TECHNICAL REPORT ON THE RED LINE PROPERTY

SKEENA MINING DIVISION NORTHWESTERN BRITISH COLUMBIA, CANADA

Latitude: 56° 58' 51.9" N Longitude: 130° 32' 33.5" W 406,250 m E, 6,316,340 m N (Universal Transverse Mercator Zone 9; 1983 North American Datum)

prepared for

COPPERHEAD RESOURCES INC.

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by

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6th May, 2023

1.0 SUMMARY

The 2416.9 hectare (ha) Red Line property ("the Property") comprises eight electronic mineral tenures, without financial, royalty or environmental encumbrance, located 990 km north-northwest of Vancouver, Canada and 18 km west of Bob Quinn airstrip, British Columbia. These tenures are owned entirely by McLymont Mines Inc., a wholly-owned subsidiary of Romios Gold Resources Inc. ("Romios"). The Property is the subject of an option agreement dated April 6th, 2022 between Romios Gold Resources Inc. and Copperhead Resources Inc. ("Copperhead") whereby Copperhead can acquire a 75% ownership interest in the Property from Romios by:

- 1. Spending a total of CAD\$325,000 in exploration on the Property over a 36 month period;
- 2. Issuing an initial 1,000,000 common shares to Romios (completed);
- 3. Issuing 500,000 common shares to Romios on or before 6th April 2025;
- 4. Paying \$75,000 in cash on or before 6th April 2025 and:
- 5. Entering into a joint venture agreement with Romios.

The Property lies near the eastern edge of the Boundary Ranges of the Coast Mountains, an area of severe topography with elevations varying from 300 m above sea level (a.s.l.) to more than 2000 m a.s.l., deeply incised by glaciers and streams. Valley bottoms and lower slopes are covered with fluvioglacial deposits. Vegetation on the valley bottom and sides is a mix of coniferous trees and understory species. Above an alp at an elevation of roughly 1,000 m a.s.l., vegetation thins to subalpine trees and shrubs, thinning upslope to heather and tundra. The climate is cool, moderated by Pacific air; consequently annual precipitation is high, estimated to be in excess of 1200 mm, roughly 2/3 of which falls as snow between the months of October and April. The operating season, owing to snowpack, begins in July and ends as late as October.

Resource roads run north and south of the Property, although the last few kilometres must be traversed using a helicopter. Bob Quinn airstrip is situated on British Columbia Highway 37 which extends from the interprovincial Yellowhead Highway (16) to the Alaska Highway in Canada's Yukon Territory. A spur of Highway 37 (37A) leads to Stewart, Canada's most northerly ice-free deepwater port, 205 km from Bob Quinn airstrip. All roads carry mining traffic. The immediate area supplies two operating mines with personnel, although supplies must be brought in from Stewart or from Terrace, further to the south. B.C. Hydro's Northwest Transmission Line passes to the east of the property and the Bob Quinn substation on the line is 15 km from the Property boundary; a spur of this line comes as close as 6 km.

The Property is located in the northwest of Stikinia, an ancient island arc accreted to continental North America in the Jurassic period. Stikinia hosts the area of the Golden Triangle which, as presented herein, extends northward from the historic Anyox mining camp to the operating Red Chris Mine at its northeast corner and to the developed prospect of the Galore Creek deposit in the northwest. This area encloses more than 1,000 mineral occurrences, including two producing and sixteen past-producing mines. Historic production of precious metals is approximately that of the Klondike.

The oldest rocks observed in Stikinia are of Devonian age, although it is likely that the microcontinent basement is older. Deep basement structures, almost as old as the microcontinent and with north-south and east-west orientation have controlled emplacement of magma and channelled hydrothermal fluids. In addition, Latest Triassic regional faults with northwest-

southeast trend have similarly channelled mineralization. Structural breaks of both types transect the Property.

The layered supracrustal rocks and related intrusions in this part of Stikinia have been interpreted as products of no fewer than five episodes of arc magmatism:

- 1. Late Triassic (212-203 Ma) potassic undersaturated volcanic and intrusive rocks (Galore Creek and Copper Canyon porphyry deposits);
- 2. Latest Triassic to earliest Jurassic (*ca.* 205-196 Ma) alkaline porphyry-related, deformed mesothermal Ag-Au veins (Red Mountain);
- 3. Early Jurassic Texas Creek Plutonic Suite (*ca.* 196-187 Ma) alkaline plagioclase porphyryrelated epithermal, transitional and mesothermal Ag-Au veins and base and precious metal deposits (Silbak Premier, Scottie Gold, Kerr, Sulphurets, Mitchell, Iron Cap, Valley of Kings, SNIP, Stonehouse, Bronson Slope);
- 4. Latest Early Jurassic (ca. 185-183 Ma) small, poorly mineralized porphyry intrusions; and:
- 5. Middle Jurassic (*ca.* 175-172 Ma) calc-alkaline arc and tholeiitic back-arc magmatism and syn- and epigenetic, stratabound base and precious metal deposits (*e.g.*: Eskay Creek deposit) related to the back-arc basin formation.

At least one period of deformation, in the latest Triassic/earliest Jurassic, formed northeastvergent folds whose axial planes became loci for compressional shearing, followed by dextral transpressional displacement, dextral transtension and, lastly, extension. This deformation is at least in part synchronous with Galore Creek and Texas Creek volcanism, magmatism and precious metal mineralization.

Stratified rocks in the Upper Triassic Stuhini Group and the uppermost Triassic to Middle Jurassic Hazelton Group formed from deposits typical of volcanic terrains, commonly deposited on deeply eroded palæosurfaces. The necessity of correlating changes in palæosurface, depth of volcanic pile and depth of mineralization for any given exploration target require that regional geological mapping carried out by government be augmented by detailed property-scale mapping to provide an adequate framework for mineral exploration.

The Property lies across the valley of Downpour Creek, to the east of the Forrest Kerr fault trace which separates Palæozoic sedimentary and plutonic rocks to the west from a section of prospective Triassic, Lower Jurassic and Middle Jurassic volcanosedimentary rocks to the east. This area, bounded by Forrest Kerr Creek and the Iskut River, is entirely within the interpreted northerly projection of the Eskay Rift and exposes rocks from all the prospective metallogenic episodes of Mesozoic magmatism and mineralization.

Mineral deposit types considered for the Property therefore include, without limitation and in no preferred order: porphyry Cu-Au; intrusion-related precious metal (gold) veins; epithermal deposits of any sulphidation type and sediment-water (seafloor) exhalative deposits of any type. The reader is also encouraged to consider the possibility of the existence of a skarn deposit, but is enjoined to consider the principles of metal source and transportation pathway, ground preparation, depositional trap mechanism and subsequent preservation of mineralization, rather than being constrained by conventional models of mineral deposit formation.

Fieldwork in 2022, constrained by the property boundaries, confirmed the presence of a folded, fine-grained siliciclastic sedimentary sequence in the northern and north-central part of the

Property, overlying a coarse fragmental unit with exclusively volcanic clasts, albeit with little to no evidence of hot emplacement. The observed section is consistent with a Middle Jurassic Downpour Creek siliciclastic unit unconformably overlying volcaniclastic rocks of the Lower Hazelton Group. The south-central part of the Property is underlain by fine-grained clastic sedimentary rocks correlated with the Upper Triassic Stuhini Group. Fieldwork located a single subcrop or proximal float occurrence of K-feldspar megacrystic porphyry on its southwestern ridge. Its similarity to metallogenic intrusive rocks at Galore Creek and other locations in the vicinity was noted at the time. These are late Triassic intrusions and mineralizing systems which predate Rhaetian-Hettangian erosion, therefore any mineralized system of this age would lie entirely beneath the Jurassic strata on the Property and would, therefore, be a blind target.

Previous assessment work noted two southeast-trending discontinuities interpreted from a previous geophysical survey, crossing the southwest ridge where a moderate arsenic (As) anomaly was returned both from 1990 geochemical sampling and from current fieldwork. Geochemical and geophysical anomalies are spatially coincident with a southeast-striking, southwest dipping fault or fracture zone mapped during inspection of the Property.

Recommendations for future fieldwork proceed from field observations and historic data:

- 1. Consultation with independent experts in geophysics and in exogenic geochemistry, for the purposes of recommending optimal techniques for the location of blind precious metal deposits of exhalative, porphyry and intrusion-related precious metal vein deposits under glacial and bedrock cover;
- 2. Planning and execution of the recommended deep-penetration geophysical survey;
- 3. Isotopic age measurement and geochemical analysis of a sample of K-feldspar porphyry where located in outcrop, using U-Pb laser ablation mass spectrometry on zircon to allow for determination of the primary oxidation state of the magma (and thereby potential fertility);
- 4. Creation of a test line for evaluation of exogenic geochemical methods for locating blind porphyry, vein and Eskay Creek-style exhalative targets;
- 5. Detailed mapping of the Property, with particular attention to intrusive rocks and any associated alteration, accompanied by intensive prospecting and:
- 6. Planning and execution of the recommended exogenic geochemical survey.

This exploration is recommended in two phases to allow for the timing of the upcoming operating season. Phase 1 comprises items 1-4 at a cost of CD\$100,000. Phase 2, contingent on encouragement from Phase 1, comprises items 5-6, at a cost of CD\$255,600.

