sulphur and total carbon analyzed by combustion furnace.

The methodology for density measurements is reported as follows:

- ALS Minerals Code OA-GRA08 – specific gravity (SG) is determined by the weighing a sample in air and in water, and it is reported as a ratio between the density of the sample and the density of water.

11.3 Assay Data Handling

After receiving assay results for each despatch, QA/QC standards, blanks and duplicate data are immediately processed (GOMS acQuire) to confirm that results are consistent with expected ranges and values. The values reported for ALS Minerals' internal standards are also monitored. Kennecott has adopted a number of rules of variance that are acceptable versus those of exceedance. An internal QA/QC analysis manual is available for all users of the data. If established quality thresholds are exceeded, then the sample is logged as a "Fail" and an investigation is initiated. Re-analysis, sample switch checks, and other means of investigation are acted upon to resolve exceedances. All actions are tracked and logged (see Figure 11-2). Assay data is only considered final within the acQuire system once they have passed all QA/QC checks. Talon only received assay data from Kennecott once the samples were designated as final within the acQuire system. Talon received the data via a secured web based transfer site as a csv file.

LEGEND
= loaded
= pending QC
= pending revision

Tamarack - Lakeview Assay Batch Tracking Sheet

Despatch	Workorder	Date Samples received	Date Assays Finalized	Project	Hole ID	QC Status	QC Final	Date assays loaded to database	Failure Rule	Standard ID	Sample ID for Failed Sample(s)	Elements	Date ALS Chemex Advised of Failure	Date re-runs received	Comments
E40370	VA08019642	18/02/2008	10/03/2008	Tamarack	08L042	Failed	Passed	02/06/2008	1	EA-02	40013265	Au, Pt, Pd			assays imported by Peter T
E40371	VA08028862	12/03/2008	08/04/2008	Tamarack	08L040	Passed		08/07/2008							assays imported by Peter T
E40372	VA08028863	12/03/2008	05/04/2008	Tamarack	08L045	Passed		08/07/2008							assays imported by Peter T
E40373	VA08033273	18/03/2008	17/04/2008	Tamarack	08L042	Passed		08/07/2008							assays imported by Peter T
E40374	VA08015798	25/03/2008	23/04/2008	Lakeview	08L044	Passed		24/07/2008							assays imported by Peter T
E40375	VA08049561	17/04/2008	22/05/2008	Lakeview	07L038	Passed		27/05/2008							assays imported by Peter T
E40376	VA08042717	07/04/2008	21/05/2008	Tamarack	08L041	Failed	Passed	11/06/2008	1	EA-01	40013135, 40013235	Cu, Nu	22/05/2008	06/06/2008	Values for re-runs pass; initial failure due to c
E40377	VA08049299	17/04/2008	22/05/2008	Lakeview	07L039	Passed		23/05/2008							assays imported by Peter T
E40378	VA08049292	17/04/2008	22/05/2008	Tamarack	07L037	Passed		27/05/2008							assays imported by Peter T
E40379	VA08049560	17/04/2008	22/05/2008	Tamarack	04L015	Failed	Passed	11/06/2008	1	EA-01	40014395	Au, Pt, Pd	23/05/2008	03/06/2008	Values for re-runs pass; cause of initial failur
E40380	VA08036667	18/02/2008	21/06/2008	Tamarack	08L042	Failed									check samples(?) - unknown assay method, r
E40381	TB08077084	12/06/2008	04/07/2008	Tamarack	08TK0048	Passed		03/07/2008							assays imported by Peter T
E40382	TB08083297	25/06/2008	15/07/2008	Tamarack	08TK0048 & 49	Failed	Passed	20/08/2008	1	EA-01	40015030	Au	16/07/2008	8/13/08	assays imported by Peter T - sample number
E40383	TB08088647	02/07/2008	23/07/2008	Tamarack	08TK0050	Failed	Passed	03/09/2008					30/07/2008		assays imported by Peter T.

Figure 11-2: Table of Failures and Corrections

11.4 Quality Assurance and Quality Control (QA/QC)

QA/QC programs are intended to monitor the accuracy and precision of the sampling and analysis process in order to quantify the reliability and accuracy of assay data. Typical QA/QC programs consist of a routine insertion of QC materials to measure laboratory performance. QC materials generally consist of CRM including standards and blanks (materials containing no economic minerals) as well as duplicate samples (duplicates).

The Tamarack South Project has shown QA programs consistent with industry standards. Written procedures, acceptable industry software, database organization, and data presentation all contribute to confidence in the current program. QC at the Tamarack South Project has evolved over the life of the project. The initial phase of the project saw duplicates, blanks and standards inserted at a rate of approximately 5% to 6%. With the maturity of the program and confidence in the laboratory the rate of insertion has been reduced to 3.5% to 4%. There is a consistent program of analysing duplicates of pulps (lab), coarse rejects (lab) and core (field). Analysis of the coarse reject duplicate samples for Ni and Cu show a strong correlation and thus confirm proper sample splitting methodology carried out at the lab (see Figure 11-3 and Figure 11-4). Analysis of the pulp duplicate samples for Ni and Cu also show a strong correlation and thus confirm the lab precision (see Figure 11-5 and Figure 11-6).

