Assessment Report
2020 Exploration Drilling Program
on the
Carmacks North (formerly, Stu) Copper Project

Near Carmacks, Yukon, CANADA

Located Within:
NTS Sheet: 115I07
Whitehorse Mining District
Latitude 62°24' North by Longitude 136°49' West

Current Operator and Registered Claim Owner:

Granite Creek Copper
409 – 904 Granville St
Vancouver, BC, Canada V6C 1T2

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PERIOD OF WORK: Oct 02 – Oct 15, 2020

REPORT DATE: May 20, 2021

GRANITE CREEK COPPER

TRUEPOINT EXPLORATION

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1 Summary

The Carmacks North (formerly Stu) Copper Project is located approximately 47 km directly northwest of Carmacks, Yukon and 210 km directly northwest of Whitehorse, the capital of the Yukon Territory. The Property consists of 562 contiguous claims which cover approximately 11,450 hectares. The centre of the property is located at latitude 62° 24' N and 136° 49' W longitude on NTS map sheet 115I07.

A Phase 2, field program (Sept 22 – Nov 07, 2020) was completed jointly at Carmacks and Carmacks North, which consisted of upgrading pre-existing roads for drill pad access, drill pad construction and diamond drilling. This assessment report provides a review of the work completed between Oct 02 – Oct 15, 2020 as outlined on the certificate of work **(Appendix D).** The Phase 2 drilling program followed-up results obtained from an earlier 2020 Phase 1 YMEP supported re-logging and soil sampling program at Carmacks North (James and Grigutis, 2020). The Phase 2 program was carried out to conform with the COVID-19 regulations and guidelines set-out by the Government of Yukon.

The Carmacks North property lies within the Minto Copper Belt, a linear stretch of intrusion hosted Cu (+/- Au-Ag-Mo) mineralization in the Dawson Range, south-central Yukon Territory. Centered on the Minto Mine the belt extends from north of the Yukon and Pelly River confluence southeast to the community of Carmacks. The occurrences are hosted in, or close to the contacts of, intermediate to felsic intrusive and meta-intrusive rocks of the Early Jurassic Minto Suite. The Minto Copper Belt has been proven productive, with one operating copper-gold-silver mine (Minto – Minto Explorations) and one deposit advancing towards production (Carmacks deposit). The Carmacks North property lies on strike between the two deposits, displays the same style of mineralization, and has shown preliminary copper values of a similar calibre from the limited drilling results available.

Rigorous exploration in the Minto Copper Belt started in the late 1960s following discovery of the Casino porphyry copper deposit in the Dawson Range, 100 km northwest of the property. Prior to this time, copper showings had been staked and mined along the west side of the Yukon River in the late 1890s. After the Casino discovery, a staking rush in the area unearthed the Carmacks deposit and Minto mine properties in the early 1970s. The Carmacks North property was worked from 1971 to 1982 by United Keno Hill Mines (UKHM), and again from 1989-2013 by UKHM, Western Copper and other operators. In 2015, Bill Harris undertook a larger program of rehabilitation of old core and selected relogging and reassaying of core, excavator trenching, and systematic sampling, partly financed through a YMEP grant.

Granite Creek's 2020 exploration goal was to produce a maiden resource calculation at Zone A. In 2015, the historic core was rehabilitated so that it could be relogged and sampled to supplement new drilling. The 2020 Phase 1 program focused on resampling of old core drilled in the 1980's to produce data that would supplement a 3D model and aid in future drill target evaluations at Zone A (Phase 2). The Phase 2 drilling program at Zone A of Carmacks North was not financed through a YMEP grant, and is discussed in this report.

2 Introduction

2.1 Purpose

This assessment report provides a review of the work completed between Oct 02 – Oct 15, 2020 as outlined on the certificate of work **(Appendix D).** The work was carried out by True Point Exploration staff and contractors, funded by Granite Creek Copper. A total of 3x diamond drill holes, totalling ~540 metres, were drilled at Zone A of the Carmacks North property. The core was logged, sampled and assayed. Additionally, magnetic susceptibility readings were recorded to better understand geophysical signatures of mineralized versus unmineralized zones. The purpose of the diamond drilling program was to advance exploration at Zone A of the Carmacks North Copper Project, with an aim of completing a future inferred resource. The drilling program took 14 days of field work and 70 person days. The average number of people in camp was 10 and the cost was $229,418.86.

This report was prepared to satisfy requirements for an assessment report as mandated in Section 56 (1) of the Yukon Quartz Mining Act. Digital files accompany the report **(see Appendices).**

2.2 Geographic Terms

Several geographic areas and features are briefly described for orientation with respect to the text, tables, and figures.

Dawson Range – a range of subdued mountains running northwest from Carmacks to Dawson City. The Dawson Range hosts numerous mineral deposits and occurrences and at times has been a mining district for promotional purposes.

Carmacks Deposit – originally called Williams Creek, previously called Carmacks Project or Carmacks Copper Deposit. The Carmacks deposit borders the Carmacks North property to the northwest. Both are owned by a common operator, Granite Creek Copper (GCX) as of November 2020.

Minto Copper Belt – a mining district trending northwest from Carmacks to past the Minto mine containing a cluster of copper (+/- gold, silver, molybdenum) mineral occurrences and deposits. Depending on the year and the user, the area is variable in size, but is anchored by the Minto and Carmacks Copper deposits. Variations on the name include Carmacks Copper Belt and Carmacks (Minto) Copper-Gold Belt.

2.3 Abbreviations and Units of Measurement

Metric units are used throughout this report, except when referring to historic exploration work that was originally reported in the imperial system (conversions are given). Dollar amounts are reported in Canadian Dollars (CAD$) unless otherwise stated. Coordinates within this report use UTM NAD83 UTM Zone 08N unless otherwise stated. The following is a list of abbreviations which may be used in this report:

Table 2-1: Abbreviations and Units of Measurement

Abbreviation	Description
%	percent
AA	atomic absorption
Ag	silver
AMSL	above mean sea level
Au	gold
AuEq	gold equivalent grade
Az	azimuth
b.y.	billion years
CAD$	Canadian dollar
cm	centimetre
cm^2	square centimetre
cm^3	cubic centimetre
Cu	copper
°C	degree Celsius
°F	degree Fahrenheit
DDH	diamond drill hole
ft or ‘	feet
ft^2	square feet
ft^3	cubic feet
g	gram
GMB	Granite Mountain Batholith
GPS	Global Positioning System
Gpt or g/t	grams per tonne
ha	hectare
in or “	inch
ICP	induced coupled plasma
kg	kilogram
km	kilometre
km^2	square kilometre
l	litre

Abbreviation	Description
li	limonite
m	metre
m^2	square metre
m^3	cubic metre
Ma	million years ago
mg	magnetite
mm	millimetre
mm^2	square millimetre
mm^3	cubic millimetre
Mo	Molybdenum
Moz	million troy ounces
Mt	million tonnes
m.y.	million years
NAD	North American Datum
NI 43-101	National Instrument 43-101
opt	ounces per short ton
oz	troy ounce (31.1035 grams)
Pb	lead
ppb	parts per billion
ppm	parts per million
PDH	Percussion drill hole
QA	Quality Assurance
QC	Quality Control
RC	reverse circulation drilling
RQD	rock quality description
Sedar	System for Electronic Document Analysis and Retrieval
SG	specific gravity
st	short ton (2,000 pounds)
t	tonne (1,000 kg or 2,204.6 lbs)
UKHM	United Keno Hill Mines
um	micron
US$	United States dollar
Zn	zinc

3 Project Description and Location

3.1 Location

Carmacks North is located approximately 47 km directly northwest of Carmacks, Yukon and 210 km directly northwest of Whitehorse, the capital of the Yukon Territory **(Figure 3-1).** The Property consists of 562 contiguous claims which cover approximately 11,450 hectares. The centre of the property is located at latitude 62° 24' N and 136° 49' W longitude on NTS map sheet 115I07.

The Yukon Government has settled land claims with First Nations in the area, Little Salmon-Carmacks and Selkirk. **Figure 3-2** shows the location of settlement lands closest to the Carmacks North (formerly, Stu) property.

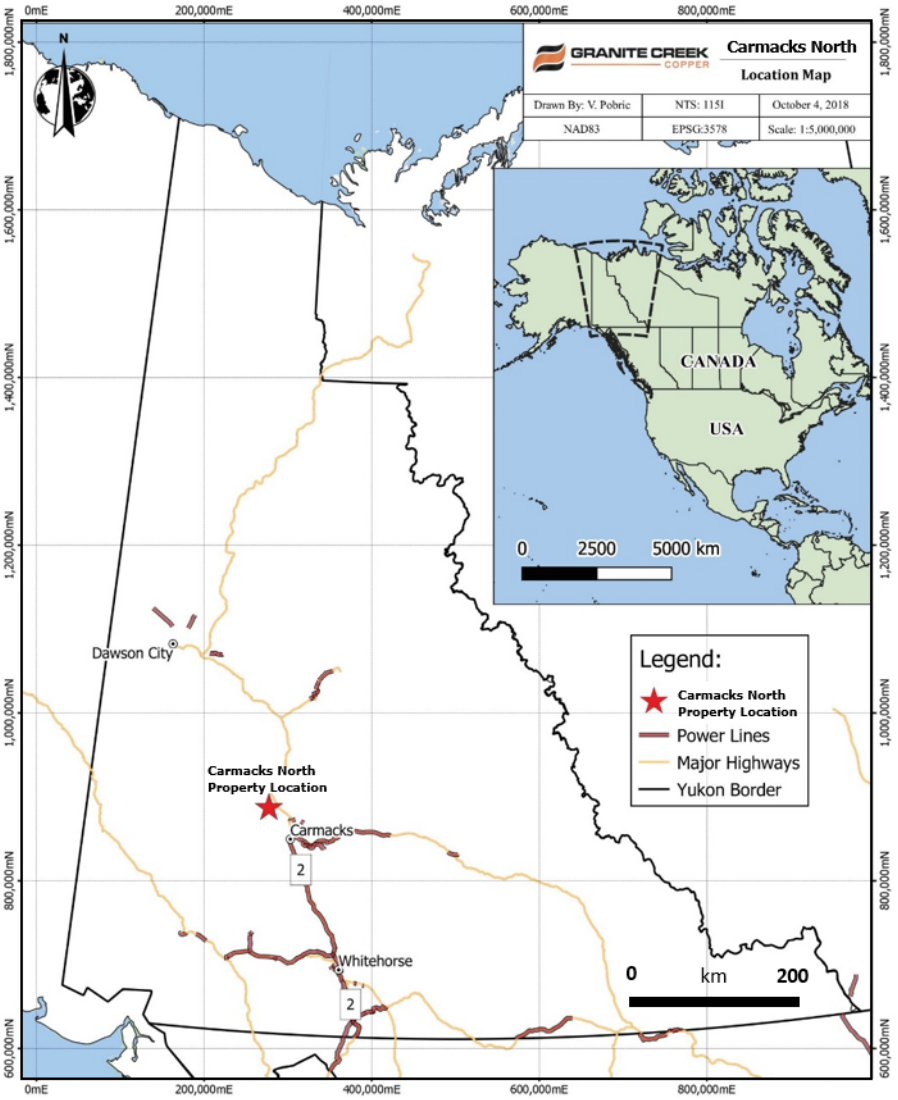

Figure 3-1: Carmacks North (formerly, Stu) property location map, Central Yukon

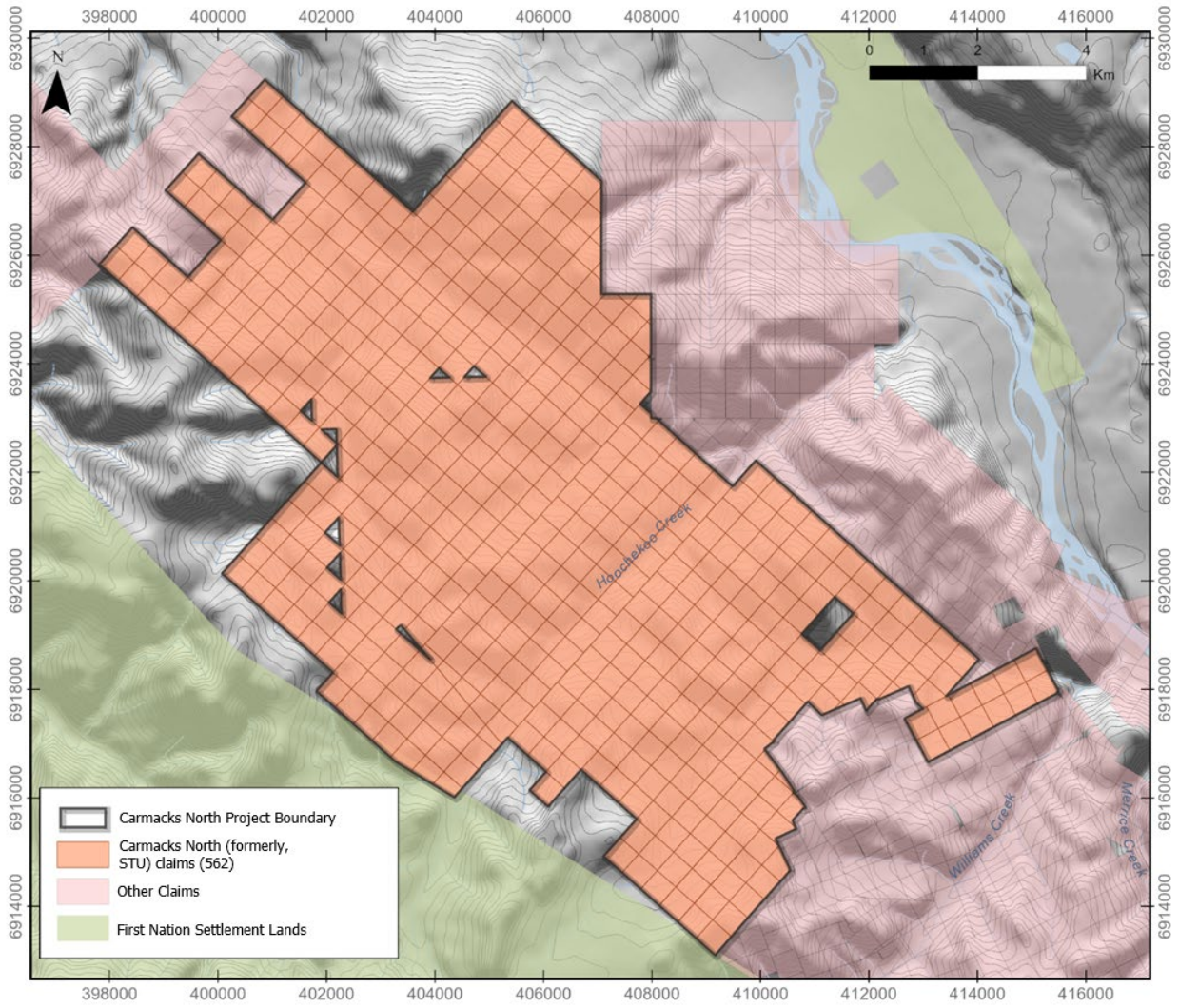

Figure 3-2: Carmacks North property claim map and neighbouring First Nation Settlement Lands

3.2 Ownership and Permits

A five-year, Class 3 Mining Land Use Permit (MLU LQ00433) from Mining Land Use, Government of Yukon for the southern part of the property, expires February 6, 2023. A ten-year permit (MLU LQ00530) covers the northern part of the property**.** These permits allow all the activities laid out in this workplan to be carried out.