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2.0 INTRODUCTION

The author was engaged by Copperhead Resources Inc. ("Copperhead"), a private British Columbia (B.C.) corporation that is seeking listing on the Canadian Securities Exchange, to prepare a technical report for Copperhead compliant with the guidelines of National Instrument 43-101 (NI43-101) on the Red Line property "the Property". Copperhead's registered office and head office is located at 607 - 1750 Davie Street, Vancouver, BC V6G 1W3. The principal business carried on and intended to be carried on by Copperhead is mineral exploration, focusing initially on the exploration and development of the Property. From time to time Copperhead may also evaluate and acquire other mineral properties of merit, containing a variety of metals and minerals and located in a variety of geographical jurisdictions. The Property is the subject of an April 6th 2022 option agreement between Romios Gold Resources Inc. ("Romios") and Copperhead whereby Copperhead can acquire a 75% ownership interest in the Property by:

- 1. Spending a total of CAD\$325,000 in exploration on the Property over a 36 month period;
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The technical report was prepared to assess the Property as a Qualifying Property for a listing of Copperhead's shares on a recognized Canadian stock exchange.

The author visited the Property on July $9^{th} - 19^{th}$, 2022, spending a total of nine days at the Property. The predominant focus of the fieldwork was the identification of prospective stratigraphic and intrusive units prospective for gold (Au) mineralization and a limited amount of rock and sediment sampling, to confirm the results of previous and current sampling.

Units used in this report are metric. Positional data, including maps, are presented in a Universal Transverse Mercator (UTM) projection (Zone 9), using the 1983 North American Datum (NAD'83), unless otherwise stated (*e.g.*: the insert on Figure 1).

3.0 RELIANCE ON OTHER EXPERTS

The Author has not relied on the opinions of any experts in the preparation of this report.

4.0 PROPERTY DESCRIPTION AND LOCATION

The 2416.9 hectare (ha) Red Line property comprises eight electronic mineral tenures located on the eastern edge of the Coast Ranges of British Columbia 990 kilometres (km) north-northwest (NNW) of Vancouver, Canada. The Property, elongated north to south, is centred on latitude 56° 58' 51.9" N and longitude: 130° 32' 33.5" W (406,250 m E, 6,316,340 m N), 18 km due west of the Bob Quinn airstrip; this airstrip is adjacent to B.C. Provincial Highway 37 (Figure 1).



Figure 1. Property location and access.

Mineral rights are the purview of his Majesty the King in right of the Province of British Columbia. Presently, mineral rights are held through three distinct types of tenure. The first and oldest of these is through a Crown granted mineral claim with a maximum dimension of 457 m (1,500 feet) on a side; the practice of granting such claims was discontinued in 1960. The second type of mineral rights is found in legacy mineral tenures, wherein mineral rights to any available, unprotected area were secured by physical staking of a two-post or four-post mineral tenure, each claim unit with a maximum dimension of 500 m on a side and enclosing 25 ha. In excess of 5,000 legacy mineral tenures and 7,000 Crown granted mineral claims survive to the present day and have a potential impact on mineral rights acquired in any subsequent cospatial electronic mineral tenure. However, neither type survives in the area of the Property.

Acquisition of mineral tenure through physical staking was discontinued in 2005 and the present system of electronic tenure acquisition began. Tenures are acquired by selection of cells on a series of predefined grids covering the entire Province. The cost of acquisition is by area.

Mineral tenures composing the Property are all of the last, electronic type, are listed in Table 1 and are shown in Figure 2. The owner of record for each tenure is McLymont Mines Inc., a wholly-owned subsidiary of Romios Gold Resources Inc. To the best of the author's knowledge, none of the tenures carries any environmental liability, royalty, back-in right, required payment or other encumbrance.

Table 1. Mineral tenures composing the Property. Data from Mineral Titles Online, 17th April 2023.

Tenure no.	Claim Name	Tenure type	Issue date	Expiry date	Area (ha)	Free Miner no.	Owner (100%)
1078227	NEWMONTEAST	Mineral Cell Title Submission	27Aug2020	10May2029	440.7898	146096	McLymont Mines Inc.
1078228	NEWMONTEAST1	Mineral Cell Title Submission	27Aug2020	10May2029	35.2584	146096	McLymont Mines Inc.
1078229	NEWMONTEAST2	Mineral Cell Title Submission	27Aug2020	10May2029	405.8476	146096	McLymont Mines Inc.
1078230	NEWMONTEAST3	Mineral Cell Title Submission	27Aug2020	10May2029	17.641	146096	McLymont Mines Inc.
1078231	NEWMONTEAST4	Mineral Cell Title Submission	27Aug2020	10May2029	352.2826	146096	McLymont Mines Inc.
1089834	RED LINE 1	Mineral Cell Title Submission	21Jan2022	10May2029	600.0016	146096	McLymont Mines Inc.
1096973	RED LINE 2	Mineral Cell Title Submission	06Aug2022	06Aug2023	353.1513	146096	McLymont Mines Inc.
1096974	RED LINE 3	Mineral Cell Title Submission	06Aug2022	06Aug2023	211.8936	146096	McLymont Mines Inc.

Five of the mineral tenures are in their third year, while the remaining three were acquired in 2022. To maintain mineral tenure in British Columbia, assessment work must be carried out during the first year after staking and, thereafter, whenever appropriate. The value of the assessment work carried out is applied to extend the expiry date of any mineral tenure in the contiguous group on which the assessment work took place. To maintain a tenure or group of tenures for the first two years, the value of the work carried out on the group must equal or exceed five dollars per hectare per year. Thereafter, for the third and fourth years, the required expenditure is \$10 per hectare per year; for the fifth and sixth years, \$15 per hectare per year and, subsequently, \$20 per hectare per year.



Figure 2. Property mineral tenure, physiography and vegetation. Data from National Topographic Database, B.C. Mineral Titles and B.C. Forest Service.

Surface rights in British Columbia are independent of mineral tenure. A permit from the government of British Columbia is required for camp construction, substantial removal of timber or other disturbance. Non-intrusive exploration on the Property (*e.g.*: geological mapping, geochemical sampling) does not require permitting. Intrusive work, such as trenching, diamond drilling and induced polarization (IP) geophysical surveys, do require a permit. Under such circumstances, the application for such a permit is referred by the British Columbia government to interested parties, including local communities, for comment prior to issuing the permit.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Topography, elevation, and vegetation

The Property lies in the eastern Boundary Ranges of the Coast Mountains of British Columbia, an area characterized by mountainous terrain deeply incised by glaciers and rivers. Mountain peaks in the immediate vicinity are in excess of 2000 m above sea level (a.s.l.). The glaciated valley of More Creek to the north of the Property is at an elevation of 400 m a.s.l. and the valley of the Iskut River to the south and east of the Property is at an elevation of 330 m a.s.l. Elevations on the Property vary between 610 m a.s.l. on the Property's eastern edge and 2140 m a.s.l. at its southwestern corner. The valleys of Southmore and Forrest Kerr Creeks form the western boundary of a divided *massif* which includes Lawrence Peak and Faisal Peak.

The Property itself straddles the valley of Downpour Creek (see Section 5.4: Climate), which divides the area defined above. The creek rises in the icefields to the west of the Property, flowing northeast to a point just west of the Property's northwestern edge, then turns sharply to flow in a southeasterly direction across two segments of the Property. As the creek begins its second transect of the Property, it enters its canyon, formed by fluvial overdeepening of the glacial valley. This canyon greatly limits the availability of locations in the valley bottom of the southern Property (Red Line 1) where a helicopter may be safely landed. To north and south, the steep, vegetated valley sides preclude landing below the lowest alp, at roughly 1000 m a.s.l., although landing is possible on gravel bars in the creek above its canyon.

Figure 2 shows the disposition of tree species on the Property. The subalpine floor of the northern valley is host to a mixture dominated by fir, with minor poplar. On the sides of the upper valley, fir becomes exclusive, admixed on the downstream slopes with spruce and progressing to a spruce-dominant mix on the lower valley bottoms to the southeast.

A particular feature of the valley bottom is the presence of superannuated, dying trees, which occur far less commonly in the managed forestry regions in more accessible parts of British Columbia. Defoliated and fallen trees have created gaps in the forest canopy akin to gaps created by slope failure on the valley sides. Here and on the avalanche and landslide slopes on the valley sides, verdant growth of alder, willow, salmonberry and, most noticeably and inevitably, devil's club significantly hinders progress on foot, particularly across-slope.

Tree line, above the lowermost alp, is a transition zone between stunted subalpine fir and a zone of perennial and annual alpine flowering plants. Upslope, the vegetation follows the progression common to the alpine of northwestern British Columbia, passing through a zone of white mountain heather and sparse grass to tundra.

5.2 Means of access to the Property

The Property lies 18 km to the west of Bob Quinn airstrip, located on B.C. Highway 37. This paved highway extends north from its junction with the interprovincial Yellowhead Highway (Hwy. 16) immediately south of Kitwanga (Figure 1) northward to the Alaska Highway near Upper Liard in the Yukon Territory. Stewart, Canada's northernmost ice-free deepwater port, is accessible *via* a branch (37A) of Highway 37, 205 km from Bob Quinn. Both highways have been upgraded in recent years and presently handle heavy traffic from the Red Chris Mine.