The QA/QC standards, blanks and duplicate testing protocols applied by Kennecott have been outlined in Section 11.1 above.

It is Talon's opinion that the sample preparation, security and analytical procedures used by Kennecott are consistent with industry standards and are appropriate for the Tamarack South Project. Talon has no material concerns with these processes.

Talon recommends that Kennecott prepare an annual report summarizing the QA/QC analysis of their CRM data and that they incorporate laboratory check assays, from a referee lab, into their protocol as a check against lab bias from their primary lab.

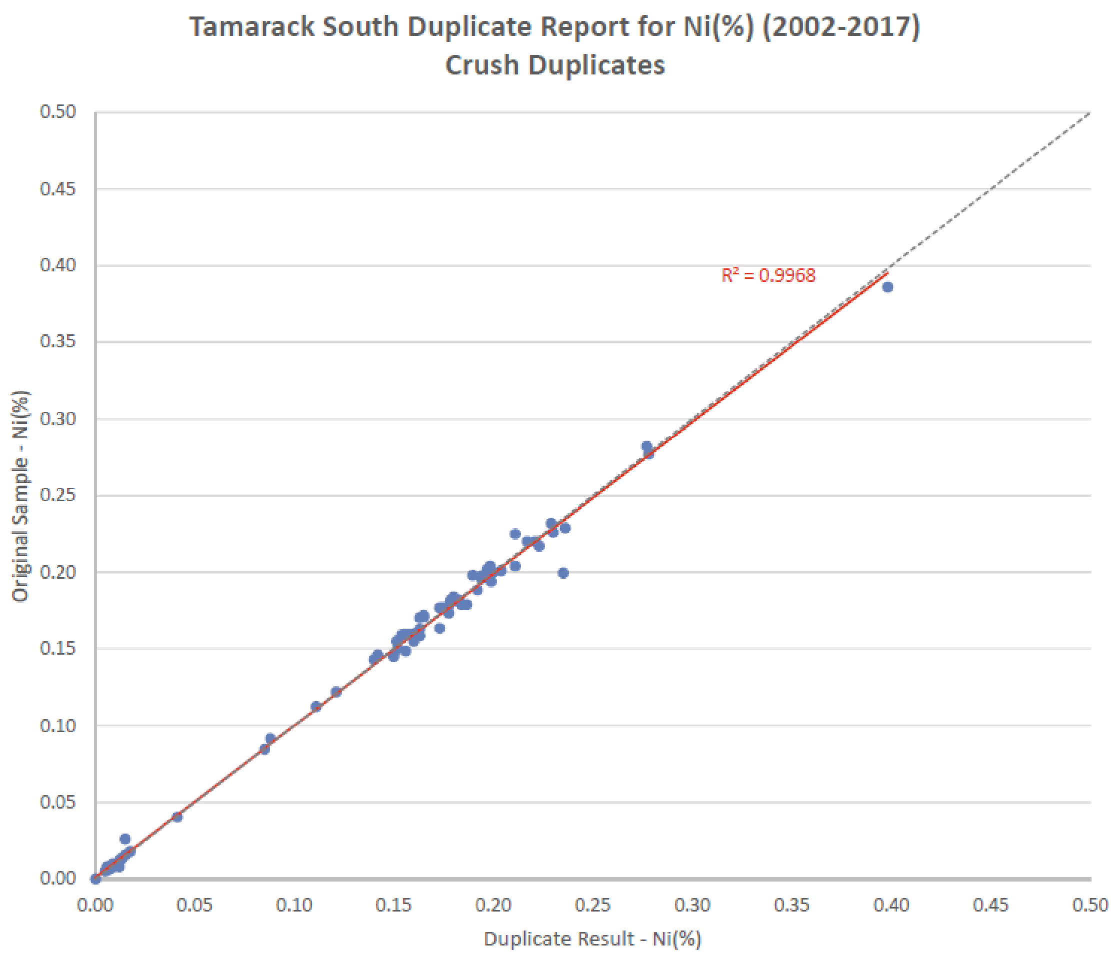


Figure 11-3: Comparison of Original vs Duplicate Coarse Reject Ni (%) values for Tamarack South Drill Hole Samples between 2002 and 2017

