NI 43-101
TECHNICAL REPORT ON THE LUXOR PROJECT

South Unuk River – Upper Bowser River Area
Northwest British Columbia, Canada

Centered at approximately
Latitude 56°18' N, Longitude 130° 16'W
UTM (NAD83 Zone 9) 421450E, 6238050N
NTS MAP SHEETS 104B/1,5
Skeena Mining Division

Report Prepared For

Luxor Metals Ltd.
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Prepared By

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May 14, 2025

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1.0 SUMMARY

1.1 Executive Summary

Luxor Metals Ltd. ("Luxor Metals", "Luxor", or "the Company") retained Dr. Tony Barresi, Ph.D., P.Geo., to prepare an independent Technical Report on the Luxor Project (the "Project"), located 42 km northwest of the community of Stewart in northwest British Columbia, Canada. The purpose of this report is to provide a comprehensive review of exploration carried out to date on the Project and to provide recommendations for future work. The author carried out an independent study and evaluation of available exploration data and conducted a site examination between September 7 and September 14, 2023, comprising check sample collection and geological characterization during multiple traverses across the Big Gold and 4 J's areas, and a helicopter fly-over of the Tennyson, Pearson and Eskay Rift areas. The author had previously visited the Eskay Rift area in 2022. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects.

It is anticipated that Teuton Resources Corp. ("Teuton") and Luxor will enter an arrangement pursuant to which, among other things, the parties will complete a proposed spin-off transaction of Teuton's Luxor Project, comprised of 59 mineral claims, by way of a plan of arrangement (the "Arrangement") under the *Business Corporations Act* (British Columbia). The Arrangement will involve, among other things, Teuton transferring the Luxor Project to Luxor Metals Ltd., in consideration for Luxor issuing a number of common shares, yet to be determined, in the capital of Luxor. The Arrangement will result in such shareholders of Teuton receiving their pro rata portion of the Luxor shares that Teuton will hold upon completion of the transaction.

The Luxor Project covers a large area (approximately 20,481 ha) and has been explored piecemeal since before 1900. Most exploration has been early-stage prospecting and sampling; however, the Tennyson and 4 J's areas have seen more advanced exploration with multiple geophysical surveys and drill campaigns. The Tennyson area in particular has seen significant work, with 64 historical drill holes. The Big Gold, Pearson, and Leduc areas have been explored with a total of 20 drill holes from 5 pad locations, mostly testing early stage geochemical and geophysical anomalies.

The Luxor Project is accessible mainly by helicopter from Stewart. Historical cat tracks reach the eastern boundary of the Project area in a few locations, but these have not been used by Teuton or Luxor to access the Project and the condition of the trails are not known. The Granduc/Tide Tunnel, which runs beneath a portion of the Project, is no longer in use.

The Luxor Project is situated within a geological belt that is host to numerous precious and base metal deposits including past producers Anyox, Eskay Creek, Snip, Scotty Gold, Granduc and

Premier-Big Missouri mines. Resources and/or ore reserves have been reported from many properties in the same belt, including Eskay Creek (redevelopment), Treaty Creek, Silver Coin-Premier-Big Missouri, Red Mountain, Kerr, Sulphurets, Mitchell, Iron Cap, Snowfields, and Homestake Ridge. Within the belt, porphyry and epithermal mineralization is mainly associated with the 193 – 198 Ma Texas Creek suite of intrusive rocks. Massive sulfide deposits include the Besshi type Granduc and Anyox Cu-rich VMS deposits, which are hosted in Stuhini Group, and upper Hazelton Group rocks respectively, and the precious metal rich Eskay Creek deposit which is roughly the same age as Anyox (174 Ma) and is also hosted in upper Hazelton Group volcanic and sedimentary rocks. Both Anyox and Eskay Creek were deposited in a Middle Jurassic rift called the "Eskay Rift" which according to government maps, limited geochronology, and company mapping, appears to bisect the Luxor Project in a N-S direction.

There are four prospects that immediately adjoin the Luxor Project to the east, south, and north and encircled in the Leduc area. These include the Scottie Property to the south, the Tide Property to the east, the Crown Property to the north, and the Granduc VMS deposit, which is encircled by the Luxor Project in the Leduc area. To the north of the Luxor Project, along the same belt of rocks, the Kerr, Sulphurets, Mitchel, and Iron Cap porphyry deposits are found, as are the Brucejack epithermal Au, and Eskay Creek Ag-Au VMS deposits.

1.1.1 Conclusions

The Luxor Project encompasses a large land package within British Columbia's Golden Triangle, one of the most metal-rich mining and exploration areas in the world. The Project area is interpreted to be bisected by two of the most important geological features within the Golden Triangle, which are controls for mineralization at some of the largest and richest deposits in the district:

1. The Sulphurets thrust fault system, which is genetically related to Seabridge Gold's Kerr-Sulphurets-Mitchell, and Iron Cap deposits, one of the largest unmined endowments of Cu and Au in North America, and
2. The Eskay Rift, which is genetically related to the Eskay Creek Ag-Au VMS deposit to the north, and Anyox, a large Cu VMS deposit to the south (Barresi et al., 2014).

Given the Luxor Project's prospective geology, and relative ease of access, compared to many other Golden Triangle properties, it has seen only modest amounts of mineral exploration.

The Luxor Project has base and precious metal exploration opportunities that are easily identified but have not been adequately investigated. Opportunities identified by the author are noted below.

Besshi Type VMS Deposit Opportunities

The western side of the Luxor Project has potential to contain a Granduc-style VMS deposit. VMS deposits often occur in clusters within the same stratigraphic packages, and the package of Stuhini Group rocks that hosts the Granduc deposit strikes northward directly onto and through the western side of the Luxor Project.

Eskay Creek Type VMS Deposit Opportunities

The central portion of the Luxor Project, including parts of the Big Gold, Eskay Rift, and Leduc areas are underlain by sedimentary and volcanic rock of the Iskut River Formation, which were deposited within the "Eskay Rift". According to government mapping, the Luxor Project encompasses a part of one of the largest packages of preserved Eskay-Creek-equivalent stratigraphy along the length of the rift. Recent exploration in these areas has yielded encouraging results, with discovery of abundant narrow pyrite beds and laminations in sedimentary rock in the Eskay Rift area, and massive sulfide discoveries in the Big Gold area. A large airborne ZTEM survey flow in 2018 identified at least two large and strong conductors at depth beneath the Eskay Rift area.

Porphyry Cu-Au Deposit Opportunities

Within the Luxor Project area, the Tennyson area has seen the most, and most advanced stages of exploration. The last major work conducted at Tennyson was in 2013 by Brigade Holdings. At Tennyson there are numerous drill intersections of porphyry style mineralization that have grades similar to the average resource grades of prominent porphyry systems in the region. The author believes that significant opportunities for exploration remain in the Tennyson area for the following reasons:

1. Glacial abatement is occurring rapidly in the district and there are large areas of new glacially scoured outcrop that have been exposed since 2013.
2. Mineralization confined to a thrust panel could be a fragment of a larger body of mineralization that is now dismembered.
3. The Tennyson area is along the inferred trace of the Sulphurets (thrust) fault, which is genetically linked to the KSM porphyry deposits.
4. To date, only small bodies of syn-mineral intrusive rock have been associated with Tennyson mineralization, indicating that there may be a larger, potentially mineralized, intrusive body that has not yet been discovered.

Opportunities at 4 J's

The 4 J's area has a long history of exploration mainly focused on VMS potential. However, sampling in 2023 identified a domain of Cu-Au dominant mineralization directly adjacent to the eastern edge of the rapidly retreating Smalls Glacier, in an area that was not exposed until very recently. The Cu-Au mineralization at 4 J's falls almost exactly within a magnetic low that encircles a magnetic high and domain of low resistivity, which is largely beneath the Smalles Glacier. This porphyry-like geophysical signature indicates that rocks to the west of the main 4 J's area might be prospective for porphyry Cu-Au mineralization in addition to VMS style mineralization.

Summary

The Luxor Project is a large and prospective mineral exploration project with significant potential to host one or more VMS, porphyry Cu-Au, or epithermal Au-Ag deposit(s). The project has seen limited exploration outside of the Tennyson and 4 J's areas. Most drilling has been conducted testing for porphyry Cu-Au mineralization at Tennyson, and there is limited additional drilling in the 4 J's, Big Gold, Pearson, and Leduc areas and none in the Eskay Rift area. Compiling, digitizing, and interpreting historical data on a property scale is critical to understanding the context of known mineral occurrences and how to explore for them, as well as to identify information gaps in prospective areas. There are numerous specific exploration opportunities that could be undertaken at any time.

1.1.2 Recommendations

- Database: All topographic, geological, and historical exploration data should be digitized and reviewed.
- Geophysical Review: Compilation of recent and historical geophysical surveys should be undertaken.
- Ground Truthing: evaluating pertinent geology, mineral occurrences, and geochemical and geophysical anomalies.
- Tennyson area: Phase 1 exploration should include investigating areas with glacial abatement, developing a larger scale structural model for the area surrounding the main gossan, a hyperspectral survey, and mapping and prospecting over the P2 ZTEM anomaly.
- Leduc area: Phase 1 exploration should include ground truthing the mineralization encountered in DDH06-9 and DDH06-11 at the JK zone.
- Eskay Rift area: Phase 1 should include a geophysical review of the 2018 ZTEM survey to evaluate the potential for buried massive sulfide deposits.
- Pearson area: Phase 1 includes prospecting and mapping targeting the strong Granduc-like 2.5 km long EM anomaly identified during the 2005 AeroTEM survey.
- Big Gold area: Phase 1 includes extensive and systematic prospecting and mapping with a focus on tracing the newly discovered massive sulfide zones.

- 4 J's area: This area will require extensive ground-truthing of mineral occurrences and geochemical and geophysical anomalies. In addition, Phase 1 exploration should focus on areas of new exposure along the margins, and nunataks, of the Smalles Glacier.

The Luxor Project covers approximately 20,481 ha of underexplored prospective ground with multiple known mineral occurrences. Based on the possibility of expanding the size and/or grade of known areas of mineralization, and of the possibility of making new discoveries, a Phase 1 exploration budget of $545,100 is warranted. Dependant on positive results from Phase 1 exploration, a Phase 2 program ranging from $4.25M - $17M may be warranted. The nature of work in the proposed Phase 1 exploration program does not require a Notice of Work approval/permit. Teuton Resources currently holds permits that expire during 2026 for the Pearson, Big Gold, and Tennyson areas; these will be transferred to Luxor Metals Ltd. and will allow for proposed geophysical and drilling programs as part of Phase 2 exploration.

1.2 Technical Summary

1.2.1 Property Description and Location

The Luxor Project is centred approximately 42 km northwest of the town of Stewart, British Columbia, Canada at approximately 56°, 15' north latitude and -130°, 16' west longitude. Claims are in map sheets NTS: 104B/01 and 104B/08. The Project encompass nunataks and uplands on the south, east and west sides of the Frank Mackie glacier as far south as the Berendon glacier in the east and the upper reaches of the Leduc Glacier in the west. The eastern portion of the Project is located approximately 5 km west of the previous Granduc mill site portal located at the headwaters of the Bowser River. It is also 6 km northwest of the former Scottie gold mine located at the headwaters of the Salmon Glacier. The western portion of the project surrounds the property that contains the past producing Granduc mine.

The larger towns of Smithers and Terrace are an approximately 3.5-hour drive from Stewart along a paved highway (Highway 37 and 37A), and both communities have daily flights to and from Vancouver, B.C. The Project can be accessed by helicopter, either from the Stewart Airport, where there is typically at least one helicopter service company stationed, or from locations along the Granduc road.

The Luxor Project is located within the Boundary Range of the Coast Mountains of British Columbia. This is a region of sharp craggy ridges and broad U-shaped glacially carved valleys with glaciers at higher elevations. The property is located over the Frank Mackie icefield and several other valley glaciers including the Beredon and Leduc glaciers. Vegetation is sparse, with much of the area containing only barren rock, active glaciers, or glacial debris. Tree line in the area is at approximately 1,350 m with tag spruce and willow below this level. Grasses, heather, and shrubs are located above the tree line. The terrain in the Project area is mountainous and varies in elevation from 520 m along the South Unuk river on the western property boundary, and 2,500 m at the highest peak.

The climate in the area can be severe. Heavy snowfalls in the winter and rain and fog in the summer are typical of the Project area. Snowfall up to 30 m has been experienced at higher elevations within the general area and the snow can remain unmelted in some areas until July. Extreme -20° Celsius or colder weather only occurs in a 6-week period from mid-January to late-February.

In general, fieldwork is feasible from late-June/early-July and may remain possible until between early-September and mid-October.

1.2.2 Land Tenure and Mineral Rights

At the effective date of this report the Luxor Project includes 59 contiguous mineral claims. The Mineral Titles Online website (https://www.mtonline.gov.bc.ca/mtov/home.do) confirms that all claims of the Luxor Project were in good standing at the date of this report and that no legal encumbrances were registered with the Mineral Titles Branch against the titles at that date. There are no other royalties, back-in rights, environmental liabilities, or other known risks to undertake exploration. The author makes no further assertion regarding the legal status of the property. The mineral tenures cover a total surface area of 21,557.8 ha and measure approximately 19 by 20 km in maximum east-west and north-south dimensions respectively. Due to overlapping grid-staked claims with non-conforming legacy claims and Crown grants, the total area of mineral rights associated with the Luxor Project is estimated to be 20,481 ha.

1.2.3 Local Resources and Infrastructure

Stewart was once a major mining centre that serviced exploration, mine development and mining in the surrounding area, including for the Granduc, Premier, Scotty Gold, and Porter-Idaho mines. It has numerous services relevant to mining including various types of accommodations, grocery and hardware stores and a gas station. The towns of Terrace and Smithers, located 3.5 hours drive to the south, are local hubs of industry where goods and services of most kinds can be obtained. Northwestern British Columbia and the Stewart area are supported by significant infrastructure relevant to mining and mine development. An all season paved highway (Highway 37) extends from Kitimat in the south to the Yukon border in the north. Stewart is accessed via highway 37A, a spur highway from a junction with Highway 37 at Meziadin. Highway 37A is also an all season paved road. Stewart is the most northerly ice-free shipping port in North America and is accessible to store and ship mining concentrates. In 2014, BC Hydro completed the 287-kilovolt Northwest Transmission line, a 344 km-long line that extends from Terrace in the south to Bob Quinn Lake Airstrip in the north. The transmission line has offered connection points for local clean power projects like AltaGas's Forrest Kerr hydroelectric project. A BC Hydro high-voltage 138 Kv transmission line services Stewart and the Long Lake transmission line extends north from Stewart for 57 km to the Brucejack mine. This transmission line is located along the east side of the Granduc road and airstrip; it is 2 km east of the Luxor Project.

1.2.4 History

The history of exploration work and mining activities were compiled from assessment reports filed with the British Columbia Government, Minfile descriptions and internal Teuton company reports.

Table 1-1 Summary of Luxor Property exploration history

Area	Year	Operator	Work
Tennyson	1984	Teuton Resources	Airborne EM and magnetic survey & rock sampling
Tennyson	1985	Teuton Resources	Trenching (14 blasted), two reconnaissance soil lines
Tennyson	1986	Consolidated BRX Mining and Petroleum Ltd.	10 drill holes (1,428.60 m) and rock sampling
Tennyson	1988	Keylock Resources Ltd. & Catear Resources Ltd.	7 drill holes (414.60 m) and rock sampling
Tennyson	1990	Keylock Resources Ltd. & Catear Resources Ltd.	Rock sampling, trenching, geological mapping
Tennyson	1991	Teuton Resources	Trenching (17 blasted – 68 m) and rock sampling
Tennyson	1992	Teuton Resources	5 drill holes (414.82 m)
Tennyson	2004	Teuton Resources	Rock sampling
Tennyson	2006	Teuton Resources	Airborne EM and magnetic survey
Tennyson	2009	Teuton Resources	2 drill holes (610.50 m) and rock sampling
Tennyson	2010	Teuton Resources	10 drill holes (2,308.86 m)
Tennyson	2011	Teuton Resources	16 drill holes (3,122.98 m)
Tennyson	2012	Brigade Holdings Ltd.	Geological mapping, extensive soil rock chip and grab sampling, petrography, IP and ground magnetic surveys
Tennyson	2013	Brigade Holdings Ltd.	16 drill holes (6,770 m)
4J's/Catspaw	1929	Alphonse Thomas	Stripping and developing 50 m adit
4J's/Catspaw	1983	Bilikin Resources	Prospecting, rock sampling
4J's/Catspaw	1984	Canadian United Ltd.	Airborne EM and magnetic survey
4J's/Catspaw	1985	Noranda Exploration Company	Mapping, rock sampling, ground-based EM survey
4J's/Catspaw	1986	Teuton Resources	Rock sampling

Area	Year	Operator	Work
4J's/Catspaw	1987	Wedgewood Resources	Prospecting, rock sampling, trenching
4J's/Catspaw	1988	Wedgewood Resources	Rock sampling
4J's/Catspaw	1989	Maple Resources	Mapping, rock sampling, VLF-EM survey
4J's/Catspaw	1990	Maple Resources	5 drill holes (334.06 m), mapping, soil and stream sampling
4J's/Catspaw	1992 - 1998	Teuton Resources	Small rock sampling programs in 1992, 1993, and 1998
4J's/Catspaw	2006	Teuton Resources	Airborne EM and magnetic survey
4J's/Catspaw	2011	Rotation Minerals	Rock sampling
4J's/Catspaw	2012	Rotation Minerals	25 drill holes (1,345 m)
4J's/Catspaw	2016	Rotation Minerals	Rock sampling
4J's/Catspaw	2022	Teuton Resources	Rock sampling
4J's/Catspaw	2023	Teuton Resources	Rock sampling
Luxor West[1]	1953-1959	Individuals (Crowhurst, Norman)	Mapping
Luxor West	1971	El Paso Company	Channel samples
Luxor West	1987	Magna Venture	Rock sampling
Luxor West	2004	Teuton Resources	Rock sampling
Luxor West	2005	Bell Copper Corp.	Airborne EM and magnetic survey
Luxor West	2015	Teuton Resources	Rock sampling
Luxor West	2016	Teuton Resources	9 drill holes (876.89 m)
Luxor West	2018	Teuton Resources	5 drill holes (1,115.76 m)
Luxor West	2022	Teuton Resources	Rock sampling
Luxor West	2023	Teuton Resources	Rock sampling
Property Wide	2018	Teuton Resources	Airborne ZTEM survey

1.2.5 Geological Setting

The Luxor Project lies within the Coastal Mountains along the western margin of the Intermontane superterrane and is underlain by Triassic through Middle Jurassic rocks of the western Stikine terrane (Stikinia). Stikinia is an island arc terrane that defines the westernmost boundary of a geomorphic belt (Intermontane belt) of the Canadian Cordillera, which accreted onto the western margin of ancestral North America in the Middle Jurassic (Nelson et al., 2022). It is composed of accreted island arc and pericratonic terranes structurally imbricated with oceanic rocks. In the Stewart area, the Stikine terrane comprises Devonian to Permian sedimentary successions with interbedded volcanic strata of the Stikine assemblage, which is overlain by volcano-sedimentary successions of the mainly upper Triassic Stuhini Group and Early to Middle Jurassic Hazelton Group.

[1] Luxor West refers to the western most portions of the property, namely Leduc, Pearson, Eskay Rift, and Big Gold.

The Luxor Project falls within Stewart-McTagg section of the regional geology map. Within the area, the Stuhini Group comprise dark gray, laminated to thickly bedded silty mudstone, and fine to medium grained and locally coarse-grained sandstone, and mafic to intermediate volcanic rocks, often with clinopyroxene and/or plagioclase phenocrysts.

The Stuhini-Hazelton Group contact is an angular unconformity. Local stratigraphy within the Hazelton Group includes:

1. Jack Formation basal conglomerate unit
2. Betty Creek Formation, a thick volcano-sedimentary package
3. Iskut River Formation, a bimodal volcanic succession found along a narrow, elongate north-trending belt (Eskay Rift) that bisects the Luxor Project
4. Mount Dillworth Formation, a mostly felsic volcanic and epiclastic unit that forms laterally continuous exposures above the Betty Creek Formation
5. Quock Formation 50 – 100 m sequence of thinly bedded, dark gray silicious argillite with laminae of felsic tuff and chert.

To the west of the Luxor Project the mainly volcanic rocks of the Stuhini and Hazelton groups give way to granitoids of the Coast Plutonic Complex. To the east of the Project sedimentary rocks of the Bowser Lake Group onlap and cover rocks of the Stuhini and Hazelton groups.

Intrusive rocks in the area are dominated by:

1. Outliers of the Coast Plutonic Complex, including the Eocene age Hyder Pluton,
2. Middle Jurassic Texas Creek Plutonic suite which is closely related to numerous mineral deposits and showings throughout the northern Stikine Terrane, and
3. Mafic intrusions of the late Triassic Stikine Plutonic Suite.

Doubly plunging, northwesterly trending synclinal folds of the Hazelton and underlying Stuhini Groups dominate the structural setting of the area. These folds are locally disrupted by small east verging thrusts that strike parallel to the major fold axes.

1.2.6 Mineralization

The Luxor Project is located along a prospective belt of Triassic and Jurassic volcanic and sedimentary rocks that have inferred strike extents northwards to the KSM Cu-Au porphyries, Brucejack Lake Au, and Eskay Creek Au-Ag VMS deposits, and southwards to the former producing Premier and Granduc mines. In addition, in the Project area stocks of the Texas Creek Plutonic suite are present, and it is genetically associated with numerous mineral occurrences across the Stikine Terrane, including the KSM porphyry Cu-Au deposits.

Most of the Luxor Project has only seen reconnaissance style exploration that has been successful in defining mineralized domains. Notable exceptions include more advanced exploration, including significant drilling, at the Tennyson gossan, and in the 4 J's area. Due to the severity of the topography, short exploration season, and extensive glacial cover, much of the Project area has not been explored sufficiently to adequacy define broad domains of mineralization or mineral potential, however, within particular areas, there are notable styles of mineralization.

At the Tennyson area, exploration has delineated a high-temperature porphyry-style hydrothermal system with associated Cu-Au mineralization approximately 900 by 700 m in dimension. Sulphide mineralization on the Tennyson gossan is associated with strong zoned alteration and veining. At the 4J's area, the main styles of mineralization include: 1) brecciated volcanic rocks with strong pyrite-arsenopyrite ± chalcopyrite mineralization; 2) northwest trending zones of stratiform Cu-Pb-Zn-Ag-Au mineralization; and 3) quartz-carbonate breccia veins focused along E-W trending structures. At Big Gold prospecting and sampling in 2023 identified significant mineralization: three new showings, two of massive sulphides (Roman and Zall occurrences), and a quartz vein with sphalerite and galena that graded 27.7 g/t Au, 6,240 g/t Ag, 1.455% Cu, 6.4% Pb and 3.11% Zn. In the Eskay Rift, area little work has been conducted however, sampling in 2022 identified occurrences of pyrite ± chalcopyrite layers within argillite successions. At the Leduc area, mineralization at the JK zone comprises both mineralized magnetite breccias and stratiform magnetite-chalcopyrite bearing assemblages including massive sulphide.

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 General Terms and Project Scope

Tony Barresi was retained by Luxor Metals Ltd. of 2130 Crescent Road, Victoria, BC, V8S 2H3, in September 2023 to prepare an independent National Instrument 43-101 (NI 43-101) property report for the Luxor Project located northwest of the town of Stewart in the province of British Columbia, Canada. The Luxor Project contains a total of 59 mineral tenures and is held in name by Teuton Resources Corp. The primary metals of interest are copper, gold, silver, lead, zinc, and cobalt and the surface area covered by the company's mineral claims totals 21,557.8 ha.

Under terms of engagement with Luxor Metals Ltd., Tony Barresi was assigned the responsibility of completing a site visit, target evaluation, and preparing a technical property report. Terms of engagement were established through discussions held between Dino Cremonese, Teuton Resource's CEO, and Tony Barresi.

Teuton Resources Corp. and Luxor Metals Ltd. have entered into an arrangement agreement, pursuant to which the parties will complete a proposed spin-off transaction of Teuton's Luxor Project. Teuton owns 100% interest in the mineral claims, and these will be transferred to Luxor Metals Ltd. in accordance with the agreement.

Tony Barresi, Ph.D., P.Geo., is the Qualified Person (QP) with respect to the content of this report.

This Technical Report fully supersedes a prior version completed and signed on September 20, 2024, which was never filed or publicly disclosed. The present version reflects updated permitting language and incorporates all current information and professional judgment of the author as of the effective date, May 14, 2025. All figures were reviewed and remain accurate; no material changes were required.

2.2 Site Visit by Tony Barresi

A site visit to the Luxor Project was conducted by Tony Barresi (Ph.D., P.Geo.), between September 7 and 14 (inclusive), during which four full days were spent on the property, and an additional day included a helicopter fly-over of the property. A main purpose of the 2023 site visit was to evaluate and provide context for the geology, mineral prospectivity and mineral occurrences on the Luxor Project. Three of the principal target areas were examined and the author collected check geochemical samples. The author observed outcrops of altered and mineralized rocks, took photographs, and visited one site of previous drilling to verify the drill hole location. No work has been conducted on the Luxor Project subsequent to the site visit.

In preparation for the site visit, the author reviewed aspects of exploration work carried out by Teuton Resources and other operators on the Project, including historical rock, soil and talus sampling, trenching, drilling, and geophysics. Most of the property has only seen early-stage exploration, or no exploration at all, due to previous snowfield and glacial cover. Several areas, including the Tennyson and 4 J's areas, have had more concerted exploration efforts including multiple campaigns of rock sampling, geophysics, and drilling. The Tennyson area has had the most advanced exploration with 13,564 m drilled in 64 holes between 1986 and 2013.

The property is considered by the author to be highly prospective for VMS and porphyry type deposits, as well as having potential to host epithermal Au-Ag mineral deposit(s).

2.3 Independence of Author

The author of this report, Tony Barresi, is fully independent of Luxor Metals Ltd., and Teuton Resources Corp., as defined under NI 43-101.

2.4 Abbreviations Used in this Report

Table 2-1 presents abbreviations that have been used in this report. Currency references in this report reflect Canadian funds.

Table 2-1 List of Abbreviations and Conversions

Abbreviation	Source
3D	3-Dimensional
ARIS	Assessment Report Indexing System
BC	British Columbia
ca.	Approximately (*circa*)
CEO	Chief Executive Officer
Corp.	Corporation
CRM	Certified Reference Material
DDH	Diamond Drill Hole
E	East
e.g.	example given
EM	Electromagnetic

Abbreviation	Source
EMLI	Energy-Mines-Low-Carbon-Initiative (Ministry of Energy)
et al.	and others
etc.	*et cetera*
GPS	Global Positioning System
HEM	High Sensitivity Electromagnetometer
ICP-AAS	Inductively Coupled Plasma - Atomic Absorption Spectrometry
ICP-AES	Inductively Coupled Plasma - Atomic Emission Spectrometry
ICP-ES	Inductively Coupled Plasma - Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma - Mass Emission Spectrometry
Inc.	Incorporated
IP	Induced Polarization
IRF	Iskut River Formation
Ltd.	Limited
MEMLCI	Mineral Titles Branch. Ministry of Energy, Mines and Low Carbon Innovation
MS	mass spectroscopy
MTO	Mineral Titles Online
NAD83	North American Datum 1983
NE	Northeast
NI 43-101	Canadian Securities Administrators National Instrument 43-101
NNW	North-Northwest
No.	Number
North	North
NoW	Notice of Work
N-S	North-South
NTS	National Topographic Series
P.Geo	Professional Geoscientist
PGE	Platinum Group Elements
PGM	Platinum Group Metals
Ph.D.	Doctor of Philosophy
QGIS	Quantum Geographic Information System
QP	Qualified Person
SSE	South-Southeast
SW	Southwest
SWIR	Short-Wave Infrared
TSA	The Spectral Analyst
UTM	Universal Transverse Mercator
VLF	Very Low Frequency
VMS	Volcanogenic Massive Sulphide
VNIR	Visual/near-infrared
VOK	Valley of the Kings
W	West
WMCX	White Mica Crystallinity Index
ZTEM	Z-axis Tipper Electromagnetic

Elements, Element Groups, Compounds	
Symbol	**Element**
Ag	Silver
Al	Aluminium
As	Arsenic
Au	Gold
Ba	Barium
Bi	Bismuth
Ca	Calcium
Cd	Cadmium
Co	Cobalt
CO3	Carbonate
Cu	Copper
F	Fluorine
Fe	Iron
Hg	Mercury
K	Potassium
Mg	Magnesium
Mn	Manganese
Mo	Molybdenum
Na	Sodium
Ni	Nickel
OH	Hydroxide
Os	Osmium
Pb	Lead
Re	Rhenium
REE	Rare Earth Elements
S	Sulphur
Sb	Antimony
Si	Silicon
Sn	Tin
Te	Tellurium
Tl	Thallium
U	Uranium
W	Tungsten
Zn	Zinc

Units of Measure	
Symbol	**Unit**
"	Inch
µm	Micrometer
cm	Centimeters
g	Gram
g/t	grams per ton
g/ton	grams per ton
ha	Hectares
Ha	Hectares
kg	Kilogram
kg/t	kilograms per ton
km	Kilometers
km^2	kilometers squared
Kv	Kilovolt
m	Meters
m^2	meters squared
Ma	millions years ago
mm	Millimeter
Moz	million ounces
Mt	million tons
nm	Nanometers
ohm-m	ohm meters
oz	Ounce
ppb	parts per billion
ppm	parts per million
Rel. Weight	relative weight

3.0 RELIANCE ON OTHER EXPERTS

This Technical Report does not rely on the work or reports of any external experts. All data, analyses, and conclusions presented in this report have been prepared by Tony Barresi, who is responsible for all aspects of the report. The Author has independently assessed and evaluated all relevant information.

The Author’s independent assessment is based on their knowledge and expertise as well as through evaluation of information available at the time of report preparation. This includes data and reports made available by Teuton Resources, as well as reports and data in the public domain.

On the effective date of this Technical Report the Author confirmed the status and registration of the subject mineral tenures with information available through the Mineral Titles Branch, Ministry of Energy, Mines and Low Carbon Innovation (MEMLCI), Government of British Columbia, which reports tenure information for all mineral claims in the province in real-time.

4.0 PROJECT DESCRIPTION AND LOCATION

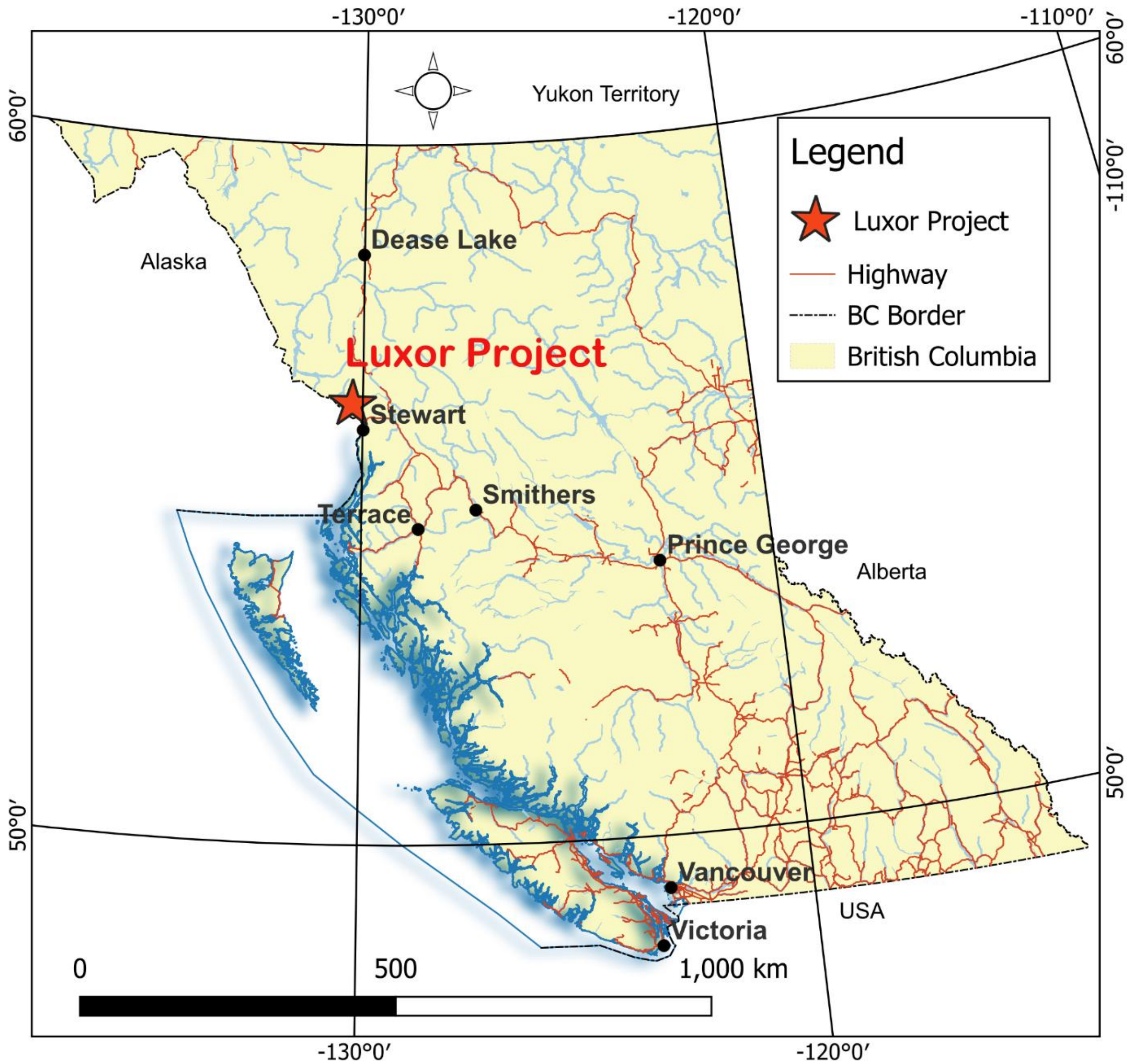

Figure 4-1 Location Map For Luxor Project in BC

4.1 General

The Luxor Project is centred approximately 42 km northwest of the town of Stewart, British Columbia, Canada at approximately 56°, 15' north latitude and -130°, 16' west longitude (Figure 4-1). Claims are in map sheets NTS: 104B/01 and 104B/08. The Project encompass nunataks and uplands on the south, east and west sides of the Frank Mackie glacier as far south as the Berendon glacier in the east and the upper reaches of the Leduc Glacier in the west. The eastern portion of the Project is located approximately 5 km west of the previous Granduc mill site portal located at the headwaters of the Bowser River. It is also 6 km northwest of the former Scottie gold mine located at the headwaters of the Salmon Glacier. The western portion of the project surrounds the property that contains the past producing Granduc mine.

4.2 Land Tenure

At the effective date of this report the Luxor Project includes 59 contiguous mineral claims. The Mineral Titles Online website (https://www.mtonline.gov.bc.ca/mtov/home.do) confirms that all claims of the Luxor Project as described in Table 4-1 were in good standing at the date of this report and that no legal encumbrances were registered with the Mineral Titles Branch against the titles at that date. There are no other royalties, back-in rights, environmental liabilities, or other known risks to undertake exploration. The author makes no further assertion regarding the legal status of the property. The mineral tenures cover a total surface area of 21,557.8 ha and measure approximately 19 by 20 km in maximum east-west and north-south dimensions respectively. Table 4-1 presents details of the 59 mineral tenures and Figure 4-2 shows the claim outlines and locations. The claims are in good standing until between October 15, 2030, and October 15, 2033.

The total hectarage of the mineral tenures is not equivalent to the area of mineral rights contained within the Luxor Project. There are three reasons for this:

1. Some of the tenures that comprise the Luxor Project are non-conforming (4-post) legacy claims, and do not exactly follow the grid pattern of staking that is currently in use. In places where Teuton legacy tenures overlap with grid staked Teuton tenures, there is an area of overlap where both tenures record the same hectarage.

2. In a few locations Teuton's grid-staked tenures overlap with non-conforming legacy Tenures that are owned by another party; in these cases, in the area of overlap, the mineral rights belong to the party with the legacy tenures.

3. In the southwest portion of the Luxor Project in the Leduc area, which surrounds the past producing Granduc mine, Teuton tenures overlap with Crown grants. Where the Crown grants overlap with Teuton tenures, Teuton's mineral rights are superseded by the Crown grants.

Therefore, the total area of the mineral tenures (21,557.8 ha) that comprise the Luxor Project, is greater than the area of mineral rights associated with those tenures (Figure 4-3). The author has estimated the area of mineral rights associated with the Luxor Project in the following manner:

Using data for mineral tenures and Crown grants available through the Mineral Titles Branch, MEMLCI, Government of British Columbia, and the GIS software program QGIS (version 3.34.2), an outline of the Luxor Project was drawn taking into consideration areas where tenures are overlapped by legacy claims. Internal "holes" were made within the overall outline where the mineral rights are not held by Teuton, either because of Crown grants, unstaked fractional claims, or tenures owned by other parties that supersede the mineral rights of Teuton. A planimetric calculation of the area of the resultant polygon was calculated within the UTM NAD83 Zone 9 projection. Using this technique the total area of the Luxor Project approximates 20,481 ha indicating that the actual area of mineral rights associated with the Luxor Project is 5% less than the sum of the areas of the associated mineral tenures. The above noted calculations were conducted on a best effort basis given the available data. However, the Luxor Project has not been legally surveyed, and the area of mineral rights noted above should be considered approximate.