On September 13, 2018 Granite Creek entered into an agreement with the owner of the Carmacks North (formerly, Stu) property (William G. "Bill" Harris), under which the company acquired an undivided 100% interest in and to the Carmacks North project. The claims have been transferred from Bill Harris to Granite Creek Copper. See **Table 3-1** below for the list of claims and **Figure 3-3** for a map of grouping claims for Carmacks North. All claims are in good standing and none have expired. **Table 3-2** shows a list and **Figure 3-4** shows a map of worked claims during the 2020 Phase 2 program.

Table 3-1: List of claims at Carmacks North

Grant No.	Claim Name	No. of claims	Expiry date	Owner Name
YC37770 - 779	STU 1 - 10	10	2026-12-13	Granite Creek Copper Ltd
YC37780 - 787	STU 31 - 38	8	2026-12-13	Granite Creek Copper Ltd
YC37788 - 795	STU 21 - 28	8	2026-12-13	Granite Creek Copper Ltd
YC40201 - 218	STU 55 - 72	18	2026-12-13	Granite Creek Copper Ltd
YC40249 - 258	STU 11 - 20	10	2026-12-13	Granite Creek Copper Ltd
YC40259 - 260	STU 29 - 30	2	2026-12-13	Granite Creek Copper Ltd
YC40261 - 276	STU 39 - 54	16	2026-12-13	Granite Creek Copper Ltd
YC65256 - 298	STU 73 - 115	43	2026-12-13	Granite Creek Copper Ltd
YC65299 - 315	STU 116 - 132	17	2025-12-13	Granite Creek Copper Ltd
YE91341 - 347	STU 133 - 139	7	2024-12-13	Granite Creek Copper Ltd
YE91348	STU 140	1	2024-12-21	Granite Creek Copper Ltd
YE91349 - 367	STU 141 - 159	19	2024-12-13	Granite Creek Copper Ltd
YE91368	STU 160	1	2024-12-21	Granite Creek Copper Ltd
YE91369 - 390	STU 161 - 182	22	2024-12-13	Granite Creek Copper Ltd
YE91391 - 427	STU 183 - 219	37	2024-12-13	Granite Creek Copper Ltd
YE91434 - 466	STU 226 - 258	33	2024-12-13	Granite Creek Copper Ltd
YE91467 - 468	STU 259 - 260	2	2024-12-21	Granite Creek Copper Ltd
YE91469 - 480	STU 261 - 272	12	2024-12-13	Granite Creek Copper Ltd
YE91489 - 501	STU 281 - 293	13	2024-12-13	Granite Creek Copper Ltd
YE91502	STU 294	1	2024-12-21	Granite Creek Copper Ltd
YE91503 - 556	STU 295 - 348	54	2024-12-13	Granite Creek Copper Ltd
YF20701 - 772	WC 1 - 72	72	2025-12-13	Granite Creek Copper Ltd
YF20773 - 800	HOO 1 - 28	28	2025-12-13	Granite Creek Copper Ltd
YF29049 - 069	STU 349 - 369	21	2023-12-26	Granite Creek Copper Ltd
YF46357 - 380	CHE 1 - 24	24	2025-12-13	Granite Creek Copper Ltd
YF46387 - 398	HOO 35 - 46	12	2025-12-13	Granite Creek Copper Ltd
YF46399 - 400	KOO 57 - 58	2	2026-12-13	Granite Creek Copper Ltd
YF46401 - 406	CHE 25 - 30	6	2025-12-13	Granite Creek Copper Ltd
YF46407 - 417	WCF 1 - 11	11	2025-12-13	Granite Creek Copper Ltd
YF46501 - 512	KOO 1 - 12	12	2025-12-13	Granite Creek Copper Ltd
YF46515 - 544	KOO 15 - 44	30	2025-12-13	Granite Creek Copper Ltd
YF46547 - 552	KOO 47 - 52	6	2025-12-13	Granite Creek Copper Ltd
YF46553 - 556	KOO 53 - 56	4	2026-12-13	Granite Creek Copper Ltd
Totals		**562**		

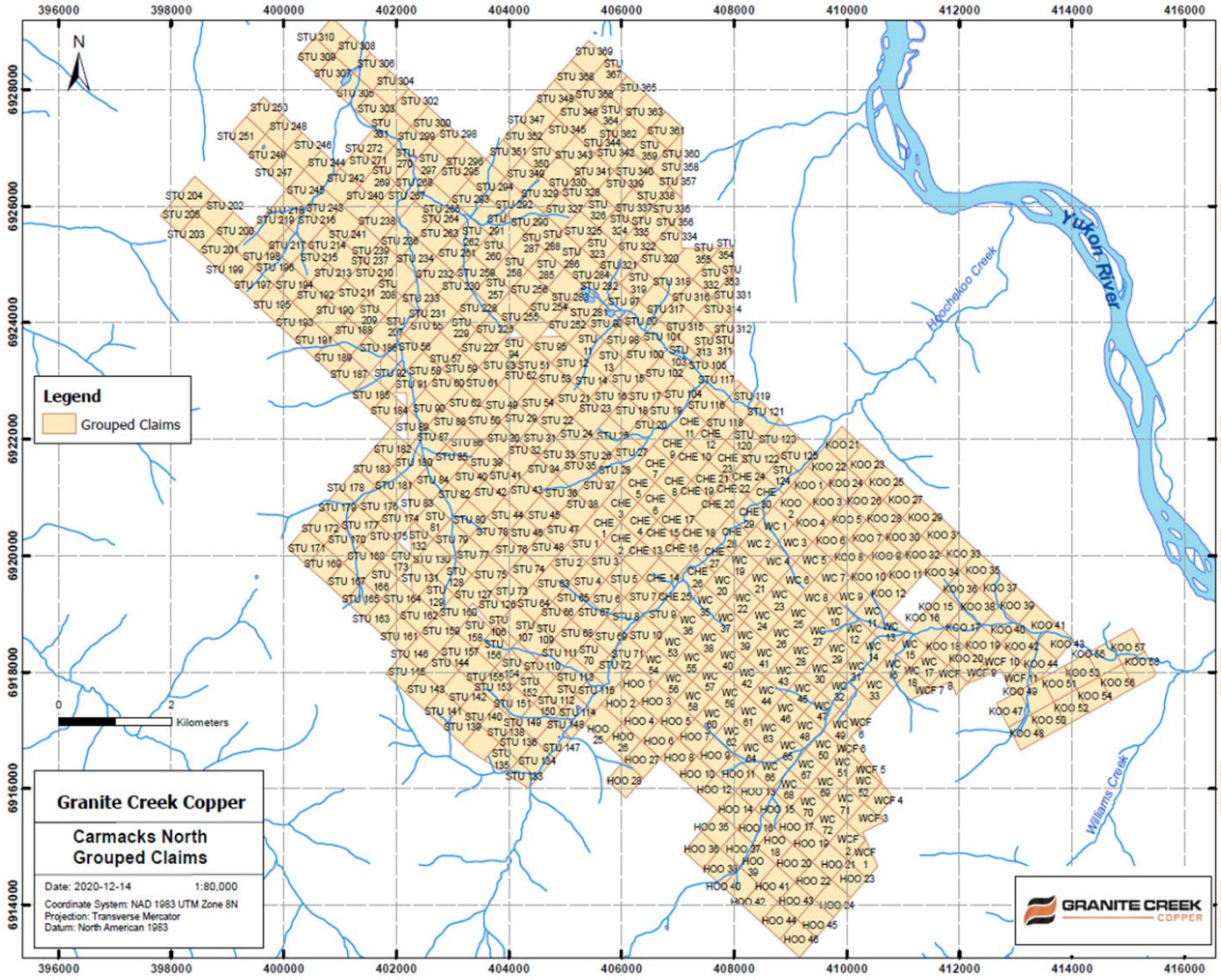

Figure 3-3: Carmacks North – Claims Grouping Map.

Table 3-2: List of claims at Carmacks North worked in 2020.

Grant No.	Claim Name	Work	Owner Name
YC37770	STU 1	roadwork	Granite Creek Copper Ltd
YC37772	STU 3	roadwork	Granite Creek Copper Ltd
YC37774	STU 5	roadwork	Granite Creek Copper Ltd
YC37780	STU 31	drilling, pad building, roadwork	Granite Creek Copper Ltd
YC37782	STU 33	roadwork	Granite Creek Copper Ltd
YC37785	STU 36	roadwork	Granite Creek Copper Ltd
YC37787	STU 38	roadwork	Granite Creek Copper Ltd
YF20735	WC 35	roadwork	Granite Creek Copper Ltd
YF20737	WC 37	roadwork	Granite Creek Copper Ltd
YF20739	WC 39	roadwork	Granite Creek Copper Ltd
YF20741-45	WC 41-45	roadwork	Granite Creek Copper Ltd
YF20747	WC 47	roadwork	Granite Creek Copper Ltd
YF20749	WC 49	roadwork	Granite Creek Copper Ltd
YF20741	WC 41	roadwork	Granite Creek Copper Ltd
YF46357-58	CHE 1-2	roadwork	Granite Creek Copper Ltd
YF46369-70	CHE 13-14	roadwork	Granite Creek Copper Ltd
YF46401-402	CHE 25-26	roadwork	Granite Creek Copper Ltd
YF46412	WCF 6	roadwork	Granite Creek Copper Ltd

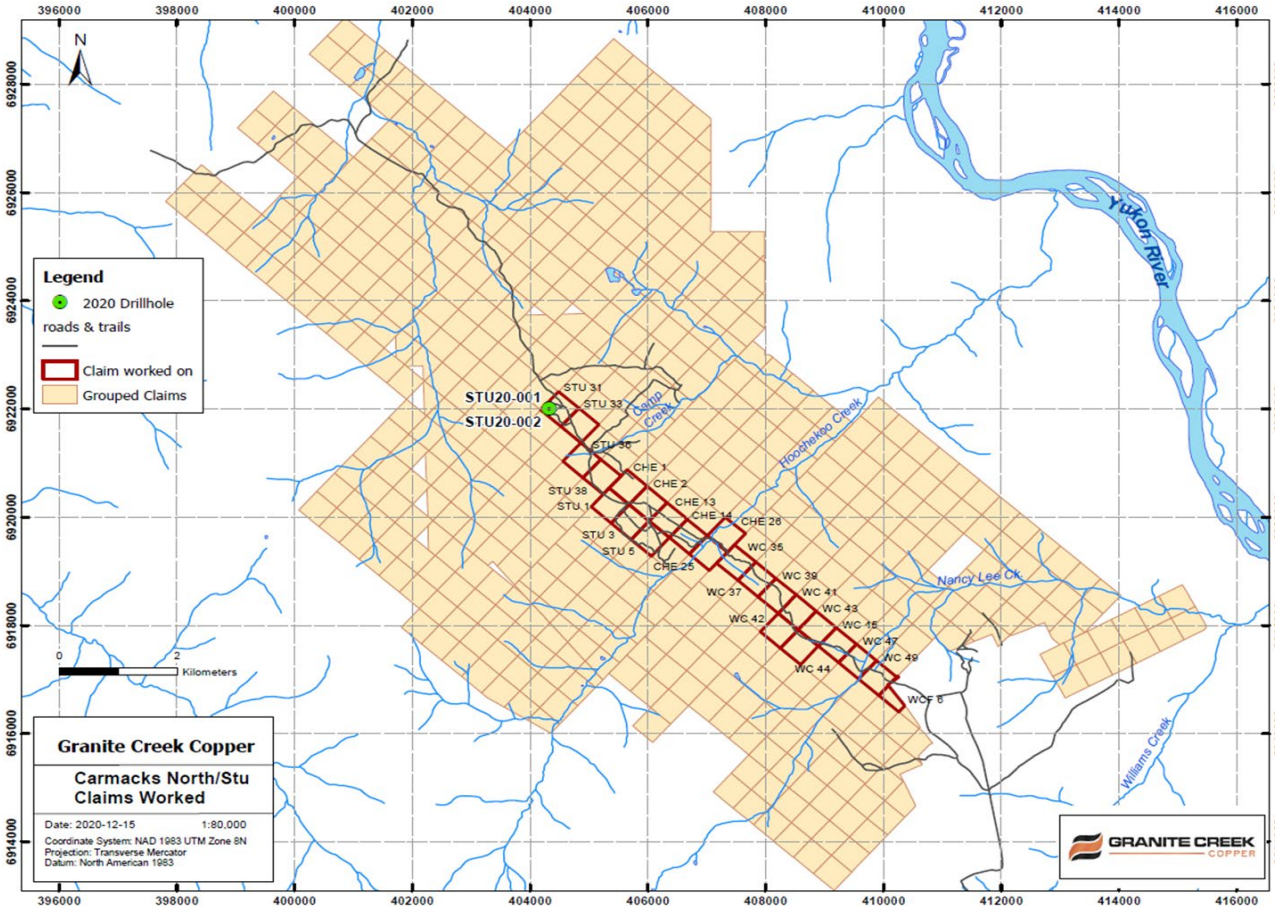

Figure 3-4: Carmacks North - 2020 Claims Worked Map.

4 Accessibility, Climate, Physiography, Infrastructure

4.1 Accessibility

The Carmacks North property is accessible by the Freegold Road that leads northwest into the Dawson Range from the community of Carmacks. The Freegold Road branches off Highway 2 at the village of Carmacks, which is a 1.75-hour drive along paved public highways from Whitehorse. Skagway, 180 km by road south of Whitehorse is the nearest year-round port with facilities for loading concentrate.

The Freegold Road is maintained by the Yukon Government and is open seasonally between April and October. At the 35 km mark, the access road to the Carmacks Project branches off for 13 km to the Carmacks Project trailer camp. The road is narrow, winding and steep in places, requiring 4X4 access under wet or snowy conditions. Beyond the Carmacks Project trailer camp, a user-maintained gravel road with four creek crossing leads for ~10 km to Hoocheekoo Creek in the middle of the Carmacks North property. Bulldozer and ATV trails on the property lead to the different zones on the property. Additionally, during the Phase 2 program at Carmacks North, the pre-existing dirt road from the Carmacks trailer camp was reused to provide access to the Carmacks North property and drilling locations. Access is now available using 4x4 UTV and truck access. The Carmacks North property can also be accessed by a 15-20-minute helicopter flight from the airport in Carmacks. Predominantly 4x4 truck and ATV access was used from the Carmacks trailer camp to reach Zone A of the Carmacks North property.