The remaining 18 km are more problematic, as noted in the previous section. Two gravel roads, both constructed to carry heavy traffic, depart the highway 3 km south and 8 km north of the airstrip, respectively. The road departing south of the airport is the old road to the Eskay Creek mine, with private access only. It runs along the left (south) bank of the Iskut River, passing less than $5\frac{1}{2}$ km from the southern boundary of the Property. Despite proximity, there is no crossing of the Iskut River at that point; the nearest such lies more than 30 km southwest of the Property.

The more northerly route is the proximal part of the mining road to the Galore Creek project, operated by the Galore Creek Mining Corporation. This road crosses the Iskut River, but runs on the north side of More Creek, with no crossing point to facilitate the last 2 km to the Property. Absent any change, access (by helicopter) is, logistically, easier from Bob Quinn airstrip.

5.3 Proximity of the Property to a population centre and nature of transport

Bob Quinn airstrip, the recommended departure point for helicopter access to the Property, is located between kilometres 294 and 296 on Highway 37. The communities of Iskut, Telegraph Creek and Dease Lake lie to the north within a radius of roughly 200 km and a significant part of the populations are workers in mineral exploration and mining. Notwithstanding these communities, nearly all supplies must be sourced from the south, *via* the Port of Stewart (205 km), the towns of Terrace (394 km) and Smithers (411 km) and, ultimately, Vancouver.

5.4 limate and length of the operating season

The author is not a climate scientist and his experience is confined to observations of the weather in the Iskut River region during a number of time periods between 1988 and 2022. There is a paucity of climate data for the region, mainly with regard to continuity, owing to the ephemeral nature of the mines and airstrips operational in the area during this time period. The greatest longevity of any station in the area is that at Bob Quinn airstrip which produced data for the Federal Ministry of the Environment from 1971 to 2000 (Government of Canada 2022).

The reader should note that Bob Quinn lies in the rain shadow of the Coast Ranges at an elevation of 610 m a.s.l., somewhat below the minimum elevation on the Property. Based on his experience, the author considers the temperature averages of -8.5° in January to 14.1° in July to be crudely representative of the lower elevations of the Property and the estimated annual rainfall of 641.6 mm an overly optimistic number. The reader is referred to a publication from the Brucejack Mine project, roughly 60 km south-southeast of the Property (Rescan 2013), wherein a model originated by Wang *et al.* (2006) was used to estimate an elevation-dependent annual precipitation of between 1200 and 1600 mm at Brucejack Lake.

otwithstanding average monthly temperatures, snow is possible at any time of year at nearly any any elevation and roughly two-thirds of the annual precipitation falls as snow. In years of heavy

winter precipitation, snow-pack from the previous year might hinder exploration at higher elevations until as late in the year as September. A case in point was the 2022 field season, when the snowpack in July was the deepest and latest-melting the author had seen. Despite this, all major and many subsidiary drainages flow throughout the year, except at alpine elevations. Fieldwork at higher elevations is usually possible until October.

5.5 Sufficiency of surface rights for mining; sources of power, water and personnel

Mineral tenure in the Province of British Columbia confers rights to the minerals beneath the ground enclosed. Mining of a discovered reserve requires granting of a mining lease, a separate permitting process requiring consultation with local communities and interested parties. The author presently knows of no reason such rights would be withheld from the Issuer.

The Property is well-situated for access to hydroelectric power. Its boundary is less than 15 km west of the Bob Quinn substation on BC Hydro's Northwest Transmission Line and only six kilometres from the spur line from the Forrest Kerr 195 MW run-of-river hydroelectric generating station. Water is available both from Downpour Creek and from intermittent tributary creeks which flow through the summer. As noted above, the communities of Iskut, Telegraph Creek and Dease Lake lie to the north within a radius of roughly 200 km and a significant part of the populations are workers in mineral exploration and mining.

6.0 HISTORY

6.1 Regional history

The history of exploration in the immediate area of the Red Line property is best viewed within the context of the regional exploration of the area which came to be known as the Golden Triangle. Exploration of the coastal areas began before Confederation. Souther (1971) described the first discovery of fine placer gold on the Stikine River in 1873 and subsequent prospecting along that river throughout the Cassiar and Klondike gold rushes. Souther also described a shift in emphasis around the turn of that century, from placer to bedrock exploration.

In 1909, evidently following colours up the Iskut River, a tributary of the Stikine, prospectors staked two groups of mineral claims, now Crown-granted, on the lower slopes of Johnny Mountain, near the confluence of Bronson Creek with the Iskut. However, as Souther (*ibid.*) noted: "It was not until 1955 that systematic exploration of the more remote parts of the maparea was begun"; two World Wars had intervened. Souther continued:

"In [1955] saturation prospecting employing large helicopter-supported parties was initiated by Hudson Bay Mining and Smelting Company. Since that time many parts of the map-area have undergone intensive exploration by geophysical and geochemical as well as conventional prospecting methods. A large number of prospects have been explored by trenching and diamond drilling ..."

The immediate consequence of corporate interest in the area was Operation Stikine, one of the first helicopter-based mapping projects to be carried out by the Geological Survey of Canada (1957). The map produced covers six 1:250,000 scale map sheets and includes the Property area near its eastern margin.

The 1971 US default on gold may have been one of the contributing factors in the decline of major corporate investment in mineral exploration, culminating in a recession in the early 1980s. When interest resumed in the Iskut River area, it was at the hands of small, investor-funded companies active on the Vancouver Stock Exchange. This renewal of junior-funded activity led to the discovery and subsequent exploitation of the Stonehouse and SNIP deposits on Johnny Mountain, 45 km to the southwest of the Property. The term "Golden Triangle" began to be used (candidly, for marketing purposes) to describe the crudely triangular area extending from Anyox in the south to the past-producing Sulphurets placers in the northeast and to the Johnny Mountain area in the northwest. This area, bounded on its north side by the Iskut River, crudely resembled that defined geologically by Grove (1971, 1986) as the Stewart Complex.

The increase in exploration activity during the late 1980s to early 1990s engendered increased research activity on the part of the Geological Survey of Canada (Anderson 1989, 1993), the Geological Survey of British Columbia (Alldrick and Britton 1988, 1992, Alldrick *et al.* 1989, Alldrick *et al.* 1990, Fletcher and Hiebert 1990, Lefebure and Gunning 1989, Alldrick 1989) and the Mineral Deposit Research Unit (*e.g.* Macdonald *et al.* 1993, Macdonald *et al.* 1996). Similar studies were carried out to the east, to include the area of the present Property north of the Iskut River (Logan *et al.* 1990, Logan *et al.* 1997). The cause of this was the 1989 discovery of the world-class Eskay Creek deposit, which lay outside the bounds of the "original" Golden Triangle. More recently, mapping by Alldrick *et al.* (2005a, 2005b) succeeded in tracing the host stratigraphy of the Eskay Creek deposit north of the Iskut River (Nelson *et al.* 2018).

The development of the Red Chris deposit into an operating mine led to a variety of creative interpretations of the original topology of the "Golden Triangle". The author's own reconstruction is presented as a compromise in Figure 1, incorporating the original Anyox and Stewart mining camps in its southern part, the world-class Brucejack Lake, Eskay Creek and SNIP deposits in its central part and, north of the Iskut River, the northern Triangle, including Red Chris, Galore Creek and Schaft Creek.

6.2 Property history

The history of ownership of ground covered by the present Property is considerably shorter than that of the region as a whole. Post-1970 exploration interest in this ground, on the eastern edge of the Mesozoic outcrop area, began in 1988, owing to the presence of the mineralized Forrest Kerr Fault system extending north from the Iskut River to More Creek. Previous mineral tenures, initially held by Ecstall Mining Corporation and Omega Gold Corporation, are extinct.

This technical report includes previous work on these now-extinct mineral tenures, referred to in assessment reports as the FOR and NING claim groups. Five previous exploration projects were carried out over this ground (Figure 3). Four comprised geochemical rock and stream sediment sampling (Nicholson 1990a, 1990b, Gal and Walker 1990, Walker and Moore 1990). As a consequence, Kennecott Canada Inc. acquired an option to earn an interest in the For property in 1990 and, in 1992, carried out an airborne geophysical survey comprising four-frequency electromagnetic, high sensitivity magnetometric and two-frequency very low frequency electromagnetic (VLF-EM) measurements. The target was an Eskay Creek type stockwork-massive sulphide deposit (Fields 1992). Despite moderate encouragement, no further work was carried out and the tenures lapsed in 1994. Holders of subsequent mineral tenures on land now enclosed by the Property carried out no work on the land; these tenures are also extinct.



Figure 3. Local topography and previous exploration in the Property area.

The Property occupies a polygonal highland area bounded by the northeasterly-flowing Southmore Creek, the easterly-flowing More Creek, the southerly, then southwesterly-flowing Iskut River and the southeasterly-flowing Forrest Kerr Creek. Coloured polygons represent the exploration footprints of B.C. Assessment Reports on ground now enclosed by the Property. Polygons representing work on adjacent ground are not shown.