Table 4-1 Details of Mineral Claims

Tenure #	Owner	Area (Ha)	Issue Date	Good Standing Date
250846	TEUTON RESOURCES CORP. (100%)	400.0	1/9/1980	10/15/2033
251127	TEUTON RESOURCES CORP. (100%)	100.0	9/27/1983	10/15/2033
251128	TEUTON RESOURCES CORP. (100%)	100.0	9/27/1983	10/15/2033
251129	TEUTON RESOURCES CORP. (100%)	100.0	9/27/1983	10/15/2033
251130	TEUTON RESOURCES CORP. (100%)	100.0	9/27/1983	10/15/2033
409039	TEUTON RESOURCES CORP. (100%)	25.0	3/12/2004	10/15/2032
409040	TEUTON RESOURCES CORP. (100%)	150.0	3/12/2004	10/15/2032
409042	TEUTON RESOURCES CORP. (100%)	500.0	3/12/2004	10/15/2033
409053	TEUTON RESOURCES CORP. (100%)	400.0	3/12/2004	10/15/2032
415486	TEUTON RESOURCES CORP. (100%)	500.0	11/8/2004	10/15/2032
415487	TEUTON RESOURCES CORP. (100%)	500.0	11/8/2004	10/15/2032
415488	TEUTON RESOURCES CORP. (100%)	500.0	11/8/2004	10/15/2032
415489	TEUTON RESOURCES CORP. (100%)	500.0	11/8/2004	10/15/2032
504858	TEUTON RESOURCES CORP. (100%)	323.1	1/26/2005	10/15/2033
504863	TEUTON RESOURCES CORP. (100%)	71.8	1/26/2005	10/15/2033
508703	TEUTON RESOURCES CORP. (100%)	1062.4	3/10/2005	10/15/2032
508705	TEUTON RESOURCES CORP. (100%)	953.5	3/10/2005	10/15/2032
508775	TEUTON RESOURCES CORP. (100%)	144.0	3/11/2005	10/15/2032
508777	TEUTON RESOURCES CORP. (100%)	360.1	3/11/2005	10/15/2032
508799	TEUTON RESOURCES CORP. (100%)	377.6	3/11/2005	10/15/2033
508802	TEUTON RESOURCES CORP. (100%)	323.3	3/11/2005	10/15/2032
508807	TEUTON RESOURCES CORP. (100%)	1040.4	3/11/2005	10/15/2033
508811	TEUTON RESOURCES CORP. (100%)	125.6	3/11/2005	10/15/2033

Tenure #	Owner	Area (Ha)	Issue Date	Good Standing Date
508828	TEUTON RESOURCES CORP. (100%)	899.3	3/11/2005	10/15/2032
508887	TEUTON RESOURCES CORP. (100%)	431.6	3/14/2005	10/15/2032
508888	TEUTON RESOURCES CORP. (100%)	431.8	3/14/2005	10/15/2032
508889	TEUTON RESOURCES CORP. (100%)	432.0	3/14/2005	10/15/2032
508891	TEUTON RESOURCES CORP. (100%)	432.2	3/14/2005	10/15/2032
508893	TEUTON RESOURCES CORP. (100%)	450.4	3/14/2005	10/15/2032
508894	TEUTON RESOURCES CORP. (100%)	450.4	3/14/2005	10/15/2032
508895	TEUTON RESOURCES CORP. (100%)	360.2	3/14/2005	10/15/2032
508898	TEUTON RESOURCES CORP. (100%)	377.9	3/14/2005	10/15/2032
508899	TEUTON RESOURCES CORP. (100%)	215.4	3/14/2005	10/15/2033
520248	TEUTON RESOURCES CORP. (100%)	358.9	9/21/2005	10/15/2032
520250	TEUTON RESOURCES CORP. (100%)	448.9	9/21/2005	10/15/2033
520252	TEUTON RESOURCES CORP. (100%)	323.1	9/21/2005	10/15/2030
520254	TEUTON RESOURCES CORP. (100%)	430.4	9/21/2005	10/15/2032
520257	TEUTON RESOURCES CORP. (100%)	430.6	9/21/2005	10/15/2032
520258	TEUTON RESOURCES CORP. (100%)	359.0	9/21/2005	10/15/2033
520260	TEUTON RESOURCES CORP. (100%)	269.4	9/21/2005	10/15/2033
527347	TEUTON RESOURCES CORP. (100%)	449.0	2/9/2006	10/15/2033
527349	TEUTON RESOURCES CORP. (100%)	431.3	2/9/2006	10/15/2033
527350	TEUTON RESOURCES CORP. (100%)	359.6	2/9/2006	10/15/2032
535888	TEUTON RESOURCES CORP. (100%)	448.7	6/18/2006	10/15/2033
535889	TEUTON RESOURCES CORP. (100%)	448.5	6/18/2006	10/15/2032
535892	TEUTON RESOURCES CORP. (100%)	448.7	6/18/2006	10/15/2033
535896	TEUTON RESOURCES CORP. (100%)	448.8	6/18/2006	10/15/2033
535897	TEUTON RESOURCES CORP. (100%)	449.0	6/18/2006	10/15/2033
535932	TEUTON RESOURCES CORP. (100%)	107.8	6/19/2006	10/15/2033
535939	TEUTON RESOURCES CORP. (100%)	107.8	6/19/2006	10/15/2033
535940	TEUTON RESOURCES CORP. (100%)	125.8	6/19/2006	10/15/2033
535941	TEUTON RESOURCES CORP. (100%)	143.8	6/19/2006	10/15/2033
889698	TEUTON RESOURCES CORP. (100%)	107.7	8/16/2011	10/15/2033
995980	TEUTON RESOURCES CORP. (100%)	377.1	6/11/2012	10/15/2033
1010629	TEUTON RESOURCES CORP. (100%)	359.0	7/3/2012	10/15/2032
1015604	TEUTON RESOURCES CORP. (100%)	412.7	1/1/2013	10/15/2032
1015780	TEUTON RESOURCES CORP. (100%)	17.9	1/7/2013	10/15/2032
1041331	TEUTON RESOURCES CORP. (100%)	538.4	1/16/2016	10/15/2033
1104937	TEUTON RESOURCES CORP. (100%)	18.0	6/25/2023	10/15/2030
	Total:	**21557.8**		

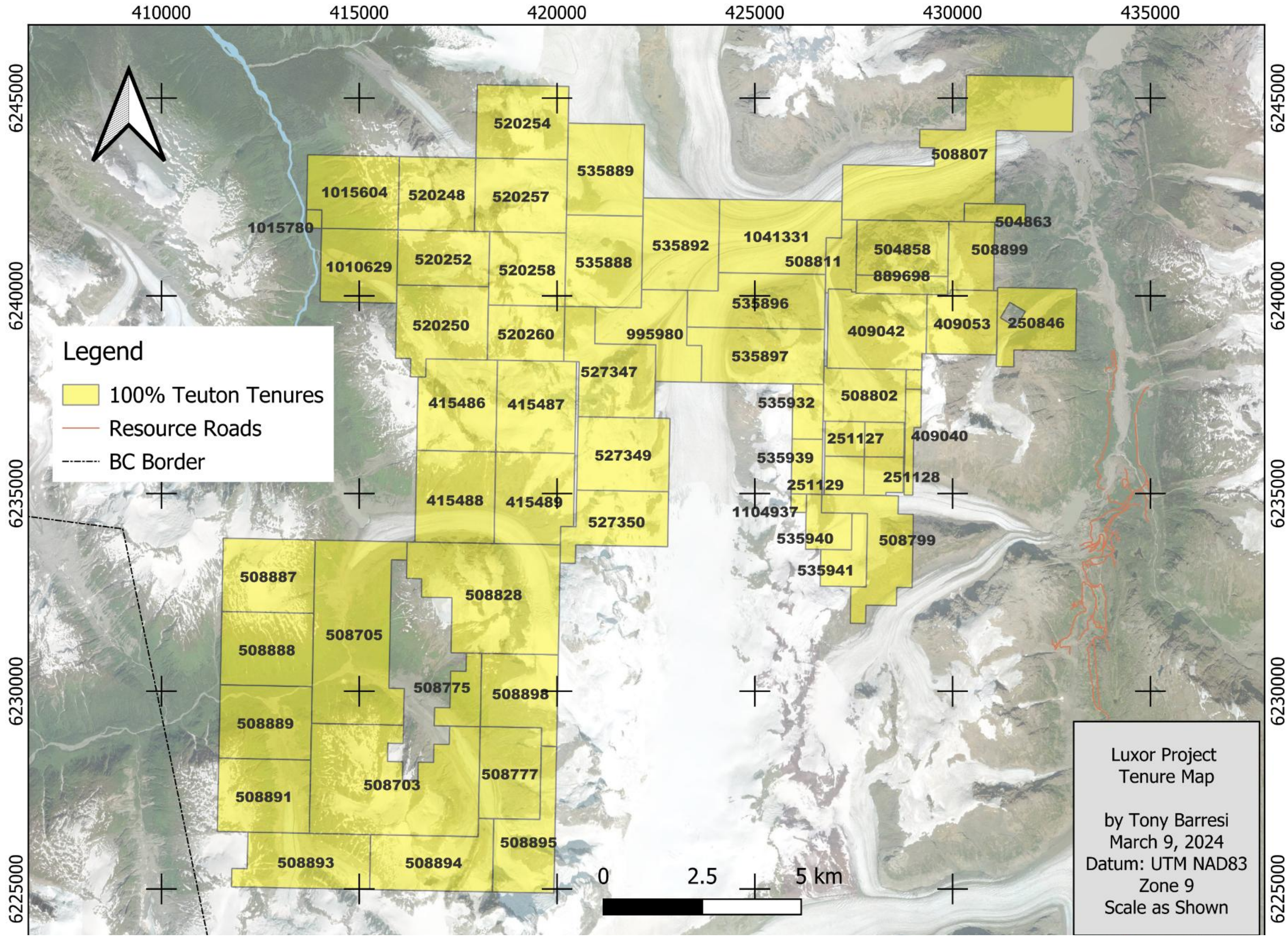

Figure 4-2 Luxor Project Mineral Tenures

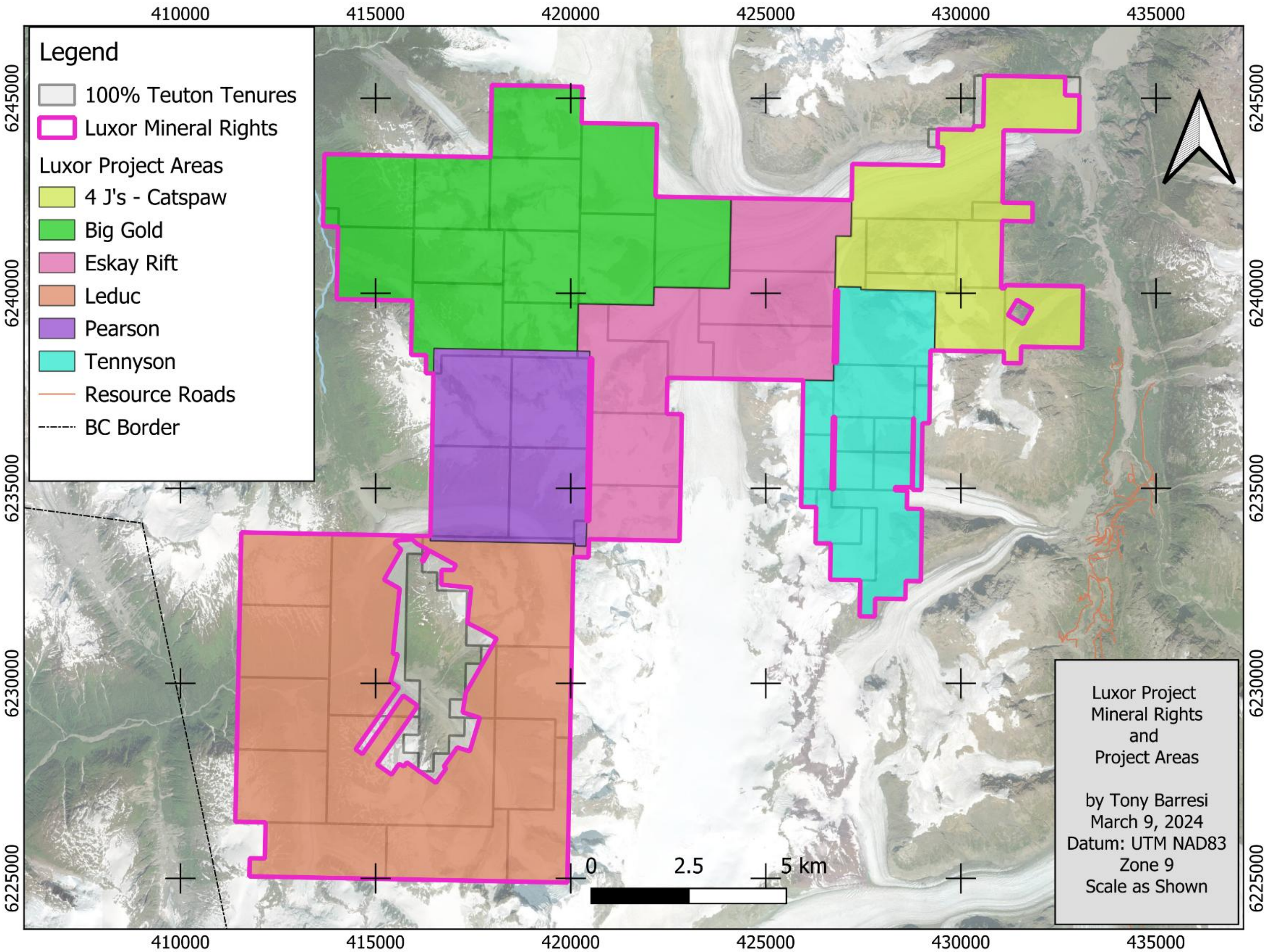

Figure 4-3 Luxor Mineral Rights and Project Areas; discrepancy between Tenures and Mineral Rights (resulting from overlap with Crown grants and Legacy Claims) shown at Leduc and 4 J's areas

4.3 Mineral Tenure System in British Columbia

Mineral claims in British Columbia are issued under the Mineral Tenure Act Regulation (the Act) and are administrated by the MEMLCI. A mineral claim can be registered by an individual or corporation through the Minerals Titles Online (MTO) website which is administrated by the Mineral Titles Branch of the MEMLCI.

Upon registration, a mineral claim is deemed to commence as of that date (Date of Issue) and is good until the "Expiry Date" (Good to Date) that is one year from the date of registration. To maintain the claim beyond the expiry date, exploration and development work must be performed and registered, or a payment instead of exploration and development may be registered. If the claim is not maintained, it will forfeit at the end of the "expiry date" and it is the responsibility of every recorded holder to maintain their claims; no notice of pending forfeiture is sent to the recorded holder. When exploration and development work or a payment instead of work is registered, a claim may be advanced forward to any new date. With a payment, instead of work, the minimum requirement is 6-months, and the new date cannot exceed 1-year from the current expiry date; with work, it may be any date up to a maximum of 10-years beyond the current anniversary year. "Anniversary year" means the number of years that have lapsed since the expiry date issued upon registration of the claim. Work or a "cash-in-lieu of work" payment is registered through the online MTO system. The following outlines the work or "cash-in-lieu" costs required to maintain a claim for 1-year:

- Anniversary Years 1 and 2, $5.00 per ha for work or $10 per ha for cash-in-lieu
- Anniversary Years 3 and 4, $10.00 per ha for work or $20 per ha for cash-in-lieu
- Anniversary Years 5 and 6, $15.00 per ha for work or $30 per ha for cash-in-lieu
- Anniversary Years 7 and subsequent $20.00 per ha for work or $40 per ha for cash-in-lieu

4.4 Permits Required for Future Exploration

Exploration activities as well as permitting in British Columbia, Canada, are regulated by the Mines Act. Authorization permits are required for exploration activities that include mechanical disturbance of ground, tree felling, or geophysical surveys that include exposed electrodes; such activities include drilling, road or camp building, mechanical trenching, etc. Applications for exploration permits are submitted through FrontCounter BC via a Notice of Work (NoW) process and are reviewed by the regional offices of the Ministry of Energy, Mines and Low Carbon Innovation and coordinated by the BC Mine Permitting Secretariat.

Each Notice of Work undergoes technical review and is referred to affected Indigenous Nations. As of 2024, British Columbia has strengthened its requirements for Indigenous consultation and early engagement, in alignment with the Declaration on the Rights of Indigenous Peoples Act (DRIPA). Proponents are now expected to initiate early communication with Indigenous communities prior to submission and may be asked to demonstrate these efforts as part of the permitting process.

Following technical review and consultation, a mines inspector with delegated authority from the Chief Permitting Officer determines whether to authorize the proposed activities and under what conditions, including reclamation bonding. Additional review criteria may include cumulative effects, traditional land use, and wildlife sensitivity, depending on location.

Proposed exploration programs comprising non-invasive activities may not require a permit. Such activities include airborne geophysical surveying, baseline data acquisition, rock or soil sampling, and pitting, trenching, or drilling with hand-held tools.

As of March 2025, new mineral claim applications are now subject to a pre-registration Indigenous consultation process under the province's Mineral Claims Consultation Framework. Claims are not granted until consultation is completed and registration is authorized by the Chief Gold Commissioner.

The following portions of the Luxor Project have current exploration permits (Table 4-2):

Table 4-2 Current Exploration Permits for the Luxor Project

Area	Tenures	Permit #	Approval End Date	Total Disturbance Area	Activities Named
Eskay Rift	1041331, 535896, 535897, 9955980, 527347, 527349, 527350	MX-100000057	31-Mar-26	0.16 ha	Work-related structures; surface drilling; helipads
Pearson	415486, 415487, 415488, 415489	MX-1-955	14-Dec-26	0.15 ha	Drilling, helipads
Tennyson	251127, 251128, 251129, 251130, 409039, 409040, 409042, 508799, 508802, 535897, 535932, 535939, 535940, 535941	MX-1-410	15-Dec-26	0.15 ha	Drilling

4.5 Environmental Considerations

There are currently no environmental issues known to the author that would materially impact the ability to continue mineral exploration and assessment in the Project area. The author is not aware of any existing environmental liability from past exploration programs on the Luxor Project. The author is also not aware of any liabilities from the existing Granduc Tunnel that crosses the claims. Permit MX-1-955 has restricted activities to between July 15 to October 31 annually, due to mountain goat habit sensitivity; other portions of the property may be subject to similar restrictions under potential future permits. Exploration activities may still be permitted within the restricted timeframe if a site-specific mountain goat management plan is developed and implemented.

The Author has been informed by Teuton Resources Corp. that outstanding bonds held by the British Columbia Government for portions of the Luxor Project total $127,466.

4.6 Availability of Land for Potential Future Site Development

The Luxor Project area is entirely Crown land that is not reserved for parks or reserves. There is no surface or private ownership of the land. In the author's opinion, sufficient undeveloped land is present to support future site development should a potential mine be discovered. However, no agreements to secure land access for future development have been established to date by Teuton Resources. Two First Nations are listed by the British Columbia Government as having aboriginal interests in the Project area, the Nisga'a Nation, and the Tsetsaut Skii Km Lax Ha Nation. There are no other significant factors that the author is aware of that would impede potential future land access.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility

The southeastern corner of the Luxor Project is located 38 km northwest of the town of Stewart in northwestern British Columbia, Canada, and the center of the property is approximated 41 km from Stewart. The larger towns of Smithers and Terrace are an approximately 3.5-hour drive from Stewart along a paved highway (Highway 37 and 37A), and both communities have daily flights to and from Vancouver, B.C. The Project can be accessed by helicopter, either from the Stewart Airport, where there is typically at least one helicopter service company stationed, or from locations along the Granduc road, which extends to an airstrip at Tide Flats, which is within 3.5 km of the property (Figure 5-1). Historical excavator, or "cat track" trails access the easternmost portions of the property, but their current condition is not known, and they have not been used by Teuton Resources to access the property. The historical "Tide Tunnel" which connects the Granduc mine (surrounded by the Luxor Project) to the Granduc road is no longer in use. Access by foot is also possible along the slopes north of the Berendon Glacier; however, no trail is in place at present.

5.2 Physiography and Climate

The Luxor Project is located within the Boundary Range of the Coast Mountains of British Columbia. This is a region of sharp craggy ridges and broad U-shaped glacially carved valleys with glaciers at higher elevations. The property is located over the Frank Mackie icefield and several other valley glaciers including the Beredon and Leduc glaciers. Vegetation is sparse, with much of the area containing only barren rock, active glaciers, or glacial debris. Tree line in the area is at approximately 1,350 m with tag spruce and willow below this level. Grasses, heather, and shrubs are located above the tree line. The terrain in the Project area is mountainous and varies in elevation from 520 m along the South Unuk River on the western property boundary, and 2,500 m at the highest peak.

The climate in the area can be severe. Heavy snowfalls in the winter and rain and fog in the summer are typical of the Project area. Snowfall up to 30 m has been experienced at higher elevations within the general area and the snow can remain unmelted in some areas until July. Extreme -20° Celsius or colder weather only occurs in a 6-week period from mid-January to late-February.

In general, fieldwork is feasible from late-June/early-July and may remain possible until between early-September and mid-October.

5.3 Local Resources and Infrastructure

Stewart was once a major mining centre that serviced exploration, mine development and mining in the surrounding area, including for the Granduc, Premier, Scotty Gold, and Porter-Idaho mines. A 2021 census indicates a 517-person population. Despite the town's modest population, and perhaps because of its mining legacy, it has numerous services relevant to mining including various types of accommodations, grocery and hardware stores and a gas station. There is currently at least one diamond drill company based out of Stewart, and the population includes residents skilled in drilling, heavy machine operation, blasting, and other relevant skills. The towns of Terrace and Smithers, located 3.5 hours drive to the south, are local hubs of industry where goods and services of most kinds can be obtained. Natural resource projects in northern BC commonly utilize services offered by local First Nation groups who have small communities throughout the area.

The economy of northwestern British Columbia is based largely on mining and exploration activities, as well as tourism including hunting, fishing, and outdoor recreation pursuits. Education, health services and the public sector in both provincial and First Nations jurisdictions account for a significant proportion of northern employment opportunities. Major mining or mining development projects in northwestern British Columbia currently include Newmont Corp.'s Red Chris and Brucejack mines, Skeena Resources', and Ascot Resources' redevelopment projects at the past producing Eskay Creek and Premier mines, and exploration and development work at Galore Creek (Teck Resources and Newmont Corp.), KSM (Seabridge Gold), and Goldstorm (Tutor Gold).

Northwestern British Columbia and the Stewart area are supported by significant infrastructure relevant to mining and mine development. An all season paved highway (Highway 37) extends from Kitimat in the south to the Yukon border in the north. Stewart is accessed via highway 37A, a spur highway from a junction with Highway 37 at Meziadin. Highway 37A is also an all season paved road. Stewart is the most northerly ice-free shipping port in North America and is accessible to store and ship mining concentrates; it is currently used for shipping concentrate produced from the Red Chis and Brucejack mines and has historically shipped concentrate from other northern mines including Eskay Creek and Wolverine (Yukon). In 2014, BC Hydro completed the 287-kilovolt Northwest Transmission line, a 344 km-long line that extends from Terrace in the south to Bob Quinn Lake Airstrip in the north. An additional 92-km-long extension was subsequently completed, extending northwards to the Red Chris mine. The transmission line has offered connection points for local clean power projects like AltaGas's Forrest Kerr hydroelectric project. A BC Hydro high-voltage 138 Kv transmission line services Stewart and the Long Lake transmission line extends north from Stewart for 57 km to the Brucejack mine. This transmission line is located along the east side of the Granduc road and Tide Flats airstrip; it is 2 km east of the Luxor Project (Figure 5-1).

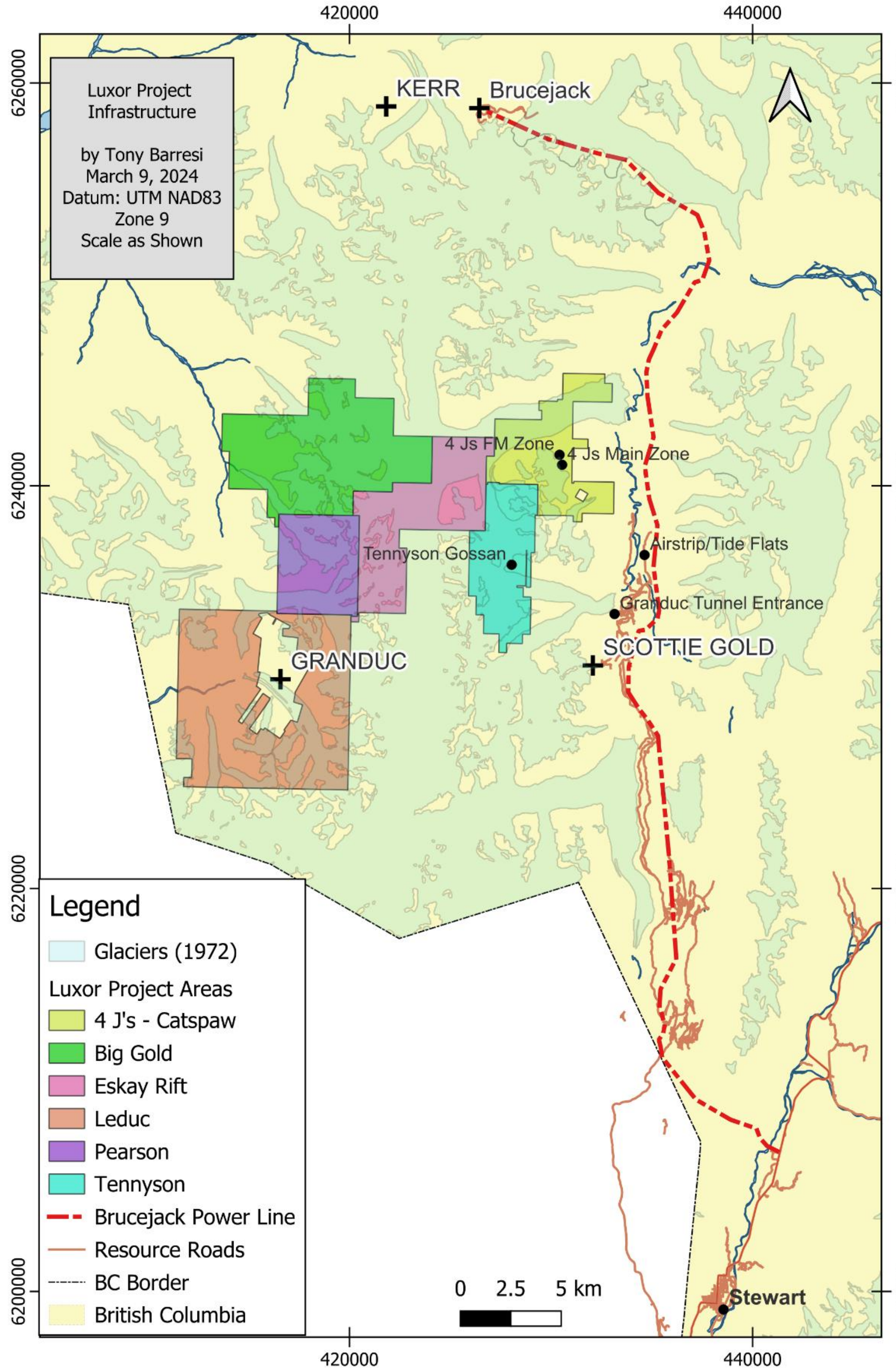

Figure 5-1 Luxor Project Location and Infrastructure

6.0 HISTORY

6.1 Introduction

Previous work programs that are pertinent to the Technical Report are summarized below under chronologically ordered sections that are divided into separate portions of the property referred to as: Tennyson, Four J's/Catspaw; Eskay Rift, Pearson, Big Gold, and Leduc (Figure 5-1). The history of exploration work and mining activities were compiled and edited, with some excerpts, from assessment reports filed with the British Columbia Government, Minfile descriptions available at https://minfile.gov.bc.ca/searchbasic.aspx, and internal Teuton company reports.

6.2 Early Years

The Luxor Project lies at the western edge of a well mineralized area of BC that extends from Stewart and Kitsault in the south to near Telegraph Creek in the north. Within this area, now informally referred to as the "Golden Triangle", mining activity goes back to the turn of the century.

The Stewart region has a long and rich mining and exploration history. The first mineral discoveries in the area were made in 1898 by early placer miners. Mineralization at the Big Missouri mine was found in 1904, above the Salmon Glacier 20 km south of the Project area and a major period of exploration within the Stewart region began in 1910 centred on various, mostly silver, prospects located just north of the head of the Portland Canal along the Bear River and its tributaries. During that year both Stewart and the neighbouring town of Hyder, Alaska boasted populations of around 10,000. Even more interest in the district coincided with the opening of the rich Au-Ag Premier Mine in 1918 but it gradually ebbed during the Great Depression years. Although the entire region was intensively prospected at the time of the Premier and Big Missouri discoveries, during this early-day prospecting there was much less rock exposure because glaciers and permanent icefields covered far greater areas than they do today.

From 1940 to 1979 little work was done on Au and Ag properties due to lacklustre precious metal prices, however, the discovery during that period of the famous Granduc Cu mine and its subsequent development kept Stewart's reputation alive as an important mining district. When Ag and Au prices improved in the early 1980's the area entered a renewed boom period. Successive discoveries of important precious metal deposits such as Snip and Eskay Creek, kept exploration at high levels.

The Luxor Project encompasses specific areas that have been, at various times, separate properties that experienced independent exploration programs. For simplicity, the history of the property has been divided into several areas. The two areas that have had the most advanced exploration are Tennyson and 4 J's (Figure 5-1), in part because of their more accessible locations near the entrance to the Granduc access tunnel.

6.3 Tennyson Area

In the Tennyson area, well documented exploration starting in 1984 is summarized below:

6.3.1 Exploration Chronology

1984 Teuton Resources acquired claims over the prominent gossan at the head of Berendon Glacier and flew an airborne EM and magnetic survey over the property and conducted geochemical sampling (Graves and Sheldrake, 1984).

1985 Teuton Resources carried out a trenching and rock sampling program which identified significant Au-Ag mineralization at numerous sites in the gossan area. Fourteen blasted trenches were completed in this program as well as two reconnaissance soil lines (Cremonese., D.M., 1985).

1986 Consolidated BRX Mining and Petroleum Ltd. drilled 6 holes and conducted a rock geochemical survey. This work partially tested the "Camp Zone", intersecting mineralization in all 6 drill holes spread over 500 m. The highest-grade intersection was 41.0 g/t Au over 2.1 m in drill holeTN86-4 (Table 6-2; Logan 1986).

1988 Keylock Resources Ltd. and Catear Resources Ltd. conducted a rock geochemical (349 samples) and diamond drill program (414.6 meters in 7 drill holes from a single drill pad). The diamond drill program tested for mineralization below and southwest of the Camp Zone (or "Camp Vein") in which drill hole 86-1 intersected 4.7 g/t Au and 41 g/t Ag over 1.6 m (Table 6-2). TN88-03 intersected 3.05 m of 11.51 g/t Au and 527 g/t Ag (Table 6-2).

1990 Keylock and Catear conducted a program comprising the establishment of a grid, prospecting, rock sampling, trenching and geological mapping.

1991 Teuton Resources explored west and northwest edges of the main gossan zone with 17 blasted trenches totalling approximately 68 m. Thirty-six chip samples were taken from the 17 trenches, as well as 5 grab samples. Elsewhere on the property, 28 reconnaissance rock samples were taken including chip, grab, and float samples (Cremonese, 1991).

1992 Teuton drilled 5 diamond drill holes on the property with 3 holes collared at an elevation of 1520 m to explore a zone of surface Cu-Au mineralization discovered in 1991. Two holes were collared at elevation 1560 m, about 280 m to the southeast of the first 3 holes. These tested a zone in the northeast portion of the gossan where a 1988 chip sample returned 1.0 g/t over 3.0 m. TN92-03 intersected 99.06 m of 0.34 g/t Au and 0.33% Cu and bottomed in mineralization (Table 6-2; Cremonese, 1992).

2004 Teuton conducted a geochemical program on the property. A total of 28 samples were taken: 4 float, 10 chip and 14 grab samples from newly exposed outcrops along the retreating glacier edge on the northern and western sides of the main gossan.

2006 Teuton flew an airborne EM and magnetic survey as part of a larger survey in the general Tennyson area. This survey indicated large magnetic anomalies just north of the main Tennyson gossan (Armstrong et al, 2006).

2009 Teuton conducted an exploration program including rock sampling and diamond drilling (Cremonese, 2009). Altogether, 48 samples were collected from the southern portion of the main gossan, including more newly exposed areas. Two diamond drill holes totaling 610.5 m of drilling tested a zone anomalous in Au and As discovered during the 2009 rock sampling program. Drill hole TN09-02 intersected 60.9 m of 0.9 g/t Au (Table 6-2).

2010 Teuton completed 2308.86 m of drilling in 10 holes with 3 testing porphyry Cu-Au potential and 7 testing west of the 1996 and 2009 drill holes. TN10-06 intersected 71.93 m of 0.25 g/t Au and 0.32% Cu (Table 6-2) in the porphyry Cu-Au area (Cremonese, 2010).

2011 Teuton drilled 16 holes totaling 3,122.98 m from three separate pads within the main gossan (Cremonese and Mullin, 2012). The drill holes intersected broad intervals of Cu and Au mineralization. Key results were as follows (Table 6-3 for more details):

- TN11-03: 81.7 m at 0.32 g/t Au and 0.33% Cu
- TN11-04: 229.5 m at 0.25 g/t Au and 0.32% Cu
- TN11-08: 103.6 m at 0.31 g/t Au and 0.42% Cu
- TN11-10: 192.0 m at 0.20 g/t Au and 0.32% Cu
- TN11-14: 106.6 m at 0.24 g/t Au and 0.42% Cu

2012 Brigade Holdings (Canada) Ltd. conducted detailed (1:2,000) and reconnaissance (1:10,000) scale geologic mapping in the Tennyson area (van Straaten, 2013). The program defined several alteration and spatially coincident surface geochemical anomalies with alteration and element zonation characteristics consistent with a Cu-Au porphyry system. Brigade also relogged 6,347 m of historic drill core, resampled 915 m of 1986 drill core for which Cu assays were previously not available, collected 360 surface soil, talus fines, and rock chip and grab samples, completed 5.2 line-km of IP, 2.5 km^2 of ground magnetic surveys, and studied 39 petrographic samples.

2013 Brigade Holdings (Canada) Ltd. drilled 6,770 m in 16 drill holes as well as completing geochemical, ground magnetic and ground penetrating radar surveys. Key results were as follows (Table 6-4; van Straaten et al., 2014):

- TN13-02 128.05 m of 0.388 % Cu, 0.256 g/t Au and 1.3 g/t Ag
- TN13-09 205.54 m of 0.300 % Cu, 0.227 g/t Au and 1.8 g/t Ag
- TN13-12 103.62 m of 0.246 % Cu, 0.129 g/t Au and 0.6 g/t Ag

6.3.2 Drilling Summary

Diamond drill programs were conducted on the property in the 1986, 1988, 1992, 2009, 2010, 2011 and 2013 field seasons by various operators. This drilling totaled 13,564.65 m in 64 holes located to test various mineralized zones and geophysical targets in the Tennyson area. Table 6-1 summarizes the number of drill holes and total meterage by year, and Tables 6-2, 6-3, and 6-4 compile the more significant drill intersections.

Table 6-1 Drill Hole Summary for Tennyson 1986 - 2013

Years Drilled	Total Number of Holes	Total Metres
1986	6	914.69
1986	4	514.00
1988	7	414.52
1992	5	414.82
2009	2	610.51
2010	10	1,698.35
2011	12	2,346.35
2013	18	6,651.41
Total	64	13,564.65

Drilling in 1986 tested high Au bearing structures located by sampling in 1985 with the best result in TN86-4, which intersected 41.0 g/t Au and 284.2 g/t Ag over 2.1 m (Table 6-2).

Drilling in 1988 tested sulfide bearing zones in the SW portion of the gossan thought to have epithermal Au potential. TN88-03 intersected 3.05 m of 11.51 g/t Au and 527 g/t Ag (Table 6-2).

Drilling in 1992 was the first to explicitly target porphyry style Cu-Au. TN92-03, collared at the north end of the gossan, intersected 99.06 m of 0.34 g/t Au and 0.33 % Cu, and bottomed in mineralization (Table 6-2).

In 2009, drilling tested beneath a zone anomalous in Au and As discovered during a rock sampling program that same year. In 2010 drilling tested the area of porphyry Cu-Au as well as the area of the 1986 holes. TN2010-06 intersected 71.93 m of 0.25 g/t Au and 0.32 % Cu in the porphyry Cu-Au area (Table 6-2).

Table 6-2 Tennyson - Significant Drill Results 1986 - 2010

Drill Hole No.	From (m)	To (m)	Core Interval (m)	Au (g/t)	Ag (g/t)	Cu (%)
TN86-1	2.80	4.30	1.50	1.20	0.70	
	26.50	28.10	1.60	0.58	2.10	
	122.60	124.10	1.50	0.98	10.30	
	124.10	125.70	1.60	4.70	41.00	
	133.30	134.80	1.50	0.58	13.10	
	134.80	136.30	1.50	0.53	10.90	
	148.50	150.10	1.60	2.62	32.90	
TN86-2	28.10	28.50	0.40	1.85	15.50	
	51.50	53.00	1.50	3.15	30.20	
TN86-3	13.50	13.80	0.30	1.32	30.90	
	49.40	49.70	0.30	0.19	7.30	
TN86-4	58.60	60.10	1.50	0.81	3.10	
	125.10	127.20	2.10	41.00	284.20	
TN86-6	3.70	5.20	1.50	0.62	7.40	
	116.50	118.10	1.60	0.73	4.70	
	128.70	130.20	1.50	0.56	0.80	
	130.20	131.70	1.50	0.55	1.00	
	134.80	136.30	1.50	0.52	0.70	
WLK-1	74.80	76.60	1.80	1.21	13.49	
TN88-01	15.09	15.39	0.30	2.49	46.21	
	17.37	17.53	0.15	0.82	541.48	
TN88-03	14.63	17.68	3.05	11.51	527.30	
TN88-05	39.01	39.93	0.91	0.79	456.43	
	57.91	59.13	1.22	3.23	796.62	
TN88-07	28.35	29.26	0.91	1.53	116.23	
	54.25	55.47	1.22	1.30	28.07	

Drill Hole No.	From (m)	To (m)	Core Interval (m)	Au (g/t)	Ag (g/t)	Cu (%)
TN92-01	1.52	39.62	38.10	0.31		0.37
	39.62	60.66	21.04	0.10		0.21
	60.66	94.49	33.83	0.35		0.38
TN92-02	0.91	21.95	21.04	0.53		0.35
	21.95	47.24	25.29	0.25		0.22
	47.24	64.00	16.76	0.37		0.42
TN92-03	1.52	100.58	99.06	0.35		0.33
Incl.	1.52	44.19	42.67	0.28		0.30
Incl.	44.19	78.03	33.84	0.51		0.40
Incl.	78.03	100.58	22.55	0.23		0.28
TN09-01	129.54	132.59	3.05	1.71		
TN09-02	54.25	55.78	1.53	3.65		
	96.93	157.89	60.96	0.90		
Incl.	136.55	156.36	19.81	2.00		
Incl.	147.22	148.74	1.52	18.95		
TN10-04	0.00	106.07	106.07	0.22		0.29
TN10-05	0.00	88.39	88.39	0.25		0.32
TN10-06	0.00	71.93	71.93	0.25		0.32

In 2011, Teuton concentrated on exploring the porphyry Cu-Au potential of the area. They drilled 16 holes from 3 pads (Table 6-3).