4.2 Climate

Carmacks and surrounding area has a northern interior climate with warm summers (+20º C), long cold winters (-20º C) and low to moderate precipitation (25-30 cm), most of which falls in summer. Mean annual temperatures are near -4ºC. The dry climate leads to frequent forest fires. Snow cover remains from mid-October to mid-April at lower elevations and a month longer at higher elevations. The typical exploration season is from April to October.

4.3 Physiography

The property is part of the Yukon Plateau-Central Ecoregion which is characterized by a dry climate and extensive grasslands on south aspect slopes. The west boundary of the ecoregion is the limit of Cordilleran Pleistocene glaciation and glacial deposits. Glacial cover was partial, valley glaciers extended along major valleys and tributaries depositing glacial drift on lower slopes and valley bottoms. Colluvium blankets steep slopes and uplands.

The Carmacks North property covers an area bisected by Hoocheekoo Creek within the northeastern edge of the Dawson Range of the Yukon Plateau. Elevations range from a low of 600m in the eastern part of the project up to 1075m in the western portion. Most slopes are gentle except along the north side of Hoocheekoo Creek. North-facing slopes are heavily timbered with black spruce and generally have a thick moss cover. Some north facing slopes and low-lying wet areas are covered by dense alder and willow. South facing slopes are better drained and have a cover of poplar or pine. Some parts of the claims have been burnt by recent forest fires.

Outcrop exposure on the property is <1% with float covering approximately 8%. Large areas of the property are covered by thick overburden and all the known mineralization is found on hill tops or along ridge slopes where the overburden is thin or absent.

Several small streams flow in broad swampy valleys between 400 m and 800m wide. The streams drain to the northeast and southeast into Hoocheekoo Creek and Nancy Lee Creek, a tributary of Williams Creek. Northerly flowing tributaries of Big Creek drain the northwestern property area.

4.4 Infrastructure

4.4.1 Regional Infrastructure

The nearest community to the project area is Carmacks, 60 km by road and trail or 47 km directly. Carmacks is incorporated as a village and covers 37 square kilometres. The economic base is government and services. There is seasonal work in mining and exploration, tourism, firefighting and construction. The population is not large enough to provide a workforce for mine construction and development, requiring workers to be brought from Whitehorse and further afield.

Services in the village include:

- Nursing station with doctors' consultations by appointment.
- Tantalus School offering classes for K-12. Yukon College provides GED, academic upgrading, computer training and occupational courses.
- Recreation Centre with attached, covered skating rink.
- Airport and helicopter pad within city limits, No scheduled flights.
- Landfill site at south end of town. Recycling services once a week at landfill.
- A community water system, although some residents have private wells, and there is a water delivery service.
- Electricity from the Yukon electrical grid.
- Cell service, internet and telephone available.
- RCMP station, volunteer ambulance and for protection
- Government of Yukon – Lands and Forestry
- Little Salmon Carmacks First Nation government offices

Commercial services are limited, but include:

- 2 service stations
- Restaurants
- Grocery store
- Hotel and rental cabins
- campground

Carmacks has a population of 493 people (Canada Census, 2016). The age group distribution is: ages 0-14, 120 people; ages 15-64, 325 people; age over 65, 50 people. There are 200 private households, 125 of them are married or common law families, and 30 are lone parent families. English is the dominant language with

a few aboriginal speakers and some French. *(All information from Census Profile, 2016 Census, Carmacks Yukon).*

The nearest electrical power supply is a Yukon Energy Corp. (YEC) transmission line 12 km to the northeast on the east side of the Yukon River. The Yukon power grid is a large hydro-based grid and is not connected to the rest of North America, so is required to be self-sufficient for power.

4.4.2 Local Infrastructure

The recent acquisition of Copper North Mining and its Carmacks Project (Q4, 2020) by Granite Creek Copper (GCX) has resulted in the consolidation of the Carmacks and Carmacks North properties. This land package is now operated and owned by Granite Creek Copper. The Phase 2 drill and road maintenance program saw pre-existing roads reused between the Carmacks trailer camp (Carmacks Project) and the Carmacks North property. The care and maintenance of this pre-existing road directly benefitted the Carmack North project, and now a truck/atv accessible, 14 km dirt-gravel road connects the two properties, both owned by Granite Creek Copper. The subdued topography on the Carmacks North property is suitable for construction of mining operations and there is enough water available on the property for nearby drilling and development, as per the Phase 2 program.

A historic camp is located close to Zone A (4km from the Hoocheekoo Creek crossing) on the Carmacks North property, consisting of an outdated kitchen trailer, outhouse, wooden tent platforms and core storage. The camp would need upgrading to accommodate crews working on exploration and drill programs.

For this program, the project home-base was the well-equiped, Carmacks trailer camp. The camp facilities are owned by Kluane Drilling, and the Carmacks camp core-shack, office and trailers were used for the duration of the Phase 2 drill program.

5 History

Intensive exploration near the Carmacks North property started in the late 1960s following discovery of the Casino porphyry copper deposit in the Dawson Range, 100 km northwest of the property. Prior to this time, copper showings had been staked close to the Yukon River in the late 1890s. Following the Casino discovery, a staking rush in the area unearthed the Carmacks deposit and Minto mine properties in the early 1970s. The Stu property was worked from 1971 to 1982 by United Keno Hills Mines (UKHM), and again from 1989-2013 by UKHM, Western Copper and other operators. The amount of detailed information and geochemical results from UKHM's trenching and drilling programs is limited.

While under the ownership of Bill Harris, short programs consisting of examination and inspection of the property, rock sampling, surveying of trenches and drill holes, petrography, data compilation, collection of magnetic susceptibility measurements, claim staking and a limited amount of chip sampling of trenches were undertaken between 2005 and 2014. The information and results from these programs partially confirmed missing surface information from the UKHM work. In 2015, the vendor undertook a larger program of excavator trenching, systematic sampling, rehabilitation of old core and selected relogging and reassaying of core. In 2020, re-logging, re-sampling and re-assaying of 9x drill holes from the 1980s took place (2020 Carmacks North YMEP). Complete information on programs on the Carmacks North claims from 2005-2020 can be found in assessment reports by R. Robertson, J. Pautler and D. James, and is summarized in **Tables 5-1** and **5-2** with more detailed overview within this section.

5.1 Exploration History

Exploration history and ownership of the Carmacks North property and pertinent adjacent properties is summarized in the table below.

Table 5-1: Work history of mineral occurrences on the Carmacks North property

Timeframe	Occurrence	Performed By	Work	Reference
1971	Stu Property	Hudson's Bay Oil & Gas Company Ltd	Bay claims staked over part of what is now Stu property. Line cutting, grid soil sampling and magnetometer survey	*Burgan and Mitchell, 1971*
1974	Stu Property	Hudson's Bay Oil & Gas Company Ltd	IP and VLF-EM surveys over the Bay claims. Follow-up detailed soil sampling over geophysics anomalies. EM anomaly around Zone C and just to the north of the STU claims. Anomalies are oriented northwest	*Olson, 1975*
1993 – 1994	Stu Property, Carmacks Copper	Western Copper	First feasibility Study at Carmacks Copper deposit. Airborne and ground geophysics surveys delineates the 4000N zone and the Gran/Zone 3	*McNaughton, 1994*
2005 - 2017	Stu Property	B. Harris	Series of short programs including: staking, GPS surveying, magnetic susceptibility testing, geological mapping, rock and soil sampling, a petrographic study, upgrading access, hand and excavator trenching, overview archaeological survey, XRF test survey, rehabilitation of core, relogging and reassaying.	*Robertson, 2006; Pautler, 2007; Pautler, 2009; Pautler, 2011; Pautler 2012; James, 2014; Pautler, 2015; James, 2016*

Timeframe	Occurrence	Performed By	Work	Reference
2006-2008	Stu Property, district	S. Ryan, BC Gold	Claims staked around Stu Property. Claims optioned to BC Gold after limited soil sampling. BC gold flew a regional airborne magnetic and radiometric survey over their claims in the area. MMI soil sampling and IP surveys.	*Ryan, 2006; Newton, 2008; Sidhu, 2009*
2018	Stu Property	Granite Creek Gold	166 soil samples collected north of Gran Zone.	*James, 2018*
2019	Stu Copper	Granite Creek Copper	24 line km of ground IP, 265 soil samples, Zone D sampled, 24 rock samples.	*James, 2020*
2020	Carmacks North (formerly, Stu) property	Granite Creek Copper	9x historic drill holes re-logged, re-sampled, re-assayed and analyzed using handheld spectral and magnetic susceptibility instruments. 59 multi-element soil samples over Zone A.	*James, 2020*

Table 5-2: Work history of mineral occurrences adjacent to the Carmacks North property

Timeframe	Occurrence	Performed By	Work	Reference
1880s to 1910s	Bonanza King	prospectors	Copper discoveries and eventual smelter shipment from v veins in the canyons of Merrice and Williams Creek	*YGS minfile 115I010*
1960s	regional		Staking rush in the Dawson Range following discovery of Casino deposit.	
1970	Carmacks	Dawson Range Joint Venture	Discovery of Carmacks deposit	*Archer, 1971*
1971	Carmacks	Dawson Range Joint Venture	Extensive exploration including drilling, trenching, road construction, ground geophysics surveys, mapping and sampling, adjacent to the south boundary of the STU Property.	*Archer, 1973*
1973	Minto		Main mineralized body found at Minto	
1976-1989	District	United Keno Hill Mines Ltd.	Work on the area between Minto and Carmacks Copper, including the present-day Stu property. Property mapping, extensive grid soil sampling, ground and airborne geophysics. Leads to bulldozer trenching, diamond and percussion drilling on zones A, B and C on Stu property.	*Watson and Joy, 1977; Smith, 1979 Newman and Joy, 1980; Leblanc and Joy, 1980; Coughlan and Joy, 1981; Joy 1981a,b; Davidson and Joy, 1981; Tempelman-Kluit, 1981; Ouellette, 1989; YGS minfile 115I126*
2004	Carmacks Copper		Carmacks Copper deposit enters permitting process.	

Timeframe	Occurrence	Performed By	Work	Reference
2020	Bonanza King	Granite Creek Copper	Prospecting, mapping, soil and rock sampling and clearing helicopter pads. 15x rock samples and 22x soil samples were collected and assayed.	*James, 2020*
2007 - 2020	Minto		Commercial production at Minto mine.	

5.2 Mapping and Prospecting

Most of the current Carmacks North property was mapped between 1977 and 1981 at 1" = 400' (1:5000) scale using a cutline grid for survey control. Previous programs (2019 YMEP, Stu Copper Property) have checked mapping from this time period and found it to be reliable and accurate, other than displacement of outcrops due to scanning and georeferencing errors. The record of samples is sparse, but it appears that most of the samples were collected from Zones A, B and C in the central part of the property.

5.3 Soil Geochemistry

The bulk of soil sampling over Carmacks North was carried out in the 1970s and early 1980s along northeast cutlines spaced 100m apart with sample spacing at 30m. Zones A, B and C were outlined along with other northwest trending anomalies to the south and east. In the southern part of the Stu property sampling delineated five separate northwest trending, moderate to strong copper anomalies in what is now the Gran Zone. The other significant anomaly covers the South Butter showing and there are spot anomalies around the Butter showing.

In 2019, Granite Creek undertook a GIS compilation of historic soils from previous operators on the Stu property and neighbouring claims (figure 4-1). Over 40,500 points were digitized, but in over 90% of the samples, Copper was the only element analysed. The compilation highlighted northerly trends to the anomalies, which had not been so visible previously. A strong linear anomaly located along the NE side of the project around Zone D was investigated during the 2019 program. This anomaly was targeted for investigation during the 2019 Stu Copper (2019 YMEP, Stu Copper Property) and 2020 Bonanza King (2020 YMEP, Bonanza King Project) programs. This strong linear anomaly does seem to occur in the vicinity of the contact zone between Povoas Formation mafic volcanic rocks and the Minto Suite granodiorite

Past soil sampling on the property indicates that anomalies present as clusters of >30 ppm copper with occasional values exceeding >100 ppm that have an overall northwest to north trend. The lack of previous multi-element sample programs means that there is limited information to determine the characteristics of gold soil anomalies and which elements other than copper indicate anomalies. A soil survey in 2018 produced gold results from 1 to 109 ppb and one in 2019 from 0.5 to 68.6 ppb. An anomalous, single soil sample from Zone A at Carmacks North returned 594.3 ppb Au during the 2020 field campaign (James and Grigutis, 2020).