The Property itself has a limited history of ownership. The component tenures were acquired by Romios through McLymont Mines Inc. between 2020 and 2022 (Table 1). A single short exploration program, carried out in 2021, was severely curtailed by weather (Biczok 2021).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional geology

The Property is located within the Intermontane Belt of the Canadian Cordillera near the western margin of the Stikine terrane. This terrane represents the remnants of the microcontinent of Stikinia, which collided with and was accreted to North America in the Jurassic period. More specifically, the Property lies within an area of Stikinia extending north and northwest from a southern apex at the old mining camp of Anyox (Figure 1) and which hosts more than 1,000 mineral occurrences of dominantly precious metal vein type, with related skarn, porphyry and massive sulphide occurrences. The area encompasses metamorphic and plutonic rocks of the Coast Plutonic Complex on the west, is dominated by Stikinia and includes part of the western margin of the Bowser Basin (Evenchick 1991a, 1991b) to the east (Figure 4).

Grove (1971, 1986) defined the Stewart Complex as the area of Mesozoic rocks exposed south of the east-west structure defined by the valley of the Iskut River, in a corridor narrowing southward towards the tidewater mining camps of Stewart and Anyox. This geological definition was cospatial, for a time, with the name "Golden Triangle" beloved of promoters, until the size and economic viability of the Red Chris deposit were realized. Perforce, the Triangle expanded to include not only Red Chris but also the large Au-bearing porphyry deposits of Schaft Creek and Galore Creek.

The Stewart Complex is not truly a metamorphic complex *sensu strictu*. The Mesozoic rocks, while commonly folded, are rarely metamorphosed beyond lower greenschist facies. Similarly, zones of extreme deformation are not common. Considerable work, after the initial discoveries at Johnny Mountain (SNIP and Stonehouse) and at Eskay Creek, was carried out in the northern (Iskut River) area (*e.g.*: Anderson 1989, 1993, Anderson *et al.* 2003, Macdonald *et al.* 1996), in an attempt to resolve the stratigraphy and its relationship to regional and local mineralization.

The oldest strata exposed in Stikinia are Devonian in age and it has been inferred that the basement of the microcontinent is of approximately that age. This has been tested recently by George *et al.* (2021) with the discovery of a small but significant population of pre-Devonian zircons from central Stikinia.

Anderson *et al.* (2003) described northwestern Stikinia as underlain by rocks of at least five Palæozoic to Cenozoic tectonostratigraphic packages. The three lower assemblages comprise multiple, overlapping Late Palæozoic and Early Mesozoic arc assemblages, of which the Late Triassic Stuhini Group is the latest product. These assemblages form a base for the Jurassic arc and basinal assemblages. The Jurassic and older rocks were intruded by the Palæogene post-kinematic granitoid intrusions of the Coast Plutonic Complex.



Figure 4. Generalised regional geology after Cui *et al.* (2017). The area covered is the same as for Figure 1. The outline of the "ancestral" Golden Triangle is presented here for comparison with Figure 1.

Anderson *et al.* (*ibid.*) noted that precious metal deposits discovered to date in northwestern Stikinia are associated mainly with Mesozoic, predominantly Jurassic, arc assemblages. Formation of the island arc assemblages and their associated mineralization occurred during four magmatic episodes, each from 5-10 Ma in duration and bracketed by Triassic-Jurassic, Early Jurassic, Middle Jurassic, and Cretaceous-Eocene deformations. The broad magmatic episodes, together with examples of their derivative mineral deposits, are as follows:

- 1. Latest Triassic to earliest Jurassic (*ca.* 205-196 Ma) alkaline porphyry-related, deformed mesothermal Ag-Au veins (*e.g.*: Red Mountain);
- 2. Early Jurassic Texas Creek Plutonic Suite (*ca.* 196-187 Ma) alkaline porphyry-related epithermal, transitional and mesothermal Ag-Au veins and base and precious metal deposits (*e.g.*: Premier, Scottie Gold, Kerr, Sulphurets, Mitchell, Iron Cap, Valley of Kings, SNIP, Stonehouse, Bronson Slope);
- 3. Latest Early Jurassic (ca. 185-183 Ma) small, poorly mineralized porphyry intrusions; and:
- 4. Middle Jurassic (*ca.* 175-172 Ma) calc-alkaline arc and tholeiitic back-arc magmatism and syn- and epigenetic, stratabound base and precious metal deposits (*e.g.*: Eskay Creek deposit) related to the back-arc basin formation.

The reader will note that the two early magmatic episodes are each roughly 9 million years (Ma) in duration. These periods are quite lengthy and probably reflect overlapping, shorter periods of magmatism at discrete volcances. Alldrick (1989) was the first to remark on the necessity for locating Mesozoic volcanic centres as sources of heat and, probably, metal to form the mineral deposits. In particular, from his studies of the Silbak Premier deposit immediately north of Stewart, Alldrick coined the term "Premier Porphyry" to describe the K-feldspar megacrystic phase of the Texas Creek intrusion at Silbak Premier and identifiable as far south as Georgia River (Metcalfe 2011) and as far north as the Red Bluff Porphyry intrusion immediately adjacent to the past-producing SNIP Mine at Johnny Mountain (Atkinson *et al.* 1991, Rhys 1993). Not even the calc-alkaline Island Park Caldera at Yellowstone is large enough to cover the intervening 120 km. Alkaline volcanic centres are, in general, significantly smaller than their calc-alkaline counterparts and it is likely that the terrain between Anyox and Johnny Mountain/Sulphurets hosted several such volcances.

The reader will also note that Anderson *et al.*'s demarcation of time periods was designed for the previously defined area of the Stewart Complex (between Iskut and Anyox) and thereby omits an earlier time period 212-201 Ma wherein the Late Triassic Galore Creek and Copper Canyon deposits formed (Henderson 2018). The older Galore Creek intrusions overlap somewhat in time with magmatic assemblages such as the Texas Creek Suite to the south but are petrologically distinct from them. This author infers that the area north of the Iskut River is a transition zone between the influences of these two magmatic suites.

Influence of regional structures on mineralization

A set of structures was noted in the mid-1980s in the Bronson Creek area, with southeast strike and southwest dip. The first structure discovered with this orientation was that hosting the southwest-dipping shear-hosted SNIP Au deposit and, subsequently, that hosting the base metal mineralization of the Bonanza Zone immediately to the southeast from SNIP along structural strike. In 1990, the author confirmed the existence and orientation of the Sky Creek Fault, *en*

echelon with and in the hanging wall of the SNIP structure (Atkinson *et al.* 1991). In the same year, detailed analysis of bedding surfaces in the Bonanza Zone drill core permitted the author to identify a northeast-vergent anticline with an axial plane coplanar with the SNIP structure (*ibid.*). The folded strata were overlain, with angular unconformity by a flat-lying basal dacite unit, marking the unconformity between Triassic and Jurassic (Metcalfe, unpubl. data 1992).

A distinctive feature of the structure hosting the SNIP deposit is the greater width encountered on more shallowly dipping sections of the structure. The author inferred from this geometry (Metcalfe unpubl. data 2000) that the initial movement on the structure was reverse¹, indicating compression along a southwest to northeast direction. By contrast, Rhys (1993) had shown that ore formation in the same (SNIP) structure occurred during a period of normal² movement, indicating extension. At the time there was no evidence that this pattern was regional. However Greig (2014) and Metcalfe (2014) noted that the compressional event was common to Stikinia, uplifting and unroofing plutons as young as Late Triassic, during an event of finite duration in the latest Triassic to earliest Jurassic.

Studies by the author south of Stewart (Metcalfe 2011) found southeast-striking, southwestdipping major structures which had undergone, at least at one period, dextral³ movement. Archival geophysical information, once published on the Snipgold II website, confirmed that similar dextral movement occurred on southeast-striking structures at SNIP also. The sequence of movement on these southwest-dipping structures can therefore be mimicked by pushing one's hand up a sloping surface, thence to the left, thence back down the slope of the structure: an anticlockwise movement. The microcontinent underwent compression, transpression, transtension and then onset of extension within a comparatively short time (Metcalfe 2014, 2021; Metcalfe and Nelson 2014).

Nelson (2014, 2017) described the influence of reactivated basement structures on emplacement of the Triassic and Jurassic intrusions and on their derivative hydrothermal systems, showing in addition that the structures were sufficiently long-lived to have affected emplacement of intrusions as early as the Devono-Mississippian More Creek and Forrest Kerr plutons, close to the Property. The implications for the economic potential of the Property are considerable.

Arc activity ended with deposition of the Middle and Upper Jurassic Bowser Lake Group sedimentary rocks. As noted above, the southwestern margin of Stikinia is bounded by the Palæogene post-kinematic Coast Plutonic Complex.

Regional stratigraphy of the layered Mesozoic rocks

A very brief review of past literature on the stratigraphy of the Iskut camp will be given here. The initial construction of a stratigraphic column for the Stewart Complex was by Grove (1971, 1986). Grove identified three major chronostratigraphic units: the volcanic-rich uppermost Triassic to Lower Jurassic Unuk River formation, the Lower Jurassic, dominantly coarse-grained volcanosedimentary Betty Creek formation and the Lower to Middle Jurassic basinal fill of the Salmon River formation, this latest formation intercalated in places with pillowed andesitic or basaltic volcanic rocks and grading upsection into the Bowser Lake Group.