Table 6-3 Tennyson - Significant Drill Results 2011

Drill Hole	From (m)	To (m)	Width (m)	Gold (g/t)	Copper (%)
TN11-01	2.1	15.2	13.1	0.32	0.44
TN11-02	1.5	71.6	70.1	0.17	0.31
TN11-03	0	81.7	81.7	0.32	0.33
TN11-04	0	229.5	229.5	0.25	0.32
TN11-05	94.8	95.7	94.8	0.17	0.30
	130.5	157.9	35.2	0.27	0.34
TN11-06	0.6	99.1	98.5	0.22	0.43
TN11-07	0.6	126.5	125.9	0.27	0.40
TN11-08	3.1	106.7	103.6	0.31	0.42
TN11-09	0.5	101.5	101	0.26	0.32
TN11-10	0.3	192.3	192	0.20	0.32
TN11-11	0	119.8	119.8	0.19	0.30
TN11-12	1.2	68.9	67.7	0.21	0.30

Drill Hole	From (m)	To (m)	Width (m)	Gold (g/t)	Copper (%)
TN11-13	98.1	158.1	60	0.14	0.22
TN11-14	54.6	161.2	106.6	0.24	0.42
TN11-15	51.2	262.7	211.5	0.15	0.22
TN11-16	32	152.1	120.1	0.12	0.21

During 2012 Brigade Holdings relogged 6,347 m of historic drill core and resampled 915 m of 1986 drill core for which Cu assays were previously not available. The 6 holes drilled by BRX Consolidated in 1986 targeted shallow, high grade epithermal Au-Ag veins, and although chalcopyrite had been reported in several of the drill holes, the core had only been analyzed for Au and Ag. All six 1986 holes totaling 915 m were relogged and sampled. The sampling indicated porphyry Cu-Au values over significant lengths and extended the porphyry footprint. A total of 337 core samples were sent for analyses with select individual assays shown as follows:

- 2.74 m of 1.565 g/t Au and 0.038 % Cu in TN86-01
- 3.65m of 0.458 g/t Au and 0.216 % Cu in TN86-02
- 3.36 m of 0.494 g/t Au and 0.31 % Cu in TN86-06

During 2013 Brigade Holdings drill tested porphyry Cu-Au potential in the northwest and southeast portions of the main gossan area. Figure 6-1 shows the location of the 2013 drill holes and Figure 6-2 shows the assay cross-section for holes TN13-04 to TN13-6 inclusive, TN10-6 to TN10-8 inclusive, and TN86-03 and TN86-04. Assay result highlights for the 2013 drilling are shown in Table 6-4.

Table 6-4 Tennyson Significant Drill Results-2013

Hole ID	From (m)	To (m)	Length (m)	Cu (%)	Au (g/t)	Ag (g/t)
TN13-02	1.76	18.90	17.14	0.295	0.157	1.1
TN13-02	61.61	134.36	72.75	0.249	0.170	5.5
TN13-02	143.90	171.34	27.44	0.175	0.091	1.1
TN13-02	183.54	311.59	128.05	0.388	0.256	1.3
TN13-02	323.78	332.93	9.15	0.023	0.556	0.6
TN13-03A	64.01	97.56	33.55	0.149	0.357	7.5
TN13-03A	112.80	128.05	15.25	0.206	0.220	1.6
TN13-03A	164.63	246.95	82.32	0.214	0.216	1.0
TN13-03A	292.68	304.88	12.20	0.145	0.108	0.9
TN13-04A	90.24	96.34	6.10	0.021	2.210	10.8
TN13-04A	126.83	129.88	3.05	0.022	0.381	13.0
TN13-04A	154.27	190.58	36.31	0.035	0.401	1.4

Hole ID	From (m)	To (m)	Length (m)	Cu (%)	Au (g/t)	Ag (g/t)
TN13-04A	254.88	264.02	9.14	0.063	0.183	3.0
TN13-04A	291.46	330.51	39.05	0.050	0.286	1.2
TN13-04A	398.17	437.80	39.63	0.228	0.112	0.4
TN13-04A	492.68	501.83	9.15	0.063	0.310	0.6
TN13-05	1.67	35.06	33.39	0.035	0.296	2.9
TN13-05	71.63	96.01	24.38	0.054	0.250	2.2
TN13-05	114.30	245.43	131.13	0.171	0.196	2.6
TN13-06	53.23	65.55	12.32	0.010	0.668	0.4
TN13-06	196.65	202.74	6.09	0.012	0.324	2.1
TN13-06	242.38	248.48	6.10	0.033	0.339	3.2
TN13-06	312.50	330.79	18.29	0.026	1.367	0.7
TN13-07	292.38	298.48	6.10	0.006	0.446	2.6
TN13-07	325.91	414.33	88.42	0.188	0.199	1.9
TN13-07	447.87	478.35	30.48	0.167	0.193	0.8
TN13-07	493.60	524.09	30.49	0.185	0.101	0.4
TN13-07	533.23	547.68	14.45	0.215	0.095	0.3
TN13-08	0.80	13.10	12.30	0.040	0.543	0.7
TN13-08	19.21	31.40	12.19	0.053	0.326	0.7
TN13-08	67.99	77.13	9.14	0.038	0.247	2.4
TN13-09	46.90	252.44	205.54	0.300	0.227	1.8
TN13-09	261.15	273.78	12.63	0.262	0.071	0.7
TN13-12	36.58	140.20	103.62	0.246	0.129	0.6
TN13-15	199.95	203.00	3.05	0.022	0.656	0.7
TN13-15	245.67	248.72	3.05	0.014	1.543	0.2
TN13-15	337.11	340.16	3.05	0.014	2.220	0.2
TN13-16	72.87	130.79	57.92	0.060	0.454	0.5

On the main gossan, drilling has indicated a zone of porphyry Cu-Au style mineralization that is up to 300 m thick and 700 m in strike-length bound by several thrust fault splays.

Southwest of the indicated porphyry mineralization, drilling has indicated an area of anomalous Au with low Cu values that may represent the edge of the porphyry system.

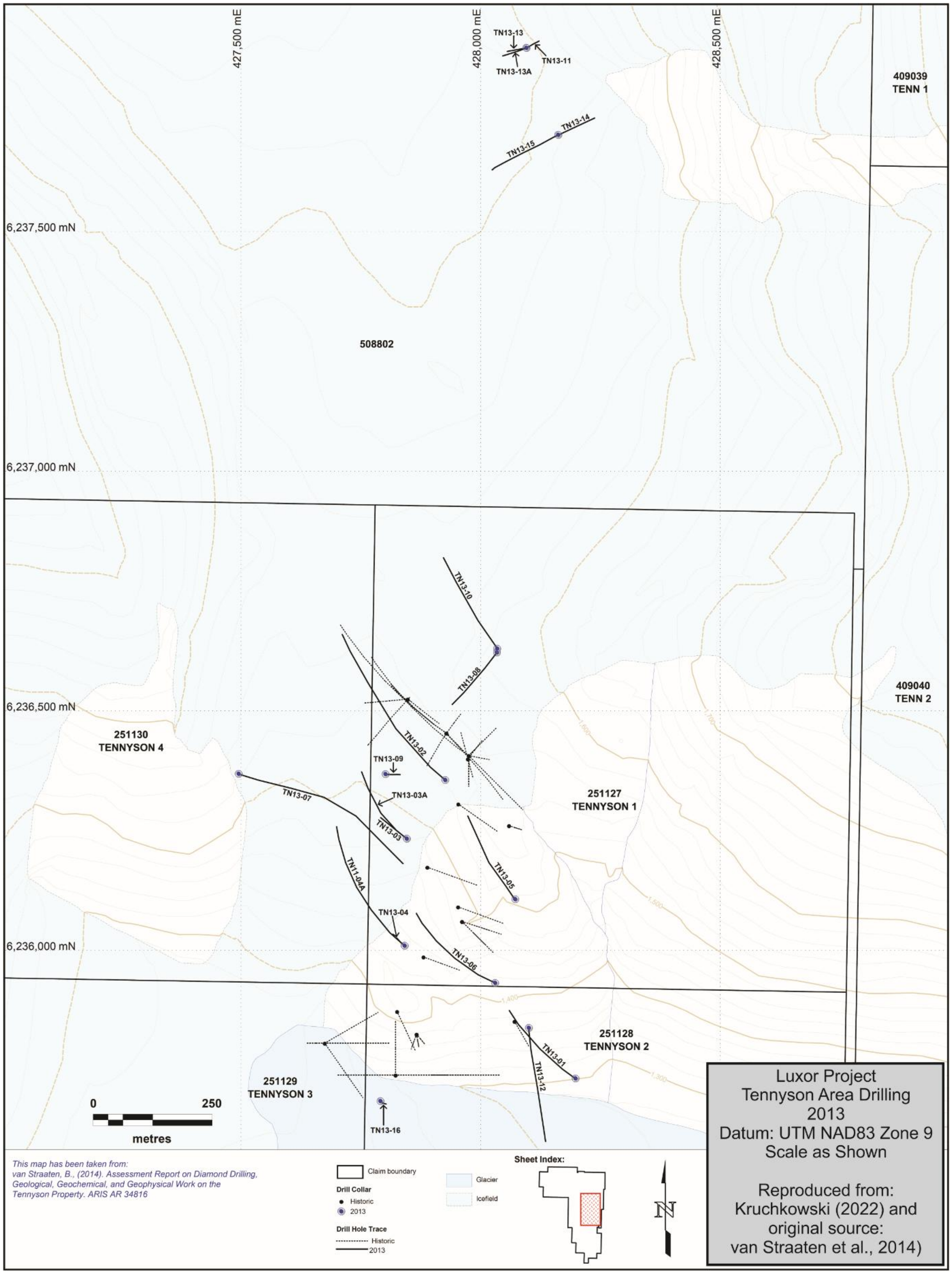

Figure 6-1 2013 Drilling at Tennyson

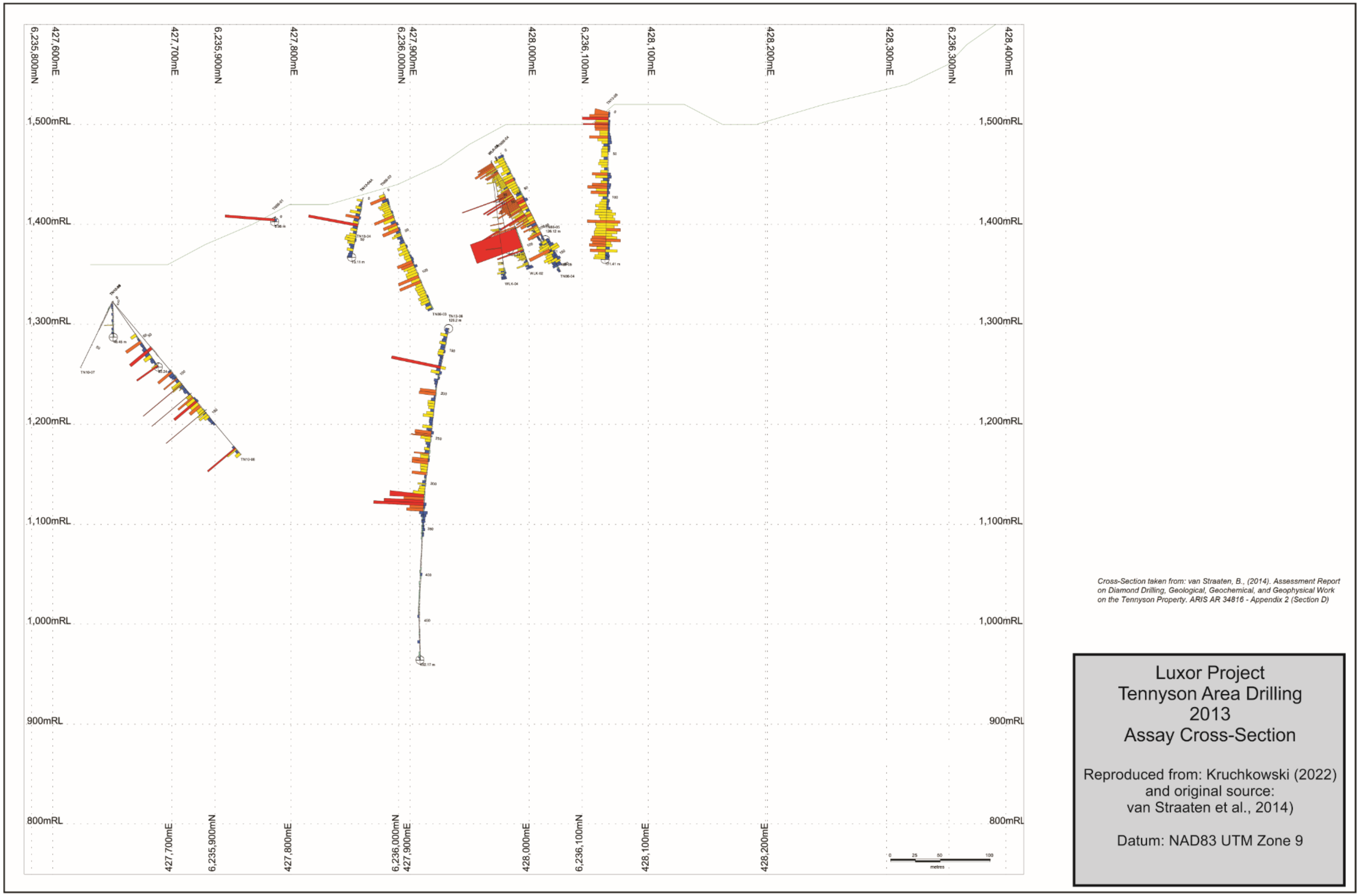

Figure 6-2 Assay Cross-Section of 2013 Tennyson Drilling

6.3.3 Surface Geochemistry

Soil sampling was conducted in the Tennyson area in 1985 (27 samples), and 2012 (89 samples). Combined the surveys show a strong Au-Cu anomaly over the main Tennyson gossan, with only slightly to background level concentrations east of the Northeast fault.

In 2012, 59 talus fines samples were collected at 50 m intervals along 10 sampling traverses that cover the main gossan area. Talus fines sampling showed consistent and highly anomalous Cu and Au values over the full survey area. Overall, the 2012 values varied from <0.005 to 4.70 ppm Au, <0.5 to 9.3 g/t Ag, 162 to 7340 ppm Cu, 6 to 1200 ppm Pb and 28 to 772 ppm Zn. One high grade Au value (4.7 g/t) in the NE likely reflects the influence of a nearby vein.

Extensive rock geochemical sampling programs were conducted in the Tennyson area in 1984, 1985, 1988, 1990, 1991, 2004, 2009 and 2013. Much of the exploration success at Tennyson can be attributed to prospecting, leading to discovery of widespread mineralization and local areas with higher grade mineralization.

- In 1984 as follow-up to an airborne survey, rock sampling returned Cu values to 6% in the vicinity of an indicated EM anomaly, and Au values to 11.86 g/t Au 100 m west of the anomaly.
- During 1985, 14 one-meter chip samples were collected over a strike length of approximately 34.0 m along a zone of mineralization with one sample grading 29.5 g/t Au and 2.1 g/t Ag.
- In 1988, a total of 349 rock samples were collected. Values range from 5 ppb Au up to 14.98 g/t Au and below detection to 506.8 g/t Ag.
- In 1990, rock sampling returned values ranging from 5 ppb up to 122.1 g/t Au, from 0.4 to 2.67 g/t Ag and from 0.05 to 3.09% Cu.
- The 1991 sampling program consisted of 5 grab samples from trenches as well as 28 reconnaissance rock samples including chip, grab, and float samples. Assay results indicated 5 ppb to 13.49 g/t Au, 0.4 to 136.27 g/t Ag, 39 ppm to 2.229 % Cu, 6 ppm to 1.54 % Pb and 32 ppm to 6.2 % Zn.
- In 2004, 28 samples were collected from zones exposed by retreating ice along the northern and western edge of the gossan. Assay results indicated 7 ppb to 1.8 g/t Au, 0.3 to > 100 g/t Ag, 13 to >10,000 ppm Cu, 3 to >10,000 ppm Pb, and 5 to > 10,000 ppm Zn.
- In 2009, 50 samples were collected from the southern portion of the Tennyson gossan. Anomalous grades in Au, Ag, Cu, Pb, Zn and As were indicated with Au values up to 13 g/t in float. Bedrock grab samples yielded up to 2.9 g/t Au associated with over 1% Cu.
- In 2012 a total of 212 grab, targeted chip and non-targeted chip samples were collected. Systematic, grid-based, 'average' chip sampling (non-targeted) was completed at a

reconnaissance scale with lines 200 m apart with sampling spaced 50 m apart. At each site, a 10 m long sample line was measured out with sample collection points marked at 0.5 m intervals along the line. Targeted chip samples were taken across veins and/or suspect high-grade zones in the area. Generally, targeted chip samples were 1, 5, or 10 m in length. For the 36 targeted chip line samples, values varied from <0.005 to 0.759 g/t Au, <0.5 to 44 g/t Ag, <1.0 ppm to 0.946% Cu, <2.0 to 56 ppm Pb and <2.0 to 188 ppm Zn. The 84 average chip line samples gave values varied from <0.005 to 0.221 g/t Au, <0.5 to 3.1 g/t Ag, 2 to 258 ppm Cu, <2.0 to 167 ppm Pb and 23 to 940 ppm Zn. For the grab samples, 92 samples yielded values varying <0.005 to 0.589 g/t Au, <0.5 to 2.7 g/t Ag, 2 ppm to 1.65 % Cu, <2.0 to 32 ppm Pb and 33 to 322 ppm Zn.

- In 2013, a total of 76 average chip, targeted chip, and grabs were collected along a large scale of interest, covering the entire Tennyson area. Values varied from 4 ppb to 3.39 g/t Au, <0.5 to 77 g/t Ag, 49 ppm to 0.73 % Cu, 1.1 to 309.7 ppm Pb and 23 to 1440 ppm Zn.

6.3.4 Trenching

Trenching at Tennyson was completed using a portable rock drill capable of creating a 0.6 to 1.4 metre hole, explosives and hand digging tools.

In 1985, a total of 14 trenches were put it in and rock samples were taken at 2 m intervals with 44 samples collected in total. Trenches T1 to T7 contain bands of sulfide mineralization, predominantly pyrite with minor galena and sphalerite, in a sericite altered volcanic rock containing occasional wisps and bands of graphitic argillite. Au values range from 0.14 g/t to 22.71 g/t; Ag values from 2.37 g/t to 467.1 g/t; Cu from 0.01 to 0.45%; Pb from 0.02 to 1.93%; Zn from 0.074 to 2.93%. In this program, Trench T1, in the southwest portion of the gossan area, gave a value of 6.6 g/t Au and 39 g/t Ag over a width of 10 m, within sulphide rich silicified rocks.

Trenching during 1990 in the SE portion of the gossan was carried out, primarily to remove overburden from a poorly exposed Cu zone. The best trench returned values up to 0.42% Cu over 12 m.

In 1991 trenching was carried out on Cu bearing zones with massive pyrite stringers and veins along the west and north edge of the main gossan area. A total of 65.7 m of trenching was completed in 15 different excavations. The best result was 0.55 g/t Au and 0.35% Cu over 26 m in trench T91-15 located over porphyry Cu-Au type mineralization.

6.3.5 Magnetic Surveys

Airborne EM and magnetic surveys have been flown over the Tennyson area as parts of larger survey programs in the Berendon and Bowser valleys.

In 1984, Teuton completed 17.5-line km of survey over the area using the Apex Geophysical System comprised of a High Sensitivity electromagnetometer (HEM), and a Total Field Nuclear Precession Magnetometer. The airborne survey defined a sharp, localized magnetic anomaly in the Tennyson area but did not indicate any prominent EM features.

In 2006, the area was surveyed by Aeroquest Limited using the AeroTEM II time domain helicopter electromagnetic system in conjunction with a high-sensitivity cesium vapour magnetometer. Strong magnetic anomalies were detected in several areas: one below the Mount Berendon area and another just north of the main gossan. The sources for anomalous magnetic responses are interpreted to be predominantly magnetite because of the relative abundance and strength of response (Armstrong et al., 2006).

In 2012, an approximately 25 line-km ground-based magnetic survey was conducted within a 2.5 km^2 area over the main gossan at Tennyson. The survey was an attempt to map the lower amplitude magnetic features with higher resolution data within the main gossan and surrounding area. The survey data coincides closely with mineralization and alteration mapped and tested on surface and in drill holes. There is a clear correlation between magnetic highs, K-silicate alteration, and Cu-Au mineralization (van Straaten, 2013). More subtle magnetic anomalies appear to coincide with zones of quartz-sericite-pyrite alteration overprinting K-silicate alteration and relatively lower grade but still anomalous Cui-Au mineralization. Magnetic anomalies include extensive untested targets within the survey area. In 2013, the ground magnetic survey was extended by an additional 9-line-km to verify a possible magnetic anomaly on the northern margin of the main gossan area. A total of 9 km of magnetics surveying was completed. The expanded dataset shows a weak magnetic high extending to the north of the north-central portion of the main gossan. This weak anomaly is truncated by an east-northeasterly feature likely associated with the thickening of underlying glacial ice.

6.3.6 IP Survey

In 2012, an IP survey was conducted over the main Tennyson gossan area to determine chargeability over magnetic features. The survey was conducted with 100 m spacing and had an approximate depth of investigation of 250 m (van Straaten, 2013). The data was inverted in 2D and 3D models. Results from the survey were considered unreliable due to irregular coverage, bisection of features at low angles, ice and snow coverage, and other environmental and topographic constraints. The survey does indicate a northwest trending chargeability feature similar in size and geometry to the prospective magnetic feature.

6.3.7 Age Dating

In 2013, age dating was carried out on recovered zircons from quartz feldspar porphyritic rocks as well as rhenium within molybdenite (van Straaten et al., 2014). A molybdenite-bearing rock sample was processed for Re-Os age dating from hole TN11-12 at 61.9 m. The sample returned an age of 200.4 ± 0.8 Ma. A total of 16 analyses from a quartz-feldspar porphyry gave a weighted average 206Pb/238U age of 200.5 ± 0.8 Ma, which is interpreted as the crystallization age of the sample. Both age dating periods suggest a lower Jurassic time period for the intrusive and age of mineralization. The age dates would suggest that the altered rocks within the main gossan area are Triassic Stuhini Group or early Jurassic Hazelton Group.

6.4 4 J's Catspaw

The recorded history of the Catspaw/4 J's area begins in 1928 when the Catspaw area was staked by Alphonse Thomas of Stewart, B.C., The area was examined in 1929 by Premier Gold Mining Company who conducted a program of surface stripping, open cuts, and excavating a 50 m adit in 1930. Results of the work are unknown, but the property ownership remained with Thomas. Although there are no records, it is stated in numerous assessment reports that Thomas maintained the claims with surface and short underground exploration campaigns. Silver Standard Mines acquired claims covering the area during 1967, and later in 1980 Northair Mines Ltd. undertook a limited geochemical soil sampling program near the main surface and underground workings. In 1980 Elan Exploration staked the ground surrounding the Catspaw claim and conducted surface programs of geological mapping and rock and stream silt sampling.

In 1983 Teuton Resources Corp. optioned the Catspaw claim and expanded the size of the property by staking most of the 4 J's area of the current Luxor Project (Figure 5-1). The property was optioned by Teuton to Bilikin Resources who identified a stratiform Pb-Zn-Sb (Au-Ag) occurrence and a boulder train with Ag rich quartz-sulfide mineralization in the 4 J's area (Main zone). The option by Bilikin Resources was relinquished, and in 1984 the 4 J's / Catspaw area was optioned to Canadian United Minerals Inc. Canadian United conducted an airborne electromagnetic and magnetic survey that identified two EM anomalies beneath glacial ice in close proximity to the location of stratiform mineralization identified in 1983.

In 1985 Noranda Exploration Company sub-optioned the 4 J's property from Canadian United Minerals and conducted a one-season exploration program that included prospecting, mapping, sampling, and a ground-based electromagnetic survey. Although significant mineralization was identified in numerous areas, and several styles of mineralization were defined, Noranda dropped the sub-option.

In 1986 Teuton Resources conducted a geochemical exploration program, collecting 70 rock samples from a little-explored area south of the glacier on the western portion of the Catspaw area (Kruchkowski and Konkin, 1988). A vein system striking approximately 120° and exposed intermittently over 150 m length was identified and yielded several assays with significant values as high as 46.2 oz/t [1309.7 g/t] Ag and 4.25 g/t Au.

In 1987, the 4 J's area was optioned by Teuton to Wedgewood Resources. A field program that same year concentrated on prospecting, trenching, sampling and geochemical surveys on the 4 J's area and surrounding claims.

In 1988, Wedgewood carried out further rock sampling and mapping in the 4 J's and Catspaw areas before discontinuing the option (Burson and Hall, 1988). At 4 J's they intended to blast Smalles glacier to trace a sedimentary exhalative horizon, but the program was thwarted by persistent unmelted snowpack that covered the horizon and associated boulder train. Instead, 133 one m chip samples were collected across areas of yellow-brown gossans with pyrite (up to 15%), and trace pyrrhotite and arsenopyrite. Results of the chip samples were mainly background levels. To the south in the Catspaw area Wedgewood collected 28 samples mainly with background values; a few samples had elevated precious metal values up to 33.9 g/t Ag and 1.44 g/t Au.

In 1989 Maple Resources optioned 4 J's and conducted a mapping, sampling, and a 4.5 line-km VLF-EM geophysical survey. They produced two 1:2,500 scale maps and collected 365 rock samples and 91 soil/talus fines samples. The program identified several interpreted sedimentary exhalative style Pb-Zn-Ag occurrences; they also defined a new highly anomalous (Pb-Zn-Ag) zone through soil sampling.

In 1990 Maple Resources conducted the most comprehensive exploration yet seen in the 4 J's area. It included property scale mapping as well as detailed mapping of the FM, Main and North zones (Chapman et al. 1991). In addition, 1,223 soil/talus fines samples, 42 stream silt samples, and 9 heavy mineral sediment samples were collected. This program also included the first documented drilling in the 4 J's area. Five diamond drill holes totaling 334.06 m were completed in the FM zone, from four pad locations, where they tested a strong gold-in-soil and rock geochemical anomaly associated with limonitic shear zones and stratiform massive sulfide lenses/veins in cherty sedimentary horizons.

Geochemical results for this program are summarized in the report Chapman et al. (1991), but the report is not complete and individual sample assay results or certificates are not included in the portion of the report provided for the Author. Drill holes MA-90-01 and MA-90-2 are stated to have made significant gold intersections "*In hole MA-90-1 an assay of 0.078 oz/ton gold* [2.2 g/t] *was recorded from 12.00 to 22.84m (9.84 m)*[2]*, and hole MA-90-2 returned 0.69 oz/ton gold* [19.6 g/t] *from 13.52 to 20.68 m [7.16 m]*." Both intersections were within an interval of interbedded argillite and siltstone with silica and carbonate alteration that is associated with ≤ 1% pyrite. No geochemical results are recorded for the other three holes except the comment that there were no significant results.

In 1990 Big I Developments Ltd., optioned the area surrounding the Catspaw showing and conducted geological mapping, limited VLF-EM and magnetometer surveys and rock trenching (McLeod,1991). They also drilled a 17.9 m long diamond drill hole on the Hida claim, which is surrounded by but not part of the Luxor Project. Forty-four samples were submitted for assay which were mainly from near the main Catspaw showing. Results were variable, ranging from trace to high grade with assays up to 39.19 g/t Au. The samples had very high As concentrations, many in excess of 1%, and some with elevated to high Au values. One sample of drill core collected from a depth of approximately 6 feet [1.83 m] assayed 1.03 g/t Au; the length of the sample is uncertain. The work summary states that all of the known metal-bearing showings in the Catspaw area are related to quartz breccia veining in east-west oriented faults; rock sample assays ranged up to 39.77 g/t Au and 4,526 g/t Ag.

In 1991 Big I Developments conducted a drill program at Catspaw comprising 3 drill holes from two pad locations, totaling 287 m (AQ diameter core). One of those holes (91-1) was on the Haida claim, which is not part of the Luxor Project and the other two are south of the Luxor Project boundary. Mineralized structures with pyrite and arsenopyrite were encountered in the drill holes yielding low grade Au values. The best results were from drill hole 91-2 and graded 0.011 oz/ton Au [0.31 g/t] and 0.79 oz/ton [22.4 g/t) Ag over 11 m from 57.60 to 68.60 m depth.

In 1992 Teuton carried out a 2-day program of sampling and trenching in the largely overburden-covered 4 J's Main Zone. This work defined additional areas with laminated sulfides in argillite.

[2] Either the interval depths, or the interval length are/is incorrect here. Original data results are not available to validate.

Brief (1 to 3-day) prospecting programs were conducted at the 4 J's area in 1992, 1993, and 1998. These programs consisted of limited trenching, sampling of float and outcrop and a geophysical EM "Beep Test" (Cremonese, 1994a). The beep test failed to identify conductors, possibly due to the thickness of overburden. Trenching identified an extension of the laminated sulfide mineralization in the 4 J's Main Zone and included a sample with 7.4% Pb, 11.7% Zn and 209.14 g/t Ag across a width of 3.0 m, approximately 20 m west and along strike of the main showing (Trench 98-1; Cremonese, 1994). Trench 91-3, a further 100 m to the west, yielded 3% Pb, 2.6% Zn and 45.36 g/t Ag over 1.0 m.

In 2006 a 473 line-kilometre electromagnetic and magnetic geophysical survey were conducted over the 4 J's, Catspaw and Tennyson areas with 100 m line spacing (Armstrong et al, 2006). The AeroTEM survey was flown by Aeroquest Ltd., for Teuton Resources. It identified northwest trending alternating domains of high and low conductivity. The North, Main and South zones at 4 J's have mineralization with similar orientation to the geophysical trend, but these zones straddle bands of high and low conductivity. The original 4 J's showing is within a broad area of low conductivity but centers over the southern tip of an approximately 260 m long, more subtle, EM high within the broader low. This EM anomaly corresponds to an anomaly > 700 m long that was identified through the VLF-EM survey conducted in 1990 by Maple Resources. Just to the west of the historical areas of interest at 4 J's a large and strong EM conductor lies beneath the Smalles Glacier which is rapidly receding. This conductor is approximately 2 km long, and on average about 200 m wide. Portions of it are likely recently exposed along the lateral edge of the glacier.

In 2011 the 4 J's area was optioned to Rotation Minerals who, that same year, conducted a small prospecting program which included collection of 13 outcrop and float geochemical samples (Kruchkowski, 2012). Rotation Minerals continued exploration at 4 J's in 2012 with a drill program comprising 1,345 m of BTW diameter drilling in 25 holes from one pad location. An underground style drill was used to drill fans of shallow holes ranging from 0° inclination to -30°. The target was a bedding parallel domain that contains lenses of massive sulfide. The domain is located on the southeast margin of the EM anomaly that was identified by multiple EM surveys including the 2006 airborne survey. Fifteen of the 25 drill holes intersected massive sulfide with significant precious and base metal grades (Table 6-5). The mineralized domain is contained within highly graphitic black argillite that is crosscut by a strong quartz veinlet stockwork with local coarse sulphides, and minor domains of bedded sphalerite and bournonite. The best results from the 2012 program included: 2.44 m grading 1.29 g/t Au, 140.5 g/t Ag 3.23% Pb, and 11.93% Zn in drill hole 4J-1, from 11.59 to 14.02 m depth (Kruchkowski, 2012).

In 2016 Rotation Minerals Ltd. conducted a rock sampling program that included 40 rock samples from outcrop and 29 samples of float (Walus, 2017). This program tested several areas not previously prospected, including locations close to the Frank Mackie Glacier, on both northern and southern sides of the glacier. Many samples returned anomalous values for Ag, Cu, Pb, and Zn. Sample FJKM-6, a grab from a silicified argillite returned 927 ppb Au and 2955 ppm Zn, and sample FJKM-7 yielded >100 g/t Ag, 1692 ppm Cu, and 32,150 ppm Pb; both were collected along the southern lateral margin of the Frank Mackie Glacier.

Table 6-5 4 J's 2015 Drill Results

Hole ID	From (m)	To (m)	Width (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
4J-1	6.4	14.02	7.62	0.61	71.66	0.19	1.9	5.4
incl	11.59	14.02	2.44	1.29	140.5	0.39	3.23	11.93
4J-2	11.59	20.73	9.15	0.3	39	0.1	1.53	4.12
incl	14.63	17.88	3.05	0.43	69.5	0.23	3.01	7.03
4J-3**	23.78	26.83	3.05	0.53	41.5	0.19	1.83	4.48
4J-6	6.71	14.63	7.93	0.53	30.7	0.07	2.4	3.44
4J-7	11.59	17.68	6.10	0.47	89.3	0.18	1.79	5.74
incl	14.63	17.68	3.05	0.7	156.5	0.3	2.5	9.43
4J-8	14.83	20.73	6.10	0.28	39.5	0.05	1.5	3.76
4J-13	8.54	11.59	3.05	0.17	16	0.004	0.403	3.77
4J-14	13.41	26.83	13.41	0.19	32.5	0.085	1.14	6.16
including	13.41	20.73	7.32	0.23	43	0.11	1.67	8.38
4J-15	26.83	29.88	3.05	0.18	38	0.09	1.03	1.77
4J-16	63.41	72.56	9.15	0.06	8.5	0.014	1.15	1.491
4J-18	1.52	5.49	3.96	0.336	29	0.055	0.799	2.563
and	8.54	17.68	9.15	0.316	38.83	0.125	1.08	7.353
including	14.63	17.68	3.05	0.305	53.5	0.276	1.569	16.18
4J-19	2.38	5.18	2.80	0.169	16	0.058	0.431	2.345
and	8.54	17.68	9.15	0.325	23.5	0.106	0.84	3.91
and	23.78	26.83	3.05	0.15	24	0.066	0.6	1.64
4J-20	17.68	28.83	9.15	0.34	111.83	0.088	1.04	3.98
including	20.73	23.78	3.05	0.399	295	0.092	1.407	5.415
4J-23	0.91	5.49	4.57	0.255	37.17	0.078	1.23	2.34
and	14.83	28.73	6.10	0.42	56.5	0.18	2.73	8.33
4J-24	1.52	26.83	25.30	0.38	27.53	0.081	1.31	3.34
including	8.54	11.59	3.05	0.65	52.5	0.084	3.93	10.89

6.5 Leduc – Pearson – Eskay Rift – Big Gold Areas

The western portion of the Luxor Project is significantly more remote than the eastern portion. Historical exploration required long expeditions across large glaciers or through the South Unik Valley. The only part of the western side of the Luxor Project with significant historical exploration is the area surrounding the Granduc mine (Leduc area). Mineralization associated with the Granduc deposit was discovered in 1932, but the mine did not go into development until the 1960's.

6.5.1 Leduc Area

Most of the exploration surrounding the Granduc mine was focused very close to the mine, within the boundary of Crown grants that are associated with the deposit, and which are encompassed by, but not a part of, the Luxor Project. Two small scale mapping projects took place in the Leduc area, one in 1953 on the southern slopes above the North Leduc Glacier (Crowhurst, 1953), and one in 1959 approximately 1.5 km west of the Granduc mine (Norman, 1959). These maps identified north striking volcanic and sedimentary stratigraphy similar to what is currently mapped in those same areas. No samples were taken, and mineralization was noted to be insignificant. Subsequent mapping by Lewis (2013), which was revised by Nelson (2019) provides a good project scale of mapping (for the Luxor Project) and can be informed by more detailed mapping that was conducted and compiled by McGuigan and Harrison (2010), which extends a short distance onto the Leduc area of the Luxor Project.

In 2004 the first work by Teuton Resources was conducted in the Leduc area (Mastalerz & Cremonese, 2006). This included the collection of 16 float, 2 grab, and 2 chip samples. The samples were designed to test for possible extensions of Granduc chalcopyrite-magnetite style mineralization onto the Leduc area. While numerous samples contained significant metal contents, most were related to a set of argentiferous galena-pyrite-quartz veins. However, float sample A04-117 comprised massive magnetite and chalcopyrite (0.3% Cu, 17.7 g/t Ag). The sample was found up-glacier from the Granduc orebody and was interpreted to potentially represent Granduc style mineralization farther up-glacier.

In 2006 Bell Copper conducted a drill program testing several targets in the vicinity of the Granduc mine (Wasteneys, 2007). One of those areas was the JK showing which is located just across the Granduc Crown grant boundary on the Luxor Project side (Figure7-3). The JK showing, at surface, comprises a pyrite bearing calcareous breccia zone, but drilling at the JK showing was also intended to test for a source of the massive magnetite-chalcopyrite float sample collected by Teuton in 2004 roughly downslope, as well as a magnetic geophysical anomaly. Six holes were drilled from a single pad totalling 1,240 m. The drilling confirmed the continuity of the mineralized breccia exposed at surface but also identified the existence of magnetite-chalcopyrite bearing assemblages including massive sulphide. The most significant intersections were made in DDH-06-09 (8.08 m grading 0.14 g/t Au, 1.55% Cu, 3.7 g/t Ag, from 199.92m), and DDH-06-11 (2.0m grading 0.15 g/t Au, 1.55% Cu, 3.7 g/t Ag from 170.40 m and 2.0 m grading 0.21 g/t Au, 1.97% Cu, and 7.75 g/t Ag from 227.00 m). The JK zone has not been explored since this initial drill program.