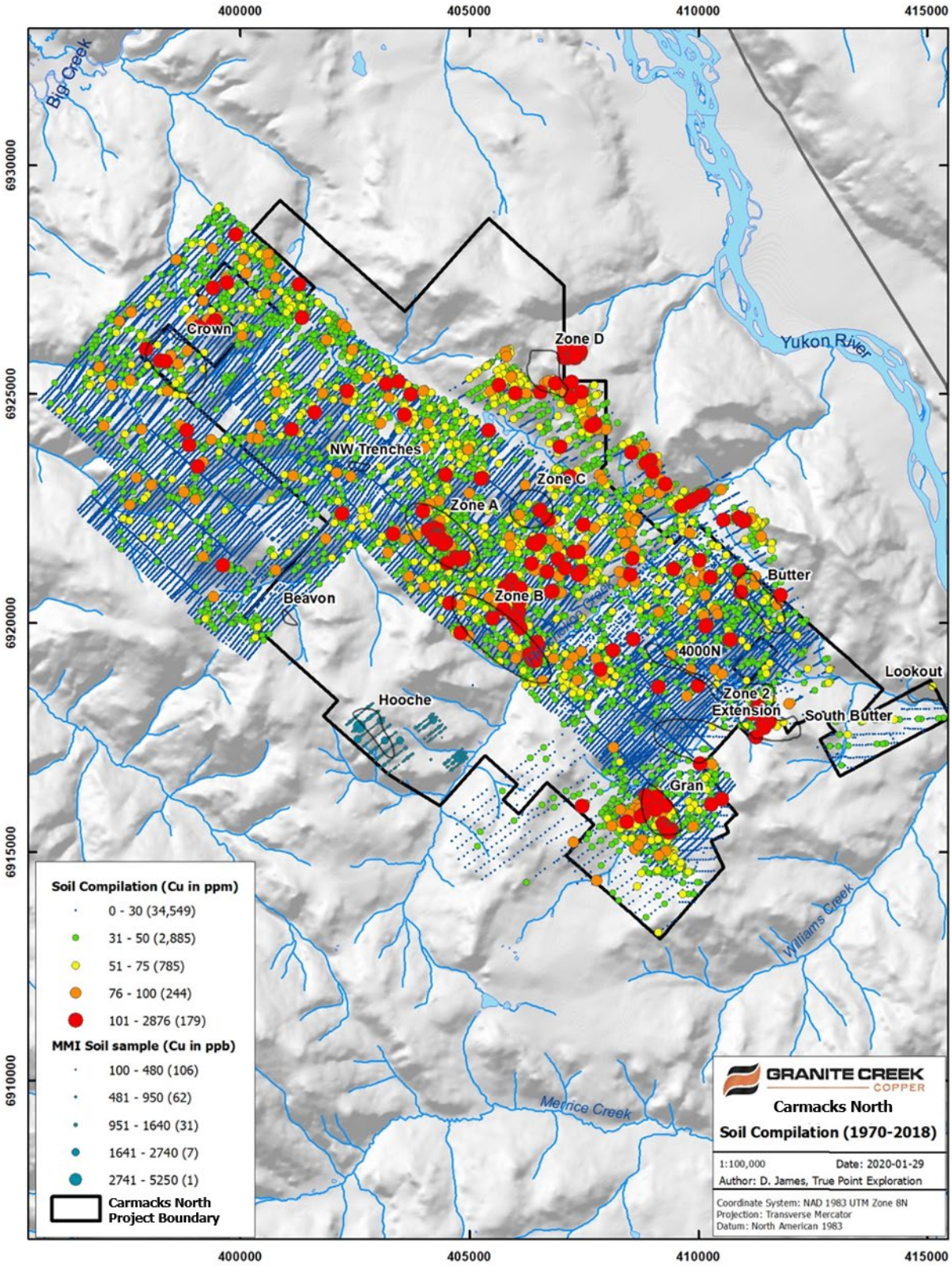

Figure 5-1: Compilation work of historic soil samples from 1970-2018 taken on the Carmacks North property

5.4 Trenching

UKHM carried out bulldozer trenching programs in 1979 and 1982 over four geochemical and/or geophysical anomalies in Zones A, B and C. Nine bulldozer trenches were dug in Zone A to expose 900m of strike length. No results are available, but the best trench intersection was 0.19% copper over 15m (Ouellette, 1989). Similar results were returned from the 2015 resampling program.

In 2014, systematic hand trenching was done over the Nic showing 200m along the eastern side of Zone A. Four 2-8m long northeast trending hand trenches were dug about 10m apart and 19 rock samples were collected. Significant results were obtained from 3 of the 4 trenches (Table 4-3). The northernmost trench (14-03) intersected a 5m zone of unmineralized granodiorite cut by a 1m wide diorite dyke.

In Zone B, 14 bulldozer trenches were excavated in 1979 and 1982 and up to 2% malachite over 0.5m in gneiss was observed (Joy, 1979, referenced in Ouellette, 1989). Recent trench work has revealed similar narrow zones of malachite.

Selected trenches in Zones A and B were deepened, extended and new trenches were dug with an excavator in 2015. Mineralized zones in trenches were chip sampled, and XRF readings were taken at 5m intervals along the length of the trench. In all, 97 samples were collected, 6 grab samples and 91 chip samples between 0.5-3m long, averaging 1.8 m long.

Three trenches over 350m of strike length were excavated in Zone C in 1979, and no further trenching has been done since. There are 3 short trenches in the Northwest Zone, exposing mostly glacial till

Table 5-3: Selected results from trench samples.

Zone	Trench	Type	Cu (%)	Ag (g/t)	Au (g/t)	Sample length	comments
A	2015A	New	0.11				4 other samples >100ppm Cu
A	1150W	Deepened	0.27			1.1	4 other samples >100ppm Cu
A	1150WExt	New	0.12			5.5	8 other samples >100ppm Cu
A	2015-800W	Deepened	0.14 0.33			9.0 10.8	3 other samples >100ppm Cu
A	600W	Deepened	0.18			29.0	5 other samples >100ppm Cu
A	14-01	New	0.55	1.9	0.27	6.0	
A	14-02	New	0.49	2.2	0.33	3.5	
A	14-04	New	0.36	1.3	0.16	4.0	
B	B1	Deepened	0.12			2.0	2 other samples >100ppm

5.5 Drilling

There were two programs of historic drilling on the Carmacks North property. The first was a diamond drilling program in 1980 on Zones A and C, and the second a RAB drill program in 1989 on Zone B. Recently in 2020, during a Phase 2 fall drill program, following up on information gathered during a Phase 1 re-logging and soil sampling program, Granite Creek drilled 3x diamond holes at Zone A (this report).

5.5.1 Diamond Drilling

Approximately 4500 metres of diamond drilling was done by UKHM in 1980 in Zones A and C. Core from the program is stored near the historic camp at Zone A and in 2015 the racks were disassembled and most of the core rehabilitated. Historical drill logs and assay results for the 1980 program are incomplete; the key reports describing the trenching and drilling program were not filed for assessment. Diamond drill sections with geology, alteration, assay results, mineralization and structure have been recovered from the UKHM archives. The information from these sections has been entered into a drill database and converted into metric and work is ongoing towards merging the 2020 relogging and reassaying work with the 1980 work.

There are three high grade composite intersections from Zone A which have been rehabilitated during the 2020 Phase 1 relogging and resampling program, the core was packaged and slung back to the Carmacks trailer camp. Holes 80-09, 80-18 and 7x other diamond drillholes were relogged and resampled during the Phase 1 program (James and Grigutis, 2020). Sample and assay data from DDH 80-14 was not needed to fulfill the assessment report requirements set out in this report. Although, 80-14 data is provided. Diamond drill hole 80-14 was relogged and partially resampled during the Phase 2 program. The 80-14 values below are based on composite assays **(Appendix B)** which combine the 1980s assays with the partial 2020 assays:

- 80-09 3.44% Cu, 1.87 g/t Au, 13.37 g/t Ag over 13.5m
- 80-14 3.51% Cu, 2.49 g/t Au, 18.35 g/t Ag over 13.5 m
- 80-18 2.80% Cu, 4.04 g/t Au, 17.42 g/t Ag over 12.5m.

Drillhole 80-17 was a deep hole (426m), drilled behind and beneath hole 80-14, presumably as a follow-up beneath the high-grade intersection. From 376-401m the hole intersected 25m of 0.155% copper, 6.2 g/t silver and trace gold (UKHM, 1981), at 380m below surface.

In 2015, drillhole 80-6 was relogged and reassayed by geologists from the Yukon Geological Survey (Sack et al., 2015). Sampling from 11.58-35.66 m (24.08m sample length not true width) ranged from 0.03% to 0.34% Cu, averaging 0.18% Cu over the entire interval. A second interval from 52.43-55.78 m averaged 0.46% Cu over 3.35 m (sample width not true width).

Three holes were drilled in Zone C, but no mineralization was logged. There are 2-3 drill pads in Gran, either from the 1960s or the 1980s but no information has been found for these holes.

5.5.2 Percussion Drilling

In 1989, 30 percussion drill holes were drilled along trenches in Zone B. Most holes were oriented at 225° azimuth, with dips ranging from -49° to -63°. Three holes were oriented at 45°. Two to three holes were drilled 3 to 20m apart in each trench. Hole depths are 27 to 88m and the entire length of each hole was sampled in 5-foot (1.5m) intervals. Copper results were plotted onto sections, and copies of assay certificates are

available. Most holes intersected multiple zones with anomalous copper values ranging from 100-500 ppm. The zones can be traced from hole to hole in about half of the sections, but they do not always coincide with malachite occurrences in the trenches. The best results are:

- Hole SB-4 in trench 7600E 10 feet (3m) of 0.135% Cu
- Hole SB-6 in trench 7400E 5 feet (1.5m) of 0.71% Cu
- Hole SB-8 in trench B-1 5 feet (1.5m) of 0.11% Cu
- Hole SB-9 in trench B-1 5 feet (1.5m) of 0.23% Cu
- Hole SB-10 in trench B-1 5 feet (1.5 m) of 0.16% Cu

All lengths in the list above are sample lengths. The relation to true width is unknown but all holes were drilled perpendicular to mineralization.

5.6 Geophysical Surveys

Geophysical surveys have been carried out over the Stu Copper property since 1970, both ground and airborne surveys. Magnetometer, VLF-EM, DIGHEM and IP surveys have all been tried over the years.

In 2007, BC Gold carried out a 3295 km airborne magnetic and radiometric survey over an area extending from south of the Carmacks Project to north of the Carmacks North Property. Granite Creek has recently acquired all the digital data from this survey which was flown at 200m line spacing and 30m above the ground Exploration work at both Minto and Carmacks indicate that IP and Mag/VLF are effective exploration tools for identifying mineralization in the district, though results must be carefully interpreted because the oxide and sulphide mineralization has different geophysical signatures. Further testing of geophysics is required to determine suitable methods and assist in seeing through thicker areas of overburden in the southern part of Exploration work at both Minto and Carmacks indicate that IP and Mag/VLF are effective exploration tools for identifying mineralization in the district, though results must be carefully interpreted because the oxide and sulphide mineralization has different geophysical signatures. Further testing of geophysics is required to determine suitable methods and assist in seeing through thicker areas of overburden in the southern part of the property.

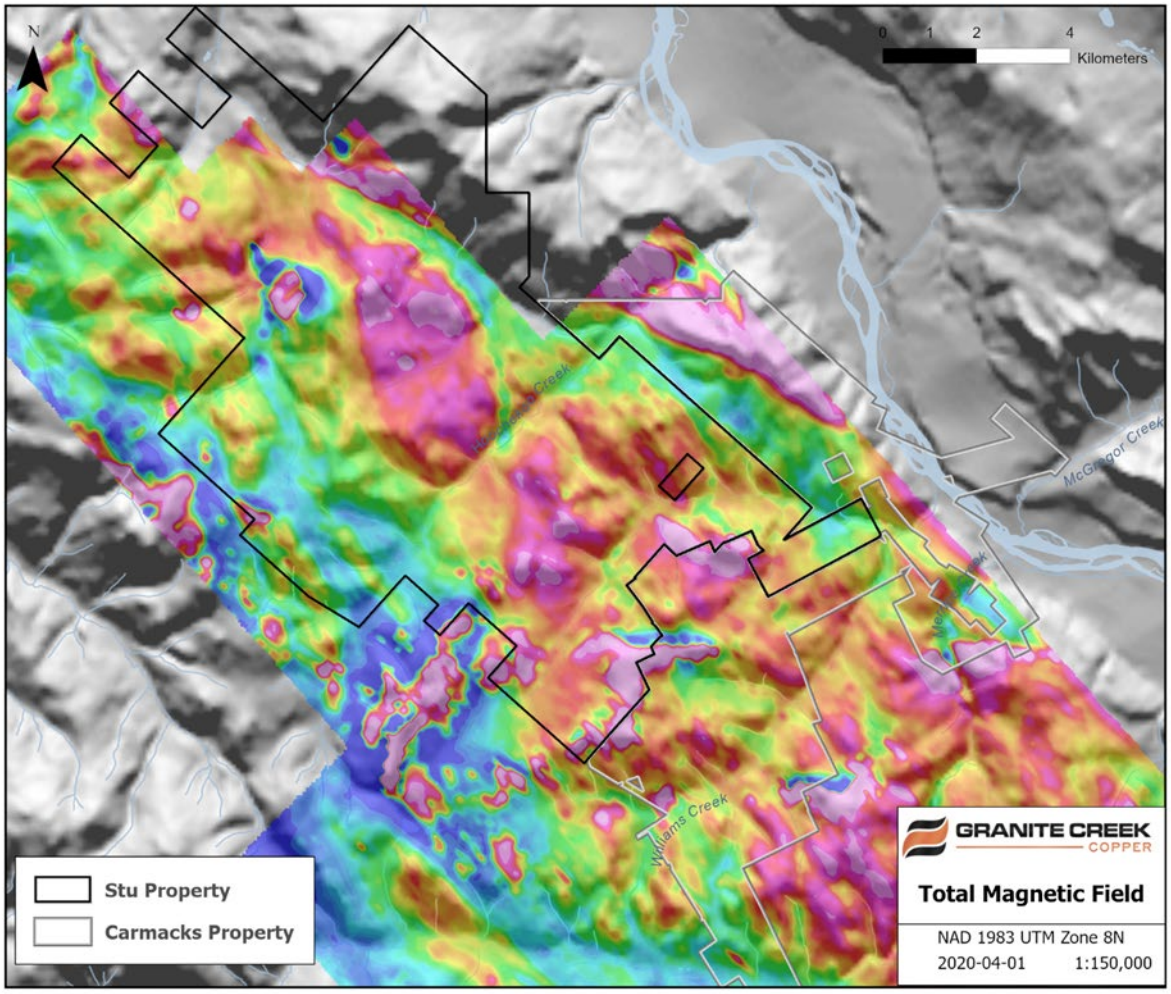

Figure 5-2: Total magnetic field survey data recently acquired by Granite Creek Copper.

6 Geological Setting and Mineralization

6.1 Regional Geology

The Carmacks North project lies within the northern cordillera of western North America, which was formed by accretion of terranes onto the western edge of ancestral North America. The Carmacks North property is located within the Intermontane terranes – a grouping of the Quesnellia, Stikinia and the older, mid-Paleozoic Yukon Tanana terranes (**Figure 6-1**). These terranes have been intruded by post-accretionary plutonic rocks and covered in part by younger volcanic rocks.

6.1.1 The Yukon Tanana Terrane (YTT)

The YTT is the oldest of the Intermontane terranes in Yukon. It is the largest terrane in Yukon and extends from northwest of the Yukon-Alaska border southeast to past the BC-Yukon border. In Yukon, it is bounded on the east side by the Tintina Fault, and on the west by the Denali Fault. The YTT forms a hinge zone around Stikinia and Quesnellia in the Carmacks Copper Belt. The YTT formed along the edge of the continental margin and rifted away from the continent during the mid-Paleozoic opening of the Slide Mountain ocean. In the early Mesozoic, a reversal in subduction closed the Slide Mountain ocean and moved YTT back onto the continental margin, partly covered by Stikinia and Quesnellia (Nelson et al., 2013).

6.1.2 Stikinia and Quesnellia Terranes

Stikinia and Quesnellia are two similar terranes that formed outbound of the ancestral North America, before being accreted onto the YTT and then onto the continent following the closing of the Slide Mountain ocean. They extend in a wide belt through the centre of B.C. from south of the US border up into the west central Yukon where they pinch out around the Carmacks North (formerly, Stu) property. Both are known for belts of Mesozoic intrusions cogenetic with thick volcano-sedimentary accumulations. Stikinia and Quesnellia are difficult to separate in the Yukon where they are not divided by the Slide Mountain terrane (Nelson et al, 2013).