¹ Reverse movement on a fault or shear zone occurs when upper plate moves up the fault plane relative to the lower.

² Normal movement occurs when the upper plate moves down the fault plane relative to the lower.

³ Dextral movement occurs when the opposite side of a fault moves to the right relative to an observer.

Reassessment of the stratigraphic column took place in the late 1980s and early 1990s. (The reader is reminded that, at the time the original stratigraphic column was created, the concept of plate tectonics was still in its infancy.) As before, the problem remained of accurate chronostratigraphic correlation with few constraining age measurements. As early as 1991, the recommendation was made to replace the increasingly meaningless terms "Unuk River formation" and "Betty Creek formation" with "Lower Hazelton Group" (Peter Lewis, pers. comm.to the author, 1991).

Considerable progress has been made in recent years, leading to substantial changes to the stratigraphic column (Gagnon *et al.* 2012, Nelson *et al.* 2018). The reader is referred to both these publications for a detailed review of the stratigraphy in the Iskut River area. To summarise, the Hazelton Group comprises Lower Hazelton and Upper Hazelton sections, each section with diachronous basal unconformities; basal Lower Hazelton can be as old as uppermost Norian (>205.5 Ma) or as young as basal Sinemurian (\leq 199.5 Ma); the latter age is indicated in the immediate vicinity of the Property in the Downpour Creek area (*ibid.*). It should be noted that diachroneity of deeply incised erosional surfaces will interfere to a major extent with the location of depth-controlled mineralization, irrespective of deposit type, whether porphyry, transitional, epithermal or sea-floor.

7.2 Local and Property geology

A geological map of the area of the Property, adapted from Alldrick *et al.* (2005a), is shown in Figure 5 (with legend in Figure 6). The Property lies across the valley of Downpour Creek, between the *massifs* of Lawrence Peak and Faisal Peak. West of the Faisal Peak and the headwaters of Downpour Creek is the north-south trending major structure of the Forrest Kerr fault which runs along Forrest Kerr Creek upstream from its confluence with the Iskut River.

The Forrest Kerr fault is a profound structural break, separating Palæozoic supracrustal and intrusive rocks to the west from a comprehensive section of the Upper Triassic to Middle Jurassic volcanosedimentary rocks east of the fault (*c.f.* Nelson 2014, 2017). Immediately east of the Property boundary, another rapid transition occurs, passing downsection to the east from Middle Jurassic siliciclastic facies of the Iskut River formation through Lower Jurassic Lower Hazelton volcaniclastic rocks to Upper Triassic Stuhini Group. Thus, the Property area is an inlier of Upper Hazelton Group sedimentary rocks bounded to east and west by older strata.

Alldrick *et al.* (2005b.) noted that: "The internal stratigraphy of the Downpour Creek facies is not completely understood." Notwithstanding, the palæontological work in Nelson *et al.* (2018) constrains the base of the Upper Hazelton sedimentary sequence to latest Toarcian. The sedimentary section up through the Aalenian to the Lower Bathonian is preserved in the Property area. This is the stratigraphic equivalent of the host sedimentary rocks at Eskay Creek.

While Alldrick *et al.* (*ibid.*) report hornblende + plagioclase porphyritic, K-feldspar megacrystic intrusions correlated with Texas Creek Plutonic Suite well to the south of the Property, no intrusive rocks are reported by Government mapping on the Property itself.

7.3 Significant mineralized zones

No significant mineralized zones have been described on the Property to date.



Figure 5. Geological map of the Property (after Alldrick et al. 2005a).

Geological units								
Intrusive rocks								
Age, suite, petrology	Age, suite, petrology							
Eocene:, unnamed: White, quartz-phyric rhyolite dikes and sills								
Middle Jurassic: unnamed: Diorite; hypabyssal equivalents of Iskut River fm. I	basalts							
Early Jurassic: Texas Creek Plutonic Suite: Unnamed felsic dikes and stocks								
Early Jurassic: Texas Creek Plutonic Suite: Plagioclase (+ K-feldspar)-phyric l	nypabyssal monzonite							
Late Triassic: Galore intrusive suite: Svenite porphyry with zoned orthoclase r	nenacrusts							
Late Triassie: Calere intrusive suite: I/ feldaner me georgitie quenite	ingua yao							
Late massic. Galore infrusive suite. K-reidspar megacrystic syenite								
Late Devonian to Early Mississippian: Porrest Kerr - More Creek plutons. Blot	te granite, minor monzonite, tonalite							
Late Devonian to Early Mississippian: Forrest Kerr - More Creek plutons: Hete	erogeneous, medium-grained hornblende diorite, quartz diorite; gneissic locally							
Late Devonian: Forrest Kerr Plutonic Suite: Hornblende diorite, local coarse g	rained gabbro, hornblendite and clinopyroxenite							
Late Devonian: McClymont Plutonic Suite: Biotite granite to tonalite, 346 +/- 1	0 Ma Ar/Ar biotite age							
Late Devonian: McClymont Plutonic Suite: Quartz diorite								
Layered units								
Middle Jurassic to Cretaceous Bowser Lake Group								
Sandstone siltstone conglomerate mudstone								
Bathonian unc	onformity							
Lauranda Middla Jumaasia Hanaadhaa Caaun ku likkalaa	and formulation							
Lower to Middle Jurassic Opper Hazelton Group by Innolog								
Fine-grained sedimentary rocks (Downpour Ck. siliciclastic unit)	Sandstone, siltstone, conglomerate (Spatsizi fm. equivalent)							
Mafic volcanic rocks (Willow Ridge unit)	Congromerate, securientary dieccia (dasar Kinaskan unit)							
Toarcian unco	onformity							
Lower Jurassic Lower Hazelton Group								
Andesite dacite	ocks							
Andesitic volcanic conglomerate, breccia Clastic sedimen	tarv rocks							
Bhaetian Hettangia	n un conformity							
Riaelian-Hellangia	in uncontornity							
Upper Triassic Stuhini Group								
Basaltic flows, volcaniclastic rocks and feeder dykes	Argillite, greywacke, wacke, conglomerate turbidites							
Basaltic flows, pillows, volcaniclastic rocks and feeder dykes	Fine-grained sedimentary rocks							
Intermediate volcanic rocks	Sandstone, siltstone, mudstone							
Felsic volcanic rocks	Siltstone							
Undivided volcanic rocks Siltstone, mudstone, limestone								
Enclastic condomerate sandstone	Chert							
Volcaniclastic sandstone	Volcanic and sedimentary rocks, undifferentiated							
Sandstone, conglomerate	Undifferentiated marine sedimentary and volcanic rocks							
Early Permian - Middle Triassic unconformity								
Palæozoic to Triassic Stikine Assemblage								
Basic volcanic rocks Undivided volcanic rocks	Carbonate sedimentary rocks Phyllite, siltstone							
Volcaniclastic rocks Undivided volcanic and sedimentary strata	Siltstone, argillite Undivided metamorphic rocks							

Figure 6. Legend for Figure 5.

8.0 DEPOSIT TYPES

The area defined by the Golden Triangle is host to more than 1000 mineral deposits identified in MINFILE (Geological Survey Branch 1991-2022). More than 700 are gold-bearing. Of these more than 10% have not been assigned a British Columbia Mineral Deposit Profile. Fully two thirds of the remainder are identified as "veins" albeit a large number of these are identified as "intrusion-related". The balance of mineral occurrences range in inferred deposit type from porphyry through vein and epithermal to near-surface types; these last, for convenience, will be grouped as "exhalative" or "hot spring deposits".

8.1 Subaqueous hot spring deposits (B.C. Mineral Deposit Profile G08)

The Eskay Creek Mine remains one of the most significant and highest grade deposits discovered in the Golden Triangle. The deposit formed in the latest of the metallogenic cycles in the area (latest Toarcian to earliest Bathonian), in a rift environment and is identified as a precious metal-rich volcanogenic massive sulphide deposit. The deposit has associated epithermal characteristics with it, insofar as gold deposition is credited to boiling of the ore fluid at or near the sediment-seawater interface (Sherlock *et al.* 1999). The recent efforts by government to track the rift to the north discovered that it ran precisely through the area covered by the Property (Alldrick *et al.* 2005a, 2005b). As noted above (Section 7.2), the Eskay Rift on the Property contains strata equivalent in age to those hosting the Eskay Creek deposit (Nelson *et al.* 2018).

8.2 Epithermal and mesothermal deposits (B.C. Profiles H04, H05, I01, I02)

Epithermal deposits are not confined to the latest metallogenic cycle. A large profile of intrusion-related deposits exists in the Golden Triangle, particularly vein-type deposits such as those at Johnny Mountain (*e.g.*: 104B 107). These exhibit characteristics ranging from epithermal at higher elevations to mesothermal at lower elevations (*e.g.*: 104B 250). The reader is reminded that, in this area of the world, the topography permits exposure of a section as much as 2.5 km in vertical distance through a mineralized system, without need for fault displacement. Notwithstanding the spectacular mineralization at Eskay Creek, epithermal mineralization is more typical of the lithologies above and below the Rhaetian-Hettangian sub-Hazelton unconformity in the immediate area and is intrusion-related.