No other work has been conducted in the Leduc area with the exception of a ZTEM survey that was flown over most of the Luxor Project in 2018, which is described in Section 6.6.

6.5.2 Pearson Area

The Pearson area has little exploration history. Mapping and geophysical surveys conducted at and around the Granduc mine area occasionally reached northwards into the Pearson area.

In 2005 Bell Copper Corporation owned the Granduc Crown grants and had an option on the Leduc and Pearson areas of the Luxor Project (from Teuton Resources). They conducted a helicopter born geophysical survey comprising Aeroquest's AeroTEM II time domain electromagnetic system as well as a high sensitivity caesium vapour magnetometer (Marsh, 2005). The survey covered much of the current Luxor Project in the Leduc and Pearson areas. An approximately 2.5 km long NNW-SSE oriented conductor was identified on the southern slope of Mt. Pearson, north of the Leduc Glacier, and was considered a potential analogue to the conductor identified at the Granduc mine. The data from this survey were reprocessed (2D and 3D inversions of the magnetic and EM data) in 2013 for Castle Resources by Caracle Creek International (Palich & Kaminski, 2013). Two EM anomalies were identified in the same area using the inverted data:

1. NE_EM-Anomaly1: "*The upper portion of the conductive feature is tabular extending over a strike length exceeding 2 km and dipping approximately 15 degrees to the south. This anomaly extends to surface at 419235 mE, 6234560mN, but the majority of the feature is located at least 200 m below surface. Several rusty outcrops have been mapped on this southern slope that may be coincident with the surface expression of this feature.*" (Palich & Kaminski, 2013; p48)
2. NE_EM_Anomaly2: "*The lower portion of the conductive feature appears to be fault off-set from Anomaly 1 and is located both deeper (300 m below surface) and to the east of Anomaly 1. Anomaly 2 comprises several discontinuous high chargeability zones located along the same N-S trend. Unlike the tabular nature of Anomaly 1, the conductive zones in Anomaly 2 are sub-vertical.*" (Palich & Kaminski, 2013; p48)

In 2018 Teuton Resources attempted to drill across the EM anomaly (Kruchkowski, 2019). They collared three holes, totalling 518.46 m, from two pads and drilled in a scissor pattern across the trace of the anomaly. However, the drill program was only equipped to drill BTW sized core and none of the holes reached their target of over 300 m vertical depth (the deepest hole reached 315.08 m at a 70° inclination). In addition, an approximately 200 m horizontal area between the drill holes, along the trace of the conductor, remained untested. No significant intersections were made in these holes.

6.5.3 Big Gold Area

The first recorded work in the Big Gold area was in 1971 by the El Paso Company. The work included collection of 41 10-foot-long [30.48 m] channel samples that tested across the length of a zone of limonite stained and silicified dacite with pyrite and chalcopyrite that was traced over an area roughly 500 by 200 feet [152.4 by 60396 m]. The best result was on a single line spanning 100 feet [30.48 m], which averaged 0.4% Cu and 0.1 oz/t Au [2.8 g/t] (Ryback-Hardy, 1971).

During 1987 Magna Ventures collected 10 rock samples and 294 soil samples (Sanderberg, 1988). The only significant results were from a vein (named the TK Vein), which was only identified as part of a float train. The average grade of 4 rock samples of the TK vein float assayed 0.195 oz/t Au [5.5 g/t] and 10.45 oz/ton Ag [296.3 g/t]. A Au, Ag, Pb and Zn soil anomaly presented as an accompanying downhill dispersion related to the vein.

Teuton conducted geochemical sampling programs in 2006 (6 samples; Cremonese, 2007), and 2015 (86 rock samples, 2 float samples; Cremonese, 2016) within an approximately 300 x 300 m area of nearly continuous outcrop surrounded by glaciers. The geochemical sampling identified a broad domain of anomalous Ag and As with locally high Au and Hg. A 100 m long zone of quartz-sericite schist, which is open to the south, yielded the highest-grade Au samples, with 3 samples grading over 1 g/t Au.

The same area of quartz-sericite schist that yielded anomalous gold values at surface was tested in 2016 with 9 shallow drill holes from 2 drill pads situated north and south of the zone approximately 115 m apart, totalling 876.89 m (Cremonese, 2018). All but one of the drill holes intersected domains of elevated Au, Ag, Cu, Zn (Table 6-6).

Table 6-6 Big Gold - 2016 Drill Results

Hole No.	From (m)	To (m)	Length (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	Zn (ppm)
BG16-01	6.64	9.45	2.81	203	23.3	910	181
and	53.64	55.32	1.68	321	36.0	152	1070
BG16-02	1.52	11.43	9.91	243	16.2	452	189
BG16-03	15.39	21.64	6.25	293	9.4	293	>3513*
BG16-04	15.09	26.15	11.06	84	11.4	266	566
BG16-05	7.92	9.45	1.53	644	6.1	331	860
and	46.02	52.12	6.10	676	4.7	69	424
BG16-06	0.00	16.76	16.76	275	1.5	102	497
and	155.45	157.28	1.83	590	0.9	67	166
BG16-07	32.92	39.01	6.09	351	13.6	376	642
and	51.21	58.83	7.62	158	5.7	60	124
and	83.21	83.82	0.61	1934	3.3	179	92
BG16-08	*no significant results*						
BG16-09	20.12	21.64	1.52	2842	7.2	39	195
and	102.41	112.47	10.06	490	4.4	66	82

Mineralization was intersected from the collar in holes BG16-01 through BG16-06, which were all drilled from the same pad. Mineralization consists of disseminated pyrite and pyrrhotite in sericite schist, with variable density of red sphalerite bearing quartz-carbonate veins. Drill holes BG16-01, BG16-05 and BG16-06 also intersected mineralized quartz-carbonate veins at depth (Table 6-6). Drill holes BG16-07 through BG16-09 encountered similar styles of mineralization as BG16-01 to BG16-06, but at slightly greater depths. Mineralization in these holes is sometimes associated with bright green mica alteration (see alteration Section 7.3.4).

In 2018, Teuton conducted a sampling and drill program on the western side of the Big Gold area as part of the same program that tested the Pearson area (Kruchkowski, 2019; Section 6.5.2). The drill program tested beneath areas that returned significant grades of Au and Cu in 2017 (no primary documentation of this program exists, secondary documentation is Kruchkowski, 2019), and 2018 (the same year as the drilling, Kruchkowski, 2019). In total 597.30 m were drilled in 2 holes. Both holes were collared in an area with strongly silicified and epidote altered volcanic rocks, microdiorites and intrusive dykes. Hole MC-01 tested beneath a narrow structure containing gold and copper bearing stringers; the stringers were intersected at depth and yielded two intersections of 1.03% and 1.65% Cu from 293-294 m and 296-297.50 m respectively. Anomalous Cu values are scattered throughout the length of the hole, which also intersected several shear zones and domains of disseminated pyrite and pyrrhotite e.g. (4 m of 941 ppb Au, 29 ppm Ag, 1858 ppm Cu, 1059 ppm Pb and 5564 ppm Zn at 205.9 – 209.9 m).

MC-02 was designed to test a quartz-iron-carbonate breccia vein with reported values of 88.2 g/t Au over 25 cm true width (documented in Kruchkowski, 1990, but without original assay data or certificates). A “check-sample” from the 2018 program confirmed the high-grade nature of the breccia with a sample that assayed 68.8 g/t Au. MC-02 failed to intersect similar grades to the surface samples; it was interpreted that the step-out (approximately 200 m) was too far and the drill hole missed the target. It did however hit a fault with iron-carbonate rich gouge that yielded 1198 ppm Cu over 7 m (88.50 – 95.50 m).

6.6 2018 Project Wide Geophysical Survey

In 2018 Teuton Resources commissioned Geotech Ltd. to carry out a helicopter born ZTEM survey over a large portion of the Luxor Project. The survey was divided into two blocks, one that covered much of the 4 J’s and Tennyson areas, and one that spanned across most of the Leduc, Pearson, Eskay Rift, and Big Gold areas (Figure 6-3). The survey was flown at a line spacing of 200 m, and tie lines were flown at 2000 m spacing. The principal geophysical sensors were a Z-Azis Tipper electromagnetic (ZTEM) system, and a cesium magnetometer. Position measurements were acquired with the use of a GPS navigation system and a radar altimeter. The data were inverted and interpreted by Aeroquest. A 3D ZTEM inversion was performed with University of British Columbia’s ZTEM_MT3Dinv code, and a 3D inversion of the magnetic data was filtered using reduction to pole and horizontal, vertical, and analytic signal maps, in Oasis Montaj using the Magmap Fourier Filtering module. An analysis of the magnetic data was conducted to identify faults and structural patterns and includes heat-maps of structural complexity.

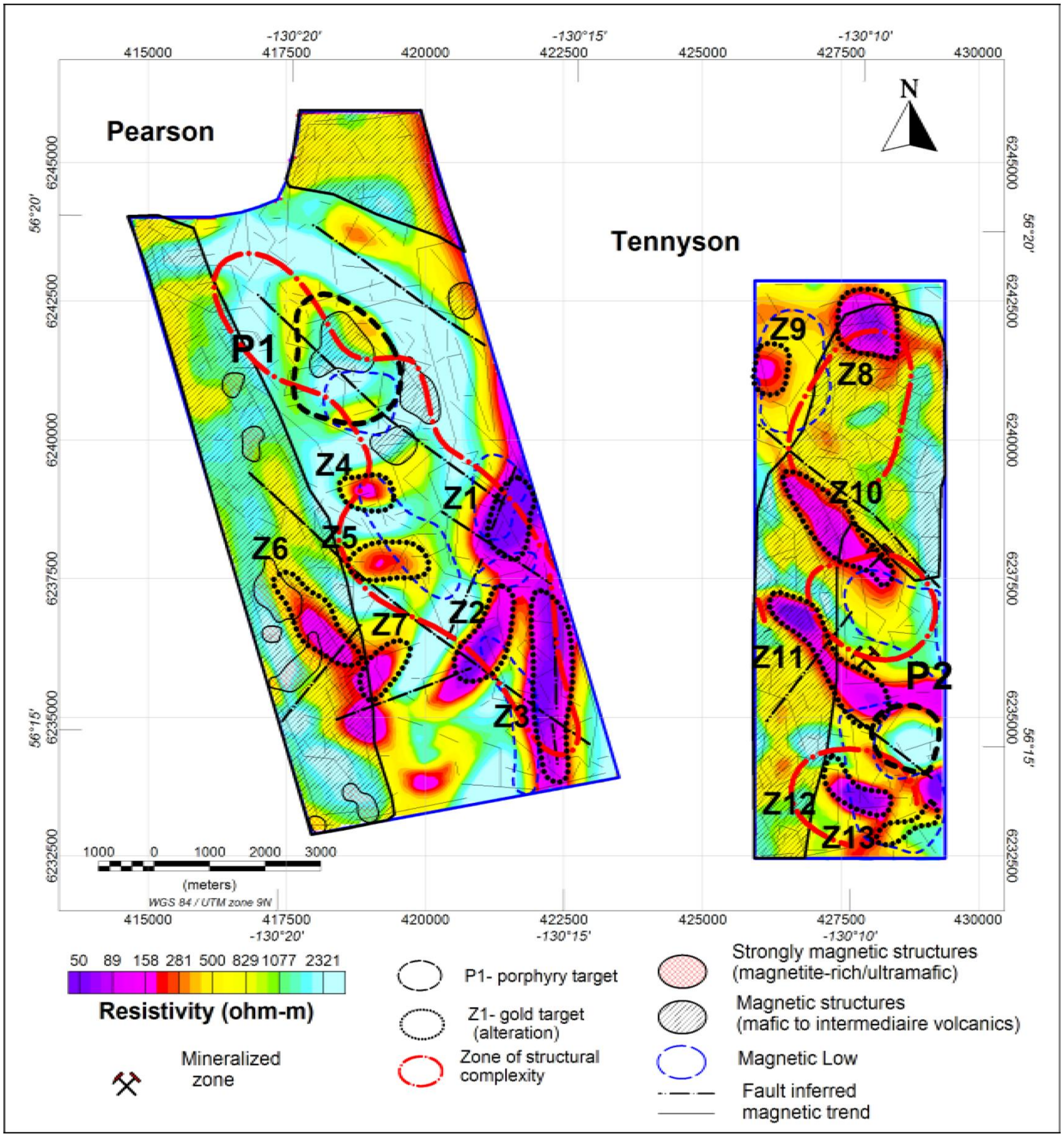

Figure 6-3 Target map including integrated interpretation results for the Luxor Project superimposed on the ZTEM resistivity depth slice of 500 m; 2018 survey

Interpretation of the data was focused on identifying porphyry Cu-Au mineral systems like the one at Tennyson. The interpretation outlined a total of 15 target areas prospective for porphyry Cu-Au deposits including 9 that were classified as high-priority targets.

Examples of targets identified are:

1. Z1: "*It is occurring in the south-eastern portion of the Pearson survey block and coincides with a zone of magnetic low. This target is stretching roughly in the NE direction of a distance of approximately 1.5 km and has an estimated resistivity of < 20 ohm-m at depth of 500m. It occurs within a zone of complex structural pattern and represents probably a link to intense alteration zone that may host Cu-Au mineralization*" (Bournas & Khaled, 2019; p31) (Figure 6-4)
2. P2: "*This porphyry target is located in the south-eastern part of the Tennyson block and consists of a resistive core (>5000 ohm-m) surrounded by a more conductive rim (< 150 ohm-m) at depth of 500 m. This roughly circular feature has a diameter of approximately 1 km, which is consistent with most of the known porphyry deposits of western BC.*" (Bournas & Khaled, 2019; p32) (Figure 6-5).

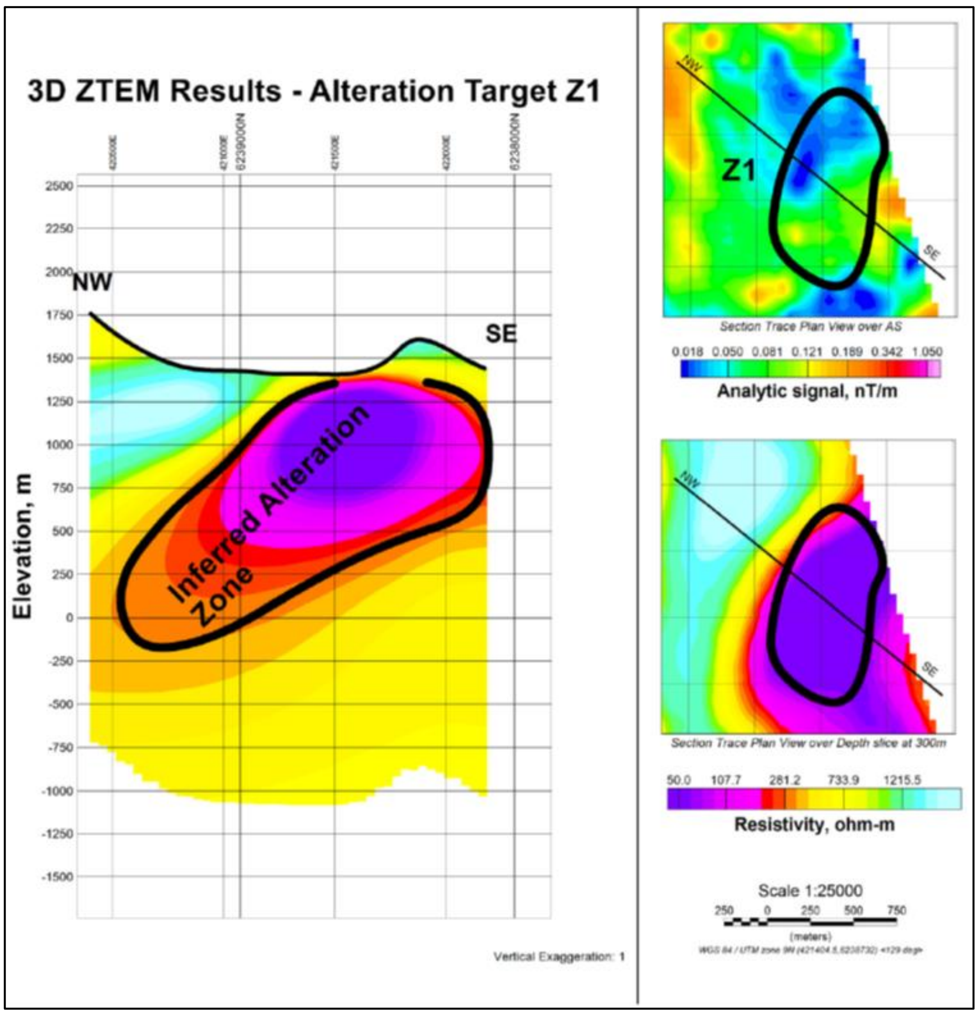

Figure 6-4 ZTEM Anomaly Z1

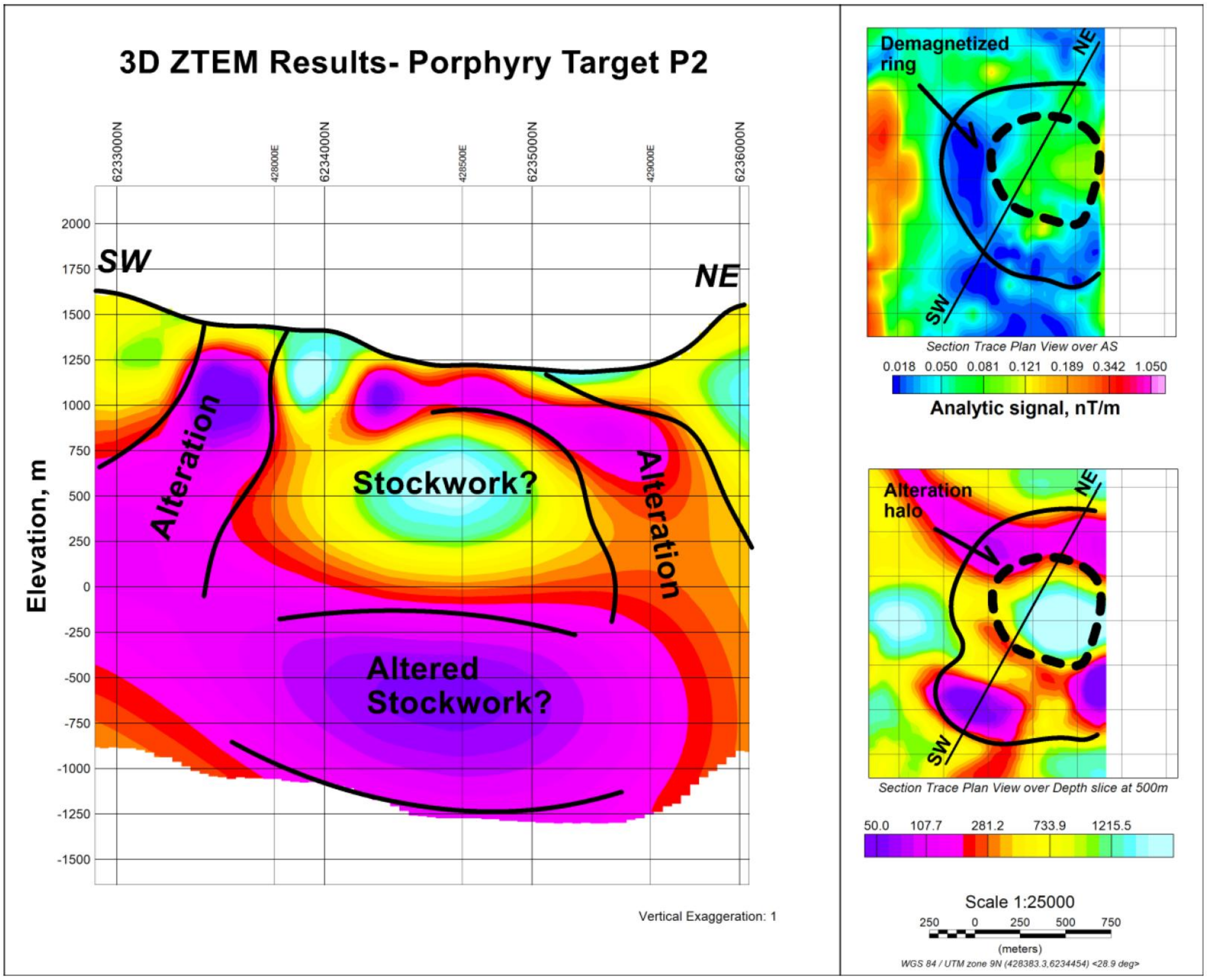

Figure 6-5 ZTEM Anomaly P2

None of the target zones identified as part of this survey have been subsequently tested with drilling or follow-up mapping or geophysics.

6.7 Recent (2022 and 2023) Exploration

The 2022 and 2023 exploration campaigns on the Luxor Project included talus and rock geochemical sampling, prospecting, geological characterization, and a hyperspectral survey. Exploration focused on the Eskay Rift, Big Gold, Pearson and 4 J's areas. The work was documented in assessment reports Barresi and Cremonese, 2023a, and Barresi and Cremonese, 2023b. The following Sections 6.7.1 – 6.7.2 are modified from those reports.

6.7.1 Geochemistry

6.7.1.1 Field Procedures and Laboratory Analysis

Samples submitted for geochemistry include grab samples from outcrop and float, as well as talus fines, and one stream silt sample. Sample locations were recorded using handheld Garmen GPS devices in DATUM NAD83 UTM Zone 9. Samples were sealed in labelled polyurethane bags that were transported to the MSA (2022), or ALS (2023) prep laboratory in Terrace, BC by Teuton personnel or sub-contractors. Following sample preparation, pulps were then shipped by the respective labs from their Terrace facilities to their analytical laboratories near Vancouver, BC. ALS and MSALABS are ISO9011 and ISO17025 accredited analytical laboratories.

In 2022 samples were prepared using MSA technique PRP-910. The samples were dried and crushed to 70% passing 2 mm, and a 250 g split was pulverized to 85% passing 75 µm mesh. Gold was tested on 30 g pulp splits by fire assay with an AAS finish (MAS method FAS-111). An additional 35 elements were tested on 0.5 g splits using 3:1 Aqua Regia digestion and trace level ICP-AES analysis. Samples with overlimit Ag, Cu, Zn or Pb were reanalysed using ore-grade Aqua Regia digestion and ICP-ES analysis (MSA method ICF-6). Thirty-one samples, on certificate YVR2310405 were not tested for gold, and rather than method FAS-111 method IMS-230, with the REE addon, was utilized to analyse for 74 elements. This method utilizes four-acid (near-total) digestion on a minimum 1 g sample and determines ultra-trace element concentrations by ICP-AES and ICP-MS techniques.

In 2023 samples were prepared using ALS technique PREP31. The samples were dried and crushed to 70% passing 2 mm, and a 250 g split was pulverized to 85% passing 75 µm mesh. Gold was tested on 30 g nominal samples by fire assay with an AES finish (ALS method Au-ICP21). Overlimit Au (i.e. >10 g/t), was retested using a gravimetric finish (ALS method Au-GRA-21) An additional 52 elements were tested on 0.5 g splits using 3:1 Aqua Regia digestion and trace level ICP-AES analysis (ALS method ME-MS41). Samples with overlimit Ag, Cu, Zn or Pb were reanalysed using ore-grade Aqua Regia digestion and ICP-ES analysis (ALS method OG46). In samples where Ag was >1500 g/t, a further overlimit test was preformed using a gravimetric finish (ALS method Ag-GRA-21).

Quality control procedures at both laboratories consisted of testing certified reference material (CRMs), blank material and duplicates with each batch (at least 1:20). A review of results from the laboratory-run quality control program indicate that the quality of the data produced was within the laboratory specifications and of sufficient quality to be reliable and useful for early-stage exploration work.

The sample digestion technique employed for most samples (Aqua Regia), is a partial digestion technique and often leaves residual silicate, oxide, and phosphate minerals, but fully digests sulphides, carbonates, and some oxides. The technique can be effective in emphasizing metal and trace-element (e.g. As, Sb, Bi) concentrations but does not provide accurate data for elements contained within silicates. Therefore, typical prospectivity or alteration-related geochemical vectors using elements such as Al, Si, K, Na, Ca, etc., are not reliable for the data set.

6.7.1.2 4 J's 2022

Outcrop Geochemistry

Thirty-three grab samples were collected from outcrop as part of a 2022 geochemical prospecting program on the 4 J's area. Sampling was focused over the historical Main Zone, and an area at low elevation north of the historical FM Zone, which had seen very little previous exploration. Collectively the samples define a widespread area of mineralization contained within a package of intercalated fine grained sedimentary rock (mudstone, shale, siltstone), and intermediate volcanic rock (andesite).

Two geochemically distinct styles of mineralization were sampled, herein referred to as Ag-Zn-Pb mineralization, and Ag-Au mineralization. Both styles of mineralization are related to sulfide-bearing quartz veins and disseminated pyrite and are commonly accompanied by silicification. Ag-Zn-Pb mineralization is also related to stratiform layers of sulfides in sedimentary rock. Ag-Zn-Pb mineralization is found exclusively in mudstone, while Ag-Au mineralization is present in both mudstone and andesite.

Ag-Zn-Pb mineralization has consistently elevated values of Ag (4.0 – 12.4 g/t), Zn (140 – 16300 ppm), Pb (50 – 2050 ppm) and Cu (44 – 1180 ppm) (Figures 6-6, 6-7; Table 6-7). Only one sample yielded significant Au values (1.17 g/t Au, 12.4 g/t Ag). Epithermal tracer elements As, Sb and sometimes Bi are strongly elevated in the AgZnPb samples.

Ag-Au mineralization comprises strongly elevated Ag (2.6 – 33.7 g/t) and anomalous to strongly elevated Au (0.11 – 0.69 g/t) (Figure 6-6, Table 6-7). This style of mineralization also has elevated Cu but not Pb and Zn. Similar, to the AgZnPb mineralization it has highly elevated epithermal tracer elements As, Sb ± Bi.

Sampling was mainly limited to a 1 km long contour at 1036 m elevation, and an approximately 300 m^2 area 700 m to the south of the contour line and 245 m upslope (Figures 6-6, 6-7); roughly within the historical Main Zone. The most prominent area of mineralization is the 300 m^2 area farthest to the south. Within this area most samples are mineralized, including 7 samples of AgZnPb mineralization, and three samples of AgAu mineralization. While the two styles of mineralization are found together within the overall mineralized zone, the AgAu mineralization is confined to the eastern edge of the sampling area.

Table 6-7 4 J's Select Mineralized Rock Samples - 2022

SAMPLE ID	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Sb (ppm)	Bi (ppm)	Hg (ppm)
AuZnPb Mineralized Samples									
F00073902	0.07	11.9	398	2050	16300	652	22	8	5
F00073889	0.09	2.5	136	383	9798	259	10	3	4
F00073901		2.6	231	569	584	32	16	0	Nil
F00073909	0.11	8.1	1180	110	451	422	34	16	Nil
F00073911	1.17	12.4	111	535	174	31	36	18	Nil
F00068949	0.01	3.3	207	67	171	244	35	11	3
F00073910	0.08	3	44	50	140	165	10		Nil
AgAu Mineralized Samples									
F00073915	0.6	33.7	126	25	22	311	144	20	Nil
F00073905	0.56	7.5	783	41	16	477	37	12	Nil
F00073907	0.15	7.4	806	50	41	384	15	6	Nil
F00068937	0.68	5.4	696	39	41	6216	21	10	Nil
F00068938	0.24	4.8	145	46	80	198	16	3	Nil
F00073912	0.7	4	220	35	43	213	9	8	Nil
F00073917	0.23	3.8	240	22	43	123	14	8	Nil
F00073908	0.25	3.2	399	53	69	890	21	8	Nil
F00073914	0.11	2.7	65	37	70	108	18	3	Nil
F00073916	0.27	2.6	258	12	16	37	17	13	Nil

Talus Fines Geochemistry

Samples of talus fines were collected approximately every 25 m along a 1 km traverse following the 1036 m elevation contour. The limited number of samples and area covered prohibit determination of background geochemical values, limiting the usefulness of the data. Generally, the talus geochemistry is consistent with the locations of known mineralization, and it offers some indication that the AgZnPb domain on the eastern side of the contour line may extend farther to the east than currently known. There are also several areas where higher than average Au concentrations were detected but remain unexplained.

Float Sample Geochemistry

Two samples of float were collected. Only 1 sample, a massive sulfide boulder, contained significant values with 1.57 g/t Au, 23.5 g/t Ag, 0.2% Cu, 254 ppm Co, and high concentrations of epithermal trace elements (As, Sb).

Silt Sample Geochemistry

A single silt sample was taken from a drainage central to the mineralized zones at the 4 J's area. A cursory review of the results relative to nearby RGS samples indicates that Au, As, and Cu concentrations are significant elevated.

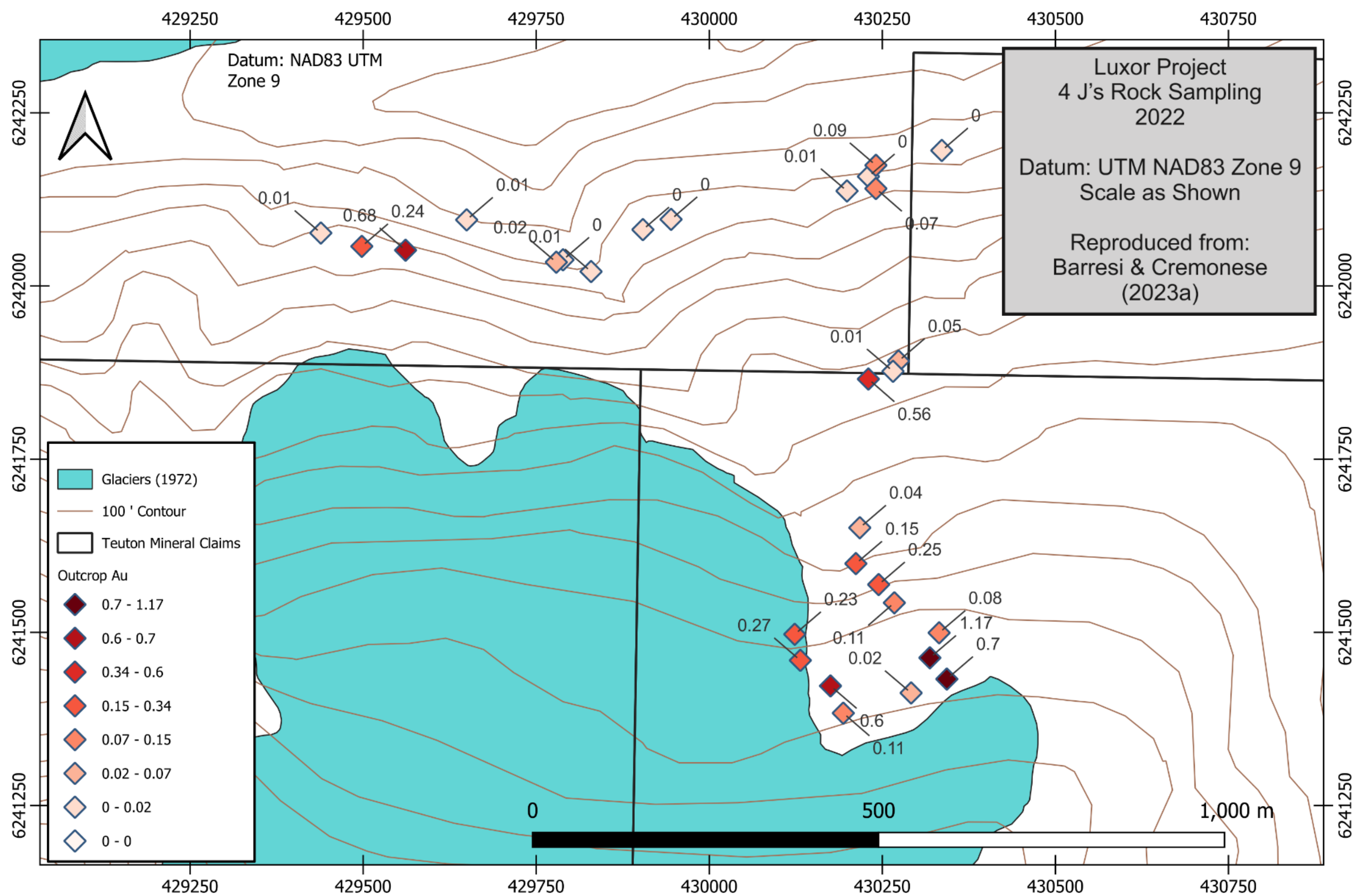

Figure 6-6 Au from outcrop on 4 J's Area - 2022

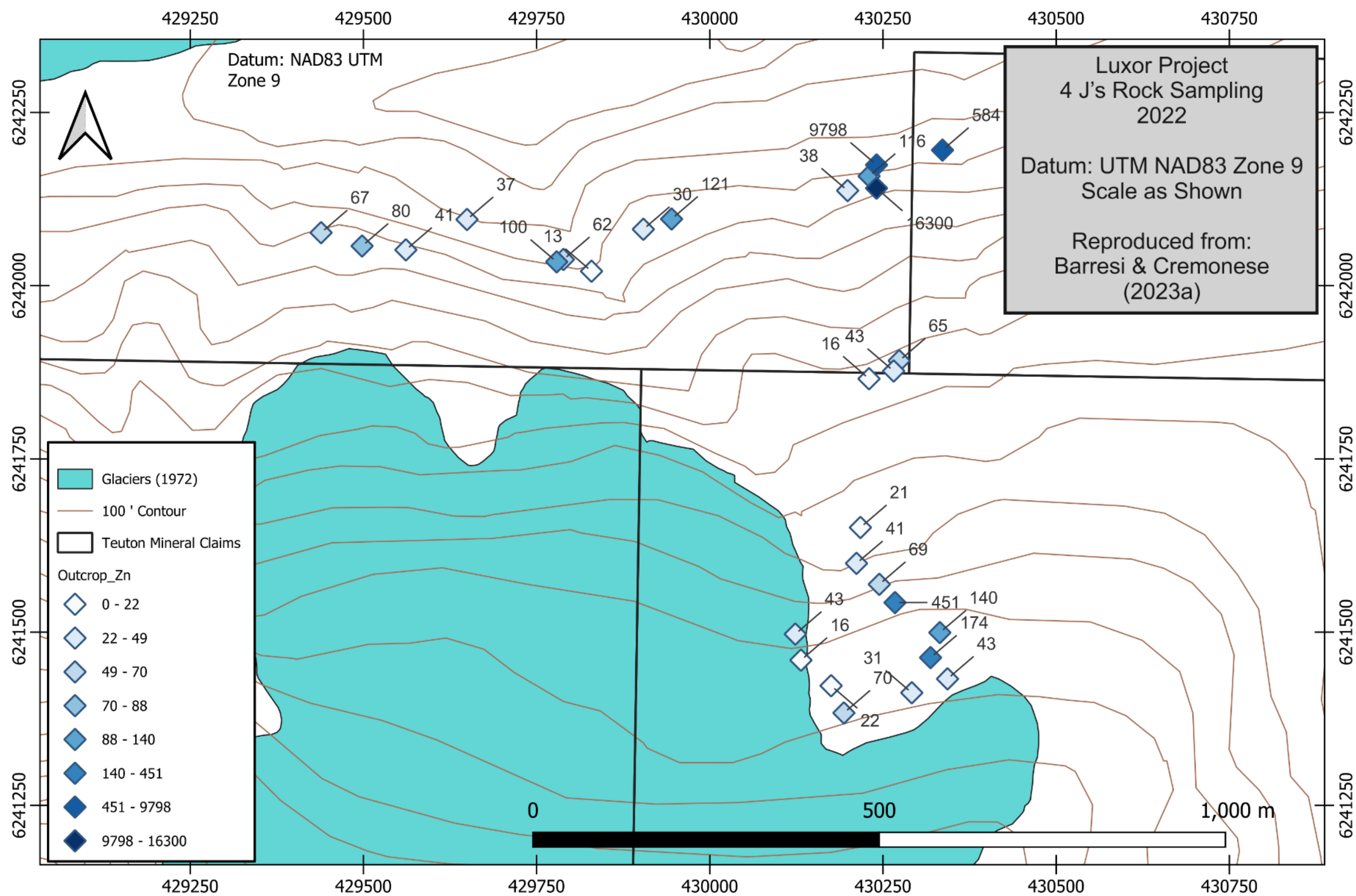

Figure 6-7 Zn from outcrop on 4 J's Area - 2022

6.7.1.3 4 J's 2023

Eighteen grab samples were collected from outcrop as part of the 2023 geochemical prospecting program on the 4 J's area in 2023 (Figure 6-8; Table 6-8). Sampling was focused on the western side of the historical Main Zone, where newly exposed rock abuts the Smalles Glacier. Collectively the samples define a 200-m-long trend of mineralization contained within a package of intercalated fine grained sedimentary rock (mudstone, shale, siltstone), and intermediate volcanic rock (andesite). Sampling was conducted along the eastern lateral margin of a rapidly receding glacier encompassing 75 m of elevation change (Figure 6-8). The mineralized trend is open in all directions but appears to transition into a more Pb-Zn rich domain of mineralization to the east, which was defined by sampling in 2022 (Barresi & Cremonese, 2023a).

Mineralization comprises semi-massive to massive sulfide layers (Figure 6-9) and lenses between layers of silicified mudstone, and as sulfide-rich veins, shears and shear-breccias that cross-cut bedding. Pyrite, and pyrrhotite are the main sulfide minerals present with traces of chalcopyrite, galena and sphalerite in some samples and rare malachite staining.

Mineralized samples have strongly elevated to high-grade concentrations of Au, with appreciable Ag and Cu. The eighteen samples grade up to 29.2 g/t Au, 17 g/t Ag and 0.23% Cu with average grades of 2.59 g/t Au, 4.0 g/t Ag, and 0.95% Cu (Table 6-8, Figure 6-8). It is worth noting that Au concentrations are >0.10 g/t in 16 of 17 samples, and even in the two lower-grade samples Au is elevated with 0.072 and 0.063 g/t. Pb and Zn concentrations are elevated in a few samples, but Cu is the dominant base metal in all samples and grades over 0.1% in 7 samples (Table 6-8, Figure 6-8). Arsenic values are weakly to strongly elevated in the mineralized samples. Sulfur concentrations are overlimit (e.g. >10%) in 16 of the 18 samples supporting field-observations that these samples represent massive or semi-massive sulfide.