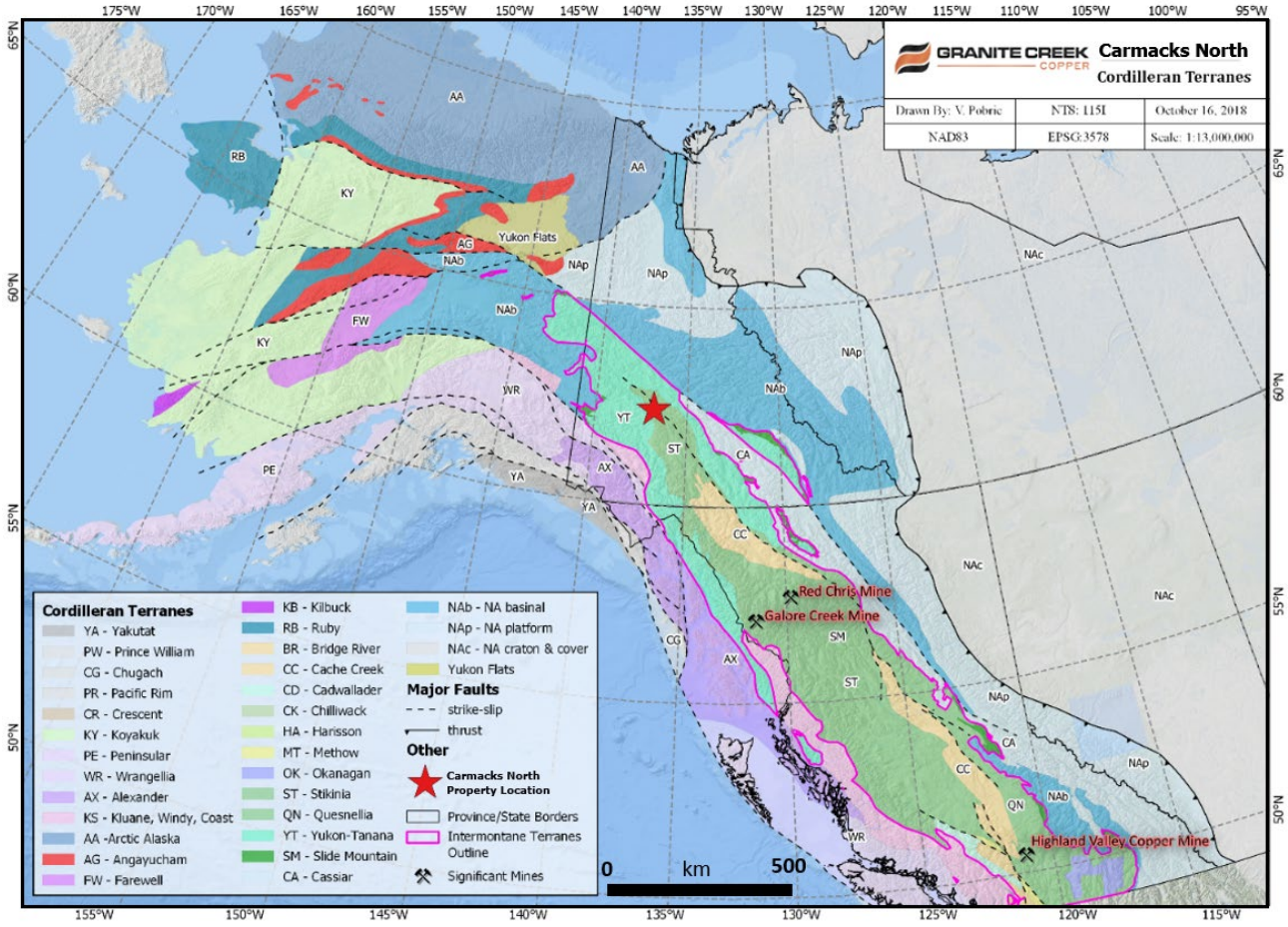

Figure 6-1: Terranes of Western North America. Location of the Carmacks North property

6.2 District Geology

The Carmacks North property lies within the Minto Copper Belt, a linear stretch of intrusion hosted Cu (+/- Au-Ag-Mo) mineralization in the Dawson Range, south-central Yukon Territory. Centered on the Minto Mine the belt extends from north of the Yukon/Pelly River confluence southeast to the community of Carmacks. The occurrences are hosted in, or close to the contacts of, intermediate to felsic intrusive and meta-intrusive rocks of the Early Jurassic Minto Suite. Minto Suite plutons are of biotite-hornblende granodiorite to quartz monzonite composition and intrude between Stikinia and the Yukon Tanana Terrane (YTT). The Hoocheekoo Fault runs northwest from near Minto to Carmacks North parallel to the regional strike slip Teslin Fault which forms the valley of the Yukon River. The Hoocheekoo Fault positions Minto Suite intrusive rocks against upper Triassic Povoas Formation (**Figure 6-2**).

Minto Suite members the Granite Mountain Batholith (GMB) and the Minto Pluton host the Minto and Carmacks deposits, and the Carmacks North (formerly, Stu) occurrences. The GMB is composed of two different igneous suites: The Early Jurassic Long Lake Suite (EJgL) on the western side and the late Triassic Minto Suite (LTrEJgM) on the east side, where the deposits occur. Younger volcanic rocks of the Carmacks Group and Selkirk Group overlie the GMB. The south end of the Minto pluton is separated from the GMB by an east-west normal fault, south of which lie Carmacks Group rocks.

On its west side the GMB intrudes Paleozoic metamorphic rocks of the Yukon Tanana Terrane. To the east the batholith is in fault contact with upper Triassic or older mafic volcanic rocks of Stikinia. South of Williams Creek the GMB is in normal fault contact with more Carmacks Group basalts along the Miller Fault.

There are two significant mineral properties in the Minto Copper Belt with the same style of mineralization as the Carmacks North project: The Minto mine (Minto Explorations Ltd. – Pembridge Resources) and the Carmacks deposit (Granite Creek Copper).

Recent work on the Minto and Carmacks deposits classifies the host rocks of the hypogene copper mineralization as metamorphic rocks. Kovacs' recent work on the Carmacks deposit suggests that mineralization is hosted in foliated, folded and variably migmatitic metamorphic inliers (Kovacs et al., 2017; 2018; 2020) derived from previously mineralized Povoas Formation slabs torn up during emplacement of the GMB (Kovacs, pers. comm). Hood et al., (2009) and Hood's 2012 study on the Minto deposit postulates that the host rocks were emplaced into an actively deforming environment, producing sheared host rocks separated by non-sheared barren granodiorites (Hood et al., 2009; Hood, 2012)

Adjoining the southern claims of the Carmacks North project is Granite Creek Copper's (formerly, Copper North Mining Corp's.) Carmacks deposit. The resources and reserves listed in the tables below are proof of the mineral endowment of the Minto Copper Belt.

Table 6-1: Mineral Resource Statement of the Carmacks deposit, as of January 25, 2016 (Table 14.15 from Arseneau, 2016)

Zone	Resource domain	Class	Tonnage (t)	Total Cu (%)	Acid-soluble Cu (%)	Au (g/t)	Ag (g/t)	Sulphide Cu (%)
Total Mineral Resource for zones 1, 4, 7, 7A, 12, 13 and 2000S	Oxide and Transition resources	Measured	6,484,040	0.86	0.69	0.414	4.235	0.17
		Indicated	9,206,343	0.97	0.77	0.357	3.796	0.20
		ME + IN	15,690,383	0.94	0.74	0.379	3.971	0.20
		Inferred	912,614	0.45	0.30	0.119	1.900	0.15
	Sulphide Mineral resources	Measured	1,381,329	0.64	0.05	0.185	2.166	0.59
		Indicated	6,686,922	0.69	0.04	0.172	2.344	0.65
		ME + IN	8,068,252	0.68	0.05	0.178	2.332	0.65
		Inferred	8,406,835	0.63	0.03	0.150	1.994	0.61

The Minto mine is located 30km north of the Carmacks North project. The Minto deposit is spread over a series of high-grade areas interspersed with large deposits of low-grade material. The mine started development in February 2006 as an open pit operation and added underground development in September 2012. Production to date is approximately 471 million pounds of contained copper. Estimated mineral reserves and resources as of December 31, 2017 are listed in the tables below.

Table 6-2: Mineral Reserve Totals at Minto, as of May 31, 2019 (Table 9 - Schulze, 2019)

Classification	Tonnes (kt)	Cu grade (%)	Ag Grade (g/t)	Au Grade (g/t)	Contained Copper (kt)	Contained Silver (koz)	Contained gold (koz)
Proven	412	1.12	3.1	0.25	5	40	3
Probable	1,951	1.79	6	0.67	35	380	42
Total Mineral Reserves	**2,363**	**1.68**	**6**	**0.6**	**40**	**420**	**45**

Mineral resources have been estimated in conformity with generally accepted Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with Canadian Securities Administrators' National Instrument 43-101 and using CIM Definition Standards.

Table 6-3: Total Mineral Resources at Minto, as of May 31, 2019 (Table 7 – Schulze, 2019)

Classification	Tonnes (kt)	Copper (%)	Silver (g/t)	Gold (g/t)	Contained Copper (kt)	Contained Silver (koz)	Contained gold (koz)
Total Measured Resources	3,795	1.20	3.35	0.38	46	409	47
Total Indicated Resources	11,242	1.46	5.26	0.60	164	1,901	21
Total Measured + Indicated	**15,037**	**1.40**	**4.78**	**0.54**	**210**	**2,310**	**263**
Total Inferred Resources	**6,100**	**1.42**	**4.79**	**0.51**	**86**	**939**	**100**

Mineral resources have been estimated in conformity with generally accepted Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with Canadian Securities Administrators' National Instrument 43-101 and using CIM Definition Standards.

6.3 Property Geology

On the Carmacks North property, the Minto Suite granitoid is the dominant host-rock. The granitoid contains lenses of foliated-to-gneissic, quartz-feldspar-hornblende-biotite granodiorite, which host mineralization on the property. The Minto Suite granitoid host and the foliated-to-gneissic lenses are themselves cut by aplite, microgranite and pegmatite dykes. Locally, several pegmatitic dykes and veinlets did contain trace amounts of Galena – possibly a minor, late-stage mineralization event not well understood. Locally outcrops of Carmacks volcanics and mafic intrusions overlie and intrude the Minto Suite granitoid and foliated granodiorite rock types (**Figure 6-3**). Compilation of historic mapping for the claims is ongoing with the recent acquisition of Copper North Mining Corp's database.

The most common phase of the granodiorite is dark-grey to medium-grey on weathered surfaces and grey-white to light-grey on fresh surfaces. The granodiorite is medium-grained with lesser fine-grained to coarse-grained occurrences. The granodiorite is commonly porphyritic with 5-15% potassium feldspar phenocrysts (cm-scale), although granodiorite sections that lack cm-scale potassium feldspar phenocrysts have been observed. The foliated granodiorite lenses have a slightly higher mafic content, expressing a weak-to-strong foliation of mafic minerals with mineralization foliation-parallel. The gneissic phase is fine- to medium-grained with a moderate to strong foliation or banding. An extreme variation in mafic content has been observed. The genesis of the foliation or gneissic texture is unclear, but recent work by Kovacs suggests it is a mixture of migmatized, Povoas Formation inliers that are interweaved with the GMB host (Kovacs et al., 2017; 2018; 2020). Where this gneissic or banding texture is seen at Minto, it is classified as the assimilation zone (ASMZ) and is similar in appearance and copper grade.

6.3.1 Structural Geology

The dominant structural direction is northwest, parallel to the Teslin Fault. Foliation, fractures, structural zones and contacts tend to parallel this direction which appears to control mineralization. The exception is the diorite and gabbro intrusions that have north-easterly trending contacts with the granodiorite. In Zone C foliation trends northwest and dips steeply southwest, in Zones A and B it trends 130 and dip on average 70° northeast. The Hoocheekoo Fault runs northwest through the eastern claims, separating the GMB from the Povoas Formation (**Figure 6-2**). Smaller east-west cross structures are expressed as creeks such as; Camp, Nancy Lee and Hoocheekoo. Feldspar phenocrysts, mafic minerals and mafic schlieren in the GMB are aligned parallel to the dominant direction.

Easterly to north-easterly trending younger, post-mineralization brittle faults such as the DEF fault north of Minto, the unnamed normal fault south of Minto and the Miller Fault south of the Carmacks deposit have down dropped and rotated large blocks of ground. This block faulting may have caused the difference between flatter ore zones at Minto and steeper zones at the Carmacks deposit. Block faulting can cause large degrees of rotation within a short distance as shown by younger sedimentary units at Minto that have been tilted up to 60° (Tafti and Mortensen, 2004). At Carmacks North Hoocheekoo Creek and possibly Camp and Nancy Lee Creeks could be linear surface expressions of these structures.

6.3.2 Alteration

Alteration at Carmacks North is biotite-rich lenses and potassic flooding, similar to Minto. Airborne radiometric and residual total field maps (Shives et al., 2002) show zones of increased potassium values and higher magnetic field levels proximal to the Minto mine. A slightly weaker and dissected version of this

pattern is repeated at the Carmacks North property. The main alteration mineral is an increase in biotite abundance, followed by magnetite, quartz and secondary potassium feldspar overgrowths on plagioclase (Hood, 2012).

Alteration phases at Carmacks include local potassic alteration and hematization related to mineralization and epidote (propylitic) and local potassic related to the intrusion of post-mineralization pegmatite dykes (Milton, 2016). Alteration of mafic minerals to chlorite/micas and eventually clays, hornblende to biotite, rare garnets, carbonate and anhydrite appear related to assimilation and metasomatism of gneiss units (Casselman and Arseneau, 2011).

A north trending zone of intense alteration is mapped through Zone A. Two lineaments along aeromagnetic lows intersect at Zone A, one north trending and the other northwest trending. In lineaments. Whether the clay zones are caused by faulting or alteration is yet to be determined. No historic alteration studies have been carried out at Carmacks North. Although, during the Phase 1 field program at Carmacks North (2020 YMEP, Carmacks North Copper Project) work was focused on better understanding the alteration suites at Zone A, through systematic relogging, resampling and reassaying of the 1980s drill core. A TerraSpec Halo handheld spectrometer was used, and after analysis of spectral data it was concluded that alteration was quite complex, masked by oxidation and weathering of historic core, and no concrete vectors towards higher grade mineralized intercepts were proposed (James and Grigutis, 2020).