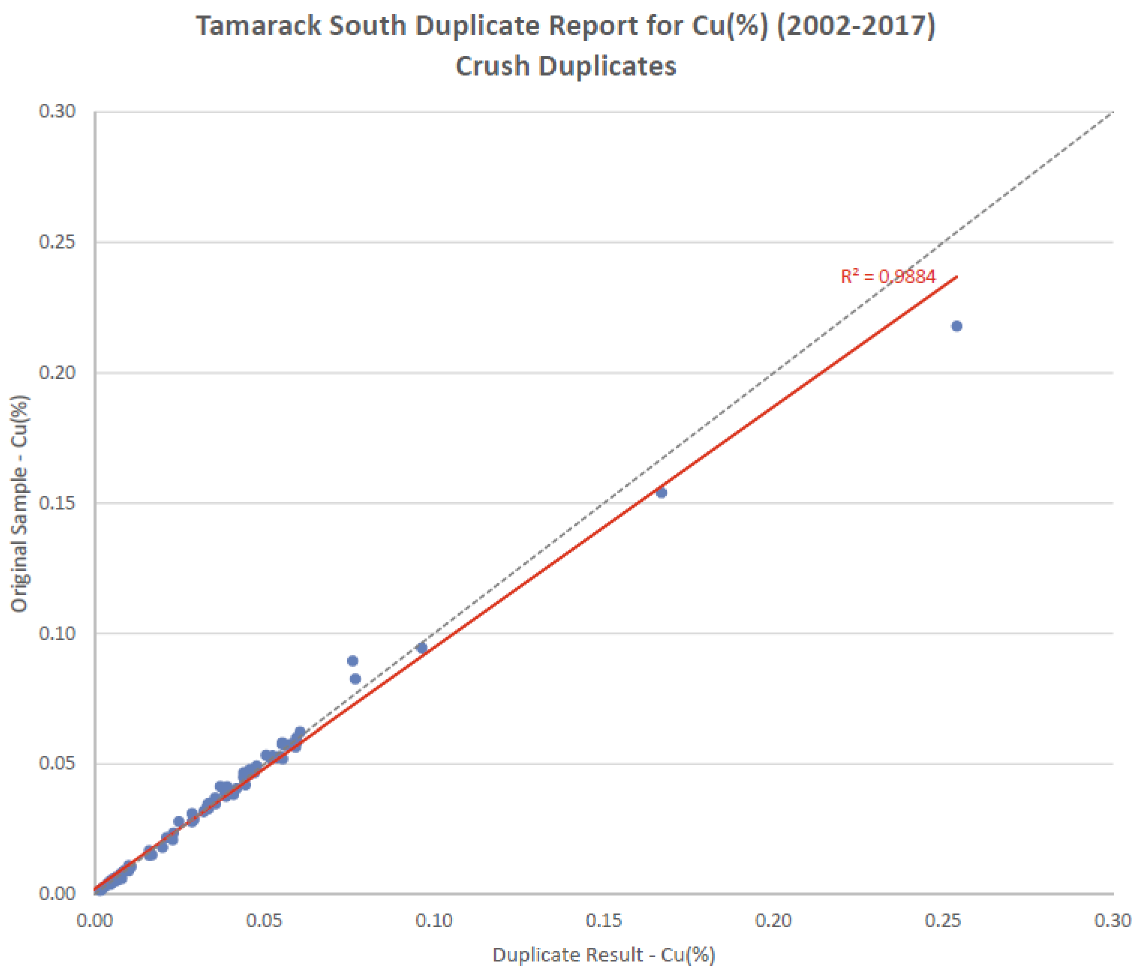


Figure 11-4: Comparison of Original vs Duplicate Coarse Reject Cu (%) values for Tamarack South Drill Hole Samples between 2002 and 2017