Four samples of mineralized float were also collected including 3 sub-rounded samples, interpreted to have been transported from a local source and an angular sample interpreted to have been sourced upslope. Three samples comprise massive and semi-massive sulfide similar to the outcrop grab samples noted above, and they have similar assay results with significant Au concentrations accompanied by strongly elevated Ag and Cu. One sample grades 24.9 g/t Au, 4.6 g/t Ag, and 0.15% Cu. A fourth sample is interpreted to be from a polymetallic sulfide-rich vein breccia, and it contains 0.32 g/t Au, 66 g/t Ag, 0.40% Cu, 2.39% Pb, 4.64% Zn and 0.71% Sb. This sample is both geochemically and mineralogical distinct from other samples collected in the 2023 field area, with high proportions of galena, sphalerite, and stibnite.

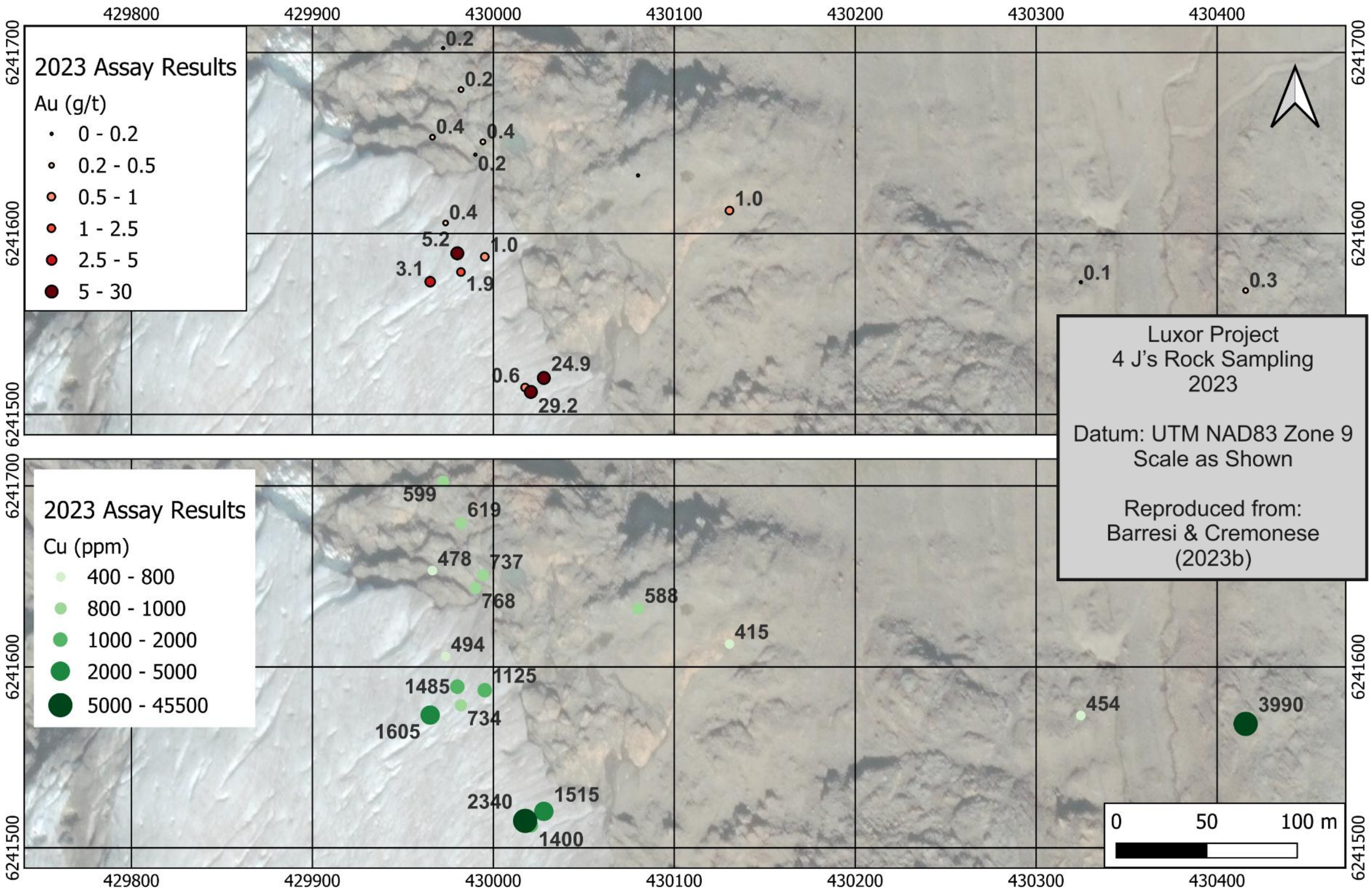

Figure 6-8 4 J's Area Geochemical Sampling Results - 2023

Table 6-8 4 J's Mineralized Rock Samples - 2023

SAMPLE ID	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Sb (ppm)	S (%)
Grab Samples from Outcrop								
AA001952	29.2	9.82	1400	108.5	104	5090	19.8	>10.0
H226866	5.24	4.24	1485	35.3	56	511	9.56	>10.0
AA001955	3.12	4.69	1605	139.5	36	799	15.05	>10.0
H226752	2.66	8.42	1460	67.7	138	335	13.2	>10.0
AA000405	1.905	17	541	570	316	3760	29.6	>10.0
AA003701	0.964	4.16	415	43.9	81	1580	308	>10.0
H226862	0.955	1.74	1125	34.7	48	140.5	21.3	>10.0
AA001953	0.629	2.82	2340	156.5	100	230	6.8	>10.0
AA000402	0.379	3.18	737	54.9	18	583	27.7	>10.0
AA001956	0.378	1.91	494	51.6	18	1515	26.6	>10.0
AA000403	0.377	1.38	478	35.3	6	1470	20.8	>10.0
AA000404	0.209	1.27	619	21.9	14	105	26.5	>10.0
AA000401	0.165	0.97	768	21.5	16	218	21.8	>10.0
H226864	0.165	0.93	599	17.3	26	340	24.5	>10.0
AA003702	0.117	3.94	454	50	63	186	15.55	>10.0
AA003705	0.083	2.04	1415	45.8	85	120	27.8	6.12
AA003704	0.072	1.68	634	74.6	298	130.5	11.45	1.52
H226865	0.063	1.11	588	27.8	165	49	15.9	>10.0
Max	29.2	17	2340	570	316	5090	308	6.12
Min	0.063	0.93	415	17.3	6	49	6.8	1.52
Average	2.59	3.96	953	86	88	953	36	3.82
Median	0.3785	2.43	685.5	47.9	59.5	337.5	21.05	3.82
Samples of Float								
AA001951	24.9	4.6	1515	86.1	83	9240	32.4	>10.0
AA001954	1.88	1.83	734	108.5	161	>10000	55.2	>10.0
AA003703	0.32	66.1	3990	23900	46400	149.5	7120	3.37
AA001957	0.135	4.83	1220	113.5	111	48.9	5.68	>10.0

Figure 6-9 Massive sulfide lens on the 4 J's Area

6.7.1.4 Big Gold 2022

Sampling of the Big Gold area in 2022 included prospecting rock samples (n=44) as well as grid sampling (n=22). Grid sampling was conducted on four approximately 100 m spaced NNW oriented lines every 25 m (Figures 6-10, 6-11). The area tested by grid sampling is south of most historical sampling and covers an approximately 550 x 400 m area. Where outcrop was not present talus fines were sampled.

Sampling can be divided into two general locations separated by a glacier, herein termed Big Gold North and Big Gold South. All of the grid sampling and some of the prospecting sampling were conducted in the Big Gold North area. The Big Gold North area was explored in 2015 and 2016 with geochemical rock sampling and drilling, the Big Gold South area had not previously been explored.

Fourteen grab samples were collected from the Big Gold South area covering a 300 x 200 m area (Figures 6-10, 6-11; Table 6-9). Samples are variably mineralized with Cu, Ag, Zn and Pb concentrations up to 6 g/t Ag, 741 ppm Cu, 4010 ppm Zn and 4825 ppm Pb and As is weakly elevated in most samples. Generally, samples have high concentrations of Fe and S indicating a high sulphide content reflecting the quartz-sericite-pyrite alteration that is ubiquitous in the area.

In the Big Gold North area, a weak roughly east-west oriented Ag-As trend is defined by grid and prospecting samples (Figures 6-10, 6-11; Table 6-9). The trend is defined over a roughly 300 X 60 m area and is open to the east and west. Two of the three highest grade samples (31 and 2.8 g/t Ag) were collected in an isolated sample cluster on the northern portion of the Big Gold North area near a historical drill site (drill holes BG16-01 – BG16-06, see Section 6.5.3).

Table 6-9 Select Geochemical Results from Big Gold North and South 2022

Sample ID	Ag	Cu	Zn	Pb	As	Sb	Fe	S
	g/t	ppm	ppm	ppm	ppm	ppm	%	%
Big Gold South Ag-Cu ± Zn-Pb Mineralization								
BG-SN-07	6	741	2270	4824	90	7	13.1	7.1
BG-SN-01	3.8	736	64	25	98	11	12.5	8.9
AC22-03	1.8	472	4010	51	23	3	7.8	4.5
AC22-02	1.5	400	3311	32	17	5	7.2	3.9
S022375	1	365	66	11	4	5	4.6	1.4
BG-SN-09	1.9	307	1194	3145	14	5	10.1	3.4
BG-SN-02	0.9	211	44	8	11	7	7.2	2.1
DC22-05	1.5	178	1529	1108	19	4	6.2	3.2
Big Gold North Ag-As Mineralization								
DC22-01	31.3	406	333	33	197	13	8.1	7.1
BGQ-01	5.2	45	6	3	105	6	3.0	2.3
DC22-02	2.6	74	65	3	510	3	2.1	1.4
F00068927	0.9	53	59	49	34	5	4.1	1.6
DC22-03	0.8	130	1968	56	36		6.3	4.3
F00068922	0.7	157	59	6	4	3	4.6	0.2
F00068908	0.7	110	98	10	18	4	6.1	1.6
F00073863	0.7	84	189	23	22	5	5.7	0.3
F00068910	0.7	23	30	16	89	3	2.6	0.6

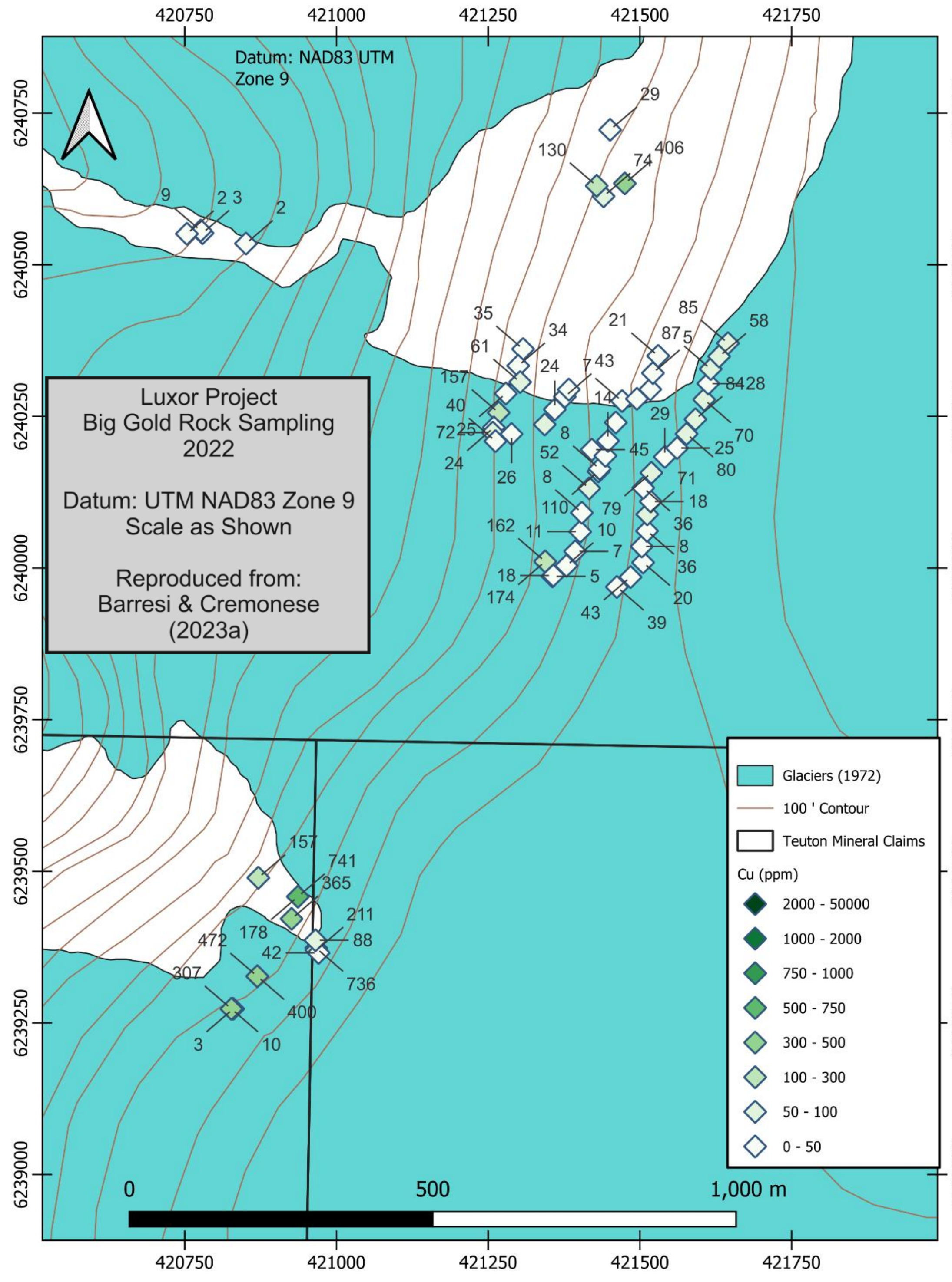

Figure 6-10 Cu Results - Big Gold Area

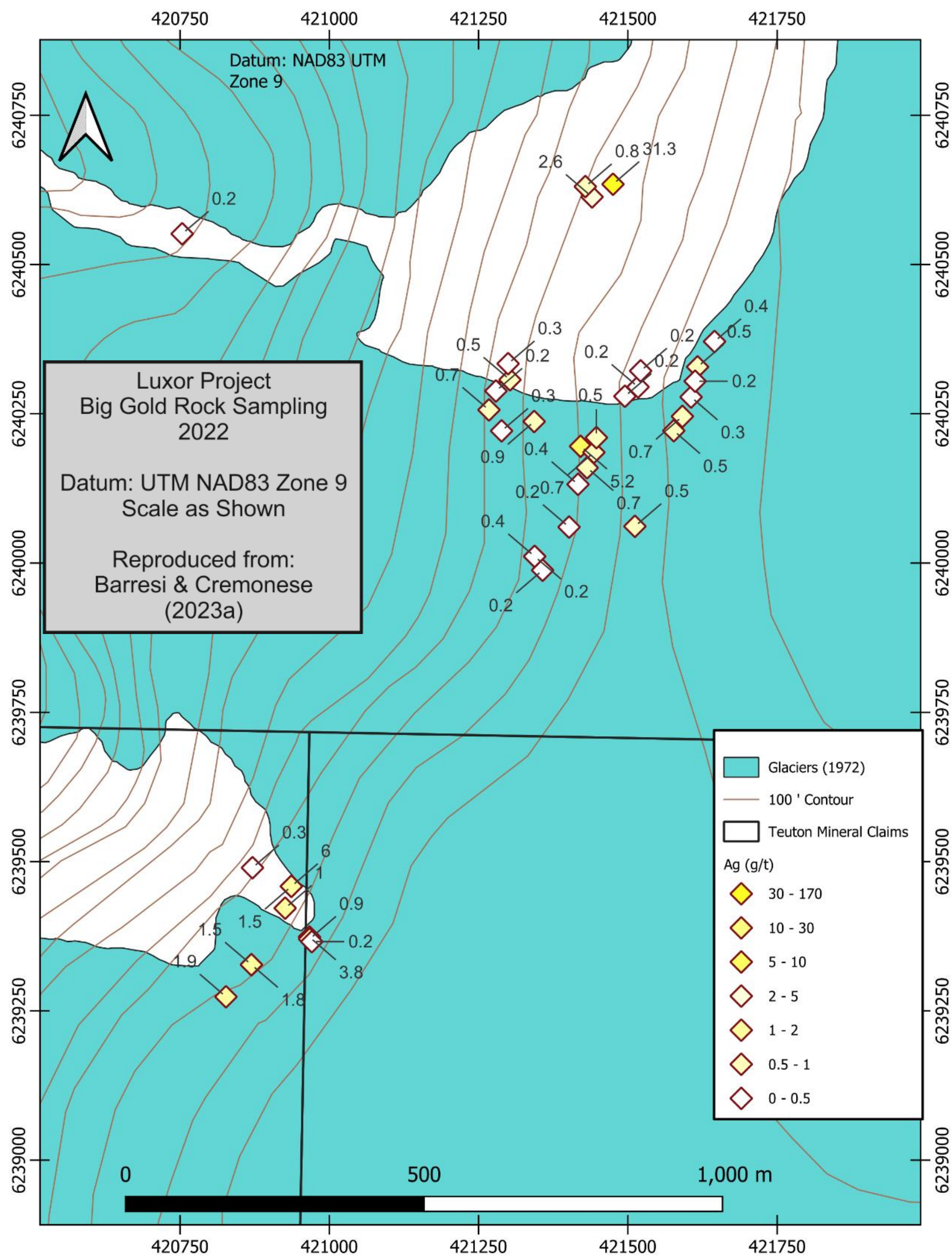

Figure 6-11 Ag Results - Big Gold Area

6.7.1.5 Big Gold 2023

Fifty-nine grab samples from outcrop were collected from within the Big Gold area. Sampling can be roughly divided into three general area with distinct geochemical features herein termed Big Gold North, Big Gold Central, and Big Gold South (Figure 6-13). The Big Gold Central and North areas are located on a Nunatak that was explored in 2015, 2016 and 2021 with geochemical sampling and drilling; the Big Gold South area was first explored in 2021. Three notable mineral occurrences were discovered by sampling during the 2023 season: The Roman Zone and Zall Occurrence, in the Central Zone, and the "6 Kilo vein", named after the grade that a sample of the vein returned in kg/t, within the Big Gold North area (Figure 6-13).

The Big Gold North and Central areas comprise a sequence of thick mafic flows and tuff underlain by sedimentary rocks including mudstone, shale, and chert (Figure 7-2); alteration in these areas is weak or cryptic. The Big Gold South area is underlain by the same mudstone, shale, and chert as Big Gold North and Central areas, but has few interbedded mafic volcanic rocks, and is crosscut by roughly vertical felsic dykes. Locally the Big Gold South area is affected by intense and textural destructive quartz-sericite-pyrite alteration.

Big Gold Central

The Big Gold Central area was a focus for prospecting and geochemical sampling. Twenty-six samples were collected over an approximately 330 x 100 m area (Figure 6-13). Generally, the samples show elevated Ag, Cu, Pb, and Zn concentrations as well as As and Sb epithermal tracer elements.

Two new discoveries within the Big Gold Central area define domains of massive and semi-massive sulfide:

Roman Zone

Discovered in a zone of glacial meltback (beside a retreating valley glacier; Figures 6-12, 6-13) the Roman Zone is exposed over approximately 25 m strike length and comprises massive and semi-massive sulfide located in bedding parallel lenses and remobilized into cross-cutting quartz veins and local shear zones. Sulfide lenses range in thickness between just a few centimetres and 50 cm and are semi-continuous across the 25 m strike length. The massive sulfide consists of fine-grained sphalerite, galena, pyrite, and chalcopyrite (Figure 6-12), sometimes mixed with variable amounts of quartz. The Roman Zone pinches out to the NE and abuts the lateral edge of a 500 m wide valley glacier to the SW, disappearing under the ice (Figures 6-12, 6-13). Although no massive sulfide was identified on the opposite side of the glacier, rocks collected along a parallel but offset trend in that area are elevated in silver (Figure 6-13).

Table 6-10 Roman Zone Grab Samples 2023

Sample ID	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
H226747	16.2	0.05	3.50	2.69
H226748	46.8	0.72	6.55	5.76
H226749	10.5	0.12	1.94	1.71
H226851	57.1	0.17	12.10	9.32
H226750	19.0	0.24	4.32	3.77
H226853	12.3	0.13	2.29	2.02
H226854	43.3	0.04	5.39	0.59
H226855	3.3	0.02	0.25	0.38
H226852	23.0	0.06	6.04	5.15
H226751	6.7	0.15	0.02	5.94

Ten samples were collected from the Roman Zone covering approximately 25 m strike length and in mineralized cross structures up to 7 m off axis of the main mineralized domains (Table 6-10). The samples contain high concentrations of Pb (average 4.2%), Zn (average 3.7%), and Ag (average 23.8 g/t), as well as appreciable concentrations of Cu (0.17%). As, Sb, Bi and Te concentrations are elevated in these samples. The highest Au concentration is 0.051 in sample H226748, which also contains 46.8 g/t Ag. Six of the 10 samples have overlimit (i.e. >10%) sulphur concentrations supporting field observations that these samples comprise semi-massive to massive sulfide.

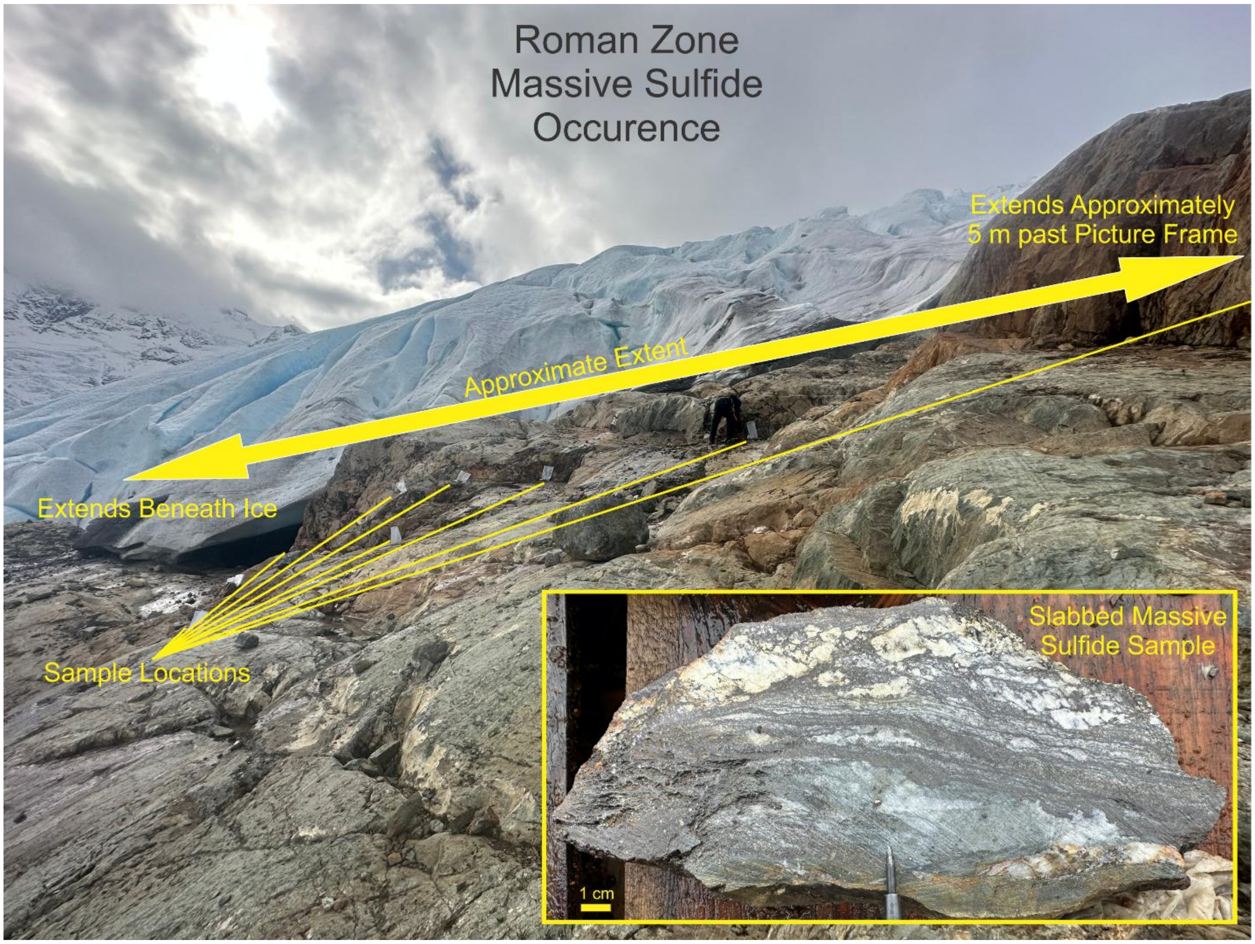

Figure 6-12 Annotated photograph of the Roman Zone, and slabbed sample

Zall Zone

The Zall massive sulphide occurrence is located 50 m NE of the Roman Zone. It comprises an approximately 1.5 – 2.0 m thick bed of silicified black mudstone with up to 50 cm thick domains of massive pyrite and sphalerite. Two grab samples were collected from the Zall occurrence, one from the massive sulfide, which grades 4.2% Zn, 0.14% Cu and 13.2 g/t Ag and a second from the strongly silicified mudstone surrounding the massive sulfide, with 30% coarse pyrite and trace chalcopyrite but no visible sphalerite, which graded 1.5% Zn, and 2.6 g/t Ag, indicting the presence of very fine-grained sphalerite disseminated in the mudstone. These samples also contain elevated Cu (up to 0.13%), and Pb (up to 230 ppm), as well as As (up to 387 ppm).

Fourteen additional samples collected in the Big Gold Central area have elevated concentrations of Ag, Cu, Pb, Zn ± As, Bi similar to the Roman Zone and Zall occurrence but at lower concentrations. They mainly represent areas where pyrite or pyrrhotite mineralized quartz-calcite veins with trace chalcopyrite or malachite were observed and sampled.

Big Gold North Area

In the Big Gold North area 16 grab samples of black mudstone with abundant pyrite rich beds up to 5 cm thick were collected over an approximately 320 x 150 m area (Figure 6-13). Most samples tested silicified domains or areas with significant quartz veining. Although pyrite was the only sulfide observed, samples have assay grades up to 0.23 g/t Au (average 0.1 g/t), 12.1 g/t Ag (average 3.8 g/t) and 0.43% Zn (average 0.040%) and lack the higher concentrations of Cu and Pb found in the Central area. Precious metal ± Zn mineralization is associated with elevated As ± Sb concentrations as well as anomalous Hg concentrations (up to 14.3 ppm), which are not noted from the Central or Southern zones.

The "6 Kilo" Vein Occurrence

The "6 Kilo" vein (Figure 6-13), named after the Ag value in kg/t of a sample collected from the vein, comprises a single quartz-sulfide vein containing coarse sphalerite, galena, and chalcopyrite in quartz. The vein is part of a set of abundant concordant to semi-concordant west dipping quartz veins observed across the area. It varies between 5 and 20 cm in thickness; its lateral extent was not mapped out during the 2023 program. The vein has high-grade precious and base metals (22.7 g/t Au, 6,240 g/t Ag, 1.4% Cu, 6.4% Pb and 3.1% Zn) as well as elevated As and Hg concentrations.

Big Gold South Area

Despite local intense quartz-sericite-pyrite alteration within the Big Gold South area, the tenor of mineralization within this area is lower grade than mineralization found in the Central and Northern areas. Silver values ranging from 0.7 – 9.42 g/t define a roughly north-south, or bedding parallel, domain of weakly mineralized samples. Elevated Cu, Pb, Zn, as well as As ± Sb and Bi are associated with increased Ag concentrations. The horizon with elevated values is parallel to, but offset from, the strike extent of the Romain Zone, located 550 m to the northeast across a glacier (Figure 6-13).

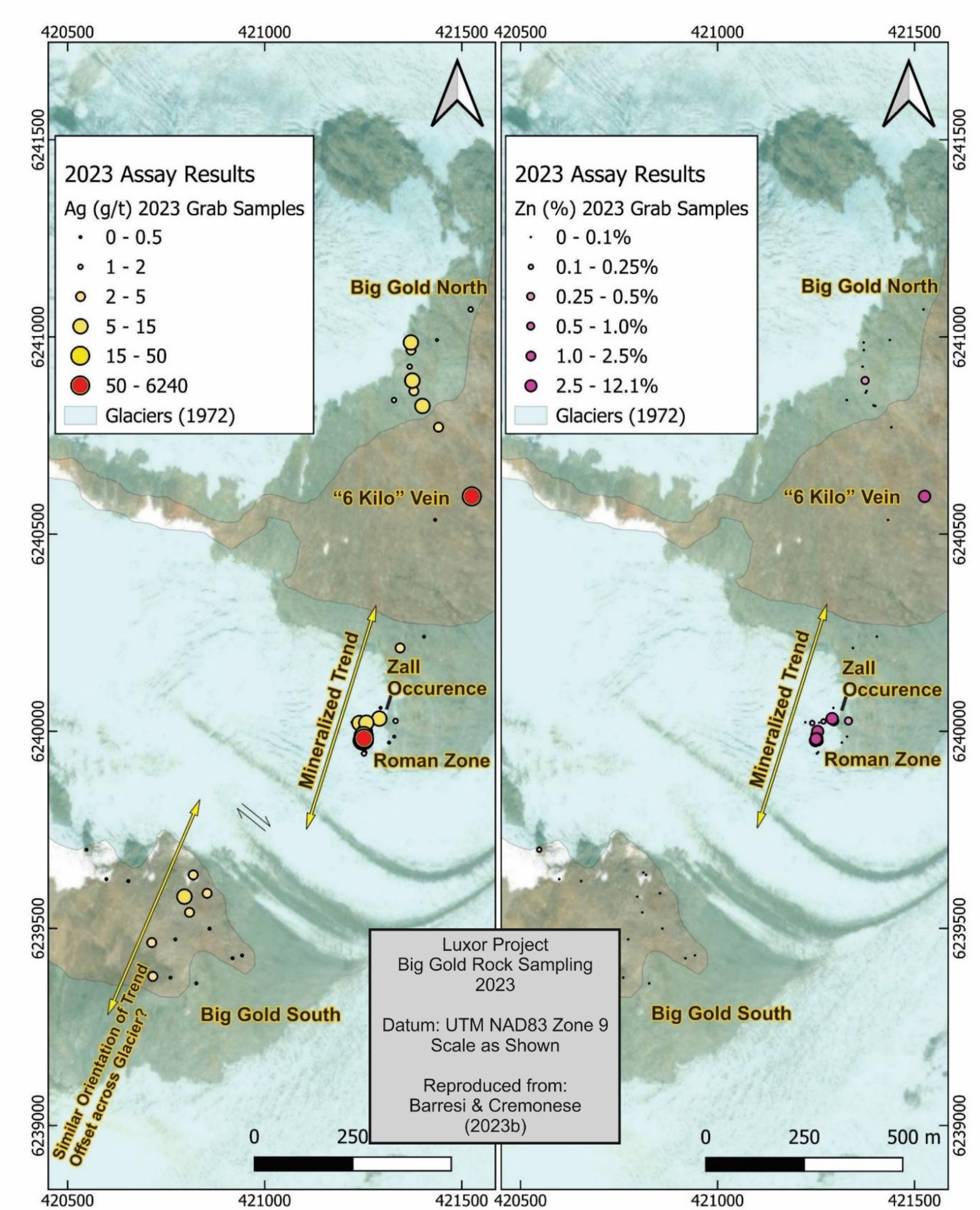

Figure 6-13 Annotated map of geochemical results from Big Gold area. Highlighting historical vs current glacial extent.

6.7.1.6 Eskay Rift Area 2022

In 2022, 51 rock samples were collected in the Eskay Rift area for geochemical analysis. Mineralized samples from the Eskay Rift area contain elevated to highly elevated concentrations of Zn ± Cu ± Ag, as well as As and Sb in some samples (Table 6-11, Figure 6-14). Copper concentrations range from 18 to 622 ppm, Zn from 4 to 2503 ppm and Ag concentrations range from 0.08 to 9.3 g/t. The samples have been divided into Zn and Cu dominant categories; the Cu dominant mineralization was all collected from just one area (the most southerly sample area). Elevated levels of As and Sb characterize most of the samples and samples with dominantly Zn mineralization also have the highest concentrations of As and Sb.

Table 6-11 Select Rock Sample Results - Eskay Rift Area - 2022

Sample ID	Cu	Zn	Ag	As	Sb	Cd
	PPM	PPM	g/t	PPM	PPM	PPM
Zinc Dominant Samples						
P-1	137.2	2503	2.4	38.5	8.2	58.6
S022355	212.0	1700	9.3	19.0	7.0	38.6
B-5	58.4	1689	2.5	32.3	6.6	31.6
V-5	100.4	935	1.2	36.2	11.5	19.2
V-2	51.4	827	0.9	35.5	8.8	13.7
V-6	49.5	689	1.2	18.9	7.8	10.5
B-2	74.4	678	2.6	18.4	6.6	11.5
V-7	45.8	533	1.2	12.1	6.2	7.5
S022373	151.0	514	3.4	9.0	5.0	15.5
S022353	38.0	511	0.5	3.0	2.0	7.4
V-4	130.3	484	2.6	33.4	12.9	8.1
S022352	77.0	416	3.3	49.0	6.0	7.5
S022374	44.0	405	1.0	17.0	5.0	5.4
B-4	109.3	343	2.3	9.7	5.7	5.9
B-1	109.9	308	5.1	91.2	8.0	7.5
B-3	71.7	218	3.0	1.3	5.8	6.3
T-1	60.8	216	0.5	33.9	0.7	0.2
V-3	37.4	212	2.4	29.2	9.2	3.6
Copper Dominant Samples						
LER-DC-17	622.0	139	1.0	<2.0	6.0	1.7
LER-DC-06	616.0	64	0.7	<2.0	8.0	0.6
LER-DC-09	339.0	61	0.7	<2.0	6.0	<0.5
S022359	328.0	62	0.3	<2.0	5.0	<0.5
LER-DC-15	328.0	30	0.5	<2.0	4.0	<0.5
LER-DC-04	311.0	92	0.6	<2.0	10.0	<0.5
T-10	294.9	49	0.9	2.2	<2.0	0.0

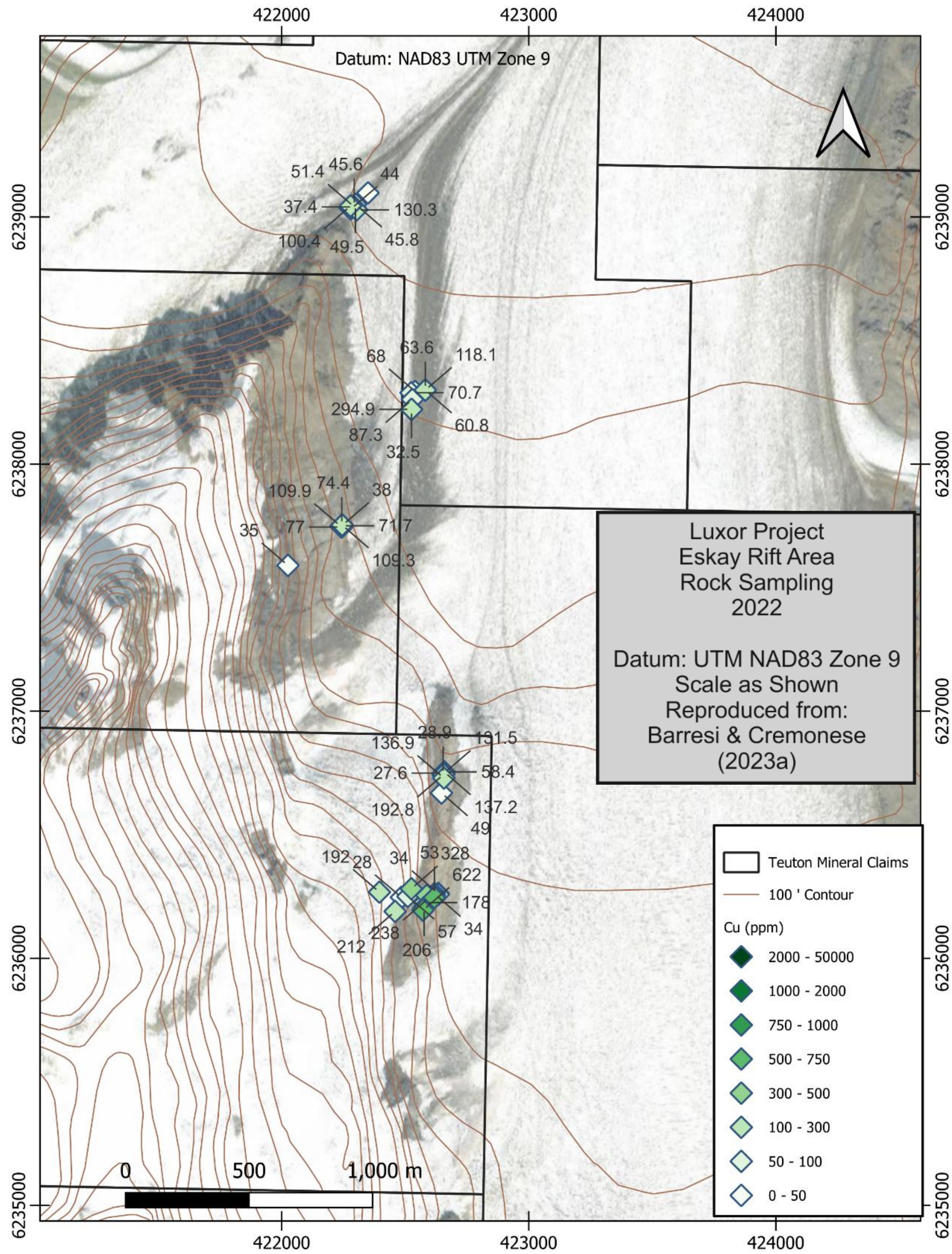

Figure 6-14 Cu Results - Eskay Rift Area - 2022

6.7.1.7 Pearson Area 2022

Eight samples of float were collected in the Pearson area from the northern side of a valley glacier. The samples are of quartz with significant coarse sulphides including pyrite, chalcopyrite, galena, bornite and sphalerite. The samples are of angular float, which forms boulders up to 1 metre diameter. The samples were collected over a 200 m area (Figure 6-15) on a part of the glacier that contains material sourced from the northern slope of the valley, or, less likely, from the eastern side of the South Unik River valley, where there was a now-extinct, up-ice branch, of the same glacier.