8.3 Alkalic porphyry Cu-Au deposits (B.C. Mineral Deposit Profile L03)

The Early Jurassic intrusions in the central and southern parts of the Golden Triangle, to which many (if not most) of the veins are related, compose a suite of hornblende+plagioclase-porphyritic monzonites: the Texas Creek Plutonic Suite. Characteristically, these are polyphase intrusions which commonly include a distinctive K-feldspar megacrystic phase (*e.g.*: the "Premier Porphyry" of Alldrick 1985). These intrusions vary in age from 186 Ma to as old as 196 Ma and include the Red Bluff Porphyry, the metallogene not only for the shear-hosted veining of the SNIP deposit, but also for the adjacent porphyry mineralization of Bronson Slope (MINFILE 104B 077). The porphyry deposits of Kerr, Sulphurets and Mitchell (KSM) are also part of the Texas Creek metallogenic event.

Porphyry mineralization in the northern Triangle is not confined to intrusions of the Texas Creek Plutonic Suite. The Late Triassic potassic, undersaturated intrusions of the Galore Creek area,

largely absent in the central and southern Triangle, entirely predate the Rhaetian unconformity. The implications for exploration in the area of the Property are evident. The presence of two such metallogenic intrusive suites in the area makes the alkalic Cu-Au porphyry deposit type the preferred exploration target for the Property.

8.4 Skarn deposits (B.C. Mineral Deposit Profiles K01 – K09)

Of well over a thousand mineral occurrences in the Golden Triangle, less than fifty are identified in MINFILE as skarns. Of these, no more than six have progressed in development beyond the status of "showing". This deposit type has low priority as an exploration target on the Property.

8.5 Geological model for property mineralization

A spatial and genetic relationship exists between an alkalic Cu-Au porphyry system and the intrusion-related transitional and epithermal precious metal veins peripheral to it. Epithermal processes also control Au deposition at or near the sediment-water interface at the world-class Eskay Creek deposit. These systems occur in three time periods: the Triassic, Early Jurassic and Middle Jurassic, but the geological model remains the same irrespective of age.

Crucial to exploration is the present level of exposure of a particular mineralized system or, in some cases, lack of exposure, creating a "blind" exploration target. A model for successful exploration will allow for the existence of such blind mineralization, using deeply penetrating geophysical and exogenic geochemical techniques in addition to conventional regional (endogenic) geochemical sampling.

9.0 EXPLORATION

Fieldwork was carried out between 9th July 2022 and 5th August 2022; the author was present on the Property from the 9th of July to the 19th of July. Traverses were conducted by the author on four of the six mineral tenures extant at the time (two tenures were acquired at the south end of the Property subsequent to the author's fieldwork). Geological mapping at a scale of 1:2,000 was the primary activity, for the purpose of confirming the presence of target stratigraphic units.

Geochemical sampling of accessible streams were carried out during the course of fieldwork. A total of 43 samples (16 rock grab samples, 10 heavy mineral and 17 stream sediment) were collected, rock samples in 6 mm plastic bags, sediment samples in Kraft–style paper bags. All were submitted by Romios, on behalf of Copperhead, to ALS labs in Vancouver and to ActLabs in Ontario. The author knows of no factors in sampling that may have resulted in sample biases.

The preliminary fieldwork served to confirm the presence of stratigraphy represented by Alldrick *et al.* (2005a, b) and Nelson *et al.* (2018). The northern part of the Property is underlain by a sequence of dark grey shale, siltstone and wacke, correlated (*ibides*) with Upper Hazelton Group. The sedimentary rocks are folded into a series of anticline-syncline pairs. Intercalated with the finer clastic sedimentary rocks are minor thicknesses of coarser clastic rocks interpreted as felsic volcaniclastic rocks, albeit with few signs of hot emplacement, implying that their deposition was distal from a volcanic centre (*c.f.* Alldrick 1989). The sequence rests on a coarser clastic unit identified by Nelson *et al.* (*ibid.*) as the basal Kinaskan Conglomerate of the Upper Hazelton Group. 2022 fieldwork suggests that this conglomerate is not as extensive as mapped, but thins to the north, grading laterally and upsection to finer clastic sedimentary rocks.



Figure 7. 2022 rock and stream sediment samples. The more northerly discontinuity (Fields 1992) coincides with a fault zone mapped in 2022.

Two minor addenda are possible to Alldrick *et al.*'s map (*op.cit.*). The first is the presence of an extensive, thick fracture zone with southeast strike and moderate southwest dip crossing the southwest ridge of the Property (Figure 7). This fracture zone is cospatial with an interpreted discontinuity detected during previous exploration (Fields 1992).

More significantly, the author located a single small area of proximal float, possibly subcrop, of K-feldspar megacrystic porphyry on the same southwestern ridge, near where weak anomalous arsenic (As) was returned from a talus fine sample. The occurrence lies between the traces of Fields' geophysical discontinuities. Its significance was only realized after float of similar lithology was discovered in the cirque at the eastern end of the more southerly discontinuity. This lithology is designated herein by the author as the Black Cat Porphyry.

The Black Cat Porphyry (Figure 8) is a crowded K-feldspar porphyry, containing as much as 45% euhedral, thin tabular K-feldspar megacrysts as large as 50 mm, seriate with a microcrystalline groundmass, commonly dark grey or black in colour. The lithology may also contain as much as 10% relic phenocrysts with outlines distinctive of prismatic amphibole, pervasively altered. Megacrysts are peripherally corroded and, particularly in the more crowded areas are aligned which can give the whimsical impression of cats' eyes, hence the name.



Figure 8. Black Cat Porphyry.

ized porphyry intrusions; and:porphyry, unlike the plagioclase porphyries of the Texas Creek Plutonic Suite

This lithology, despite its superficial resemblance to K-feldspar-megacrystic phases of the Texas Creek Plutonic Suite, is not a plagioclase porphyry. It most closely resembles intrusive lithologies exposed at Burgundy Ridge (Enduro Metals) and at Galore Creek (Henderson 2018) and which historically have been identified as hosts for copper (and gold) mineralization (Souther 1971). Significantly, these intrusions, at Galore Creek, are of Late Triassic age (212-200.7 Ma; Henderson *op cit.*). If that were the case on the Property, which the author considers likely, such an intrusion (and associated mineralization) would predate the entire Hazelton Group section, underlying a post-mineralization erosional unconformity.

No significant mineralization was encountered during examination of the northern and central parts. Float discovered on its southwestern part was mineralized with pyrite and returned weakly anomalous Au (Figure 7).

Geochemical rock samples taken are shown in Figure 7. Samples were generally low in precious metals and, indeed, in base metals. However, elevated values of arsenic (As) were detected in the sample of talus fines (PM22-055) taken on the ridge crest at the centre of the southeasterly striking fracture zone. Elevated As was also associated with the two anomalous Au values taken beyond the eastern limit of the 1992 geophysical survey (Figure 7).

Stream sediment sampling in the valley bottom was tested by the author in a single traverse. It was discovered that the swath peripheral to Downpour Creek, mapped as Qal (Quaternary alluvium) by Alldrick *et al.* (2005a) represents only a part of the Quaternary deposits in the valley. A deposit of glacial material, not shown in Figure 5, extends at least 500 m to either side of Downpour Creek up the lower slopes of the valley side. This lack of outcrop in the valley bottom is a considerable hindrance to mapping and, in the author's opinion, precludes the use of direct (endogenic) geochemical sampling, owing to the transported nature of the material.

Stream sediment and heavy mineral concentrate samples taken in the valley bottom and in areas of thick moraine in adjacent cirques were low in concentrations of both Au and the pathfinder element As. The author has confidence in these 2022 data, but notes that the time constraints precluded comprehensive coverage of the Property, particularly on the valley sides.

Owing to these sparse 2022 data, the author compiled data from historic studies (Nicholson 1990a, 1990b, Gal and Walker 1990). These data are constrained by a lack of published blanks or standards and by a different method of analysis from that used in 2022 (aqua regia digestion rather than induced neutron activation analysis). Nevertheless, the results are informative and are presented in Figure 9.

The historic data are of sufficient density to illustrate a pattern. An elevation in As values occurs proximal to the southeast-striking anomalies noted by Fields (*op. cit.*) and to the fracture zone discovered during 2022 exploration. The reader is invited to compare this pattern with the regional pattern visible in the digital elevation model shown in Figure 1. It is apparent that north-vergent, southeast-striking structures described by the author in 2014 (*opera citata*) are also present north of the Iskut River. These are powerful vectors for mineralization.



Figure 9. Historic As concentrations in stream sediments, from previous (1990) reports. Data from Nicholson (1990a, 1990b), Gal and Walker (1990).

To summarise, 2022 fieldwork returned generally low values from geochemical sampling, consistent with previous studies (in 1990) on ground enclosed by the present Property. Moreover, the areas selected for geological investigation confirmed, with two exceptions, previous geological mapping. The two exceptions were a southeast-striking, southwest-dipping fracture zone, probably a fault, spatially associated with a subcrop or proximal float of a K-feldspar megacrystic porphyry. The close lithological similarity of this intrusive lithology with an intrusive phase explicitly associated with the Galore Creek deposit is remarkable.

Significantly, the locations of weak geochemical anomalies in Au and As encountered in 1990 and 2022 are cospatial both with the location of the geophysical discontinuities identified in 1992 and with the southeast-striking fracture zone containing subcrop or proximal float of the K-feldspar megacrystic porphyry. This coincidence has never been remarked before and certainly warrants further investigation.