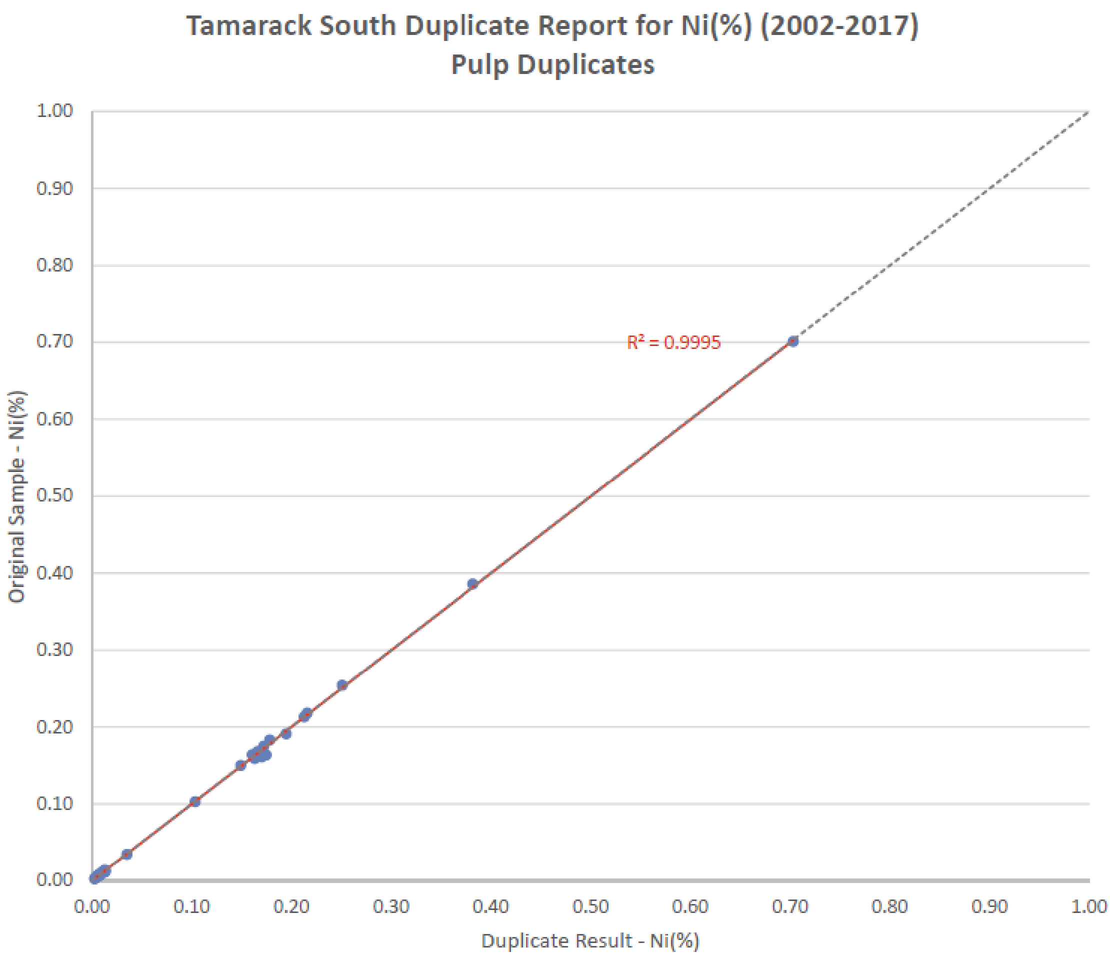


Figure 11-5: Comparison of Original vs Duplicate Pulps Ni (%) values for Tamarack South Drill Hole Samples between 2002 and 2017