The samples have high concentrations of base metals with up to 13.6% Pb, 0.82% Zn, and 5.8% Cu, and contain significant precious metals with up to 0.70 g/t Au and 153 g/t Ag. Arsenic and Sb are elevated in most samples (Table 6-12, Figure 6-15).

Table 6-12 Pearson Area Boulder Train Samples - 2022

Sample ID	Au	Ag	Cu	Pb	Zn	As	Sb
	g/t	g/t	%	%	%	ppm	ppm
F00073213	0.011	0.9	0.148	0.008	0.187	6	<2
F00073214	0.230	41.8	0.021	3.780	0.020	12	20
F00073215	0.042	2.6	0.048	0.127	0.023	61	4
F00073216	0.064	64.1	5.843	0.005	0.011	87	5
F00073217	0.698	46.4	0.319	3.390	0.823	18	38
F00073218	0.394	133.0	0.376	9.330	0.161	12	60
F00073219	0.036	33.3	0.182	2.910	0.027	103	76
F00073220	0.485	153.0	0.015	13.600	0.015	157	131

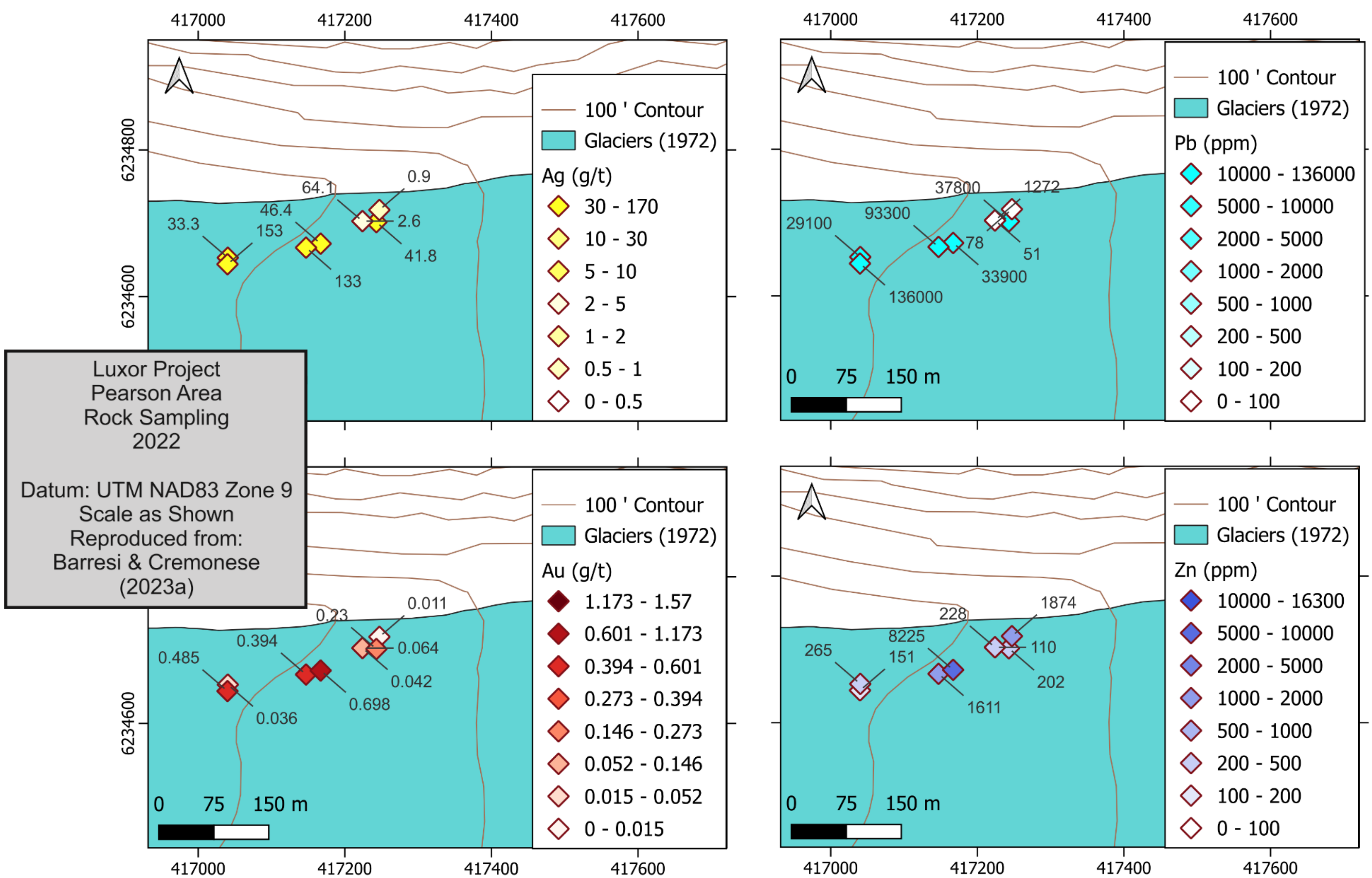

Figure 6-15 Geochemical Results from the Pearson Area

6.7.2 Hyperspectral Survey

6.7.2.1 Introduction

Hyperspectral Geology is a light-based, non-destructive technique that collects quantitative data within the Visual/Near-Infrared (VNIR) and Short-Wave Infrared (SWIR) portions of the electromagnetic spectrum. Different elemental bonds are related to specific absorption features. Cation-hydroxide, carbonate, and ammonia bonds, as well as water, are prominent between the 1300-2500 nanometer portions of the spectra. Combinations of these bonds have been linked to specific minerals through the development of reference libraries. The elemental bonds that are responsive within the VNIR and SWIR portion of the spectra can inform exploration for base and precious metals, as well as industrial minerals. Many deposit styles are associated with or comprise fine-grained phyllosilicates, clays, and carbonate minerals that are difficult to confidently identify visually. Hyperspectral identification of these minerals can allow for correct assignment of alteration facies and eliminate the problem of the use of non-specific terms such as sericite and clay which are vague and inconsistently applied.

In 2023 a total of 144 rocks samples were collected from surface exposures at the Big Gold and 4 J's areas for hyperspectral analysis. A single hyperspectral reading was collected from each of the samples, always from the surface that best represented alteration mineralogy; in total 144 hyperspectral reading were taken.

6.7.2.2 Summary of 4 J's and Big Gold Areas Hyperspectral Results

4 J's

The quality of the hyperspectral data collected from the 4 J's area with the use of the TerraSpec 3 were very high. However, most samples comprised either black shales or massive sulfides, which do not have strong spectral responses, therefore, 11 of the 22 samples did not provide spectra that could be adequately interpreted (i.e. aspectral interpretation by The Spectral Geologist [TSA]). The remaining samples are not sufficient in quality or distribution to provide a fulsome interpretation of the general character of the alteration mineralogy on the 4 J's area. They do however provide a basis for further work.

The Mg-OH absorption feature for chlorite in samples from the 4 J's area indicates that the chlorite may have been formed from low grade metamorphism rather than hydrothermal alteration, which typically produces chlorite higher in Fe content. The Fe-OH absorption feature confirms lower Fe content, but also indicates an intermediate overall Fe-Mg composition. According to both metrics there is higher overall Fe content in the chlorite from 4 J's than from the Big Gold area (see below) possibly indicating a greater influence of a hydrothermal system.

Big Gold

In the Big Gold area, the 2023 hyperspectral survey, in combination with macroscopic observations, indicate that the rocks have been pervasively altered with chlorite and silica. Although silica alteration is not easily quantified with hyperspectral technology, it was recognized in the field, and is supported by the presence of secondary phengitic white mica, which relative to other white micas is enriched in Si and is often found in associations with silicification. Chlorite is the most spectrally dominant alteration mineral at 4 J's, and it is interpreted, based on the location of the MgOH and FeOH maximum absorption features, to be of metamorphic origin. However, the relative FeOH content increases predictably with the presence of phengitic white mica indicating that metamorphic chlorite may be, in places, a pseudomorph of chlorite generated during earlier hydrothermal event(s) that occurred in more discrete zones across the Big Gold area. White mica alteration is defined within local domains across the area also indicating a wide distribution of focused hydrothermal systems. Greater sample density and distribution may highlight hydrothermal corridors through the identification of Fe-rich chlorite and/or high crystallinity secondary phengite.

7.0 GEOLOGICAL SETTING

7.1 Regional Geology

The Luxor Project lies within the Coastal Mountains along the western margin of the Intermontane superterrane and is underlain by Triassic through Middle Jurassic rocks of the western Stikine terrane (Stikinia) (Figure 7-1). Stikinia is an island arc terrane that defines the westernmost boundary of a geomorphic belt (Intermontane belt) of the Canadian Cordillera, which accreted onto the western margin of ancestral North America in the Middle Jurassic (Nelson et al., 2022). It is composed of accreted island arc and pericratonic terranes structurally imbricated with oceanic rocks. Stikinia is the largest island-arc terrane within the Cordillera and its extent can be followed, discontinuously, over a 2000 x 100-500 km area trending NW-SE along the general tectonic grain of the Cordillera. In the Stewart area, the Stikine terrane comprises Devonian to Permian sedimentary successions with interbedded volcanic strata of the Stikine assemblage, which is overlain by volcano-sedimentary successions of the mainly upper Triassic Stuhini Group and Early to Middle Jurassic Hazelton Group (Figure 7-1). Stikinia is bounded to the west of the Stewart area by the Late Cretaceous to Paleogene Coast Plutonic Complex (Gehrels et al., 2009; Brown, 2020), and to the east by a Middle to Late Jurassic post-accretionary sedimentary overlap assemblage, the Bowser Lake Group (Figure 7-1).

The most recently published public geoscience maps of the area are Lewis et al. (2001; 2013), and Nelson et al., (2018), the latter of which formalizes the stratigraphic framework and nomenclature for the entire Iskut River region, from Stewart in the south to Dease Lake in the north and includes a broad compilation of previous mapping.

The Luxor Project falls within Stewart-McTagg section of the regional geology map. Within the area, the Stuhini Group comprise dark gray, laminated to thickly bedded silty mudstone, and fine- to medium-grained and locally coarse-grained sandstone, and mafic to intermediate volcanic rocks, often with clinopyroxene and/or plagioclase phenocrysts.

The Stuhini-Hazelton Group contact is an angular unconformity. This is overlain by the Jack Formation, a basal conglomerate unit (e.g. Lewis et al., 2001a, Kyba and Nelson, 2015). The Jack Formation consists mainly of a heterolith cobble to boulder granitoid-clast-bearing conglomerate. Locally it also contains lenses of finer grained sedimentary rock or thin andesitic volcanic units.

Above the Jack Formation lies the Betty Creek Formation, a thick volcano-sedimentary package that represents the formation of partly emergent volcanic edifices along the Stikine arc axis. It is divided into three informal sub-units: the Unuk River andesite, a ubiquitous andesitic unit with a wide variety of andesitic flows, pyroclastic and epiclastic rocks, as well as interbedded fine to coarse siliciclastic sedimentary rock; and two more localized units with dominantly felsic lithologies, the Brucejack Lake felsic unit and the Johnny Mountain dacite unit.

A succession of interlayered basalt, rhyolite and sedimentary rocks in the upper Hazelton Group are found along a narrow, elongate north-trending belt that extends from Kinaskan Lake in the north to Anyox in the south, bisecting the Luxor Project (Figures 7-1, 7-3). These upper Hazelton Group rocks are younger than the Betty Creek Formation and formed in a series of narrow fault bound sub-basins along what is referred to as the "Eskay Rift" (Anderson, 1993, Evenchick and McNicoll, 2002., Gagnon et al., 2012, Barresi, 2015). The sequence of rocks that fill the Eskay Rift are called the Iskut River Formation (Gagnon et al., 2012, Nelson et al., 2018). The thickness of the sequence in each sub-basin can vary significantly but can range upwards to several km thick. The Iskut River Formation is divided into four informal units: the Willow Ridge mafic unit, which is volumetrically most abundant and comprises mafic or rarely andesitic flows, pillowed flows, pillow breccia, breccia, hyaloclastite, and tuff; the Bruce Glacier felsic and Eskay Rhyolite units, both of which include felsic volcanic rocks at the base of, and intercalated through, the thickness of the Iskut River Formation, and the Mount Madge sedimentary unit which comprises argillaceous mudstone and felsic tuff, which is found mainly interbedded with volcanic rocks at various stratigraphic levels through the Formation.

The Mount Dillworth Formation is of similar age and composition to the felsic units within the Iskut River Formation, but it forms laterally continuous exposures above the Betty Creek Formation, outside of the Eskay Rift.

The Bajocian to Callovian age Quock Formation is the highest unit in the Hazelton Group and comprises a 50 – 100 m sequence of thinly bedded, dark gray silicious argillite with laminae of felsic tuff and chert. The contrast between the colours of the lithologies led to the informal but widely used term 'pyjama beds'. The lithologies of the Quock Formation are the same as the Mount Madge unit within the Eskay Rift, but the Formation forms an extensive layer on the top of the Hazelton Group throughout Stikinia, including outside of the rift.

To the west of the Luxor Project the mainly volcanic rocks of the Stuhini and Hazelton groups give way to granitoids of the Coast Plutonic Complex (Figure7-1). To the east of the Project sedimentary rocks of the Bowser Lake Group onlap and cover rocks of the Stuhini and Hazelton groups (Figure 7-1).

Intrusive rocks in the area are dominated by:

4. Outliers of the Coast Plutonic Complex, including the Eocene age Hyder Pluton,
5. Middle Jurassic Texas Creek Plutonic suite which is closely related to numerous mineral deposits and showings throughout the northern Stikine terrane, and
6. Mafic intrusions of the late Triassic Stikine Plutonic Suite.

Doubly plunging, northwesterly trending synclinal folds of the Hazelton and underlying Stuhini Groups dominate the structural setting of the area. These folds are locally disrupted by small east verging thrusts that strike parallel to the major fold axes.

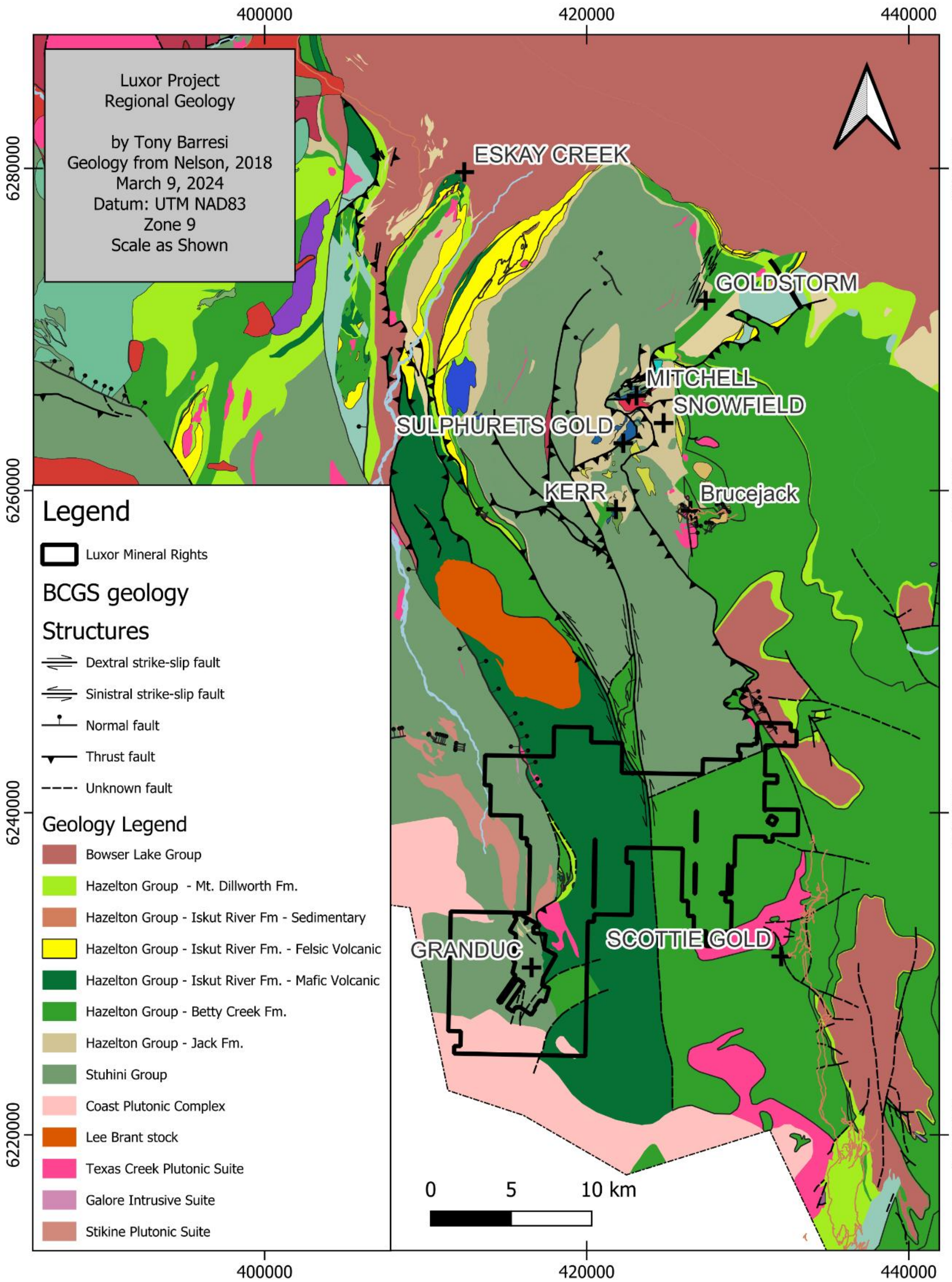

Figure 7-1 Regional Geology Map Showing Luxor Project

7.2 Local Geology

The Frank Mackie icefield covers much of the central portion of the Luxor Project, bisecting it in a north-south direction; the southeast portion of the Project is dominated by arms of the Brandon valley glacier, and the southwest by arms of the Leduc glacier. Remnant glaciers also occupy cirques and steep valleys at higher elevations above the larger glaciers. Lateral moraines extend, in places, for hundreds of metres above valley glaciers covering bedrock. Therefore, the local geology is known mainly from a limited number of areas with exposed bedrock, mainly ridgelines and the upper slopes of mountains and nunataks.

The eastern and western portions of the Luxor Project are underlain by Triassic Stuhini Group sedimentary and volcanic rocks, as well as lesser amounts of Early Jurassic Betty Creek Formation volcanic and sedimentary rocks (Figure 7-3). These sequences, which are roughly similar on either side of the Project area, are bisected in the centre by the "Eskay Rift" which is a paleograben that was filled with mafic volcanic and clastic sedimentary rocks during Middle Jurassic (ca. 174 Ma) inter-arc rifting. These younger rift-related rocks are classified as the Iskut River Formation (IRF).

The Iskut River Formation rocks are exposed mainly on the western side of the Frank Mackie icefield within the Big Gold, Eskay Rift, Pearson, and Leduc areas of the Project. In the north, in the Big Gold area the IRF comprises a thick sequence of roughly west-northwest dipping sedimentary and volcanic rocks that were deposited in a seafloor environment (Figures 7-2, 7-4, 7-5). The sedimentary rocks comprise shale, mudstone, and siltstone that are well bedded, often with fine laminations and crossbedding and are interpreted to represent A-E Bouma sequences (Figure 7-5). Mudstone is the most abundant lithology; both it and the shale are black and sometimes graphitic. Minor discontinuous beds of limestone are present and some of the other sedimentary layers are limy. Volcanic rocks typically comprise thick massive beds of mafic tuffs and clinopyroxene porphyritic flows. Mafic tuffs range from ash tuff to crystal tuff with plagioclase and mafic phenocryst that are pseudomorphed to chlorite. They range from well bedded to thick and massive. The stratigraphy is offset by faulting in numerous areas juxtaposing volcanic and sedimentary rock, but a transitional stratigraphic contact between sedimentary and volcanic layers is seen in several locations across the Project area and always includes an approximately 20 m thick sequence of interbedded sedimentary rock and mafic tuff, with the main pile of volcanic rock overlying the sedimentary rock (Figure 7-2). Both the sedimentary and volcanic intervals contain rare beds of the other lithology. At high elevation in the southern Big Gold area interbedded black silicious mudstones and felsic tuff of the Mt. Madge unit, or upper Hazelton Quock Formation are present. These famous "pyjama beds" are also associated with the Eskay Creek Au-Ag-Zn volcanogenic massive sulfide deposit. Also at Big Gold South, there is a locally dense set of near-vertical felsic dykes with a phaneritic-equigranular to aphanitic texture. In a few locations narrow glassy pale green mafic dykes parallel the felsic dykes forming bimodal dyke swarms.

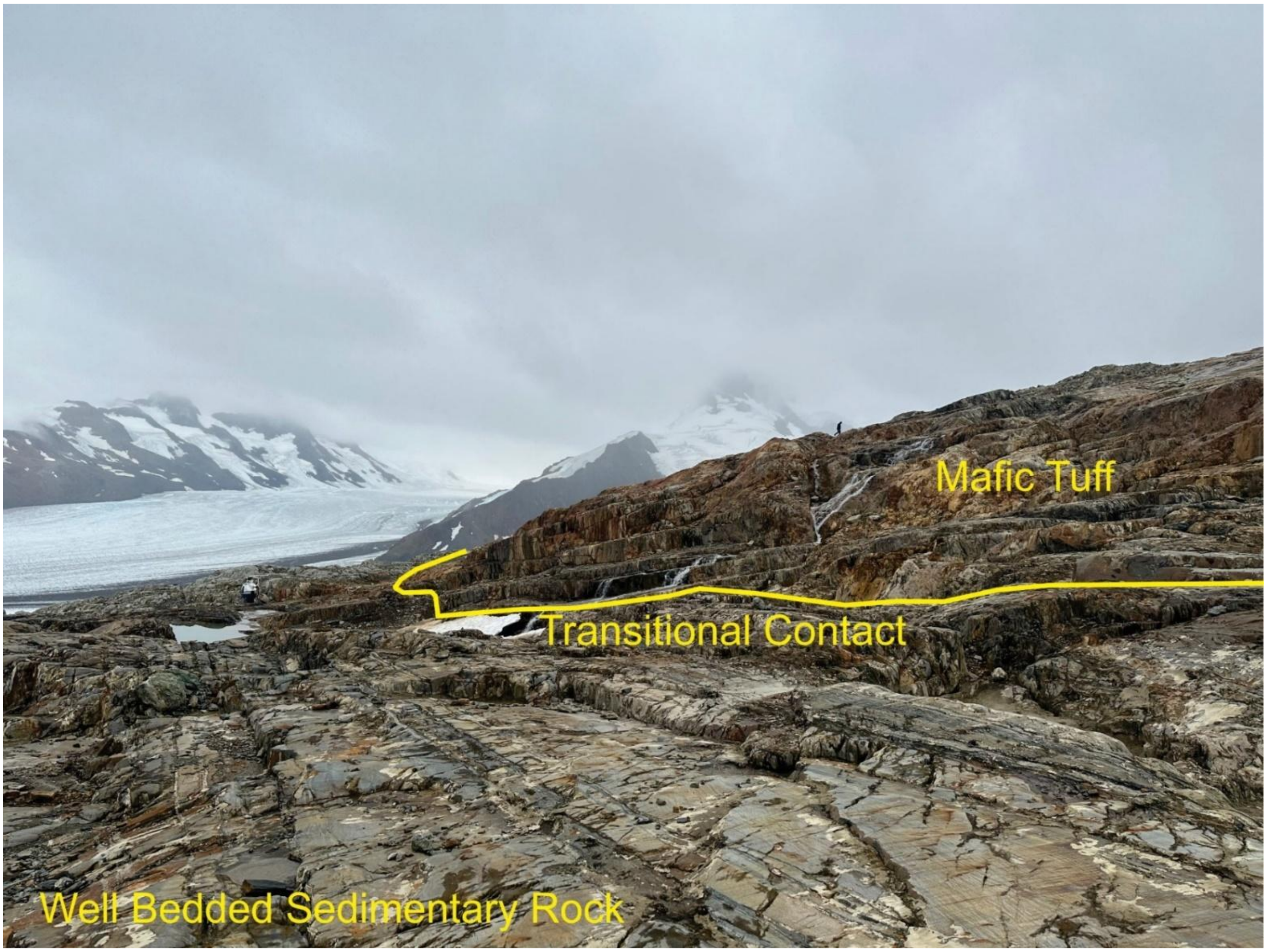

Figure 7-2 Contact between sedimentary and mafic volcanic rock at Big Gold

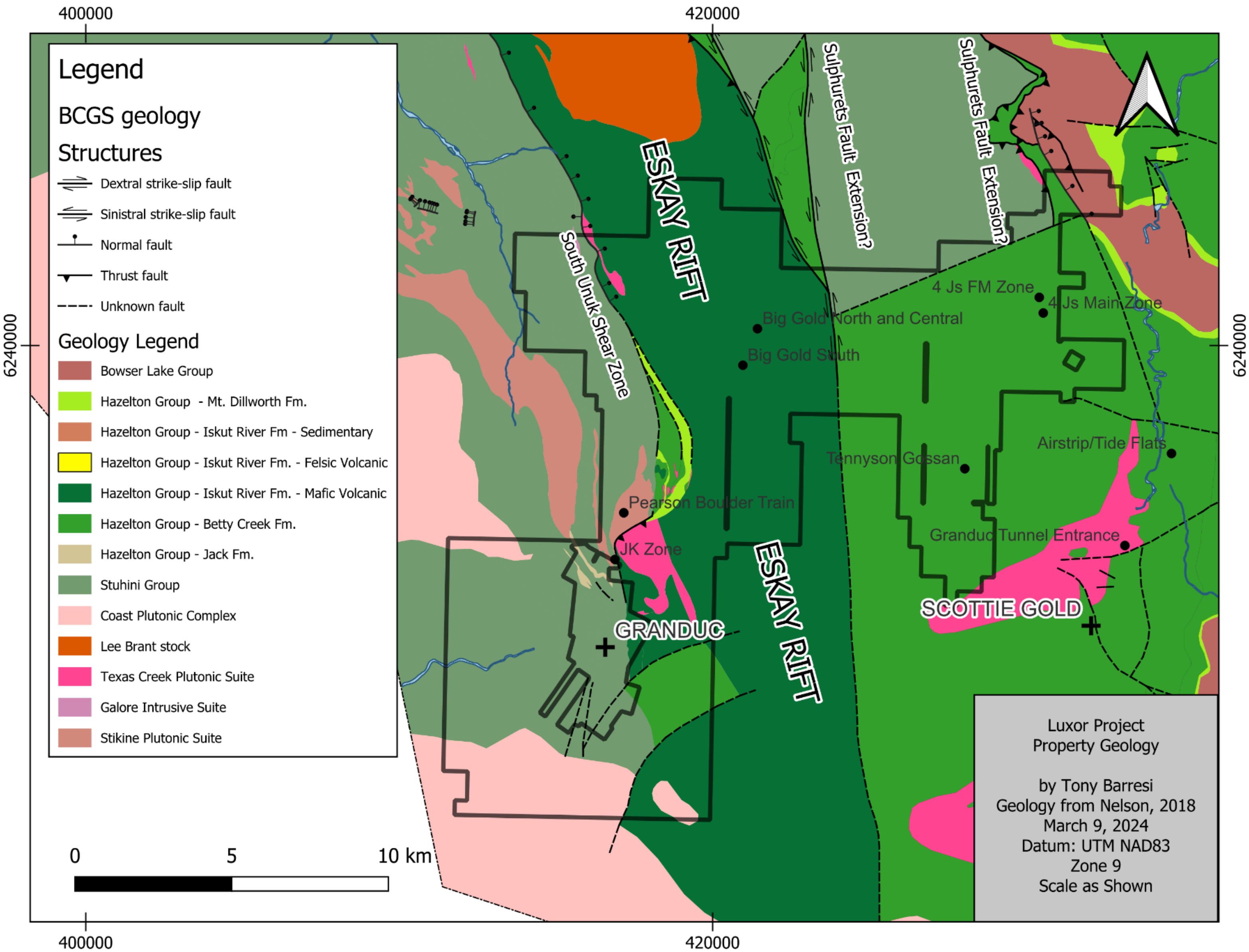

Figure 7-3 Luxor Project - Local Geology

Farther to the south, in the Eskay Rift area, the IRF is dominated by red-rusty well bedded sedimentary rock that is intruded by larger bodies of phaneritic but fine-grained diorite (Figure 7-4). The diorite forms sills and discordant feeder structures within the sedimentary package and divides the sedimentary rock into distinct “benches” along the side of the mountain. Larger bodies of diorite can be up to approximately 150 m thick. They form massive, and in places, columnar bodies (Figure 7-4). Contacts between the diorite and sedimentary rock are sometimes sharp, but locally they are brecciated forming a peperitic texture; in these locations’ vesicles are present in the diorite, demonstrating that they have intruded at least partly unconsolidated and wet sediments. This is a strong indication that the diorites represent shallow feeder structures for mafic lavas that were roughly coeval with the sediment deposition. These mafic intrusions are likely coeval with and part of the same volcanic system as the mafic volcanic rocks found to the north in the Big Gold area.

The sedimentary rock is well bedded (Figures 7-2, 7-5) and universally pyrite ± pyrrhotite rich. Beds range from approximately 0.5 cm to 40 cm in thickness and can contain very clear internal laminations, graded bedding, and cross laminations (Figure 7-5). Lithologies include dark gray to black mudstone, lighter siltstone, narrow dark gray limestone (usually boudin) and chert that ranges from black to translucent to white. Most of the lithologies are moderately to highly silicious and contain disseminated or layer parallel pods of pyrite ± pyrrhotite ± chalcopyrite ± sphalerite. A distinct lithology noted in just one location consists of dark poorly silicified mudstone with approximately 30% volume 0.5-1.25 cm diameter prehnite rosettes.

Figure 7-4 Contact between pyritic mudstones and a mafic sill at the Eskay Rift Area

Figure 7-5 Fine laminations and crossbedding in mudstone/siltstone

Farthest to the south, in the Leduc Glacier area the IRF comprises mainly mafic volcanic rock, with rare narrow domains of interbedded mudstone.

The IRF is juxtaposed with mainly Triassic Stuhini Group rocks along its western margin. The contact is located along a southern extension of the South Unuk shear zone (Figure 7-3), a sometimes widely distributed domain of strain, with a predominantly sinistral shear sense, but with components of normal and reverse motion in places. IRF rocks are typically down-dropped (down to the east) along the fault indicating a strong normal component. Within the Luxor Project area the fault defines the western margin of the Eskay Rift.

West of the South Unuk shear zone the geology is dominated by Triassic Stuhini Group volcanic and sedimentary sequences. In the northwest of the Project area, andesitic flows, tuffs and breccias are dominant. To the southwest, in the Leduc area, which surrounds the past producing Grandu mine, the Stuhini Group is dominated by sedimentary and lesser volcanic rocks, and here they are metamorphosed to greenschist facies (meta-andesites, meta-sandstones, and phyllites), which is unique to the area. The Triassic rocks are juxtaposed with lower Hazelton Group volcanic rocks along a series of faults parallel to the South Unuk Shear Zone. Stuhini Group rocks are strongly deformed relative to the Hazelton Group rocks.

Within the Luxor Project, rocks exposed on the eastern and southern side of the Frank Mackie Icefield and south of the Frank Mackie valley glacier are not well described on a regional scale: Nelson (2018) interprets that there is a sinistral strike-slip fault beneath the Frank Mackie Glacier that juxtaposes IRF rocks to the west from Stuhini Group intermediate tuffs and flows and locally thick interbedded and fine-grained sedimentary rock. Detailed mapping conducted by Noranda Exploration Company Ltd., in 1985 (Baerg & Bradish, 1986) over a 0.6 km^2 area in the 4 J's area indicates that it is underlain by black argillite, conglomerate, graywacke, andesitic tuffs and volcaniclastic rock that strike NNW to NE with steep to moderate westerly dips. Two distinct intrusive phases were identified, a coarse chlorite altered feldspar porphyry that occurs as plugs and sills within volcanic rock, and younger 1-3 m thick northwest striking dykes of light green hornblende-feldspar porphyry. Additional mapping since 1985 in the 4 J's area delineated the same geology over a broader area.

To the south, in the Tennyson area, the local geology of the main gossan area is controlled by several thrust faults that have imbricated unaltered Lower Jurassic Betty Creek Formation rocks with altered Betty Creek Formation and Triassic Stuhini Group volcanic rocks (Figure 7-6). Stuhini and lower Hazelton Group rocks within particular thrust panels are strongly sericite altered with quartz feldspar intrusive rocks present. Intrusive rocks associated with the Eocene Hyder pluton have been mapped in the area, as well as porphyry intrusions dated at approximately 200 Ma (see Section 6.3.7). Mapping in 2012 and 2013 identified 3 separate stratigraphic units that hosted the intrusions. Van Straaten et al. (2013) named them informally, from west to east as the Berendon unit, the Tennyson unit, and the Unuk River unit.

The oldest rocks are within the Tennyson unit which appear to be upper Triassic to lowermost Jurassic in age. The Tennyson unit is the host to all known Cu-Au mineralization within the main gossan area and comprises massive, predominantly quartz-sericite-pyrite and K-silicate altered, massive, coarse plagioclase-hornblende crystal tuffs. The enveloping Berendon and Unuk River units are largely unaltered, barren, sequences of volcanic breccia and lava flows, tuffaceous conglomerates, tuffaceous sandstones, and non-tuffaceous sedimentary rocks (van Straaten et al., 2013).

North of the main gossan at Tennyson, detailed geological mapping shows the area to be underlain by, from west to east, crystal tuff, conglomerate, and sedimentary rock. The area is bisected by an east-verging thrust fault.

Reconnaissance-scale mapping and sampling west-southwest and south of the Berendon Glacier showed these areas to be primarily comprised of a mafic volcanic conglomerate and breccia, intermediate matrix-supported tuffaceous conglomerate, foliated dark grey to black siltstone, grey medium-grained sandstone, and laminated grey to black siltstone.

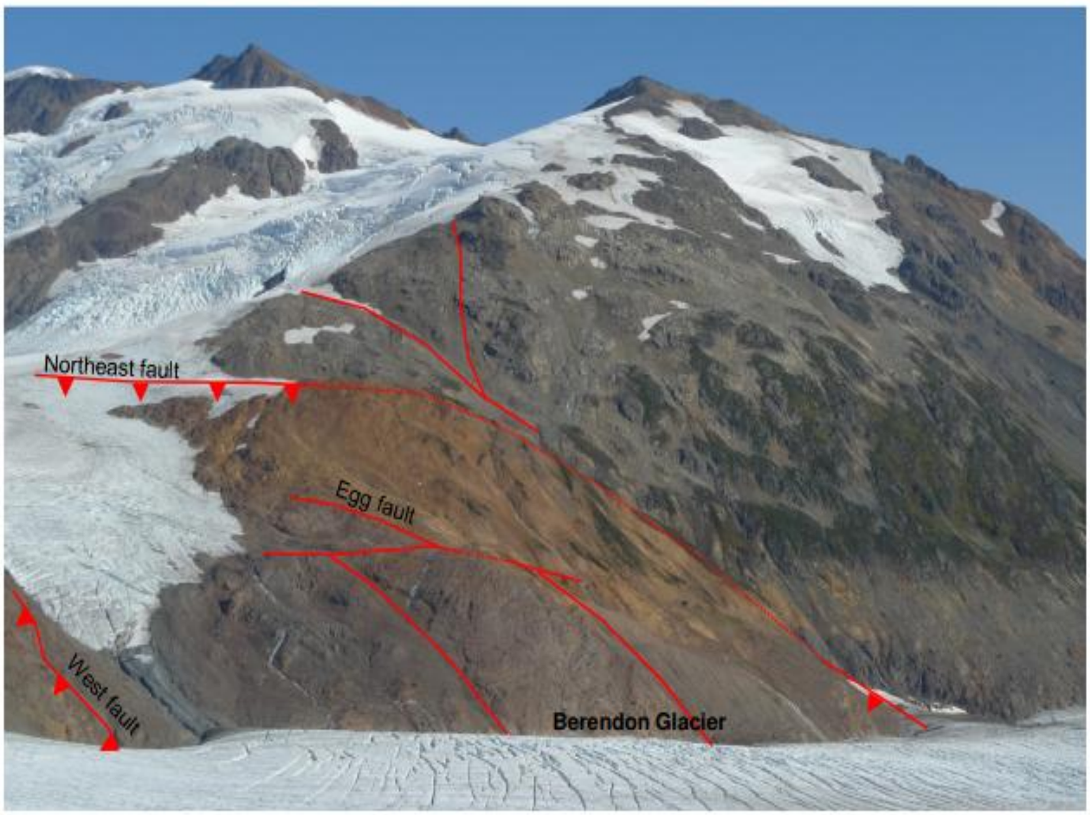

Figure 7-6 Looking SE at the Tennyson Main Gossan

7.3 Alteration

The large size of the Luxor Project allows for distinct styles of alteration in different domains, and as noted in the Geology Section, much of the Project area is covered by glacial ice that prevents anything other than conceptual interpretation of the continuity of alteration domains. Alteration is thus domained into particular areas within the Project:

7.3.1 Leduc Glacier Area

The Leduc Glacier area surrounds the past producing Granduc mine. The lithofacies and alteration for the mine geology were reinterpreted by Dr Harold Gibson of Laurentian University, an expert in VMS deposits (Leonard, 2016). The following excerpt is from his work:

> *Silicification: Results in a lighter colouration, an increase in hardness and generally a finer grained "cherty" appearance. It occurs in all lithofacies but is always associated with the chert lithofacies.*
>
> *Chloritization: The most important proximal alteration associated with semi massive and massive sulphide. Imparts a dark black-green colour to units and is marked by a more pronounced foliation and decrease in hardness.*
>
> *Sericitization: Imparts a yellow to white colour to the units and is characterized by a decrease in hardness and increase in foliation. It is associated with some sulphide mineralization within the siliceous siltstones, but it is limited in occurrence and intensity.*
>
> *Biotitization: The brown colouration of the siliceous siltstone is interpreted to reflect fine biotite that may be a product of metamorphism rather than alteration.*
>
> *Brown Alteration: Characterized by a distinct brown colour and fine sugary/granular (faint) texture. No pronounced fabric typical of biotite alteration and does not react with HCL. Envelops quartz-calcite veins that contain crystals of pyrite (and galena?); may be an FeCO3 alteration associated with a later (Au?) event.*
>
> *Epidotization; Light green alteration in the mafic volcanic siltstone. It occurs as irregular diffuse patches from cms to decimeters in size, and as a selective alteration of some lapilli, and feldspar crystals. It is overprinted by chlorite alteration in mafic siltstones that host semi-massive sulphide mineralization. Later and unrelated epidote alteration occurs along late fractures and shears.*
>
> *Carbonate: Late, white, non-foliated calcite filled fractures occurs throughout all lithofacies. Of more significance are the zones of intense calcite veining and in situ brecciation where both the host lithofacies and carbonate veins/matrix are foliated indicating that this is an early, pre-deformation synvolcanic alteration. The early carbonate veining and replacement occurs primarily within the siliceous siltstone and typically the mafic siltstone lithofacies, it is intimately associated with the Granduc*

limestone, and it occurs in proximity but not typically within the semi massive sulphide zones where chlorite is the dominant alteration type.