10.0 DRILLING

There has never been a diamond drill project conducted on any part of the Property.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

Stream sediment samples and heavy mineral concentrates were dried insofar as conditions in camp would allow. No other field procedures were used prior to sample shipping. Samples were stored and shipped securely, one batch to ALS Analytical Laboratories in North Vancouver. The remaining rock samples and all stream sediment and heavy mineral concentrate samples were stored and shipped securely to an ActLabs analytical facility in Ancaster, Ontario. The accreditations of the laboratories are:

ALS: Accredited Testing Laboratory ISO/IEC 17025:2017 and ISO 9001:2015

ActLabs: Accredited Testing Laboratory (ISO/IEC 17025:2017): No.266

The sample preparation and analytical procedures for samples from 2022 exploration were carried out by qualified personnel at internationally certified laboratories. The author has examined their relevant certifications and is satisfied with the certifications regarding sample preparation and analytical procedures. Neither laboratory has any relationship to Copperhead Resources Inc., to Romios Gold Resources Inc. or to Palatine Geological Ltd.

Stream sediment samples and heavy mineral concentrates were dried, then sieved to -80 mesh. Analysis was by induced neutron activation analysis (INAA). Rocks were crushed and a split of the crushed rock pulverized to -180 mesh. Analysis at ALS was by *aqua regia* digestion followed by inductively coupled plasma-mass spectrometry (ICP-MS). Analysis at ActLabs was by INAA.

"Natural" blanks (unmineralized rock), unmarked replicates and unmarked standards (OREAS 504c and OREAS 505 for rocks, OREAS 47 for stream sediments) were inserted with the samples to be analysed.

Concentrations of all target elements and nearly all pathfinder elements returned from analysis of standards and lab blanks in all five analytical batches are consistent with published compositions of the standards and below-detection limits for the laboratory blanks. "Natural" blanks returned above detection limits in pathfinder elements, but there were no anomalously high values.

Exceptions to the above observations include variations of the elements As and Pb beyond two standard deviations in a single aliquot of OREAS 504c. The measured concentrations in this aliquot lie within 3 standard deviations of the certified values and the concentrations of other elements, including Au, Ag and Cu are within 1 standard deviation of published values.

A second exception to these observations lies in sample batch A22-11554 (ActLabs), where Au and several base metals were analysed exclusively by INAA. Results for Fe, Co and Cr using this analytical technique are significantly higher than those reported using aqua regia dissolution probably owing to the presence of iron oxide minerals in the standard, resistant to *aqua regia* dissolution. The slight increase in Au concentration from INAA relative to that returned from fire assay is noteworthy but, in this author's opinion, does not invalidate the analysis for the purposes of geochemical exploration.

12.0 DATA VERIFICATION

Mineral tenure ownership and longevity was confirmed, by the author, from Mineral Titles Online on 17th April, 2023.

Geological mapping was carried out exclusively by the author in the absence of any other qualified personnel. Attitudes of structural features were confirmed by duplicate and triplicate measurements as a self-check procedure. Representative samples were taken of geological units encountered. The author is satisfied that the results of his 2022 mapping are consistent with and verify the larger-scale mapping carried out by Alldrick *et al.* (2005a) and presented in Figures 5 and 6.

No numerical digital data were ever published in Fields (1992). The author therefore verified Fields' interpreted discontinuities by registering the location of the discontinuities using a geographic information system (Figures 7 and 9). The author inspected the location of the more northerly discontinuity during fieldwork and verified it to be cospatial with a wide zone of deformed rock interpreted by the author to be a large fault or fault system. The author is satisfied that these interpreted discontinuities have been verified as real discontinuities in the geological substrate.

The author examined all five analytical certificates from 2022 sampling. Analytical accuracy and precision were verified by inspection of both in-house quality assurance and quality control (QAQC) at ActLabs and by unmarked replicates, analytical standards and blanks included by Romios in all analytical batches. The author then compared the analytical certificates with the data files used in the creation of sample location maps and found no discrepancies. The author is also satisfied, from discussions with field personnel, that the 2022 field locations measured by handheld global positioning system (GPS) units are accurate within the few metres of error inherent in such units and that the 2022 samples are thereby verified as representative concentrations of the target and pathfinder elements in their respective locations.

Historical information was retrieved from past reports through the Assessment Report Indexing System (ARIS) by the author. Three of these reports comprised geochemical data in the immediate area of the property. Verification of these 1990 geochemical data was carried out by digitisation of sample locations from maps in these reports and scanning of the analytical certificates to extract the geochemical data, followed by random inspection of extracted data to confirm identity with the original. Some inconsistencies in element concentrations between these data and 2022 data are an expected product of differences in analytical technique. However reputable laboratories carried out the 1990 analyses and the author is confident that these data compose an accurate representation of the area surveyed.

The author is of the opinion that the data available from exploration provide adequate grounds for the opinions expressed in this technical report.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Neither mineral processing nor metallurgical testing analyses have been carried out, nor are any contemplated at the time of writing.

14.0 MINERAL RESOURCE ESTIMATES

There is neither presently, nor in the past, a mineral resource estimate of any kind on any part of the Property, nor is any such estimate contemplated in the near future.

23.0 ADJACENT PROPERTIES

The Property is bordered to west, north and east by three claim blocks owned, respectively, by Aben Resources Ltd., Galore Creek Mining and Tower Resources Ltd. The ground covered by Galore Creek Mining comprises a near-continuous swath of tenures which extend from Highway 37 to the developed prospect of Galore Creek 50-60 kilometres northwest of the Property. Most of the work carried out there is geotechnical and not immediately relevant to the Property.

To the west of the Property, the mineral tenures held by Aben Resources Ltd. cover ground along the north-south trending Forrest Kerr Fault. The reader will note that the majority of the mineral occurrences in the area, including all those elevated to the status of "prospects" are proximal to that structure; the activities of Aben Resources have, naturally, been in that area.

To the east of the Property, there is a rapid transition downsection, in part stratigraphic, in part owing to north-south faulting; the rocks exposed around Lawrence Peak are Triassic in age. Information from Tower Resources' property would be of restricted use except with regard to regional structure.

The author is aware of roughly 70 assessment reports describing work carried out for assessment purposes on mineral tenures in the area. Of the tenures extant in the area and to the best of the author's knowledge, no assessment work has been published on adjacent properties that would add information material to this Property. Five historic studies carried out in the immediate area of the Property have already been disclosed in Section 9 (Exploration).

24.0 OTHER RELEVANT DATA AND INFORMATION

The author is not aware of any other information relevant to the technical report.

25.0 INTERPRETATION AND CONCLUSIONS

The Red Line property is located in steep, glaciated topography 18 km west of Highway 37 in the eastern Boundary Ranges of British Columbia's Coast Mountains. Owing to the presence of major drainages on three sides of its immediate physiographic area, access is, perforce, by helicopter only. The Property is within 15 km of a major powerline and, were a significant discovery made, access would be trivial by contrast with Brucejack Lake or Galore Creek.

The area is part of British Columbia's Golden Triangle, home to more than a thousand mineral occurrences, including past-producing precious metal mines and two extant producing gold mines. The Triangle is part of the ancient microcontinent of Stikinia, whose geological history includes at least three major Mesozoic metallogenic events. Lithologies from each of these time periods were mapped on the Property by government (Alldrick *et al.* 2005a, b).

The immediate area of the Property was shown (*ibides*) to lie within the northerly extension of the Eskay Rift which, south of the Iskut River, hosts the world-class Eskay Creek deposit. Geological fieldwork by Romios (Biczok 2021 and the present study) confirmed the presence of this Upper Hazelton sedimentary section in the northern part of the Property. However, four conjugate circumstances have hindered exploration in this valley and, in the author's opinion, have contributed to the lack of MINFILE occurrences on the Property.

The first of these circumstances is topographic. The steepness of the valley sides constrained the regional mapping of Alldrick *et al.* and the (to date brief) exploration of Romios to the ridge crests. As a consequence, comprehensive examination of the entire Upper Hazelton section, crucial in exploration for any stratabound deposit, has never been carried out in this area.

The second circumstance is the presence of northerly trending faults along the valley, juxtaposing the prospective (for Eskay Creek-type deposits) Upper Hazelton section against Lower Hazelton and older strata. Vertical movement on such faults has the potential to create a "blind" exploration target, *i.e.*: one not exposed at surface. This is readily apparent in the southeast corner of the Property, where younger, Middle to Upper Jurassic sedimentary rocks are juxtaposed against basal Upper Hazelton rocks (Figure 5).

The third circumstance is the presence of significant deposits of glacial material, of unknown thickness, extending at least 500 m to either side of Downpour Creek. Not only do these deposits have the potential to cover prospective bedrock, they comprise transported material which can occlude any endogenic geochemical anomaly derived from an underlying deposit.

The fourth circumstance is conceptual. The 1989 discovery of the world-class Eskay Creek deposit created a substantial shift in exploration philosophy towards exploration of rift-type environments in Upper Hazelton stratigraphy both north and south of the Iskut River. In particular, attention was drawn to exploration activities in the area of the Forrest Kerr Fault (Figures 3 and 5), around which the majority of historic, local exploration activity took place. Exploration at remove from the fault was, perforce, of lower intensity and, at least in its later stages, focused exclusively on an Eskay Creek model (*c.f.* Fields 1992). Owing to this, the southwestern part of the Property itself has received disproportionately less historic attention.