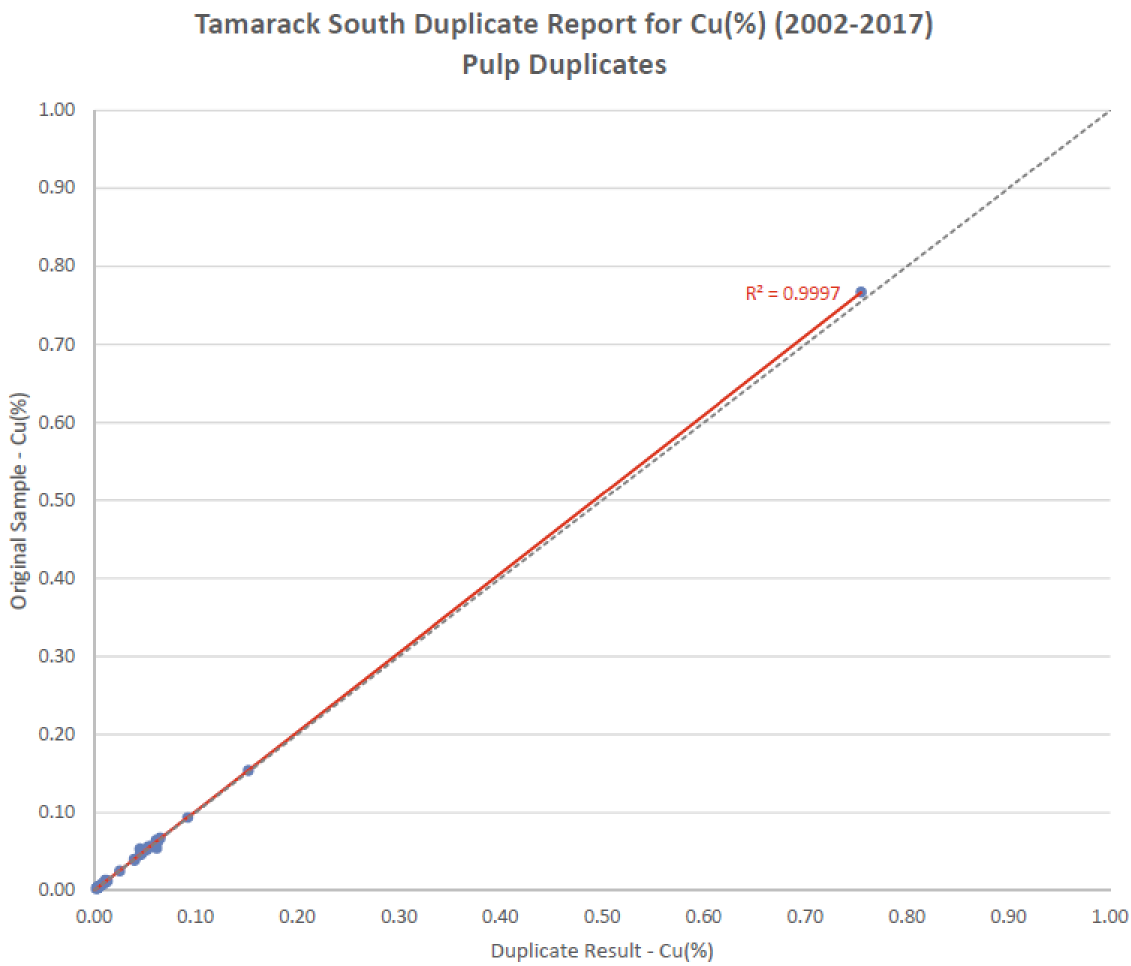


Figure 11-6: Comparison of Original vs Duplicate Pulps Cu (%) values for Tamarack South Drill Hole Samples between 2002 and 2017

12.0 DATA VERIFICATION

12.1 Talon 2014-2018

Talon completed a number of data verification checks between 2014 and 2017 while completing the data review for the Tamarack South Project. The verifications include checks of the drill hole database provide against original assay records and site visits by a QP to the site to check core, logging, sampling and sample handling procedures.

12.1.1 Database Verification

Talon compared a total of 504 sample assays for Ni%, Cu%, Co%, Pt parts per million (ppm), Pd ppm, and Au ppm from the supplied drill hole database to the original ALS Minerals certificates. The database encompasses the entire set of drill holes at Tamarack South Project. Assay certificates were available for all samples.

A selection of the drill holes at Tamarack South Project were validated against the original data. A total of 504 samples were verified out of the total 3,547 samples, which represents 14% of the total available assay data. No errors were identified in any of the validated samples. No validation checks were completed on the remaining samples since none of the drill holes and samples were to be included in any mineral resource estimate.

Table 12-1: Sample Data Verification Check.

Years of Active Drill Program	# of Holes	# of Samples	# of Assays	# of Errors	Check Year
2002-2012	18	190	1189	0	2014
2015-2016	9	314	2358	0	2017

12.1.2 Site Visit

A site visit to the Tamarack South Project and Kennecott office, located in the town of Tamarack, Minnesota was initially carried out by James McDonald, P.Geo., QP for this Technical Report, on Mar 13, 2014. No active drilling or core logging was ongoing at the time of the initial visit. Further site visits occurred in March 2015, April 2015, and September 2016 where core logging, sampling procedures, and/or drilling was observed. The most recent site visit occurred during September 2018. The visits to the Tamarack South Project have included:

- An overview tour of the exploration property; and
- Visual inspection of physiography and general conditions.

The site visit to the Kennecott office and core logging facilities in Tamarack, Minnesota, included the following items:

- Review of the logging and sampling procedures used on the drill holes;
- Review core logs against the core available at time of visit;
- Review of the Tamarack geological and mineralization characteristics with Kennecott staff;
- Review of QA/QC protocol; and
- Review of sampling and shipping protocol;
- No collars were verified during any of the site visits as access was restricted;
- No samples were taken to validate the sample database record at Tamarack South;
- Both the Tamarack South Project and the Tamarack North Project are run concurrently with exactly the same drilling, logging, sampling procedures and personnel. Please refer to the 2018 Second Independent Technical Report on the Tamarack North Project (Fletcher, T., Peters, O., and Thomas, B.);
- No significant issues were identified during the review of data collection procedures or sample chain of custody. The core logging matches the core well and all processes have been found to meet or exceed industry standards.

Over numerous site visits and data validations, Talon has concluded that the logging and sampling procedures meet or exceed industry standards.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No metallurgical testing of the Tamarack South Project material has been conducted.

14.0 MINERAL RESOURCE ESTIMATES

No mineral resources have been outlined/estimated.

15.0 MINERAL RESERVE ESTIMATES

Not applicable to this Technical Report.

16.0 MINING METHODS

Not applicable to this Technical Report.

17.0 RECOVERY METHODS

Not applicable to this Technical Report.

18.0 PROJECT INFRASTRUCTURE

Not applicable to this Technical Report.

19.0 MARKET STUDIES AND CONTRACTS

Not applicable to this Technical Report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Not applicable to this Technical Report.

21.0 CAPITAL AND OPERATING COSTS

Not applicable to this Technical Report.

22.0 ECONOMIC ANALYSIS

Not applicable to this Technical Report.

23.0 ADJACENT PROPERTIES

The Tamarack North Project lies to the N of the Tamarack South Project. The two projects appear to share the same intrusive geologic systems with sulphide bearing Ni-Cu-PGEs. To date no mineral resources have been found within the Tamarack South Project whereas the Tamarack North Project has published a third reporting of resources (Fletcher, Peter, and Thomas, 2018). The reported Tamarack North resources are 3 km to the N of the Tamarack South boundary.