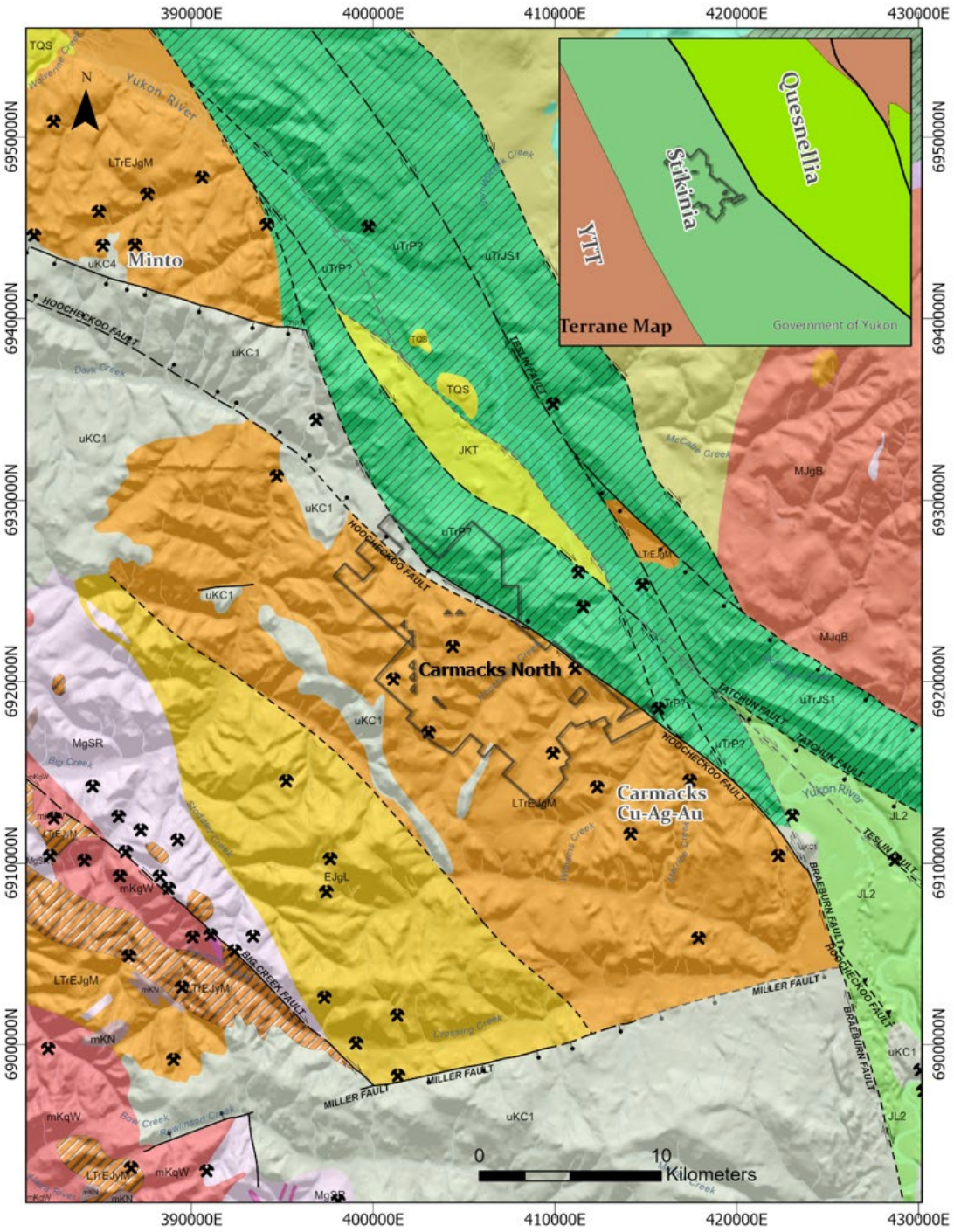

Figure 6-2: District Geology of the Minto Copper Belt from Yukon Geological Survey files. Location of Granite Creek Copper's, Carmacks North project (boundary outlined) and Carmacks deposit. Refer to legend on following page

Tenure

Carmacks North Claim Boundary

Geology

Minfile Occurence

Bedrock Polygons

TERTIARY(?) AND QUATERNARY

- TQS: SELKIRK: columnar jointed, vesicular to massive basalt flows

LOWER TERTIARY, MOSTLY(?) EOCENE

- ITR2: ROSS: rhyolite flows, tuff, ash-flow tuff and breccia

MID-CRETACEOUS

- mKdW: WHITEHORSE SUITE: Hbl diorite, Bt-Hbl quartz diorite

UPPER CRETACEOUS

- uKC1: CARMACKS: augite-olivine basalt and breccia
- uKC5: CARMACKS: gabbro and monzonite bodies

UPPER JURASSIC AND LOWER CRETACEOUS

- JKT: TANTALUS: chert pebble conglomerate and gritty quartz-chert-feldspar sandstone

MID-JURASSIC

- MJqB: BRYDE SUITE: leucocratic monzonite, syenite and granite
- MJgB: BRYDE SUITE: Hbl monzodiorite, Hbl-Bt quartz monzodiorite, minor hornblendite

LOWER AND MIDDLE JURASSIC, HETTANGIAN TO BAJOCIAN

- JL2: TANGLEFOOT: arkosic sandstone and minor shale, pebble and boulder conglomerate

EARLY JURASSIC

- EJgL: LONG LAKE SUITE: massive to weakly foliated Bt-Hbl granodiorite
- EJqL2: LONG LAKE SUITE: Bt, Bt-Ms and Bt-Hbl quartz monzonite to granite

LATE TRIASSIC TO EARLY JURASSIC

- LTrEJgM: MINTO SUITE: foliated Bt-Hbl granodiorite; Bt-rich screens and gneissic schlieren
- LTrEJgbM: MINTO SUITE: Hbl gabbro

UPPER TRIASSIC, CARNIAN TO NORIAN

- uTrAK2: HANCOCK: massive to thick-bedded limestone

UPPER TRIASSIC, CARNIAN AND OLDER (?)

- uTrP?: POVOAS: augite or feldspar-phyric andesitic basalt flows, breccia, tuff, sandstone, argillite

UPPER TRIASSIC TO LOWER JURASSIC

- uTrJS1: SEMENOF: augite-phyric basalt flow and agglomerate, andesite

UPPER CARBONIFEROUS, LOWER AND MIDDLE PENNSYLVANIAN

- uCB1: BOSWELL: siliceous argillite, siltstone, sandstone, chert conglomerate, volcanic breccia
- uCB3: BOSWELL: micritic limestone, bioclastic limestone, marble
- PngK: KELLY SUITE: strongly foliated Hbl ± Bt tonalite, Hbl diorite to granodiorite

CARBONIFEROUS TO PERMIAN

- CPSM4: SLIDE MOUNTAIN: brown weathering, variably serpentinized ultramafic rocks

MISSISSIPPIAN

- MgSR: SIMPSON RANGE SUITE: Hbl-bearing metagranodiorite, metadiorite and metatonalite

DEVONIAN, MISSISSIPPIAN AND(?) OLDER

- uDMM1: MOOSE: massive and pillow basalt, amphibolite and greenstone

NEOPROTEROZOIC AND PALEOZOIC

- PDS1: SNOWCAP: quartzite, psammite, pelite and marble; minor greenstone and amphibolite
- PDS2: SNOWCAP: light grey to buff weathering marble
- <all other values>

Yukon Faults

- normal, , approximate
- normal, , covered
- normal, , defined
- normal, , inferred
- strike slip, dextral, approximate
- strike slip, dextral, covered
- strike slip, dextral, defined
- strike slip, dextral, inferred
- thrust, , approximate
- thrust, , inferred
- unknown, , approximate
- unknown, , inferred

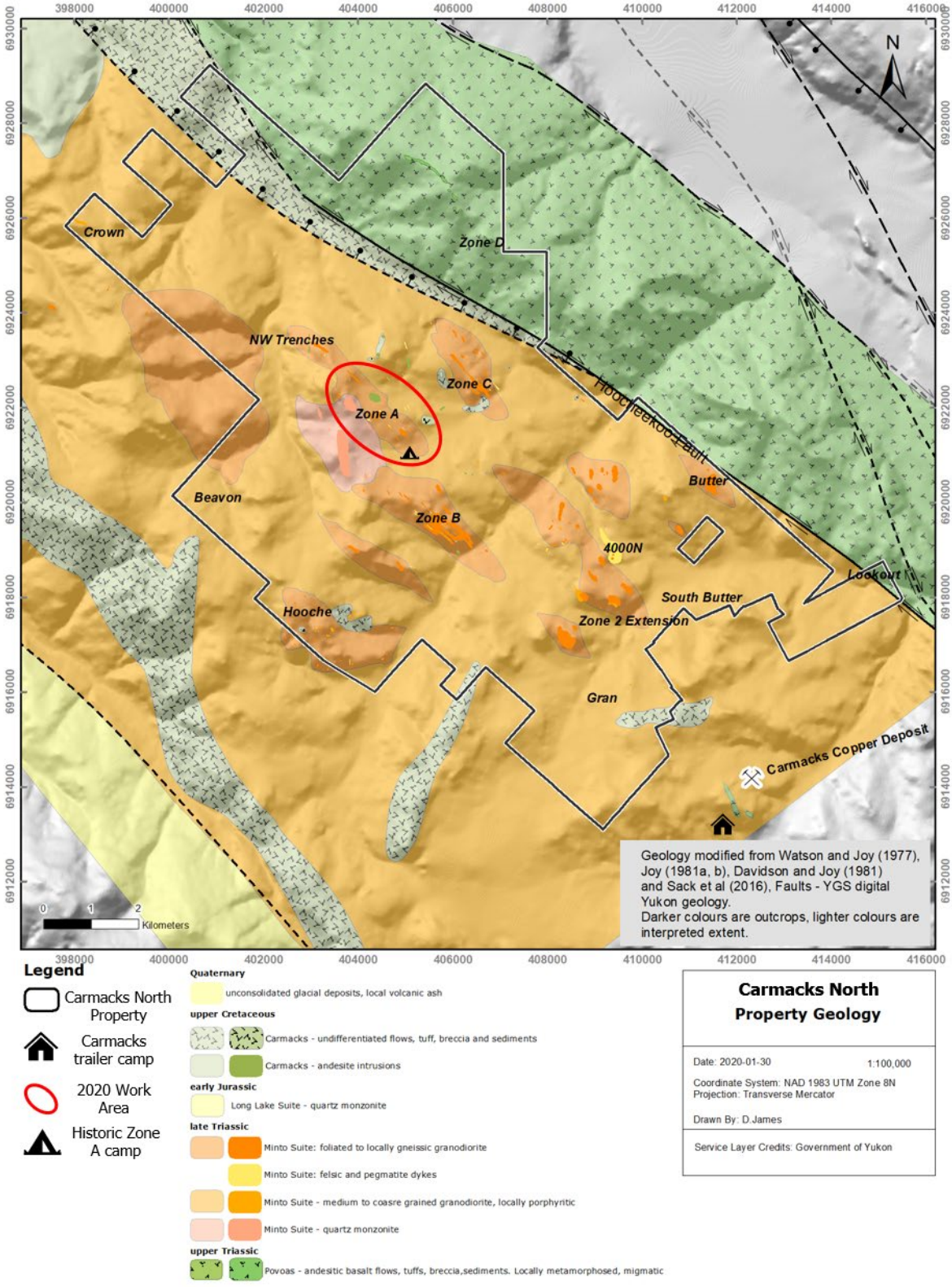

Figure 6-3: Carmacks North Property Geology Map

6.4 Mineralization and Showings

The deposit type at Carmacks North is a variation of that seen at Minto mine (Minto Explorations Ltd. – Pembridge Resources) and the Carmacks deposit (Granite Creek Copper), although there is no broad agreement on the classification for those deposits. Over its history, the Minto deposit has been classified as a metamorphosed or digested redbed copper deposit, metamorphosed volcanogenic massive sulphide deposit, deformed copper-gold porphyry, magnetite skarn, iron-oxide copper gold (IOCG) and a shear-hosted deep porphyry. Regardless of the label, there is a consensus that the deposits formed at crustal levels deeper than 20 km, within the ductile deformation realm, and that a strong structural control on mineralization is present. The Minto deposit is considered a variant of the porphyry model (**Figure 6-4**).

Nelson et al. (2013) describes the Minto and Carmacks deposits as probably representing the deeper levels of the British Columbian porphyries or an IOCG system. Recent thesis work by Nikolett Kovacs on the Carmacks deposit assigns the deposit to the same deep-seated B.C. alkalic porphyry model, although migmatized and enriched by ingestion of a previously mineralized protolith at high-temperatures (Kovacs, 2018).

Copper mineralization (with lesser Au, Ag or Mo) is contained in foliated- to gneissic-granodiorite, formed either as shear zones like at Minto mine (Hood et al., 2009; Hood, 2012), or as assimilation zones (ASMZ) where migmatites and granodiorites were mixed and interweaved, according to Kovac's interpretation at the Carmacks deposit (Kovacs et al., 2017; 2018).

There are 10 named mineralized zones or occurrences within the current Carmacks North property (**Figure 6-3**). In all zones with exposed bedrock, foliation of the granodiorite host strikes northwest. In Zones A and B, the dip is moderately to steeply northeast and in Zone C steeply southwest. Copper sulphides occur within the foliated and gneissic granodiorite where they replace or align along foliation to mafic minerals. Copper oxides have in turn replaced the copper sulphides where the mineralization has been exposed to oxidation (supergene phase). Copper-bearing sulfide and oxide minerals; malachite, azurite, chrysocolla, chalcopyrite, bornite, chalcocite and tenorite (copper wad), have been observed in hand samples and drill core. Magnetite is locally abundant in both mineralized and unmineralized host granodiorite. The highest gold and silver values are associated with bornite-rich sections.