While much of the alteration described above is only local to the Granduc deposit, chloritization, sericitization, and carbonate alteration, in various intensities, extend, mostly in low intensity, well beyond the mine area and are present in the Leduc area, especially along faults and shear zones.

7.3.2 Tennyson Area

The Tennyson area is host to a porphyry Cu-Au mineral system that has zoned alteration typical of that type of system, although modified by post-mineral faulting.

During 2012 to 2013 exploration of the main gossan area at Tennyson (van Straaten et al., 2014, van Straaten, 2013), seven different alteration types were identified:

- K-silicate
- Quartz-sericite-pyrite
- Chlorite±carbonate
- Chlorite-epidote-carbonate
- Intense pervasive epidote-chlorite-K-feldspar ± carbonate
- Skarn
- Chlorite-silica/albite(?) ± epidote

K-silicate alteration is dominated by K-feldspar, biotite, magnetite, chalcopyrite, and pyrite. Associated pervasive alteration contains biotite-magnetite-chalcopyrite-pyrite which is characterized by dark grey to black altered rocks containing very fine- grained disseminated hydrothermal magnetite. The dark colour is likely due to very fine-grained hydrothermal biotite. Another less dominant pervasive K-feldspar-chalcopyrite-pyrite alteration type can be recognized by hard-to-scratch pinkish-grey altered K-feldspar-rich rocks. Both alteration types are intimately associated with abundant fine-grained disseminated chalcopyrite and early quartz-chalcopyrite-pyrite veins at surface and in drill core

Quartz-sericite-pyrite alteration consists of medium grey to pale grey pervasive alteration associated with abundant (4-20%) disseminated and vein-hosted pyrite common throughout the main and NE gossans. The alteration intensity and pyrite content vary considerably, and more intense alteration is generally associated with (near) complete obliteration of primary textures. Moderate to intense quartz-sericite-pyrite alteration occurs within the main gossan, while weak to moderate pervasive quartz-sericite-pyrite alteration is present to the northeast.

Weak to strong chlorite ± carbonate alteration occurs within late-mineral intrusions, hornblende-augite porphyritic flows and crystal tuffs, locally overprinting early K-silicate, and quartz-sericite-pyrite alteration. In places hydrothermal biotite within K-silicate altered zones appears to be subsequently chloritized. Chloritic amygdules are locally present within flows. Chlorite alteration may be related to later regional greenschist facies metamorphism.

Weak to moderate chlorite-epidote-carbonate alteration is present locally within the main and NE gossans. It occurs primarily within hornblende-augite porphyritic units and less frequently within other lithologies. Epidote occurs as fine-grained disseminations and as patches and aggregates commonly intergrown with pyrite ± pyrrhotite and locally replacing plagioclase. Chlorite-epidote alteration may be related to propylitic, calc-potassic, sodic-calcic or skarn alteration.

Intense pervasive epidote-chlorite-K-feldspar ± carbonate alteration is observed at the northeastern margin of the main gossan in drill holes (TN13-08 and 10). This assemblage is characterized by patchy, pervasive clots, aggregates and disseminated “pistachio green” epidote with chlorite and carbonate. Alteration appears to be spatially associated with cryptic K-feldspar and intense quartz-pyrite ± sericite alteration that is commonly associated with significant mineralization.

Skarn alteration consists of a very dark green to black alteration assemblage dominated by carbonate-garnet-epidote-magnetite and has only been observed in the extreme south and southeast of the main gossan. This assemblage is characterized by disseminated and vein-hosted carbonate, red garnet and “pistachio green” epidote with abundant finely disseminated magnetite and locally 0.5-1 cm wide aggregated magnetite bands. Sulphide mineralization within skarn zones varies from essentially zero to up to 2% chalcopyrite. This alteration type is typically associated with localized increase in magnetic susceptibility.

Chlorite-silica/albite ± epidote alteration was only encountered in one drillhole (TN13-15) in the NE gossan. The assemblage is characterized by hard-to-scratch pale bleached matrix silicification/albitization and the chloritization of mafic minerals with minor disseminated epidote. It is associated with pyrrhotite-pyrite ± minor chalcopyrite mineralization.

7.3.3 4 J’s Area

In the 4 J’s area there are three styles of alteration:

- Carbonate-quartz-sericite-pyrite alteration in limited size domains and associated with N-NE trending fractures and narrow quartz-carbonate veins. These altered rocks include argillite, volcaniclastic rocks and intrusive feldspar porphyry dykes and plugs.

The altered rocks have a pale grey-white bleached appearance on fresh surfaces and rusty brown colour on weathered surface.

- Silicification of argillite horizons. This type of alteration is not well described but sampling across the area often notes that well mineralized sedimentary horizons are highly silicious.
- Pervasive chloritization. A 2023 hyperspectral studdle identified chlorite as an abundant secondary mineral at 4 J's (Section 6.7.2). Although the chlorite has metamorphic affinities, its intermediate ratio of Fe to Mg indicates a hydrothermal influence.

7.3.4 Big Gold Area

In the Big Gold area three areas with alteration were noted prior to 2023. A domain of moderate to strong, structurally controlled, focused mariposite alteration, within a broader area of quartz-sericite schist was identified within the northern nunatak area, which was drilled in 2016. Drilling in 2018 in the western part of the Big Gold area focused on a domain of silica-epidote alteration. In 2022 in the southern nunatak (south of the area tested by drilling in 2016) a domain of intense and texturally destructive quartz-sericite-pyrite alteration was identified.

In 2023 the author conducted a detailed hyperspectral survey over the northern and southern nunatak areas:

7.3.4.1 Hyperspectral Results Big Gold Area

The quality of the hyperspectral data collected from the Big Gold area with the use of the TerraSpec 3 were very high. Minerals identified through SWIR analyses include (in order of decreasing abundance): chlorite, phengite, muscovite, ankerite, siderite, phengiticillite, jarosite, kaolinite, magnesite, calcite, zoisite, epidote, biotite, and hornblende. Of the 120 samples that returned spectra that can be interpreted with confidence, 86 contain spectrally dominant chlorite, and an additional five samples contain significant chlorite mixed with spectrally dominant phengite or muscovite (Figure 7-7). The second most abundant spectrally dominant mineral is phengite followed by muscovite and just a few samples each of siderite, ankerite, phengiticillite and kaolinite. The samples have been subdivided into two main groups: chlorite dominant and white mica dominant.

Hyperspectral results from the chlorite dominant group comprise either chlorite alone, or chlorite mixed with phengite, or more rarely muscovite or iron-carbonate. The hyperspectral survey in combination with macroscopic observations, indicate that the rocks have been pervasively altered with chlorite and silica. Although silica alteration is not easily quantified with hyperspectral technology, it was recognized in the field, and is supported by the presence of secondary phengitic white mica, which relative to other white micas is enriched in Si and is often found in associations with silicification. Chlorite is the most spectrally dominant alteration mineral, and it is interpreted, based on the location of the MgOH and FeOH maximum absorption features, to be of metamorphic origin. However, the relative FeOH content increases predictably with the presence of phengitic white mica indicating that metamorphic chlorite may be, in places, a pseudomorph of chlorite generated during earlier hydrothermal event(s) that occurred in more discrete zones across the Big Gold area. White mica alteration is defined within local domains across the area also indicating a wide distribution of focused hydrothermal systems. Greater sample density and distribution may highlight hydrothermal corridors through the identification of Fe-rich chlorite and/or high crystallinity secondary phengite.

Hyperspectral results from the white mica dominant group comprise either white mica alone, or white mica mixed with chlorite. White mica compositions show a continuum between muscovitic composition, and phengitic composition. Most of the white mica identified at Big Gold falls within the phengitic classification (Figure 7-7). Phengite is a K-rich mica similar to pure muscovite, but it has higher silica relative to K and Al. Secondary phengite can form from metamorphic or hydrothermal processes and can be associated with silicification.

The white mica crystallinity index (WMCX) can be a good indicator of the temperature or intensity of a metamorphic or hydrothermal system, where higher temperature or metamorphic grade systems produce better crystalline mica resulting in higher WMCX values. Typically, values >1 have well defined crystal structure and are considered well crystalline. White mica tested in this study almost all have indices above 1.0, ranging up to >5.0, indicating a potentially significant hydrothermal system (Figure 7-8). A cluster of four samples with high WMCX span 125 m in the Central Big Gold area where there is also a single sample with kaolinite (Figure 7-8). Two samples from the "6 Kilo" vein area also have high WMCX numbers (Figure 7-8). Otherwise, higher value samples are scattered with no noticeable pattern, indicating a wide area containing focused alteration systems.

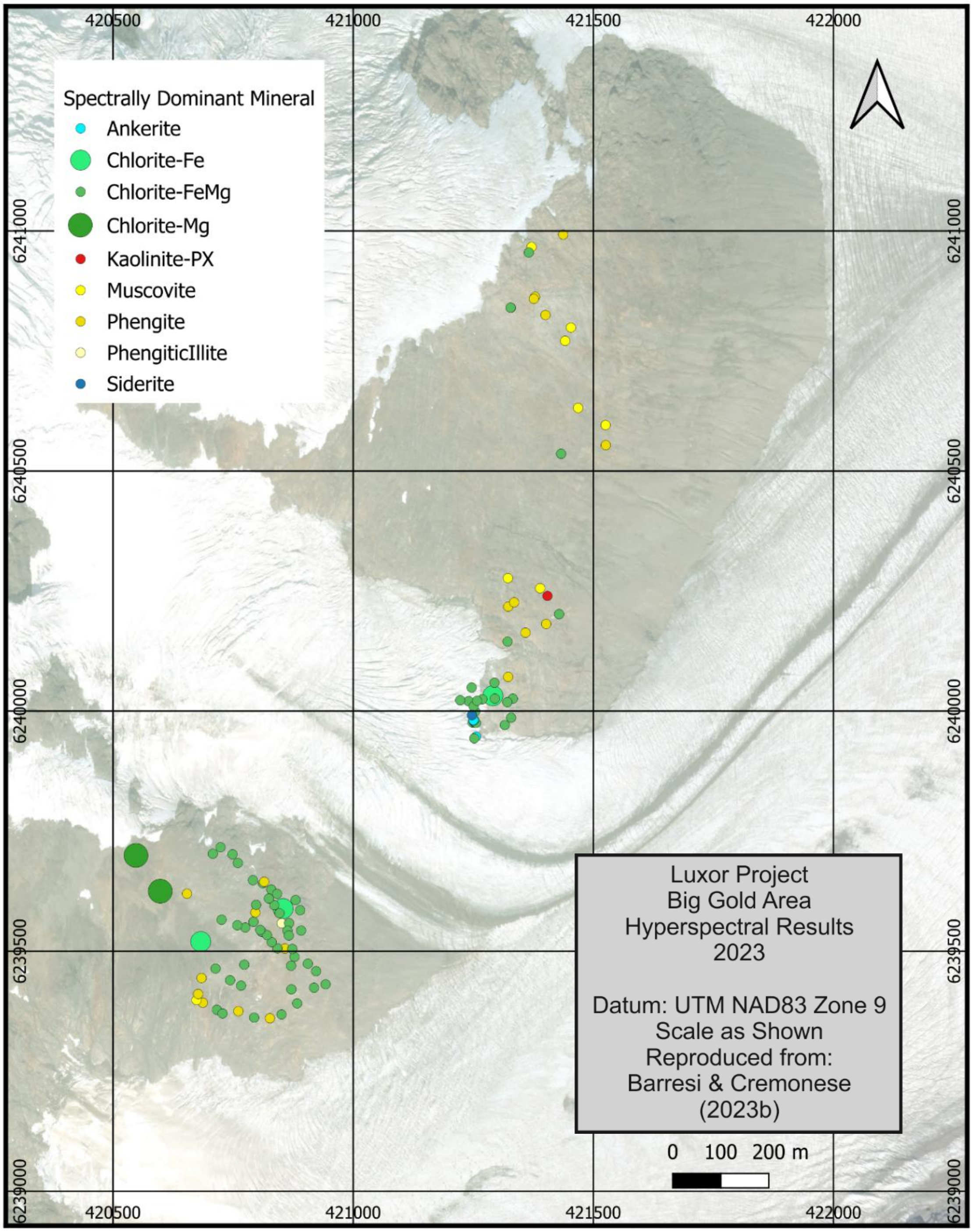

Figure 7-7 Dominant mineral as determined by hyperspectral analysis. Big Gold Area - 2023

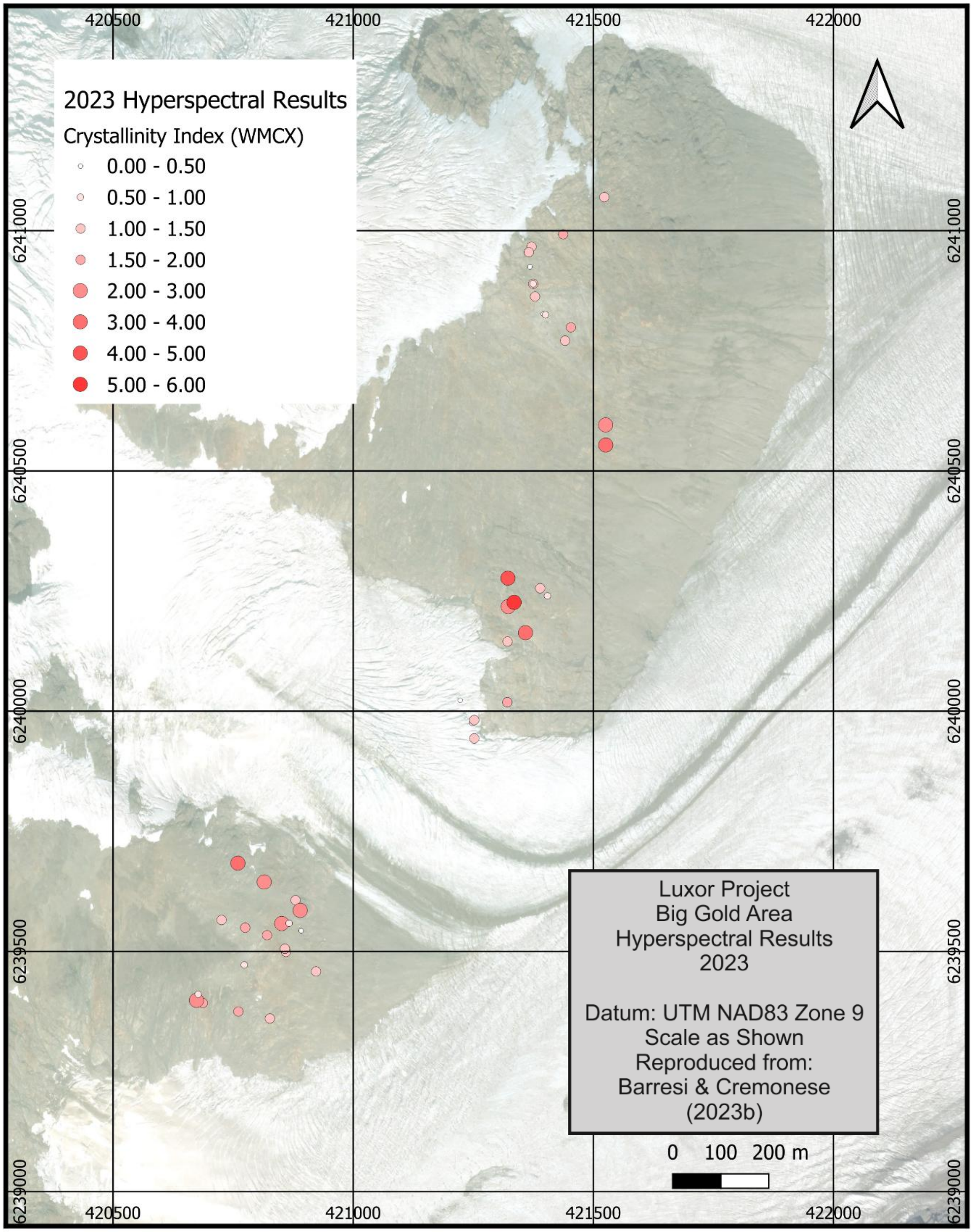

Figure 7-8 Map of crystallinity index for samples from Big Gold Area. Note domain of high crystallinity in Central area

7.3.5 Eskay Rift Area

To the south, in the Eskay Rift area IRF rocks are locally silica altered and in places have limonite-sericite fractures or selvages to quartz-carbonate stringers. In one location, secondary prehnite rosettes were identified in mudstone forming a texture similar to those seen in coeval mudstones associated with the Eskay Creek VMS deposit to the north.

7.4 Mineralization

The Luxor Project is located along a prospective belt of Triassic and Jurassic volcanic and sedimentary rocks that have inferred strike extents northwards to the KSM Cu-Au porphyries, Brucejack Lake Au, and Eskay Creek Au-Ag VMS deposits (Figure 7-1), and southwards to the former producing Premier and Granduc mines. In addition, in various locations across the Project area stocks of the Texas Creek Plutonic suite are present, and it is genetically associated with numerous mineral occurrences across the Stikine Terrane, including the KSM porphyry Cu-Au deposits.

Most of the Luxor Project has only seen reconnaissance style exploration that has been successful in defining mineralized domains. Notable exceptions include more advanced exploration, including significant drilling, at the Tennyson Gossan, and in the 4 J's area. Significant exploration took place proximal to the Leduc area, in the Granduc mine area, but mineralization identified within the Luxor boundary saw only limited exploration. Drilling in the Big Gold and Pearson areas followed up on positive results from reconnaissance surface sampling but did not yield results that warranted immediate follow-up. Due to the severity of the topography, short exploration season, and extensive glacial cover, much of the Project area has not been explored sufficiently to adequacy define broad domains of mineralization or mineral potential, however, within particular areas, there are notable styles of mineralization.

7.4.1 Tennyson Area

Exploration in the Tennyson area has delineated a high-temperature porphyry-style hydrothermal system with associated Cu-Au mineralization. Due to ice cover, exploration at Tennyson has mainly been restricted to a wedge-shaped gossanous outcrop, approximately 900 by 700 m in dimension, bounded to the south, west and north by the Berendon Glacier and encircling icefield, and to the east by a steeply-dipping, NW-SE trending fault.

Sulphide mineralization on this gossanous area is associated with strong zoned alteration including propylitic, phyllic, and potassic domains as well as with local silicified and skarn domains. Local areas of strong alteration are associated with enhanced Cu and Au values, consistent with a porphyry Cu-Au system. The southwestern and southern portions of the main gossan represent the low-grade Au halo while the northern part represents the Cu-Au rich portions.

Mineralization associated with the Tennyson area includes the following:

1. Chalcopyrite associated with magnetite, epidote, and chlorite in skarn rocks
2. Galena, sphalerite, chalcopyrite, pyrite and locally tetrahedrite veins
3. Disseminated pyrite and chalcopyrite in argillic and propylitic altered rocks
4. Disseminated pyrite in silicified as well as sericite altered rocks
5. Massive pyrite ± pyrrhotite veins
6. Quartz-carbonate veins with local chalcopyrite and sparse pyrite
7. Minor banded sphalerite and disseminated magnetite with coarse-grained disseminated pyrite, massive clots, and aggregates of intergrown pyrite and pyrrhotite

Sulphides in order of abundance include pyrite, chalcopyrite, sphalerite, galena, tetrahedrite and arsenopyrite. Pyrite content appears to increase in the northern part of the gossan where numerous massive veins with base metal content are present. According to polished sections completed in 1986, Au occurs as small electrum grains within the tetrahedrite (Kruchkowski, 2022).

Chalcopyrite associated with magnetite, epidote, garnet, and chlorite is present in the southeast part of the gossan near the glacier. Galena, sphalerite, chalcopyrite, pyrite and locally tetrahedrite veins are present in the western and northern part of the gossan. Massive sulphide veins occur as narrow stringers that generally vary from 2 to 30 cm in width. They are associated with silicification and may represent up to 50 % of 1-2-m-wide vein zones. The orientation of these veins is generally random, and they crosscut all geological units. Higher Au and Ag values are associated with these veins with the ratio of Ag to Au content greater relative to other mineralization. Disseminated pyrite and chalcopyrite in "granitized" and propylitic altered rocks occur along the northern portion of the gossan. The mineralization occurs in silicified grey-green volcanic rock associated with abundant quartz veinlets and pyrite as well as minor chalcopyrite and chlorite veinlets.

Quartz-carbonate veins with local chalcopyrite and sparse pyrite are located throughout the gossan area. Chalcopyrite is generally less than 1% and pyrite can be 1-2%.

Disseminated pyrite ± arsenopyrite occur in silicified as well as sericite altered rocks. Pyrite content can vary from 1 to 10% both as disseminated grains and veinlets parallel to the schistosity in sericite altered rocks. Disseminated pyrite also occurs in silicified rocks along with pyritic bands.

7.4.2 4 J's Area

Through the long history of exploration in the 4 J's area, at least six styles of mineralization have been described. Three styles that were never the focus of exploration include: 1) narrow quartz veins with minor tetrahedrite, sphalerite and galena, 2) disseminated pyrite in felsic tuff, and 3) argillite with disseminated sphalerite, bournonite, and native antimony. The three styles of mineralization that have been the focus of exploration in the 4 J's area are:

1. In the "FM" zone, brecciated volcanic rocks with strong pyrite-arsenopyrite ± chalcopyrite mineralization.
2. Northwest trending zones of stratiform Cu-Pb-Zn-Ag-Au mineralization. This style of mineralization is disseminated, semi-massive or sometimes massive sulfides contained within silicified argillite. Sulfides include bournonite, tetrahedrite, sphalerite, and galena. The main 4 J's showing comprises this style of mineralization and it was successfully intersected by drilling in 2012 (Section 6.4).
3. Quartz-carbonate breccia veins focused along E-W trending structures up to 2 m wide, which contain bournonite, tetrahedrite, galena and sphalerite.

7.4.3 Big Gold Area

On the eastern size of the Big Gold area prospecting and drilling have defined a zone with elevated Ag+Zn mineralization associated with variable amounts of disseminated pyrite+pyrrhotite and sphalerite ± galena bearing carbonate veins and stringers. This disseminated and vein-related mineralization is widespread with low values, and higher values are focused within structural domains with quartz-sericite-schist. Elevated metal values have also resulted where layer-parallel, or saddle-reef style quartz veins with minor pyrite have been sampled. Prospecting and sampling in 2023 identified three new showings (Section 6.7.1), two of massive sulphides (Roman and Zall occurrences), and a quartz vein with sphalerite and galena that graded 27.7 g/t Au, 6,240 g/t Ag, 1.455% Cu, 6.4% Pb and 3.11% Zn. The massive sulfide zones are layer parallel, with the Zall occurrence comprising massive pyrite and minor chalcopyrite that forms a layer within a mudstone horizon between beds of massive mafic volcanics. The Roman Zone includes sphalerite, galena, and pyrite rich fine-grained sulphides in a shear-modified mudstone layer, within mafic volcanic rocks (results noted in Section 6.7.1).

In the western Big Gold area two zones of mineralization are noted. The first is a 152 by 61-m-long area with limonite stained silicified dacite with pyrite and chalcopyrite. The best assay result from this area was from a 30.48 m composite sample that averaged 0.4% Cu and 0.1 oz/ton Au

[2.8 g/t] (Ryback-Hardy, 1971). The second mineralized area contains at least one Au-rich iron-carbonate breccia vein that reportedly yielded up to 88.2 g/t Au over 23 cm true width (documented in Kruchkowski, 1990, but without original assay data or certificates). The same area also has narrow shear zones with quartz-carbonate veins containing chalcopyrite and returning elevated values for Au (Kruchkowski, 1990).

7.4.4 Eskay Rift Area

Little work has been conducted in the Eskay Rift area. Sampling in 2022 (Section 6.7.1) focused on occurrences of pyrite ± chalcopyrite layers within argillite succession, or areas where those same sulfides are found within deformed foliated argillite, often as paint along cleavage surfaces. Framboidal pyrite is common in the mineralized zones. Results from 33 of 51 samples collected in 2022 had > 100 ppm Cu and Zn, with values ranging up to 622 ppm Cu and 2503 ppm Zn.

7.4.5 Leduc Area

The only report of prospecting conducted in the Leduc area is in Mastalerz and Cremonese (2006) which includes 22 geochemical prospecting samples, mainly of float. The report references an unpublished 1931 letter written by Wendell Dawson regarding mineralization in the Leduc River area. According to the secondary source, Dawson reported galena and pyrite in quartz and galena, chalcopyrite, and pyrite in quartz, with Ag assays ranging between 3.4 and 13.6 oz/ton [99.2 – 386.6 g/t], and minor Au. Sampling reported in Mastalerz and Cremonese (2006) also identified quartz veins, in float, with similar mineralogy and Ag concentrations. A single float sample of massive magnetite and chalcopyrite was also collected during the 2005 program. In 2006 Bell Resources discovered a likely source of the massive magnetite-chalcopyrite float at the JK zone and tested it with drilling. Both mineralized breccias and stratiform magnetite-chalcopyrite bearing assemblages including massive sulphide were encountered. The most significant intersections were made in DDH-06-09 (8.08m @0.14 g/t Au, 1.55% Cu, 3.7 g/t Ag, from 199.92m), and DDH-06-11 (2.0m grading 0.15 g/t Au, 1.55% Cu, 3.7 g/t Ag from 170.40m and 2.0 m grading 0.21 g/t Au, 1.97% Cu, and 7.75 g/t Ag from 227.00m). No other styles of mineralization have been noted from the Leduc area.

8.0 DEPOSIT TYPES

The Luxor Project has potential to host a variety of mineral deposit types. It is within proximity to known past producing Cu-Au mines (e.g. Granduc and Premier) and encompasses the same rocks and geological environments as those that are associated other major deposits within the "Golden Triangle", namely Brucejack, Eskay Creek, and the KSM-Iron Cap deposits (see Section 15). Deposit types recognised in this section include volcanogenic massive sulfide (VMS), epithermal, and porphyry Cu-Au-Mo.

8.1 Volcanogenic Massive Sulfide Deposits (VMS)

Volcanogenic massive sulfide deposits typically contain ores of Cu ± Pb, Zn, Au, Ag, Co, Ni, and can have byproducts of Mo, Cd, S, Se, Sn, As, Sb, Hg, barite, gypsum, and graphite. VMS deposits are genetically linked to seafloor deposition of sulfide mounds and fields of black smokers. The deposits are generally found in oceanic extensional environments, including back-arc basins, inter-arc rifts, ocean ridges, or continental rift basins. Mineralized domains are normally stratiform within a sequence of ocean floor volcanic and clastic sedimentary rock, often with bimodal volcanic sequences including tholeiitic basalts and rhyolites. Although most VMS deposits are predominantly stratiform, discordant feeder zones are often well mineralized and can contribute to the metal content of a deposit. They are also useful as exploration vectors.

VMS deposits range form small lenses < 1 ton to supergiant deposits > 1 billion tons. Windy Craggy is the largest VMS deposit in British Columbia with approximately 300 Mt. During VMS deposit formation, sulfides are deposited at or near the seafloor in lens shaped piles, or broad sheets that are metres thick and can extend for > 1 km laterally; their geometry can be affected by seafloor topography including syndepositional (normal) faults. The deposits form as a result of circulating hydrothermal fluids driven by magmatic heat related to the volcanic environment and subvolcanic intrusions. Sulfides are precipitated where hydrothermal fluids come in contact with seawater, as the hot brines are quenched. In VMS environments multiple lenses or deposits can form over broad areas along the same sedimentary horizon, and in many deposits, there are multiple "stacked" lenses at different stratigraphic positions.

Massive sulfide lenses contain >40% sulfides, including pyrite, pyrrhotite, chalcopyrite, sphalerite, cobaltite, magnetite, galena, bornite, tetrahedrite, molybdenite, arsenopyrite and marcasite. Gangue can include quartz calcite, ankerite, siderite, barite, anhydrite, albite, tourmaline, graphite, and biotite. In addition to massive sulfide lenses and sheets, VMS deposits may also include discordant feeder zones which occur as roughly vertical (relative to the stratigraphy) planar or pipe-like domains of strongly fractured and altered rock where hydrothermal fluids responsible for the VMS deposit formation were focused. These discordant feeder zones often coincide with areas that had preexisting fracture permeability (e.g. fault zones). Feeder zones have stockwork veining and sulfides disseminated in the altered wallrock. Many deposits show internal zonation of metals and mineralogy. The most classic zonation is with copper sulfides focused in the high-temperature domains, and grading outwards/upwards to Pb and Zn sulfides. The zonation applies both to the massive sulfide lenses and the discordant feeder zones. Exhalative sedimentary horizons can be deposited over a regional scale at the same stratigraphic position as massive sulfides. The "exhalites" form from precipitation of hydrothermal fluids mixed with seawater and disbursed widely in bottom water. The exhalites are composed of chert-like silica, iron and manganese oxides, carbonates, sulfates, sulfides, and tourmaline.

There are a number of classification systems for VMS deposits based on ore composition and/or the environment of deposition. The main compositional categories of VMS deposits are Pb-Zn, Cu-Zn, or Pb-Cu-Zn, dominated, however, there are some less common deposit types for instance British Columbia's Ag-Au dominant Eskay Creek VMS deposit. Categories based on depositional setting include Cyprus (ocean ridge spreading centres – preserved in ophiolites); Kuroko/Noranda (near-island-arc setting in thick volcanic and sedimentary sequences including felsic volcanics), and Besshi (rifted basins with pelites and mafic volcanic rocks). According to the British Columbia Geological Survey's mineral deposit profiles (Lefebure and Jones, 2022), the Eskay Creek VMS deposit is classified as a Subaqueous Hot Spring Au-Ag deposit type. These deposits form in shallow water environments within volcanic environments e.g. the summits of seamounts, on the flanks of emergent volcanic islands, intra-arc rifts, and continental volcanic areas covered with water (e.g. crater lakes). Ore at Eskay Creek, and in these types of deposits, includes large concentrations of elements typically associated with epithermal style mineralization (As, Sb, Hg), and sulfides include enargite, stibnite, realgar, orpiment, and cinnabar.

Exploration indicators for VMS deposits include:

- Volcano-sedimentary sea-floor stratigraphic sequences deposited in an extensional tectonic setting
- Electromagnetic conductors that are parallel to stratigraphy
- Magnetic highs related to magnetite in some VMS types
- Chargeability highs related to widespread pyrite mineralization
- Geochemical anomalies including Cu, Pb, Zn, Au, Ag, Mn, Co, Ba, Se, Bi, and in the case of Eskay Creek, As, Sb, Hg
- Pipe or planar domains with alteration, stockwork, and high degree of fracturing (could be healed).
- Exhalative horizons
- Other massive sulfide lenses or sulfide rich sedimentary layers, sometimes with

framboidal pyrite

- Locally zoned and intense alteration that can include dark green to black chlorite alteration, light colored sericite alteration, and silicification

The Luxor Project is prospective for VMS deposits. The sequences of sedimentary and volcanic rock of late Triassic, Early Jurassic, and Middle Jurassic, all represent favorable environments for VMS deposit formation, and host VMS deposits elsewhere within the Stikine Terrane. Areas with obvious VMS targets include:

1. the Leduc area where massive sulfide horizons have been intersected by drilling.
2. The 4 J's area where concordant mineralization described as "exhalative" has been identified in numerous horizons of silicified argillite and has been intersected by drilling.
3. The Big Gold area where massive sulfide was identified in two locations in 2023.
4. The Eskay Rift area where a strong buried conductor lies beneath Eskay-equivalent stratigraphy within the "Eskay Rift".

8.2 Porphyry Cu-Au-Ag-Mo

Porphyry deposits typically contain ores of Cu, Mo, Au, and Ag. Sub-types of porphyry deposits contain ores of W, Te, Re, PGM's and other critical metals. Porphyry deposits are genetically linked to high level epizonal intrusions that are generated in subduction zones and emplaced in island- or continental-arc environments. The deposits can be hosted entirely within the intrusion, or partly to completely within the host rocks for the intrusion.

Porphyry deposits comprise small (<200 m) to enormous (e.g. >5 km) circular to elliptical zones of hydrothermally altered rocks containing veins and stockwork. Sulfides typically include pyrite, chalcopyrite, bornite, and molybdenite, and may include a wide variety of other Cu bearing minerals or lesser Pb, Zn etc. bearing sulfides or gold tellurides. Sulfides can be widespread within the deposits and are typically present within veins and vein selvages, disseminated in hydrothermally altered rock, as massive sulfide lenses within faulted domains, and disseminated within or forming the matrix of breccias.

Hydrothermal alteration and alteration zonation are fundamental components of a porphyry deposit. Typical porphyry deposits have well defined zonation with high temperature potassic alteration within or directly adjacent to the causative intrusion, and generally alteration facies generated by lower temperature and lower pH fluids form shells outward from the potassic zone. This can result in the follow zonation from the center up-and-outwards.

1. Potassic alteration with secondary mineral assemblages including quartz, K-feldspar,

biotite, magnetite.
2. Phyllic alteration with secondary quartz, muscovite (or phengite or paragonite), pyrite, ± chlorite.
3. Propylitic with secondary chlorite-epidote-carbonate.
4. Advanced Argillic with secondary quartz-pyrite-pyrophyllite/alunite/diaspore.

Ore is typically contained within both the phyllic and potassic altered domains, and the potassic altered domains normally host the highest-grade mineralization, both in terms of Cu and Au. Large (up to 10 km) "lithocaps" of phyllic and advanced argillic altered rock can form above or adjacent to porphyry deposits and can therefore be good exploration indicators, however, the zonation is often complex and lithocaps are rarely centred exactly over the deposits and sometimes are distal to the deposit.

British Columbia has both calc-alkaline and alkalic porphyry deposits. These are most readily distinguished based on the composition of the causative intrusion, with alkalic deposits forming from silica saturated or under saturated granitoids, typically diorite or monzonite, but sometimes foid bearing. Calc-alkaline deposits form from silica over-saturated granitoids. Relative to calc-alkaline deposits, alkalic deposits tend to have smaller alteration footprints, much lower concentrations of Mo, and higher concentrations of PGE's.

Exploration indicators for porphyry deposits include:

- Circular or elliptical magnetic highs flanked by magnetic lows
- Chargeability highs
- Broad and zoned alteration domains
- Zoned polyphase stocks and/or abundant dykes
- Porphyritic intrusive rocks
- High-level As-Sb-Tl-Au-Ag geochemical anomalies (over the deposit), flanking Pb-Zn anomalies, and broad Cu-Mo-Te-Au anomalies centered near the deposit
- High degrees of structural complexity
- Polyphase veining

Mineralization in the Tennyson area of the Luxor Project is believed to be part of a porphyry Cu-Au system. A circular magnetic anomaly centred over the Big Gold area, and another in the 4 J's area west of the historical area of interest have characteristics prospective for buried porphyry deposits.

8.3 Epithermal Gold Silver Deposits

Epithermal deposits contain ores of Au and/or Ag, and can have significant concentrations of Cu, Pb, Zn, Sb and Hg. Epithermal deposits are genetically linked to magmatic fluids generated from emplacement, crystallization, and degassing of high-level intrusions, and the cooling of the magmatic water, and mixing with meteoric water which results in mineral deposition during degassing, boiling and decompression. Epithermal deposits are most commonly formed in island and continental arcs where high level intrusions were emplaced, or within continental extensional environments. They typically represent the high-level portion of more complex hydrothermal system.

Epithermal deposits range dramatically in their occurrence, they can be related to single or composite veins or vein sets, breccias, stockworks, or form large deposits of low-grade disseminated mineralization.

Epithermal deposits are divided into two sub-types, high-sulfidation, and low-sulfidation.

High-sulfidation deposits are formed at greater depth than low sulfidation deposits and are often found in close proximity to the source of the magmatic fluid; they are closely associated with porphyry deposits and can be found within the lithocap portion of a porphyry-related hydrothermal system. The magmatic fluids that form high-sulfidation deposits have very low pH and have distinctive zoned alteration defining the fluid pathway, with proximal vuggy quartz surrounded by quartz-alunite and other advanced argillic assemblages, grading outwards to kaolinite alteration. Sulfides include pyrite, enargite, chalcocite, covellite, bornite, gold, and electrum, with lesser chalcopyrite, sphalerite, galena, and silver sulfosalts and tellurides. The sulfides can occur in veins, or as massive sulphide replacement pods and lenses, stockwork or breccias. Their emplacement is often controlled by the permeability of host rock, sometimes forming irregular geometry.