24.0 OTHER RELEVANT DATA AND INFORMATION

There is no additional information or explanation relevant with respect to this Technical Report.

25.0 INTERPRETATION AND CONCLUSIONS

The existing drilling, coupled with recent geophysical inversion modeling has refined Talon's view of the depth and extents of the FGO intrusion. The FGO intrusion found in the Tamarack South Project bares the same geochemical profile and magmatic layering to the mineralized Tamarack Main Zone (Tamarack North Project). A large volume of FGO with trace to disseminated sulphides have been intersected in drill holes at the Tamarack South Project (Neck Zone) identifying a broad spatial zone of sulphides that remains open in all directions. The sulphide mineralization potential of the Tamarack South Project is similar to that of the Tamarack North Project deposits. Recent 3D inversions of the Magnetic and Gravity data illustrate the sheer size of the FGO intrusion (4 km x 2 km) and potential for economic sulphide deposition. However, the nature of the Bowl Intrusion and the relationship with the FGO intrusion remains unknown.

In the current exploration state, the Tamarack South Project remains an early stage project with great potential for a Ni-Cu-PGE massive sulphide deposit. The next work phase needs to focus on defining targets via recently enhanced, surface geophysical surveys. The proposed work program, in collaboration with Lamontagne Geophysics, would consist of covering the Neck Zone with a UTEM 5 survey.

26.0 RECOMMENDATIONS

The Tamarack South Project drilling data indicates that the FGO intrusive is identical to the FGO found within the Tamarack North Project. As well, the magmatic layering appears continuous. Limited exploration drilling in the Bowl portion of the intrusion also confirmed the presence of Norite and Dunite layering.

Drill hole data results within the Neck Zone suggest a widespread volume of trace to disseminated sulfides. An approximately 500 m thick x 300 m width x 600 m strike length sulphide anomaly is interpreted.

Proposed next steps in exploration for the Neck Zone consist of ground geophysics with further reconnaissance style drilling on selected targets. Talon is proposing to utilize a UTEM 5 ground survey within the Neck Zone as seen in Figure 26-1.

The estimated budget for the surface UTEM 5 survey is approximately $350,000 and would be completed within two months of work. An estimated 2-3 holes, to test resultant targets, is budgeted at $2,000,000 (US) and is expected to take approximately 45 days (see Table 26-1).

Table 26-1: Proposed Exploration Expenditures

Exploration Item	Location	Cost ($US)	Duration (Months)
UTEM- 5 Ground Survey	Neck Zone	350,000	2
2-3 Drill holes	Neck Zone	2,000,000	1.5
Total		2,350,000	3.5