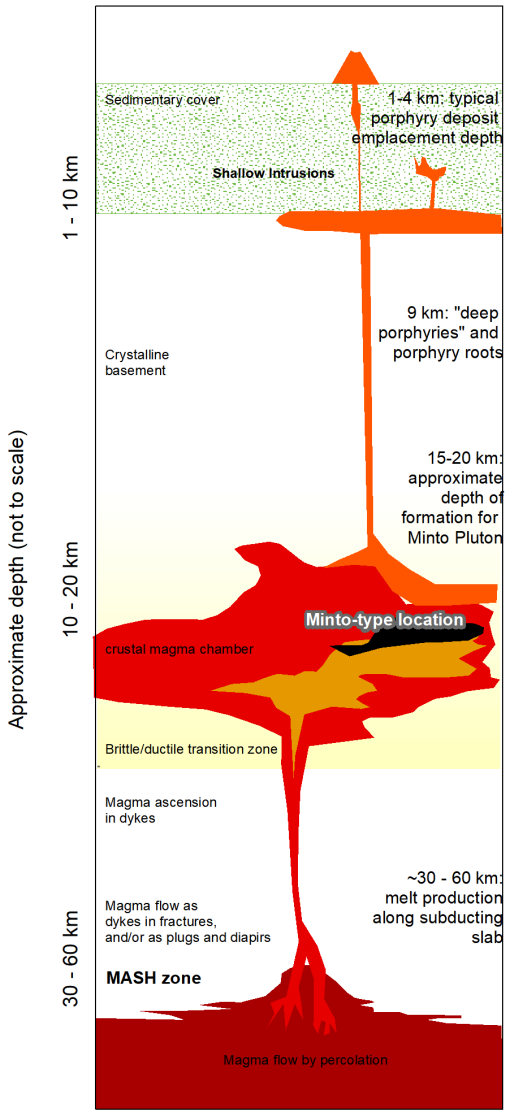

Figure 6-4: Simplified diagram of a deep-seated Minto-type porphyry model (Revised from Hood, 2012)

Both the foliated- and gneissic-phases host copper mineralization, the latter interpreted as being a more extreme version of the former. In trenches and outcrop, resistant reefs of silicified gneiss or foliated granodiorite occur which have more chalcopyrite and bornite compared to non-siliceous sections. These reefs are resistant to weathering and form outcropping ridges in Zones A, B and C and low ridges along trench floors.

Additionally, much of the exposed portion of the Carmacks deposit to the South is oxidized from 30-100m below surface, and the rock is weathered and permeable. A few primary sulphides are found in the oxide zone and form disseminations or narrow massive bands. Gold concentrations are also higher in the oxidized portions, as opposed to the underlying unoxidized sulfides. Secondary mineralization is not restricted to a single rock type and has migrated from its source in the supergene layer (Casselman and Arseneau, 2011). Migration of supergene mineralization has not been observed as frequently at Carmacks North, where mineralization occurs almost exclusively in foliated or gneissic granodiorite. Although, exposed faults in trenches show percolation and concentration of copper oxides in faults adjacent to mineralized, foliated granodiorite lenses.

6.4.1 Zone A

Zone A in the centre of the Carmacks North property is the largest zone and has the most extensive exploration history. Most work was done by bulldozer trenching and diamond drilling. Historically Zone A extended for 1 km based on trench and drillhole locations, though incomplete historic assay results cannot confirm if there was mineralization in all trenches and drillholes. The intersection of two north-northwest trending magnetic lineaments are coincident with Zone A.

In 2015, three old trenches were deepened, and two new trenches were dug over a 350m area at the north end of the zone. Surface work has confirmed 350m of mineralization from trench 400W to trench 2015A. Mineralization is open ended and further trenching (infill trenches, deepening old trenches and extending old trenches) is required to extend the mineralization to the 1 km extent reported in historic reports.

Copper grades of 2.8 to 3.5% were returned over 12 to 14m widths in drill core (widths are reported sample lengths from composite samples and the true thickness is unknow). On surface, Cu grades over similar widths are less than 0.4%. A similar relationship is seen with Ag and Au. Increased amounts of bornite and chalcopyrite below the oxidized layer may account for the higher subsurface grades when compared to surface grades.

In 2020, the Q2-Q3 Phase 1 relogging and soil sampling program (2020 YMEP, Carmacks North Copper Project) revealed soil samples with clusters between 30-84ppm Cu and a single, anomalous soil sample with 594.3 ppb Au (James and Grigutis, 2020). These results are indicative of the mineralization at the Zone A target. A Q3-Q4 Phase 2 drilling program was also commenced at Zone A, which saw three diamond drill holes totalling ~540m. intersect multiple lenses of copper mineralization.

6.4.2 Zone B

Zone B has the most rock exposure and the largest mapped extent of assimilation zone (ASMZ) rocks. Mineralization in Zone B is locally high-grade over narrow widths and limited percussion drilling did not show consistency below surface. A sample collected from Trench B1 in 2013 ran >1% Cu, 14.8 g/t Ag and 0.553 g/t Au over 0.5m (the sample was overlimit for Cu, but not assayed), and a sample from Trench B3 ran 0.55% Cu

and 4.4 g/t Ag over 2m. In 2015 selected trenches were deepened and 2 new trenches were dug. Zone B may be down dropped and potentially rotated from Zones A and C, exposing a higher level of the mineralized system, prone to more oxidation and migration of copper minerals like at Carmacks.

6.4.3 Zone C

Zone C was first discovered by Hudson's Bay in 1971 as a copper in soil anomaly coincident with electromagnetic anomalies. It shows 110m of mineralization between trenches 9+50E and 14+50E reaching a width of 25-30m in trench 14+50E. The zone is open at both ends. Mineralization is significant with values up to 1.59% Cu and 3.7 g/t Au along northwest trending fractures.

Three trenches over 350m of strike length were excavated in 1979 over the northwest showing, but none over the southeast showing. No results are available and no new trenching has been done in this zone. Three holes were drilled in 1980 but did not intersect mineralization. All holes were drilled to the southeast, which may be parallel to the orientation of the foliated zones.

This zone has received the least work of the three; there are only 4 trenches and the second outcrop showing near Camp Creek does not appear to have been trenched. Although small the zone has high copper values along with gold up to 3.7 g/t (sample 526140) and silver up to 15.09 g/t (historic sample 2512). Repeated rock sampling in trenches 11+50E and 14+50E has returned samples in the 0.3-1.6% copper range. UKHM mapping shows that foliated granodiorite continues either side of the trenched area.

6.4.4 Zone D

Zone D was discovered in 2011 by Northern Tiger Resources during a soil sampling and mapping program on the DEL claims (Pollries and Ouellette, 2013). Zone D is located 350 southwest of an anomalous soil grid (As, Bi and Mo) and is described as a 25cm malachite-bearing fracture zone oriented 160/70 NW hosted in an andesite augite-feldspar porphyry outcrop (**Figure 6-5**). A 30 cm chip sample across the fracture zone ran 0.972% Cu and 0.741 g/t Au. Following compilation work in 2019 which highlighted a significant soil anomaly in the area, the Zone was visited, sampled and 54 soil samples were collected. The location, description and tenor of mineralization was confirmed with the best rock sample running 0.737% Cu and 0.407 g/t Au.

Figure 6-5: Andesite porphyry from Zone D with malachite and hematite staining. Sample 148709 ran 0.74% Cu and 0.406 g/t Au

6.4.5 Gran/Zone 3

The Gran occurrence is a weak magnetic anomaly associated with moderate to highly anomalous copper in soil values. It covers a loosely defined area approximately 1000m long by 600m wide. Two to

three drill pads and nine trenches are in the general area, most likely from work by UKHM in 1982. In 2018 a soil sample grid delineated a weak copper in soil anomaly northwest of Gran (James, 2019).

6.4.6 Butter

The Butter showing is a 450m long MMI copper in soil anomaly on the east side of the Property. It is in the same location as a set of historic copper in soil anomalies that correlated with a northwest trending magnetic anomaly attributed to the presence of amphibolite (Coughlan and Joy, 1981).

6.4.7 South Butter

The South Butter zone is located along the southern claim boundary against the Carmacks Property. It overlaps with northwest trending anomalous copper in soil values from UKHM's soil programs. In 2009, BC Gold found malachite bearing aplite with weak epidote and muscovite alteration trending 315°. A grab sample from a 0.5m subcrop exposure assayed 0.33% Cu (Pautler, 2015).

6.4.8 4000N

The 4000N zone is a 2 km long coincident copper in soil and geophysics anomaly that was detected by airborne geophysics in 1993 and followed up in 1994. The highest copper in soil value was 323 ppm (MacNaughton, 1994). Prospecting in 1994 did not locate any outcrop, but the area has been burnt since that time which may expose some outcrop. There is no record of further surface work on the zone, but an overgrown road/trail leads to within 1 km of the zone.

6.4.9 Zone 2 Extension

Zone 2 is the discovery outcrop located on Granite Creeks Carmacks deposit claims, about 200m south of the Carmacks North property boundary. Samples over the zone in the trench averaged 1.0% Cu over 45.7m. In 2014 Copper North returned to Zone 2 and expanded the strike length to 500m to the southeast through trenching and drilling on IP chargeability anomalies. Trenching on the north extension uncovered a cross fault which truncates the zone 20m northeast of the discovery outcrop.

The Carmacks deposit and claims, including Zone 2, are now owned by a common operator (Granite Creek Copper). Zone 2 Extension appears to be a truncated, offset extension of Zone 2. At the Carmacks deposit, some of the mineralized zones are offset by cross faults and that pattern may continue north of Zone 2. In 2019, 150 soil samples were collected along 4 lines, 1500m long and spaced 100 m apart along the southern border of the Carmacks North claims, where they adjoin to Granite Creek Coppers Carmacks deposit. Overall copper results were low, ranging from 12 to 47 ppm, with no obvious clustering or pattern of higher values. Gold results ranged from 0.5 to 68.6 ppb. Silver and molybdenum values were mostly below detection.

6.4.10 Hooche, Crown and Beavon

These three occurrences were added to the Carmacks North property in 2018. Foliated- to gneissic-granodiorite is mapped in the area. Additionally, soil coverage from UKHM and BC Gold, plus a minor amount of ground geophysics work by BC Gold has been done.

Three rock samples of foliated granodiorite and limonite, and 10 soil samples were collected from the Hooche Zone. None of the sample were anomalous, despite the relative abundance of foliated granodiorite. Hooche

was not sampled during the large soil surveys from the 1970s but was lightly tested with MMI soil sampling by BC Gold.

The Crown Zone at the northwest end of the property was chosen as a target following compilation of historic soil samples and a review of historic mapping. Historic mapping south of Crown and overlapping onto unstaked ground, showed a large area underlain by quart-feldspar gneiss, the favourable host rocks for Minto style mineralization. Twelve rock samples and 51 soil samples were collected. Two previously unknown trenches were found during the traverse. All rock samples collected in the area were low in copper and gold and no mineralization was seen in the trenches or in outcrop. Two samples, preliminarily mapped as amphibolites, ran anomalously in Ni, Mn, Fe, (+/- Zn, Ca, Cr, Mg) suggesting a mafic origin. Whether they are of Povoas origin is still to be determined.

The location of Beavon is uncertain. It is located south of a large area historically mapped as quartz feldspar gneiss but associated with only scattered soil anomalies. The showing was not visited in 2019 or 2020.

7 2020 Program

7.1 Overview

Between Sept 22 – Nov 7th, 2020 True Point Exploration contractors carried out a Phase 2 field program jointly on the Carmacks and Carmacks North (formerly, Stu) Projects, funded by Granite Creek Copper. The work outlined in this assessment report is regarding the Phase 2 drilling program at Zone A of Carmacks North, that was completed between Oct 02 – Oct 15, 2020 as outlined by the certificate of work **(Appendix D).** This Phase 2 drilling program compliments a Phase 1 relogging and soil sampling program (2020 YMEP, Carmacks North Copper Project) completed at the Carmacks North property earlier in the year (James and Grigutis, 2020).

The program was conducted during the COVID 19 pandemic and at the time, this included a mandatory 2-week quarantine for all workers mobilizing into camp, with no thru-traffic allowed in/out of camp during that 2-week period. The program was adjusted to conform with the COVID-19 regulations set-out by the Government of Yukon. No cases of sickness and/or COVID-19 related symptoms were reported by any workers at camp during the 2-week mandatory quarantine and throughout the timeline of both the Phase 1 and Phase 2 drilling programs.

During the Phase 2 program, three diamond drill holes (STU 20-001, 002, 003) totalling ~540 metres intersected multiple lenses of copper oxide and sulfide mineralization (Section 7.2).

Within the Phase 2 field program (Sept 22 – Nov 7th, 2020), only 14 days (Oct 02 – Oct 15, 2020) were needed to conduct the drilling program at Zone A of Carmacks North, and to satisfy the requirements for this asssessment report as outlined by the certificate of work **(Appendix D).** The program consisted of 169 person days (True Point and Kluane Drilling staff), with the average number of people in camp being 14. The cost was $229,418.86 CAD, which satisfied the work costs required as outlined in the Statement of Expenditures **(Appendix D).** The remainder of the program was allocated to pre-existing road care and maintenance, drill pad re-clearing, trenching and a drill program on Zone 13 at the Carmacks Project. This additional work occurred either prior to/and or post-dated the period outlined in the certificate of work (Oct 02 – Oct 15), and therefore was not needed to satisfy the original requirements of the assessment report. A future internal report will outline work completed on the Carmacks property including drilling of 2x diamond drill holes at Zone 13 and trenching at Zone A of Carmacks North. **Figure 6-3** shows the 2020 work area (Zone A) and location of the Historic Zone A and Carmacks trailer camps (core shack). **Table 3-2** and **Figure 3-4** outline the claims worked on.

7.2 Drilling

The diamond drill (KD-1000) (**Figure 7-1**), drill crew, 4WD trucks and UTVs/ATVs were mobilized into camp on October 2nd, 2020. Two diamond drill holes were drilled; STU20-001 and STU20-002, and where used to satisfy minimum requirements as outlined by the certificate of work **(Appendix D).** An additional hole, STU20-003, was also drilled, but costs were not required to satisfy any further assessment report requirements. **Figure 7-2** shows the drill traces and collar locations of STU20-002, 003 and historic drill hole 80-14. Drill hole STU20-001 had the same collar location and azimuth direction as STU20-002 but was drilled at a steeper inclination.

The drilling totalled ~540 metres and a total of 165 drill core samples were sent out for assays **(Appendix B).** The meterage came short of what was initially planned (~1000 metres) because of difficulties working in the snow and cold weather that came with drilling late in the season. The commute along the narrow dirt road

from the Carmacks trailer camp to access Zone A (~14km) was slow, especially during winter conditions. The water source for drilling was Camp Creek which was ~2km away from drilling operations and drill crews had issues with frozen water lines. The core had to be transported by UTVs/ATVs and 4WD trucks along the 14km dirt road to the Carmacks trailer camp (core shack) where it was logged and sampled.

The core was logged, sampled and assayed. Drill logs, assay data and collar info can be found in **Appendix B.** The historic soil anomalies over Zone A proved robust as multiple lenses between depths of 0 – 180m with significant Cu, Au and Ag values were intersected. Additionally, magnetic susceptibility readings, were recorded to better understand geophysical signatures of mineralized versus unmineralized host rocks; magnetic susceptibility data can be found in **Appendix C.** Magnetic susceptibility readings were generally lower in mineralized intervals compared to intrusive host rocks (potassium feldspar-phyric granodiorite and quartz diorite).