Previous geological interpretation of geophysical work (Fields 1992) identified two southeasttrending discontinuities, (Figures 7 and 9). Significantly, these discontinuities are not represented on geological maps of the area. The discontinuities are coincident with a wide structural break encountered during 2022 fieldwork, with a zone of elevated As values in 1990 stream sediment samples and with topographic fabric visible in regional digital elevation data. This zone and the attendant As anomaly are interpreted as the uppermost parts of a mineralized conduit.

2022 fieldwork confirmed the general findings of regional mapping (Alldrick *et al, opera citata*) in the north of the Property, albeit with considerable reduction in observed thickness of the basal Kinaskan Conglomerate. In addition, little evidence of hot emplacement was observed in the volcanogenic rocks assigned (*ibides*) to the Lower Hazelton Group. With the exception of weakly anomalous As, precious and base metal values were low in both rock and stream sediment samples. Similarly low values, with the exception of arsenic, had been returned from historic (1990) regional sampling. As noted above, this may owe in part to the presence of extensive glacial deposits on the valley floor and braes of Downpour Creek. However, float of intrusive rock discovered on the southwestern part of the Property is mineralized with pyrite and is weakly anomalous in Au and lies along the structural break identified by 2022 mapping.

Fieldwork located a single subcrop or proximal float of K-feldspar megacrystic porphyry on its southwestern ridge, near the trace of the southeast-trending structural zone. This lithology most closely resembles intrusive lithologies exposed at Burgundy Ridge and at Galore Creek and which historically have been identified as hosts for copper (and gold) mineralization. Significantly, these intrusions are of Late Triassic age (212-200.7 Ma) and therefore predate the entire Hazelton Group section. They are also mineralized:

"The alkaline intrusions (unit 12), including the Galore Creek body, that occupy a broad north-south belt through the west-central part of the map-area exhibit many features in common with porphyry copper stocks. Traces of copper are present in all the mapped bodies, particularly where the rock is highly fractured. The possibility that other alkaline stocks are present in this zone makes it particularly interesting for further exploration."

J.G. Souther (1971)

If the author's inferences regarding the K-feldspar porphyry are correct, then any mineralized system deriving from a Triassic intrusion will be covered, in the northern half of the Property, by Jurassic supracrustal rocks, deposited after the Rhaetian-Hettangian unconformity described by Nelson *et al.* (2018). In such a circumstance, the overlying Jurassic rocks would not be mineralized.

Notwithstanding the previous paragraph, the Property lies within the Eskay Rift and stratified rocks equivalent in age to those hosting the high-grade, past-producing Eskay Creek deposit are inferred to be present in its northern part. At the time of writing, the author is not aware of any protracted discussion regarding the source of the gold so effectively concentrated by the Eskay Creek mineralizing system. It is therefore proposed here that likely sources are the metallogenic intrusions of the Texas Creek Plutonic Suite or the K-feldspar-megacrystic intrusions correlated with those at Galore Creek. If so, the Eskay Rift at this location incorporates sufficient faults as to act as efficient plumbing for any remobilisation of Au.

Strata as young as Bathonian occur on the Property, well upsection from Eskay Creek-equivalent stratigraphy. In addition a thick blanket of transported syn-and post-glacial Quaternary deposits covers the valley bottom and sides. Future exploration should proceed on the presumption that mineralization formed during any of the three major Mesozoic metallogenic events may occur on the Property as a blind target, to be located by geophysical and exogenic geochemical methods.

26.0 RECOMMENDATIONS

The following are recommended:

- 1. Consultation with independent experts in geophysics and in exogenic geochemistry, for the purposes of recommending optimal techniques for the location of blind, precious metalbearing exhalative deposits, porphyry-style deposits and intrusion-related precious metal vein deposits under glacial and bedrock cover in mountainous terrain;
- 2. Planning and execution of the recommended geophysical survey.
- 3. Isotopic age measurement and geochemical analysis of a sample of Black Cat Porphyry where located in outcrop, using U-Pb laser ablation mass spectrometry on zircon to allow for determination of the primary oxidation state of the magma (and thereby fertility);
- 4. Detailed mapping of the Property, with particular attention to intrusive rocks and any associated alteration, accompanied by intensive prospecting;
- 5. Creation of a test line for evaluation of various exogenic geochemical methods for locating blind porphyry, vein and Eskay Creek-style exhalative targets and:
- 6. Planning and execution of the recommended exogenic geochemical survey.

A budget for the recommendations is presented in Table 2. The second phase would be contingent on positive results from the first, particularly results from the geophysical survey.

Phase 1					
Work Type	Item	Cost/unit (CD\$)	# of units	Units	Cost (CD\$)
Isotopic analysis	Isotopic age measurement	1500	1	Analysis	1,500
Consultants	Geophysical and geochemical consultation	1500	4	Days	6,000
Airborne geophysics	Deep- penetration airborne electromagnetic and magnetic survey	250	250	Line km	62,500
Geochemical (exogenic)	Test geochemical line	300	100	Analyses	30,000
	Total				100,000
Phase 2					
Work Type	Item	Cost/unit (CD\$)	# of units	Units	Cost (CD\$)
Geological mapping and prospecting	Mapping crew	2000	56	Days	112,000
Crew maintenance	Camp costs	300	56	Days	16,800
Exogenic geochemistry	Sampling and analysis	100	1200	Analyses	120,000
Mobilization	Crew travel	1700	4	People	6,800
	Total				255,600

Table 2 Proposed budget for exploration.

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Lastly, this report is based on the findings of more than two generations of researchers from academe and geological surveys, both federal and provincial. Notwithstanding all these contributions, this author takes full responsibility for any misinterpretation of their work herein.

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CERTIFICATE OF AUTHOR

I, Paul Metcalfe, a consulting geologist, do hereby certify that:

- 1. I am a resident of British Columbia and the principal of Palatine Geological Ltd. (Permit to Practice 1003060), with a business address at P.O. Box 289, Gabriola, B.C. VOR 1X0
- 2. I am a graduate, in geology, of the University of Durham (B.Sc. Hons. *Dunelm*. 1977), a graduate of the University of Manitoba (M.Sc. 1981) and a graduate of the University of Alberta (Ph.D. 1987);
- 3. I am a member, in good standing, of Engineers and Geoscientists BC (registration number 23944) a Fellow of the Geological Society of London and a member of the Society of Economic Geologists;
- 4. I have worked as a geologist for more than 45 years since my graduation from the University of Durham, including as a postdoctoral research fellow by the Mineral Deposits Research Unit at the University of British Columbia (Iskut Project), as a postdoctoral research fellow at the Geological Survey of Canada (volcanology of an epithermal prospect) and have carried out fieldwork for the Geological Survey of British Columbia on the geological environment of the Kemess porphyry Cu-Au deposits;
- 5. I have instructed geologists in Bolivia (Proyecto Multinacional Andino 1999) and in Peru (2003) on the geology and volcanology of high- and low-sulphidation precious metal-bearing epithermal deposits and their relationship to underlying porphyry systems;
- 6. In particular, I have worked in mineral exploration and mining on numerous properties in the Golden Triangle since 1988 including, without limitation: senior project geologist at an epithermal Ag-Au deposit (Johnny Mt. Mine) and the adjacent Bronson Slope Cu-Au porphyry deposit (1988-1993), leader of an exploration crew at the LGM alkaline Cu-Au porphyry prospect, 8 km N of Red Line; I have also carried out contract mapping of stratigraphy hosting the Eskay Creek subaqueous hot spring Ag-Au deposit and have more than 25 years' experience in geological verification of geophysical discontinuities;
- I have carried out mineral exploration and evaluation in other areas, including, without limitation: team leader in exploration for porphyry Au (western Alaska 2004), re-evaluation, as a consultant, of a skarn Au/calc-alkaline Cu-Mo porphyry system (Culiacán 2010-2012) and contract mapping and evaluation of structural controls on the epithermal Tahuehueto Au-Ag deposit in Durango (2004, 2006);
- 8. I have read the definition of qualified person set forth in National Instrument 43-101 (NI 43-101) and certify that by reason of education, affiliation with a professional association as defined in NI 43-101, and past relevant work experience, I fulfil the requirements to be a qualified person for the purposes of NI 43-101, and that this Technical Report has been prepared in compliance with the Instrument;
- 9. I inspected the Red Line property between 9th July and 19th July 2022;
- 10. I am the sole author and solely responsible for the contents of the document entitled: "Technical report on the Red Line property", effective on 6th May, 2022;
- 11. I am independent of the Issuer, Copperhead Resources Inc., Romios Gold Resources Inc. and any subsidiaries, applying all the tests in section 1.5 of NI 43-101 and:
- 12. As of the date of this Certificate, to the best of my knowledge, information, and belief, this Technical Report contains all scientific and technical information required to be disclosed to make the Technical Report accurate and not misleading.

DATED at Gabriola Island, British Columbia, Canada this 6th day of May, 2023



"Paul Metcalfe"

Dr. Paul Metcalfe P.Geo. FGS

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