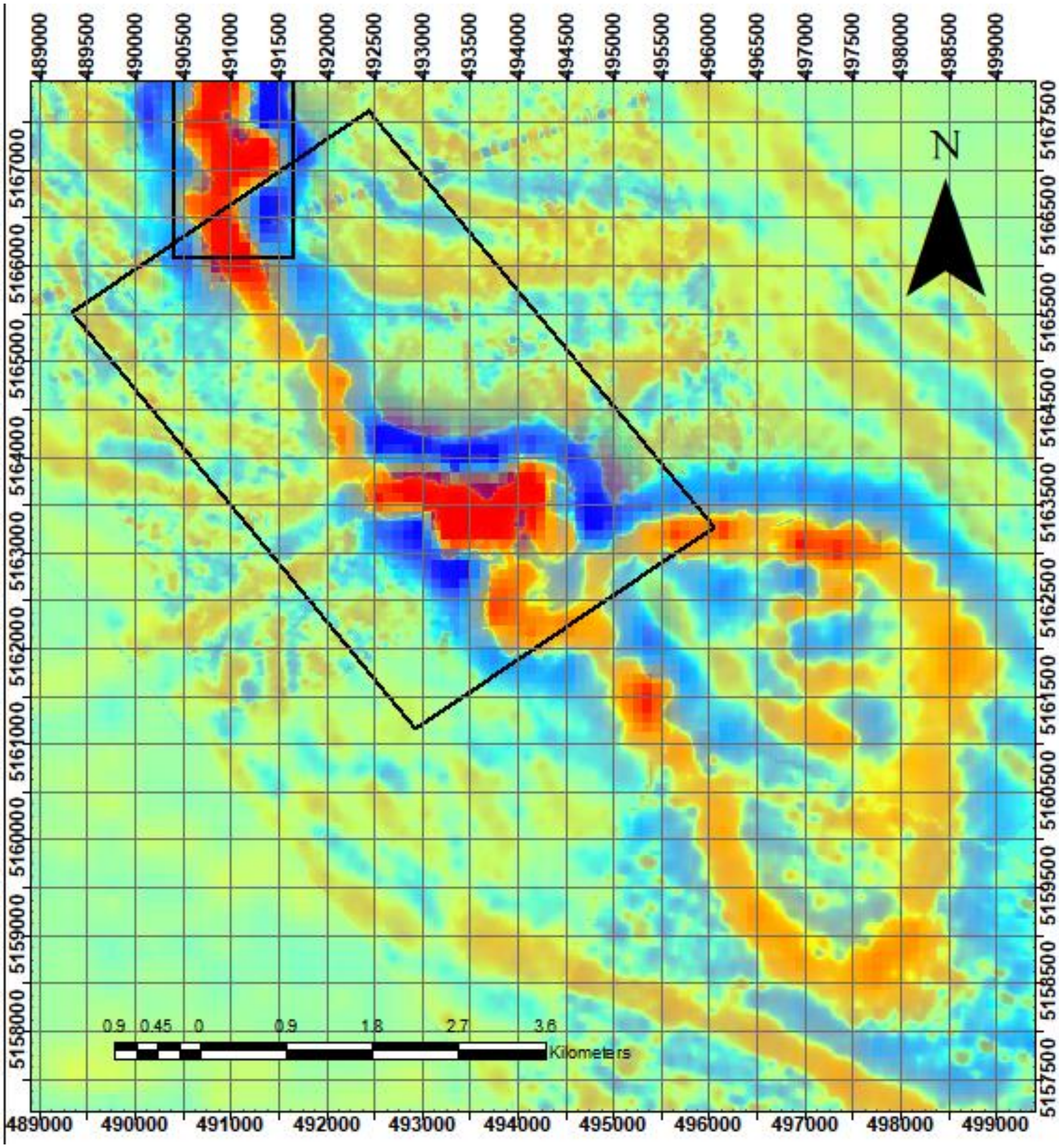


Figure 26-1: Proposed UTEM 5 Survey Area at South Tamarack Project. (1st VD aeromagnetic Map)

27.0 REFERENCES

- Annual Estimates of Resident Population: April 1, 2010 to July 1, 2016. US Census Bureau, Population Division. Release Date May 2017.
- Boerboom Terrence J., project manager. 2009. 6 pls. Scales 1:100,000 and 1:200,000. Pl. 1 data-base map; pl. 2, bedrock geology; pl. 3, surficial geology; pl. 4, Quaternary stratigraphy; pl. 5, bedrock topography, depth to bedrock, and sand distribution model; pl. 6, mineral endowment.
- Bornhorst, T.J., and Rose, W.I., 1994. Self-guided geological field trip to the Keweenaw Peninsula, Michigan. Institute on Lake Superior Geology, Proceedings 40th annual meeting, Houghton, Michigan. vol. 40 - part 2. 185p.
- Fletcher, T., Peters, O., Thomas, B., Second Independent Technical Report on the Tamarack North Project, Tamarack, Minnesota, NI 43-101 Technical Report, DRA, Report Number G02420-PA-RPT-007-01., March 26, 2018.
- Goldner D. 2011. Igneous petrology of the Ni-Cu-PGE mineralised Tamarack Intrusion. Aiken and Carlton Counties, Minnesota. MSC Thesis, University of Minnesota.
- Hinze, W.J., Allen, D.J., Braile, L.W., Mariano, J., 1997. The Midcontinent rift system: a major Proterozoic continental rift. Eds.
- Historic State Nonferrous Metallic Mineral Leases. October 2017. Minnesota Department of Natural Resources, Division of Lands and Minerals, State Nonferrous Metallic Mineral Leasing Web Map.
- Holm, D.K., R. Anderson, T.J. Boerboom, W.F. Cannon, V. Chandler, M. Jirsa, J. Miller, D.A. Schneider, K.J. Schulz, W.R. Van Schmus, 2007, Reinterpretation of Paleoproterozoic accretionary boundaries of the north-central United States based on a new aeromagnetic-geologic compilation. Precambrian Research, v. 157, P. 71–79.
- https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
- http://files.dnr.state.mn.us/lands_minerals/aitkin_sandandgravel_resources.pdf
- http://mndnr.maps.arcgis.com/apps/webappviewer/index.html?id=094ca0b7a81d45ffae670e125cd82487
- https://www.usclimatedata.com/climate/tamarack/minnesota/united-states/usmn1351
- Hutchinson, D R., R F. White, W F. Cannon, and K J. Schulz, 1990, Keweenaw Hot Spot; Geophysical Evidence for a 1.1 Ga Mantle Plume Beneath the Midcontinent Rift System. Journal of Geophysical Research 95, p. 10869-10884.Larsen et al., 2000
- Jennings, Carrie E. and Kostka, Steven J., April 2014. Aitkin County Aggregate Resources Sand And Gravel Potential, Plate A. Department of Natural Resources, Division of Lands and Minerals, Scale 1:100,000 with digital data.
- Kennecott Aeromagnetic Survey, Modified by Talon, 2017