Mineralized intervals were commonly associated with strongly foliated granodiorite, termed 'assimilation zone' (ASMZ) rocks which are thought to resemble early-stages of migmatization. Mineralization proved to be structurally controlled, dominantly as foliation parallel stringers and blebs associated with mafic minerals. The dominant mineralization was a mixture between oxide- and sulfide-bearing; chalcopyrite, bornite, malachite, azurite and trace black Cu-sulfides. The granodiorite and specifically the foliated granodiorite (ASMZ) show a complex alteration footprint that is not well understood. Vectoring towards high-grade mineralization using alteration may prove difficult due to the deformed nature of the deposit.

The purpose of the drilling program was to advance Zone A exploration at the Carmacks North Project with an aim of completing a future inferred resource. Strip logs outlining lithology, magnetic susceptibility and Cu (%), Au (ppb) and Ag (ppm) values for the 3x drill holes and 80-14, can be found in **Appendix C**. The 2D subsurface cross-section plots can also be found in **Appendix C.** Several of the best intervals from STU20-001, 002 and 003.

Drillhole	From (m)	To (m)	Length* (m)	Cu (%)	Au (g/t)	Ag (g/t)
STU20-001	151.60	172.52	20.92	0.31	0.138	2.87
STU20-002	27.37	32.00	4.63	4.63	3.410	23.78
STU20-003	11.30	36.30	25.00	0.97	0.315	2.91
including	11.30	21.58	10.28	1.21	0.770	5.78

**Weighted average intercepts shown. Estimated true widths vary, but based on geological interpretation of cross-sections, are estimated to be typically 60-70% of the intersected widths (Taken from Granite Creek Copper's news release on Carmacks and Carmacks North drilling results on Feb 11, 2021). Source: https://gcxcopper.com/news/2021/granite-creek-copper-drills-127-meters-of-0.85-copper-equivalent-and-4.6-meters-of-7.51-cueq-at-carmacks-carmacks-north-project/*

Best interval from historic diamond drill hole 80-14 (based on composite assay data):

80-14: 3.51% Cu, 18.35 g/t Ag, 2.49 g/t Au over 13.5

As mentioned in Section 7.5 below, DDH 80-14 values are based on composite assays, which combine the 1980s assays with partial 2020 assays. The historic composite data had high-low detection limits for Au, and thus the Au values are overvalued.

Figure 7-1: Diamond drill rig (KD-1000) set up at Zone A on the Carmacks North property during the 2020 drilling campaign. Winter weather encroaches.

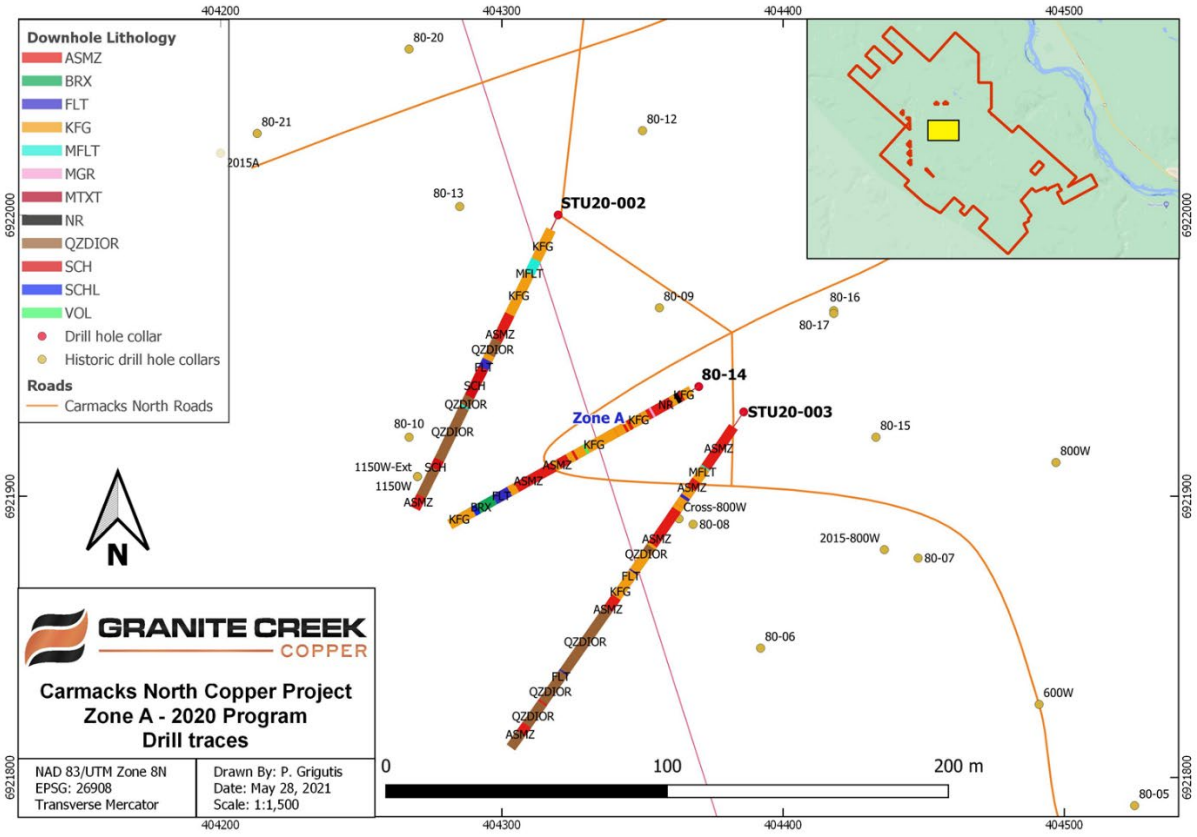

Figure 7-2: Drill traces of STU20-002, 003 and historic drill hole 80-14. Historic drill collars shown. Drill hole STU20-001 had the same collar location and azimuth direction as STU20-002 but was drilled at a steeper inclination.

7.3 Road maintenance and pad construction

There were 9km of pre-existing, overgrown roads that were reused by 4WD trucks and UTVs/ATVs to allow access from the Carmacks trailer camp to the drill sites at Zone A of Carmacks North. The excavator and bulldozers were mobilized into camp prior to the time period of this certificate of work. Road equipment consisted of: D6N bulldozer, D3 bulldozer, dump truck, 320 excavator and Hiab truck. Drainage was improved to reduce erosion. No rehabilitation was done because the pads and roads will be used again.

7.4 Zone A Trench (TRSTU20-001)

During the Phase 2 program, a single 23.5m trench (TRSTU20-001) was dug (E-W) on the eastern-side of Zone A, intersecting foliated granodiorite (trending NW-SE) with both oxide ± sulfide mineralization. Trench start coordinates: 08V, 404749E, 6921742N, 894 elev. Trench end coordinates: 08V, 404771E, 6921746N, 891 elev. Trench work occurred outside the time period outlined in the original certificate of work (Oct 02 – Oct 15th, 2020) and occurred in the broader time frame of the whole Phase 2 exploration program (Sept 22 – Nov 7th, 2020). Therefore, costs associated with trench work were not needed to satisfy the requirements for this assessment report as outlined by the certificate of work **(Appendix D).**

7.5 Additional relogging and resampling 1980s core

During the YMEP-supported 2020 Phase 1 relogging and resampling program at Carmacks North, a total of 9x historic drill holes were relogged and entirely resampled. This resulted in 712 total drill core samples collected and assayed (James and Grigutis, 2020). During the Phase 2 exploration program (Sept 22 – Nov 7th, 2020), an additional 1x historic 1980s hole (DDH 80-14) was relogged, and partially resampled and reassayed. The 80-14 assay values are based on composite assays **(Appendix B)** which combine the 1980s assays with the partial 2020 assays. Drill core from 0 – 34.44m in 80-14 was not resampled in 2020, and thus historic 1980s assay data is used to provide the assay results for this interval. The reasoning behind this was that the remainder of the 80-14 half-core would have had to be sent in for assays, leaving behind no core from 80-14. Since 0 - 34.44m in DDH 80-14 was an impressive historic interval, Granite Creek Copper technical staff decided to keep the remainder of the mineralized interval as a show piece.

The costs associated with relogging this hole were not needed to satisfy the requirements for this assessment report as outlined in the certificate of work **(Appendix D).** However, the strip logs **(Appendix C),** drill logs and composite assays **(Appendix B)** for the relogged and reassayed diamond drill hole 80-14 are attached to this report.

8 Interpretation and Conclusions

The Minto Copper Belt has been proven fertile, with one operating copper mine (Minto Mine – Pembridge Resources) and one advanced deposit (Carmacks deposit – Granite Creek Copper), with the latter working towards resource definition and future production. The Carmacks North property lies on strike between the two deposits. The host-rocks are similar in age and lithology, show complementary styles of mineralization, and copper values from limited drilling results are of comparable calibre.

The Carmacks North property is along a continuum of mineralization from the flat-lying, sulfide-dominant deposit at Minto mine, to the near vertical, oxide-dominated deposit at Carmacks. Since the last drilling program at Stu in 1989, work at the Minto mine and Carmacks deposit has added considerably more understanding of deposit characteristics and geometry, and these insights can be applied to exploration on the Carmacks North property.

The systematic 2020 YMEP supported Phase 1 remediation and relogging program saw 9x drill holes from the 1980s relogged and reassayed (James and Grigutis, 2020), with an additional historic drill hole (80-14) relogged and partially resampled during the Phase 2 drilling program (this report). Detailed geological understanding of the lithologies, structures and mineralization from the Phase 1 program aided in targeting for the Phase 2 drill program.

The Phase 2 drill program intersected several mineralized, N-NW trending lenses between 0-180m under the Zone A anomaly at the Carmacks North (formerly Stu) property. Mineralized intervals were commonly associated with strongly foliated granodiorite, termed ‘assimilation zone’ (ASMZ) rocks and are thought to resemble the onset of a migmatization footprint. Migmatites are reported throughout the Minto camp rocks, specifically at the Minto mine and at the Carmacks property. Mineralization on the property is structurally controlled, dominantly as foliation parallel stringers and blebs associated with mafic minerals (amphiboles, pyroxenes, biotite). The main mineralization observed is both copper oxides (malachite and azurite) and sulfides (chalcopyrite, bornite, molybdenite and trace black Cu-sulfides). Copper oxides at/near the surface, followed by sulfides down section. The historic soil anomalies over Zone A proved robust as multiple lenses between depths of 0 – 180m with significant Cu, Au and Ag values were intersected.

A dominant hypogene understanding of the mineralization exists, with polyphase deformation being hypothesized to align mineralized lenses along a N-NW trend. Post-ore modifying processes are believed to have played a key role in the distribution of the original metal endowment at the Carmacks and Carmacks North deposits. The Minto camp deposits, including the Carmacks North deposit, resemble porphyry Cu systems that have been deformed, digested and swallowed up by Early Jurassic intrusive rocks of the Granite Mountain Batholith (Kovacs et al., 2020).

9 Exploration Recommendations

Exploration recommendations include potential extensions of Zones A to the N-NW and E towards Zone C. During the Phase 2 program, one trench (TRSTU20-001) was successfully dug (E-W) on the eastern-side of Zone A, intersecting foliated and mineralized granodiorite (trending NW-SE) with both oxide ± sulfide mineralization. Future work at Zone A should follow up with continued mechanized trenching on the eastern-side of Zone A, to determine if possible mineralized lenses run parallel to, or feed into, the already known mineralized lenses drilled at Zone A. Several existing trenches at Zone A should be extended further eastward, as possible missed intersections with mineralized lenses are speculated. Several of these trenches are drill ready RC targets.

Due to the robust drilling results displaying both copper oxide and sulfide mineralization at Zone A, several soil anomalies to the north, west and east of Zone A (towards Zone C), should be followed up by mechanized trenching to test for new mineralized lenses. These areas are also candidates for possible ground geophysics (IP) and RC drilling. Additionally, several soil anomalies in Zones B and C should be prioritized for mechanized trenching. There is an outcrop at the southern end of Zone C that has not been trenched and further south there are soil anomalies between Camp Creek and Hoocheekoo Creek that could cover an extension of Zone C. Mapping shows foliated granodiorite in this area.

Property-wide compilation work of all trench locations, including cross-sections and whole rock assay data should be undertaken to better understand the extent of mineralization on the property. Not all historic trench data is available, therefore digitizing historic trench data and also deepening and re-mapping of historic trenches where data is missing is recommended.

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Granite Creek Copper https://www.gcxcopper.com/

APPENDIX A: Date, Signature and Certificate of Author

I, Deborah Ann Rachel James of 11-3194 Gibbins Road, Duncan, British Columbia, do hereby certify the following:

- I am a Professional Geoscientist in good standing with the Association of Professional Engineers and Geoscientists of B.C.
- I graduated from the University of British Columbia with a B.Sc. degree in Geological Sciences in 1988
- I have been employed continuously in the mineral exploration and mining industry since 2006 and have been practising my profession as a geologist continuously since 2006.
- I have worked in the Yukon Territory in 1988-1989 and from 2006-present. During that time I have worked in the field on the Mt. Skukum Au-Ag vein deposit near Carcross, YT, the Nucleus and Revenue Cu-Au Porphyry deposits at the Freegold Mountain Property in the Dawson Range, Ni-Cu-PGE occurrences in the Kluane Ranges in southwest YT, Ag-Pb veins in the Keno Hill District, and the Cu-Au-Ag Carmacks deposit. I have participated in technical fieldtrips at the Minto mine.
- I supervised the Carmacks North (formerly Stu) work described herein;
- I wrote a Technical Report for Granite Creek Copper on the Stu Copper Property (November 15, 2018).

Debbie James

Deborah James

I, Povilas G. Grigutis, of the City of Mississauga, in the Province of Ontario, do hereby certify the following:

- That I am hired as a contract geologist by TruePoint Exploration, currently fulfilling requirements towards a professional geologist designation. I worked on the Carmacks and Carmacks North properties during the 2020 field season.
- I am a graduate of Western University; B.Sc. Geology, 2017; M.Sc. Economic Geology, April 2021.
- I have worked in the field of geology and mineral exploration in Canada (ON, QC, MB, YT) part-time since 2015, including roles as; geological assistant/intern, production and exploration geologist.
- That I am a contract employee of TruePoint Exploration – which is the exploration arm for the Metallic Group of Companies (which includes Granite Creek Copper), to whom I have been employed since 2020.
- I consent to the use of this report by Granite Creek Copper for such assessment and/or regulatory and financing purposes deemed necessary.

Dated at Mississauga, Ontario this 20th day of May 2021.

Povilas. Grigutis

Povilas. Grigutis B.Sc. M.Sc.
TruePoint Exploration
2618 Pollard Drive
Mississauga, ON, L5C 3H1

APPENDIX B: Drilling Data – Logs, Assays, Collars

See digital appendices.

APPENDIX C: Mag. Susc., Cross sections and Strip logs

See digital appendices.

APPENDIX D: Certificate of Work and Finances

See digital appendices.