Exploration indicators for high-sulphidation epithermal deposits include:

- Au, As, Cu geochemical anomalies ± Ag, Zn, Pb, Sb, Mo, Bi, Sn, Hg
- Magnetic lows from associated magnetite destructive low pH alteration
- Advanced argillic alteration
- Association with porphyry mineralization (usually above), and lithocaps (within or just below)
- Vuggy silica
- Areas with high degrees of permeability, including structural permeability from syn-mineral faulting

Low-sulfidation deposits can occur in direct relation to a magmatic source or can occur in locations that are difficult to correlate directly to an intrusion. They form from lower temperature, and higher pH fluids than high-sulfidation deposits and the deposits form from precipitation of sulfides/metals where there is strong mixing of hydrothermal and geothermal fluids. These zones are typically focused within structurally controlled hydrothermal conduits that can be < 1 m thick to >10 m, and often have strike lengths from hundreds of metres to over 1 kilometre. Relative to high-sulfidation deposits, low-sulfidation deposits have higher concentrations of Ag, lower over-all concentrations of sulfides, and include electrum, silver sulfides, selenides, and sulfosalts, as well as gold and silver tellurides, and native gold and silver. Low sulfidation mineralization occurs in focused domains at and surrounding fluid pathways. The mineralization commonly exhibits open space filling textures, including coxcomb, coliform, and crustiform. Gange minerals include quartz, amethyst, chalcedony, quartz pseudomorphs after calcite, calcite, clay minerals including illite and kaolinite, barite, fluorite, and adularia. Alteration assemblages are similar to the gangue minerals and can be zoned with central cores of quartz-carbonate-adularia, grading outwards to adularia-epidote, and more distally to kaolinite and illite.

Exploration indicators for low-sulphidation epithermal deposits include:

- Au, Ag, Zn, Pb, Cu geochemical anomalies ± As, Sb, Ba, F, Mn, Te, Hg
- VLF-EM conductors can identify causative structures and map them beneath cover, as well as identify prospective dilation zones
- High K radiometric signature
- Open space filling textures
- Distinctive minerals, e.g. adularia and amethyst
- Hot springs, and hot spring deposits such as sinters

Epithermal mineralization has not been identified on the Luxor Project, however there are numerous areas with geochemical signatures from rock and soil samples with epithermal affinities. The altered rocks surrounding the porphyry system at Tennyson are prospective for a high-sulfidation epithermal system. Other epithermal systems are found in proximity to Luxor Project, including the Electrum Zone on Goldstorm Metal's Crown property to the east and Newmont's Brucejack deposit, approximately 40 km to the north.

9.0 EXPLORATION

Luxor Metals Ltd. has not conducted any exploration on the Luxor Project. Luxor Metals Ltd.'s parent company, Teuton Resources has owned various configurations of the Luxor Project since 1980, and has conducted numerous, mostly small scale, exploration programs in various areas, mostly focused over the 4 J's and Tennyson areas, which are located closest to infrastructure. The author participated in exploration campaigns in 2022 and 2023 at the 4 J's, Big Gold, and Eskay Rift areas, and those programs, as well as earlier programs conducted by Teuton, and other operators are described in Section 6 of this report.

10.0 DRILLING

A summary of the drilling statistics for the Luxor Project is provided in Table 10-1

Table 10-1 Drill History Luxor Project

Years Drilled	Total Number of Holes	Total Metres
Tennyson		
1986	6	914.69
1986	4	514.00
1988	7	414.52
1992	5	414.82
2009	2	610.51
2010	10	1,698.35
2011	12	2,346.35
2013	18	6651.41
4 J's		
1990	5	334.06
2011	25	1,345.00
Big Gold		
2016	9	876.89
2018	2	597.30
Leduc		
2006	6	1,240.00
Pearson		
2018	3	518.46
TOTAL	**114**	**18,476.36**

No drilling was completed by Luxor Metals Ltd. on the Project. All details of drilling are therefore provided in the History section of this report (Section 6).

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The author is not aware of any sampling or drilling completed by Luxor Metals Ltd. on the Luxor Project.

12.0 DATA VERIFICATION

The author had access to reports, maps and other data including those that are present on BC government websites while preparing this report.

Analytical values quoted in this report, except where noted, are substantiated by signed analytical certificates that were issued by accredited laboratories. British Columbia Assessment Reports, from which the values were obtained, are required to contain copies of the analytical certificates. Many of the samples noted in this report are select grab samples and do not accurately represent the grade of a larger volume of rock.

The location of recent samples and diamond drill holes are recorded in source documents using UTM coordinates obtained with a GPS, however, earlier work was based on grids that have not been reestablished digitally. The author georeferenced historical maps based on topographic features to establish the location of historical work, but these locations are approximate.

The author visited the Project in both 2022 and 2023, with the latter visit being specifically to provide independent verification of data for the purpose of NI 43-101. The author has visited and collected samples from the Big Gold, 4 J's, and Eskay Rift areas of the Project, and has observed the Tennyson, Pearson, and Catspaw areas during helicopter flyovers. Mineralization and mineralized trends described in historical reports were verified by the author during these visits, in terms of location, style and tenor. A drill platform in the Big Gold area was visited and its recorded location was verified by the author. Boxes of drill core from the 2016 and 2018 campaigns at the Big Gold and Pearson areas are stored indoors at 1003 Railway St. in Stewart, BC. The boxes were observed by the author, but they were not unstacked and opened. The boxes were in excellent condition, and each had legible tags noting the drill hole number and intervals within.

The site visit and sample results have satisfied the author that the description of geology and mineral showings on the Luxor Project are accurate, and that drilling has taken place in multiple locations on the Project area.

Most geophysical information provided to the author did not include raw data, and interpretation of raw geophysical data is not within the scope of the author's practice. Therefore, interpretations of geophysical data presented in this report are based on processing, inversions, and descriptions provided by geophysicists in reports referenced.

No Mineral Resource Estimates exist for prospects on the Luxor Project, but in several areas, it is possible that future work could lead to a Mineral Resource Estimate. The author reviewed QA/QC procedures and results for historical drill programs conducted on the Project. Most of the early drill programs either did not have QA/QC programs, or they were not up to current standards. More recent programs did have QA/QC programs involving insertion of blanks and standards, but the author was not able to verify that follow-up review of the QA/QC sample results were undertaken to validate results. Before historical drilling results are potentially used for a future Mineral Resource Estimate, independent reviews of the data will need to be undertaken by a QP.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing has been conducted on the Luxor Project. No metallurgical testing has been conducted on rocks from the Luxor Project.

14.0 MINERAL RESOURCE ESTIMATES

There are no Mineral Resource Estimates for deposits on the Luxor Project.

15.0 ADJACENT PROPERTIES

15.1 Introduction, Disclaimer

The belt of Hazelton and Stuhini Group rocks that underlies the Luxor Project is host to numerous precious and base metal deposits in a variety of geological settings including past producers Anyox, Eskay Creek, Snip, Scotty Gold, Granduc and Premier-Big Missouri mines (Figure 7-1). Resources and/or ore reserves have been reported from many properties in the same belt of rocks, including Eskay Creek, Treaty Creek, Silver Coin-Premier-Big Missouri, Red Mountain, Kerr, Sulphurets, Mitchell, Iron Cap, Snowfields, and Homestake Ridge. Within the belt, porphyry and epithermal mineralization is mainly associated with the 193 – 198 Ma Texas Creek suite of intrusive rocks. Massive sulfide deposits include the Besshi type Granduc and Anyox Cu-rich VMS deposits, which are hosted in Stuhini Group, and upper Hazelton Group rocks respectively, and the world-famous precious metal rich Eskay Creek deposit which is roughly the same age as Anyox (174 Ma) and is also hosted in upper Hazelton Group volcanic and sedimentary rocks. Both Anyox and Eskay Creek were deposited in a middle Jurassic rift called the "Eskay Rift" which according to government maps, limited geochronology, and company mapping, appears to bisect the Luxor Project in a N-S direction (Figure 7-3).

The author was unable to verify all the information pertaining to the surrounding properties. The mineralization located on the Luxor Project does not reflect in any manner the mineralization on the adjacent properties. The legal status and current ownership of these adjacent properties has not been searched for and has no bearing on this technical report.

There are four prospects that immediately adjoin the Luxor Project to the east, south, and north and encircled in the Leduc area. These include the Scottie Property to the south, the Tide Property to the east, the Crown Property to the north, and the Granduc VMS deposit, which is encircled by the Luxor Project in the Leduc area. To the north of the Luxor Project, along the same belt of rocks, the Kerr, Sulphurets, Mitchel, and Iron Cap porphyry deposits are found, as are the Brucejack epithermal Au, and Eskay Creek Ag-Au VMS deposits.

15.2 Scottie Property

Information about the Scottie Property is summarized from BC Minfile #104B034, Scottie Resources website, and Nuttall (2021).

This Property hosts the former Scottie Gold mine 50 km north of Stewart. The mine, which operated from 1981 to 1985, milled vein material averaging 16.20 g/t Au, producing 2,967,748 g of Au (95,426 oz Au) from 183,147 tons of mineralized rock.

Within the deposit banded quartz-carbonate veins mineralized with Au-bearing pyrrhotite, pyrite, chalcopyrite, galena, and sphalerite occur as en echelon fracture fillings in an east-west direction. Past exploration has shown the Property to host at least 13 separate zones of Au bearing quartz-carbonate sulphide veining (pyrite-pyrrhotite ± chalcopyrite ± galena ± sphalerite). The veins appear to be localized along complex, subparallel shear or fracture zones related to the emplacement of the Summit Lake Pluton.

Since 2019 Scottie Resources Corp. has been exploring the Scottie Gold Mine, and the adjacent Blueberry zone, which is host to similar mineralization as the Scottie Gold Mine.

On May 7, 2025 Scottie Resources announced an inferred open-pit Mineral Resource Estimate for the Blueberry zone as well as inferred underground Mineral Resource Estimates for both the Blueberry zone and Scottie Mine. (See Scottie Resources website, news release dated May 7, 2025; Table 15-1):

Table 15-1 Resources for Scottie Gold Property

Source	Cutoff Au g/t	Tonnage (Killotonnes)	Grade Au g/t	Ounces Au
Blueberry Pit	0.7	1,707	3.17	174,000
Blueberry and Scottie Mine Underground	2.5	1,897	8.66	528,000

15.3 Tide Property

Information about the Tide Property is summarized from BC Minfiles #104B129, 104B252, 104B253, and Heffernan (2005).

The Tide Property is immediately adjacent to the Tennyson area of the Luxor Project; it includes the small high-grade past producing East Gold mine (1993 – 1965). On the Tide Project, a strong multi-element (Au-Ag-As-Cu-Pb-Zn±Mo±Sb) soil/talus fines and silt geochemistry anomaly covers a 2,000 x 4,200 m northerly-trending area, over the known zones of mineralization and extending north. The anomaly covers an area where andesitic volcaniclastics and epiclastic rocks of the Betty Creek Formation are intruded by the 193 Ma Summit Lake Stock.

Mineralization occurs in granodiorite and adjacent volcanics for over a 1 km length. Narrow east trending shears, averaging 30 cm, cut both granodiorite and volcanic rocks, and are mineralized with quartz, carbonate and/or sulphides including galena, sphalerite, and chalcopyrite. An unmineralized quartz stockwork locally cuts the volcanic rocks. One diamond drill hole was drilled by Serengeti Resources Inc. in 2004 to test the potential for Cu-Au porphyry style mineralization within the intrusive. Two different styles of mineralization were encountered throughout the length of the drill hole. The first and most abundant style of mineralization consists of milky-white, quartz-molybdenite ± pyrite ± pyrrhotite ± trace chalcopyrite ± trace sphalerite veins. The quartz-molybdenite veins characteristically have very low sulphide contents (<2%); thicknesses <1 cm up to 15 cm; vein densities of 4-5 per m (up to 15 per m); and moderate chlorite alteration within and on vein margins. The second style of mineralization appears to post-date quartz-molybdenite veining and consists of pyrite ± pyrrhotite ± sphalerite (rare trace galena) mineralization as discrete veins or thin bands associated with narrow (<20 cm) quartz-carbonate-chlorite-pyrite shears.

Aside from the porphyry Cu-Au potential on the Property, significant exploration programs from 1994 -1996 and 2001-2004 were aimed at identifying Au rich veins, similar to those on the adjacent Electrum Property. Soil sampling identified over six zones with precious metal potential. Between 2004 and 2005 twelve holes were drilled testing the zones with a best sample from the "36 zone", yielding 129.4 m of 1.00 g/t Au.

15.4 Granduc Mine

Information about the Granduc Mine Property is summarized from BC Minfiles #104B021, Johnson (2012), and Leonard (2016).

The Granduc mine is surrounded by the Luxor Project in the Leduc area. The mine processed approximately 15.5 million tons of ore in several different periods between 1969 and 1984 with 124,048,961 g of Ag, 2,000,061 g of Au and 190,143,710 kg of Cu recovered. Average head-feed grade of approximately 1.29% Cu achieved 95% Cu recovery. Average precious metal production included 0.13 g/t Au and 8 g/t Ag.

The Granduc project is believed to host Besshi type volcanogenic sulphide mineralization. It comprises several tabular stratiform massive sulfide horizons that extend vertically for 760 m, laterally for 1,200 m and over a 120 to 240 m lenticular width. They mainly consist of pyrite, chalcopyrite, pyrrhotite, magnetite, sphalerite, galena, arsenopyrite, bornite and cobaltite, with coarse quartz calcite and wall rock gangue. While most of the mineralization is stratabound, the ore-zones are affected by intense faulting and a focused zone of alteration/metamorphism partly related to the South-Unuk shear zone. As a result, the sulphides are predominantly recrystalized and in places remobilized.

A Mineral Resource Estimate was reported in a 43-101 Technical Report prepared by SRK on behalf of Castle Resources that is available in a Sedar filing (Table 15-2; Johnson, 2012). The Mineral Resource has been tabulated at a cut-off of C$40/t.

Table 15-2 Granduc Mineral Resource Estimate

Mineral Resource Class	Tonnes (Mt)	Copper (%)	Contained Copper (M lbs)	Gold (g/t)	Contained Gold (ounces)	Silver (g/t)	Contained Silver (ounces)
Indicated	10.4	1.25	286.1	0.14	47,000	10.6	47,000
Inferred	36.6	1.26	1013.2	0.13	155,000	9.7	11,400,000

Note: Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

15.5 Crown Property

Information about the Crown Property is summarized from Rowe (2022), and BC Minfiles 104B229, 104B215, 104B216 and 104B134.

To the north of the Luxor Project, Goldstorm Metal Corp.'s Crown Property has received early-stage exploration in several target areas. Exploration has focused on epithermal Au-Ag, VMS, and porphyry style deposits. The most advanced portions of the Property are the Orion, Fairweather and Delta occurrences/areas. The Orion area encompasses a nunatak located immediately north of the Luxor Project across the Frank Mackie icefield. Rock sampling has defined an 800 m N-S oriented "Orion Trend" with pyrite-arsenopyrite-tetrahedrite bearing quartz veins and breccia with strongly anomalous Ag values and coincident As, Pb, Zn, and Au. A boulder train with angular blocks of massive, stratified pyrite was also discovered, though the source of the boulders has not been found. Within the Orion trend, the Cat-in-the-Hat showing comprises fracture-controlled pyrite and quartz veins in rhyolite breccias with anomalous Au-As sections. Five short drill holes at Orion intersected felsic volcanic rocks over 31 m with a few anomalous Au values (Rowe, 2022). A Goldstorm Metals news release (November 27, 2023) reported results from a new discovery in the Orion area (the Copernicus Zone). This 200 by 800 m area contains mineralization with Cu, Ag, Zn, and Co. A 0.25m chip sample yielded 0.67 g/t Au, 320.0 g/t Ag, 11.96% Cu, 0.088% Co and 0.15% Zn. The new Copernicus showing is approximately 5 km north of the Luxor Project and is described as having a possible VMS affinity (Goldstorm Metals Corp. News Release, Nov. 27, 2023).

15.6 KSM Property

Information about the KSM Property is summarized from BC Minfiles 104B103, 104B173, 104B182 and 104B191, Seabridge Gold website, and Nelson & Kyba (2014).

The Kerr-Sulphurets-Mitchell-Iron Cap deposits, currently being explored by Seabridge Gold, are located approximately 25 km north of the Luxor Project and have geological similarities to the

Tennyson area within the Luxor Project. The deposits at KSM-Iron Cap are porphyry Cu-Au and associated with a suit of Jurassic-age alkaline intrusions. Seabridge reports the following resources (Table 15-3; Portmann et al. 2022):

Table 15-3 KSM Mineral Resources

	Tonnes	Gold	Ounces	Cu	Pounds	Silver	Ounces
	000	g/t	millions	%	millions	g/t	millions
Measured and Indicated Resources							
Mitchell	2,359,000	0.54	41.1	0.15	7996	2.9	222
East Mitchell	1,759,000	0.55	31.2	0.1	3904	1.8	101
Sulphurets	446,000	0.55	7.9	0.21	2064	1	14.3
Ker	384,000	0.22	2.7	0.41	3456	1.2	14.3
Iron Cap	471,000	0.38	5.8	0.21	2206	4.3	65.6
Total	5,419,000	0.51	88.7	0.16	19626	2.4	417.2
Inferred Resources							
Mitchell	1,283,000	0.29	11.8	0.14	3832	2.5	102.2
East Mitchell	281,000	0.37	3.4	0.07	403	2.3	21.1
Sulphurets	223,000	0.44	3.2	0.13	639	1.3	9.3
Ker	2,589,000	0.27	22.8	0.35	19852	1.7	142.3
Iron Cap	2,309,000	0.41	30.3	0.27	13755	2.5	186.3
Total	6,685,000	0.33	71.5	0.26	38481	2.1	431.2

15.7 Brucejack Property

Information about the Brucejack Property is summarized from BC Minfile 104B193.

The Brucejack Lake deposit and mine, owned by Newmont, began production in July 2017. It is one of the highest-grade operating gold mines in the world. The deposit consists of several different epithermal Au zones hosted in lower Hazelton Group volcanic and clastic rocks. It comprises quartz-carbonate and quartz-adularia veins and vein stockwork that contain electrum and native Au. Trace concentration of acanthine, tetrahedrite, sphalerite and galena are also present. The main body of mineralization is confined to a 75 – 100 m wide zone that is roughly parallel to the axis of a syncline. The Brucejack mine is located approximately 16 km north of the Luxor Project in the same belt of rocks. A resource calculated for Brucejack in 2020 is in Table 15-4

Table 15-4 Brucejack Mineral Resources (2020)

Category	Tonnage	Gold g/t	Silver g/t
Indicated	23.2 Mt	10.1	65.5
Inferred	9.4 Mt	10.3	44.3

15.8 Eskay Creek

Information about the Eskay Creek Property is summarized from BC Minfile 104B008, and Skeena Resources Ltd. Website.

Eskay Creek is a precious metal rich VMS deposit that was mined by Barrick Gold between 1994 and 2008, during which time it was reputed to be the world's highest-grade gold mine. During the life of mine 2.18 Mt of ore were mined and 3.27 Moz of Au, and 158.89 Moz Ag were recovered (BC Geological survey Production report for Minfile # 104B 008). The deposit is currently owned by Skeena Resources who are contemplating an open-pit mining scenario whereby lower grade ore that was left behind by Barrick's underground mining operations could be exploited. As of Dec 23, 2023, Mineral Resources amenable to open pit mining methods at Eskay Creek are listed in Table 15-5.

Table 15-5 Eskay Creek Mineral Resources (2023)

Category	Tonnage	Gold g/t	Silver g/t
Measured and indicated	50.1 Mt	2.6	63
Inferred	0.65 Mt	1.5	32.4

The deposit is interpreted to have formed on a seafloor within a submerged inter-arc rift. Ore is mainly confined to a contact zone between underlying rhyolite and overlying mudstone. The ore consists of banded stratiform sulfide layers comprising sphalerite, tetrahedrite, boulangerite, bournonite, pyrite, and galena. Gange minerals include quartz, calcite, realgar, orpiment, and cinnabar.

The deposit formed within the Iskut River Formation of the upper Hazelton Group (approximately 174 Ma), which is bounded by faults, which although subsequently reactivated, were originally bounding faults of the Eskay Rift. The Eskay Rift is interpreted to extend southward from Eskay Creek and bisects the Luxor Project (Figure 7-1, 7-3). The Luxor Project lies approximately 35 km south of the Eskay Creek deposit.

16.0 OTHER RELEVANT DATA AND INFORMATION

The author is not aware of any other relevant data or information on the Luxor Project.

17.0 INTERPRETATION AND CONCLUSIONS

17.1 Introduction

The Luxor Project encompasses a large land package within British Columbia's Golden Triangle, one of the most metal-rich mining and exploration areas in the world. The Project area is interpreted to be bisected by two of the most important geological features within the Golden Triangle, which are controls for mineralization at some of the largest and richest deposits in the district:

3. The Sulphurets thrust fault system, which is genetically related to Seabridge Gold's Kerr-Sulphurets-Mitchell, and Iron Cap deposits, one of the largest unmined endowments of Cu and Au in North America (Figures 7-1, 7-3), and
4. The Eskay Rift, which is genetically related to the world famous Eskay Creek Ag-Au VMS deposit to the north, and Anyox, a large Cu VMS deposit to the south (Figures 7-1, 7-3; Barresi et al., 2014).

Given the Luxor Project's prospective geology, and relative ease of access, compared to many other Golden Triangle properties, it has seen only modest amounts of mineral exploration.

The Luxor Project has base and precious metal exploration opportunities that are easily identified but have not been adequately investigated. Opportunities identified by the author are noted below. Perhaps the greatest opportunity is provided by consolidation of previously separate properties into a single land package which can now be explored in a more consistent and holistic manner. The fully consolidated Luxor Project offers an opportunity to apply grassroots as well as advanced exploration techniques to a large, underexplored area. Recent advances in regional geological understanding also underscore the significance of large-scale geological features to the Project area's prospectivity. Recommendations for this type of exploration are noted in the following section (Section 18) and include: detailed digital compilations of previous work, ground truthing of geology and mineral showing, follow-up checks on geophysical and geochemical anomalies, and new geological mapping, prospecting, geochemical sampling, and geophysics, in areas identified as prospective but with significant data gaps.

17.2 Exploration Opportunities

The main exploration opportunities noted below are related to the potential for VMS deposits (both Besshi, and Eskay Creek types), and porphyry Cu-Au deposits. Large areas with anomalous As, Sb, and sometimes Hg indicate broad potential for epithermal Au-Ag mineralization, but specific exploration opportunities are not noted in the following section.

17.2.1 VMS Exploration Opportunities:

17.2.1.1 Besshi Type VMS Deposit Opportunities

The western side of the Luxor Project has potential to contain a Granduc-style VMS deposit. VMS deposits often occur in clusters within the same stratigraphic packages, and the package of Stuhini Group rocks that hosts the Granduc deposit strikes northward directly onto and through the western side of the Luxor Project. The Granduc VMS deposit is a Besshi type deposit, and these deposits tend to be large, and to have distinct geophysical characteristic like magnetism, conductivity, and density, which respond well to airborne geophysics, and may be possible to detected beneath ice. As noted in Section 6.5.1, historical drilling by Bell Resources, just barely on the Luxor side of the claim boundary with the Granduc Crown grants, intersected bedded massive magnetite and sulfide with grades similar to the Granduc deposit, yet this encouraging discovery has never been followed up on. In addition, as noted in Section 6.5.2, an approximately 2.5 km long NNW-SSE oriented conductor similar to the one associated with the Granduc deposit, was identified in the Pearson area of the Luxor Project during a 2005 airborne survey. Drilling by Teuton in 2018 attempted to test the source of the EM anomaly but the drill holes were unable to reach target depth, so this first order VMS target has never been adequately drill tested. Other areas along strike of the Granduc mine, within the Luxor Project, have not seen even early-stage prospecting and mapping style exploration, and others still, are only recently exposed due to snowmelt and glacial abatement.

17.2.1.2 Eskay Creek Type VMS Deposit Opportunities

The central portion of the Luxor Project, including parts of the Big Gold, Eskay Rift, and Leduc areas are underlain by sedimentary and volcanic rock of the Iskut River Formation, which was deposited within the "Eskay Rift". According to government mapping, the Luxor Project encompasses part of one of the largest packages of preserved Eskay-Creek-equivalent stratigraphy along the length of the rift. Much of this portion of the Project area is under glacial ice, but there are significant exposures on the west side of the Frank Mackie glacier, between the glacier and the basin-bounding South-Unuk fault. Recent exploration in these areas has yielded encouraging results, with discovery of abundant narrow pyrite beds and lamination in sedimentary rock in the Eskay Rift area (Section 6.7.1), and genuine massive sulfide discoveries in the Big Gold area (Section 6.7.1). A large airborne ZTEM survey flow in 2018 (Section 6.6) identified at least two large and strong conductors at depth beneath the Eskay Rift area. These conductors have never been drill tested. Numerous other conductors were identified in the same survey, however, that survey was intended to identify porphyry Cu-Au targets. As a result, only porphyry style geophysical targets were picked out by the geophysicists who interpreted the results, and potential for VMS style deposits was not considered. The author suggests that these data be reviewed by a qualified geophysicist to determine potential VMS targets.

17.2.2 Porphyry Cu-Au Deposit Opportunities

Within the Luxor Project area, the Tennyson area has seen the most, and most advanced stages of exploration. The last major work conducted at Tennyson was in 2013 by Brigade Holdings. Brigade collected a large amount of surface geochemical, drill and geophysical data that has never been independently reviewed. At Tennyson there are numerous drill intersections of porphyry style mineralization that have grades similar to the average resource grades of prominent porphyry systems in the region. Following the 2013 season Brigade recommended no further work on the project and relinquished the property to Teuton on the basis that mineralization was contained within a fault panel and within the panel it was only open to the north, where limited drill tests indicated that grades decreased. Brigade also noted that exploration was complicated by significant glacial cover in the area. The author believes that significant opportunities for exploration remain in the Tennyson area for the following reasons:

5. Glacial abatement is occurring rapidly in the district and there are large areas of new glacially scoured outcrop that have been exposed since 2013. The author observed one such area of rock approximately 900 m north of the historic Tennyson main gossan that appeared to be altered and mineralized, during a helicopter fly-over.
6. Mineralization confined to a thrust panel could be a fragment of a larger body of mineralization that is now dismembered. There are numerous locations on Brigade cross-sections (van Straaten et al., 2014) where mineralization and K-silicate alteration are truncated by the thrust fault.
7. The Tennyson area is along the inferred trace of the Sulphurets (thrust) fault, which is genetically linked to the KSM porphyry deposits. Nelson and Kyba (2014) argue that the eastern side of the McTagg Anticlinorium, marked by the Sulphurets fault, was a master growth fault which channelled magmas and fluids that were responsible for deposits at KSM, Treaty Creek, Brucejack and other mineral systems. The trace of that fault is largely under ice south of Treaty Creek, but it is projected through the Luxor Project close to Tennyson. Therefore, the thrust fault and porphyry mineralization at Tennyson may be more significant, based on regional patterns, than Brigade geologists would have known in 2013.

8. To date, only small bodies of syn-mineral intrusive rock have been associated with Tennyson mineralization, indicating that there may be a larger, potentially mineralized, intrusive body that has not yet been discovered.

As noted with respect to the Tennyson (above) and 4 J's areas (below), the Luxor Project is prospective for porphyry Cu-Au deposits. The 2018 ZTEM geophysical survey identified numerous porphyry style targets that have never seen follow-up exploration. Of special note to the author are anomalies Z8 and P2, which are found in the 4 J's and Tennyson areas, respectively. Excerpts of the descriptions of these anomalies are below:

> Z8: "This target is located in the northern most part of the [Tennyson] block and lies at the contact [between] magnetic and non-magnetic rocks. It exhibits a roughly circular conductive feature of approximately 1 km in diameter. This feature has an estimated resistivity value of < 39 ohm-m at depth of 500m. This target may represent a link to alteration zone" (Bournas & Khaled, 2019, p32)
>
> P2: 'This porphyry target is located in the south-eastern part of the Tennyson block and consists of a resistive core (< 5000 ohm-m) surrounded by a more conductive ring (< 150 ohm-m) at depth of 500 m. This roughly circular feature has a diameter of approximate 1 km, which is consistent with most of the known porphyry deposits in western BC." (Bournas & Khaled, 2019, p33)

17.2.3 Combined VMS and Porphyry Deposit Opportunities

The 4 J's area has a long history of exploration, but little recent exploration. Digitization of historical data at 4 J's is critical to deciphering the seemingly impressive geological, geochemical and geophysical trends that have been identified in the area. Multiple areas with semi-massive and massive sulfide and/or exhalative horizons have been identified at 4 J's but it is unclear what the geometry and/or size of those areas of mineralization are, partly because they extend beneath cover or ice, and partly because they are not all well described or followed up on beyond collection of a grab sample. Recent sampling within and adjacent to historical areas of exploration have validated widespread Cu-Pb-Zn-Ag-Au mineralization, often within or parallel to bedding in silicified argillite. Sampling in 2023 (Section 6.7.1) identified a domain of Cu-Au dominant mineralization directly adjacent to the eastern edge of the rapidly retreating Smalles Glacier, in an area that was likely not exposed until very recently. Some VMS systems have chemical zonation with Cu-Au dominant mineralization closest to the focus of the hydrothermal fluids that created the deposit, and Pb-Zn-Ag dominant mineralization outboard of that, and sometimes widespread in exhalative horizons. It is compelling that this new Cu-Au style of mineralization has been discovered and it requires follow up to better understand its significance. The Cu-Au mineralization at 4 J's also falls almost exactly within a magnetic low identified from a 2006 AreoTEM survey. The magnetic low encircles a magnetic high and domain of low resistivity, which is largely beneath the Smalles Glacier. It is possible that the newly identified Cu-Au mineralization could be intrusion related, in which case the rocks to the west beneath the glacier might be prospective for porphyry Cu-Au mineralization in addition to VMS style mineralization.

17.3 Conclusions

The Luxor Project is a large and prospective mineral exploration project with significant potential to host one or more VMS, porphyry Cu-Au, or epithermal Au-Ag deposit(s). The project has seen limited exploration outside of the Tennyson and 4 J's areas. Most drilling has been conducted testing for porphyry Cu-Au mineralization at Tennyson, and there is limited additional drilling in the 4 J's, Big Gold, Pearson, and Leduc areas and none in the Eskay Rift area. Compiling, digitizing, and interpreting historical data on a property scale is critical to understanding the context of known mineral occurrences and how to explore for them, as well as to identify information gaps in prospective areas. There are numerous specific exploration opportunities that could be undertaken at any time. Glacial cover is both a challenge and an opportunity in the Project area. Much of the Project area is covered by glacial ice, but the ice is receding rapidly, exposing rock that has never been observed before, providing opportunities to make new discoveries and expand existing showings. In addition, modern advanced geophysical techniques may be useful in identifying orebodies beneath the ice, which could not have been identified in the past.

18.0 RECOMMENDATIONS

- Database: All topographic, geological, and historical exploration data should be digitized and reviewed to determine the most prospective areas, the kinds of exploration work that would best advance each area, and to prioritize targets.
- Geophysical Review: Compilation of recent and historical geophysical surveys should be undertaken. A review of the compiled available data should be conducted by a geophysicist. The review should recommend: 1. useful new processing, or inversion techniques that could be used to best interpret the data; 2. possible follow-up surveys that may be warranted, and 3. Identify geophysical targets based on a more holistic review of multiple surveys, the project geology, and considering multiple deposit styles.
- Ground Truthing: Following digital data compilation and review, ground truthing and evaluating pertinent geology, mineral occurrences, and geochemical and geophysical anomalies will be necessary and critical to advancing exploration in the Project area.
- Tennyson area: Should remain a priority target. Phase 1 exploration should involve investigating areas with glacial abatement, developing a larger scale structural model for the area surrounding the main gossan, conducting a hyperspectral survey to determine

potential vectors to an underlying intrusion, and careful mapping and prospecting over the P2 ZTEM anomaly area. The objective of the program would be to identify other portions of the now dismembered Tennyson porphyry, in particular the portion closest to or within a potential causative intrusion.

- Leduc area: Phase 1 exploration should include ground truthing the mineralization encountered in DDH06-9 and DDH06-11 at the JK zone. This should involve geological mapping of the prospective horizon, prospecting, and potentially a ground magnetic survey if recommended by a geophysics consultant following a data review.
- Eskay Rift area: Phase 1 should include a geophysical review of the 2018 ZTEM survey to evaluate the possibility that the strong conductors identified beneath the area could be massive sulfide deposits. This little explored area requires extensive and systematic prospecting and mapping including channel sampling on intervals across stratiform pyritic beds in the argillites.
- Pearson area: Phase 1 includes extensive and systematic prospecting and mapping, including channel sampling, with a focus on identifying the cause of the strong Granduc-like 2.5 km long EM anomaly that was identified during the 2005 AeroTEM survey over Granduc and surrounding area.
- Big Gold area: Phase 1 includes extensive and systematic prospecting and mapping with a focus on tracing the newly discovered massive sulfide zones.
- 4 J's area: This area will require extensive ground-truthing of mineral occurrences and geochemical and geophysical anomalies. In addition, Phase 1 exploration should focus on areas of new exposure along the margins, and nunataks, of the Smalles Glacier. Although previous work identified this area as being mainly prospective for VMS mineralization, geophysical and geochemical data suggest that there is also potential for porphyry Cu-Au mineralization.

Table 18-1 includes an estimated $545,100 budget for Phase 1 project-wide exploration on the basis of 8 staff for 30 days or 4 staff for 60 days. If Phase 1 were carried out early-season with an 8-person crew, Phase 2 exploration could begin in the same year. Phase 2 exploration could include a significant amount of drilling (between and estimated 5,000 and 20,000 m @ $850/m), and geophysical programs (to $1,000,000). The nature of work in the proposed Phase 1 exploration program does not require a Notice of Work approval/permit. Teuton Resources currently holds permits that expire during 2026 for the Pearson, Big Gold, and Tennyson areas; these will be transferred to Luxor Metals Ltd. and will allow for proposed geophysical and drilling programs as part of Phase 2 exploration.

Table 18-1 Phase 1 Exploration Budget - Luxor Project

Activity	Scope	Cost ($CDN)
Data Compilation	1 Geologist, 1 GIS Technician, 20 days	$22,000.00
Geophysical Review	1 Geophysicist, 8 days	$6,400.00
Field Based Follow-up to Compilation	2 Geologist, 2 Field Assistants (GIT's), 12 days	$25,200.00
Geological Mapping	2 Geologists, 15 days	$24,000.00
Prospecting	2 Geologists, 15 days	$24,000.00
Sampling	800 grid samples, 200 grab samples, 100 silt, 2 samplers, 40 days	$14,000.00
Hyperspectral Survey (Tennyson)	2 Geologists, 3 days, TerraSpec Rental	$4,200.00
Ground Magnetic Survey (Leduc)	1 Geologist, 1 field assistant, 4 days, equipment rental	$12,800.00
Weather Days	10 days x 8 staff	$43,000.00
Helicopter	80 hours @ $2500/hr	$200,000.00
Truck Rentals	2 trucks x 2 months	$14,000.00
Travel and Mob-Demob	8 People	$14,500.00
Room & Board	250 person days x $250	$62,500.00
Assays	1,300 samples @ $45/sample	$58,500.00
Shipping and transport	Samples and supplies	$2,000.00
Report Writing & Compilation of Results	1 Geologist, 30 days	$18,000.00
	Total Estimated Cost:	**$545,100.00**

In summary, the Luxor Project covers approximately 20,481 ha of underexplored prospective ground with multiple known mineral occurrences. Based on the possibility of expanding the size and/or grade of known areas of mineralization, and of the possibility of making new discoveries, a Phase 1 exploration budget of $545,100 is warranted. Dependant on positive results from Phase 1 exploration, a Phase 2 program ranging from $4.25M - $17M may be warranted.

19.0 REFERENCES

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20.0 DATE AND SIGNATURE PAGE

The undersigned prepared this Technical Report, titled “NI 43-101 Technical Report on the Luxor Project”, with an effective date of May 14, 2025, in support of the public disclosure of technical aspects of the Luxor Property owned by Teuton Resources Corp. The format and content of the report are intended to conform to Form 43-101F1 of National Instrument 43-101 (NI 43-101) of the Canadian Securities Administrators.

Effective Date: May 14, 2025

Signed by

(signed) “Tony Barresi”

Tony Barresi, Ph.D., P.Geo.
Dated this 14th day of May 2025

21.0 CERTIFICATE OF QUALIFIED PERSON

I, Tony Barresi, am a professional geologist residing at 62 East Side Road, Ketch Harbour, Nova Scotia, Canada and do hereby certify that:

- I am the author of "NI 43-101 Technical Report on the Luxor Project", dated May 14, 2025;
- I am a Registered Professional Geoscientist (P.Geo.), Practising with Engineers and Geoscientists, British Columba, (License # 54837), and The Association of Professional Geoscientists Nova Scotia (License # 0233);
- I graduated from Saint Mary's University, Nova Scotia, Canada, with an Honours B.Sc. (Geology) in 2004;
- I Graduated from Dalhousie University, Nova Scotia, Canada, with a Ph.D., (Earth Sciences), in 2015.
- I have worked as a geoscientist in the mineral industry for over 18 years and have been directly involved in exploration and property evaluations, in Canada and USA, for gold, silver, copper, lead, zinc, molybdenum, tungsten, rare earth elements, and diamonds;
- Porphyry, epithermal, and VMS deposits in NW BC were a main subject of my Ph.D., research and I have been involved in mineral exploration for these types of deposits since 2004.
- I conducted a site visit to the Luxor Project between Sept. 7 and 14, 2023, during which time I spent approximately 4.5 days on the property.
- I have previously conducted independent consulting work on the Luxor Property, including mineral exploration and preparation of assessment reports in 2022 and 2023.
- I am responsible as author for all sections of "NI 43-101 Technical Report on the Luxor Project" dated May 14, 2025.
- I am independent of the vendor, Teuton Resources Corp., as independence is described in Section 1.5 of NI 43-101;
- I am independent of Luxor Metals Ltd., as independence is described in Section 1.5 of NI 43-101;
- I have read National Instrument 43-101 and Form 43-101F1 and, by reason of education and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of this Instrument, and this report which has been prepared in compliance with National Instrument 43-101 and for 43-101F1;
- As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Signed this 14 day of May 2025, in Ketch Harbour Nova Scotia:

Tony Barresi

(signed) "Tony Barresi"

Tony Barresi, Ph.D., P.Geo. (PGBC license no. 54837)