- Larsen, M.L., and Pedersen, A.K., 2000. Processes in High-Mg, High-T magmas: evidence from olivine, chromite and glass in Palaeogene picrites from West Greenland. J. of Petrology, vol. 41, n.7 pp. 1071-1098.
- Level III and IV Ecoregions of Minnesota, June 2015. Scale 1:2,250,000. United States Environmental Protection Agency, Ecosystem Research, Region 5. ftp://newftp.epa.gov/EPADataCommons/ORD/Ecoregions/mn/mn_map.pdf
- Miller, J.D., Jr., Smyk, M., Sage, R.P., and Green, J.C., 1995, Geology, petrology and metallogeny of intrusive igneous rocks of the Midcontinent Rift system. in Miller, J.D., Jr. (ed.), Field trip guidebook for the geology and ore deposits of the Midcontinent rift in the Lake Superior region. Minnesota Geological Survey Guidebook Series 20 p. 121-216.
- Miller, J.D., Jr., and Vervoort, J.D., 1996, The latent magmatic stage of the Midcontinent rift: a period of magmatic underplating and melting of the lower crust: Institute on Lake Superior Geology, 42nd Annual Meeting, Cable, Wis., Proceedings, v. 42, Program and Abstracts, pt. 1, p. 33-35.
- Naldrett, A. J. 1999: World-class Ni-Cu-PGE deposits: key factors in their genesis. Mineralium Deposita (1999) 34, pg. 227-240.
- Owen et al. 2013. NI 43-101 Technical Report on the Eagle Mine, Upper Peninsula of Michigan, USA. Lundin Mining Corporation.
- Peters, O. Imeson, D., An Investigation into Metallurgical Testwork on Seven Samples from the Tamarack Deposit, SGS Report, Project 12061-005, September 27, 2017.
- Schneider, D.A., Bickford, M.E., Cannon, W.F., Schultz, K.J., and Hamilton, M.A., 2002, Age of volcanic rocks and syndepositional iron formations, Marquette Range Supergroup: implications for the tectonic setting of Paleoproterozoic iron formations of the Lake Superior region. Can. J. Earth Sci., vol. 39, pp. 999-1012. Severson, 2003
- Severson, M.J., and Heine, J.J., 2003, Sedimentary exhalative (SEDEX) potential of the Cuyuna North Range, Cuyuna South Range, Emily District, and portions of Aitkin County - Old drill log searches: Natural Resources Research Institute, University of Minnesota, Duluth, Technical Report NRRI/TR-2003/13, 40 p.
- Sims, P.K., and Day, W.C., 1993. The Great Lakes Tectonic Zone-revisited. U.S. Geological Survey Bull. 1904-S, 11 p.
- Southwick, D. L., Morey, G. B., Holst, Timothy B., edited by Sims, P. K., Carter, L. M. H. 1991. Tectonic imbrication and foredeep development of the Penokean orogen, east-central Minnesota – an interpretation based on regional geophysics and the result of test-drilling. US Geological Survey Bulletin 1904, 17pp.
- Talon Metals Corp., 2016. Talon Metals Summer 2016 Exploration Update: Positive results from Infill drilling at the Tamarack Zone. Press release, 13th December 2016.
- Tamarack Weather Averages, November 2017. U.S. Climate Data

- Thomas, B., Palmer, P., Khorakchy, M. O., First Independent Technical Report on the Tamarack North Project, Tamarack, Minnesota, NI 43-101 Technical Report, Golder Associates, Report Number 1707088, August 29, 2014.

28.0 CERTIFICATES OF QUALIFIED PERSONS

CERTIFICATE OF QUALIFIED PERSON

I, James McDonald (P.Geo.), state that:

1) I am Vice-President Resource Geology with Talon Metals Corp located at 43-603 Clark Avenue West, Thornhill, Ontario.

2) This certificate applies to the technical report titled First Technical Report for the Tamarack South Project with an effective date of December 12, 2018 (the "Technical Report").

3) I am a "qualified person" for the purposes of National Instrument 43-101 (the "Instrument"). My qualifications as a qualified person are as follows: I am a graduate of Laurentian University with an H.B.Sc. in Geologyin 1995 and I am a member in good standing with the association of Professional Geoscientists of Ontario (#1475). My relavent experience after graduation includes over 22 years of experience in mine geology and mineral resource evealuation of mineral projects nationally and internationally in a variety of commodities of which 11 years were with Vale Nickel in Sudbury (formally Inco Ltd.).

4) My most recent personal inspection of the property was September 7, 2018.

5) I am not independent of the Issuer as described in section 1.5 of the Instrument.

6) I am responsible for the entire Technical Report.

7) I have been involved in the Tamarack South Project since June 25, 2014.

8) I have read the Intstrument and the Technical Report has been prepared in compliance with the Instrument; and

9) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Reportcontains all scientific, and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated at Sudbury, Ontario this 12th day of December, 2018.

(Signed) James McDonald

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James McDonald

Vice-President Resource Geology

Talon Metals Corp.