

# **NI 43-101 Technical Report**

Tamakay Gold Project

Region 7, Guyana,

South America

Prepared for:



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## DATE AND SIGNATURE PAGE

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“Ross Sherlock” (signed and sealed)

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## 1. **SUMMARY**

### 1.1 **Introduction and Terms of Reference**

This technical report (the “**Technical Report**”) was prepared by Ross Sherlock, Ph.D. P.Geo. (referred to as the “**author**” or the “**QP**”) of Tantalus Geoscience Services Limited at the request of Greenheart Gold Inc. (“**Greenheart Gold**”), a Canadian mineral exploration company listed on the TSX Venture Exchange (“**TSX-V**”) for the purposes described below.

This Technical Report has been prepared to provide detailed information and recommendations on the Tamakay Project located in Guyana, as requested by the TSX-V in its conditional acceptance letter dated August 23, 2024 issued in connection with the listing application of Greenheart Gold’s common shares. Greenheart Gold was incorporated on April 19, 2024 as a subsidiary of Reunion Gold Corporation for the purpose of participating in the business combination between Reunion Gold Corporation (“**Reunion Gold**”) and G Mining Ventures Corp. (“**G Mining**”) and began trading on the TSX-V on September 6, 2024.

The Tamakay project (the “**Tamakay Project**” or the “**Project**”) is an early-stage exploration project that does not contain mineral reserves or resources and it has not been the subject of an economic study, such as a preliminary economic assessment, pre-feasibility study or a feasibility study. The Tamakay Project was initially identified by Reunion Gold and transferred to Greenheart Gold as part of the business combination.

The report was prepared in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects (“**NI 43-101**”). The information in this report is current as of July 1, 2025, unless otherwise noted.

### 1.2 **Reliance on Other Experts**

The author has relied on a legal opinion prepared by Luckhoo & Luckhoo, a Guyana law firm, as to the validity of the Tamakay mineral rights and the rights of Greenheart Gold to acquire, through its Guyana subsidiary, a 100% interest in the Tamakay Project. The author expresses no opinion on these matters.

### **1.3 Property Description and Location**

The Tamakay Project is located within the Cuyuni-Mazaruni Mining districts of Guyana, region 7, approximately 235 kilometers (“**km**”) west-southwest of Georgetown, the capital of Guyana, and 180 km west of Bartica the nearest medical center. The property covers approximately 1,375 hectares (“**ha**”). The camp within the property is located at ~ N006° 24’ 13.5” - W060° 14’ 07.1”. For clarity, the symbol “~” shall mean “approximately” in this Technical Report.

### **1.4 Mineral Rights and Agreements**

Greenheart Gold, through its wholly-owned subsidiary Abuya Resources Inc. (“**Abuya**”), is entitled to acquire a 100% interest in the mineral rights covering the Tamakay Project pursuant to five (5) option agreements entered into in 2024 and 2025. These mineral rights include three (3) medium-scale mining permits (the “**Mining Permits**”) and forty-one (41) small scale claim licences held by third parties. The small claim licences were issued prior to the issuance of the three (3) mining permits and are located on the Mining Permits. In this report, the Tamakay Project refers to the area covered by the Mining Permits, together with the forty-one (41) overlapping small scale claim licences.

### **1.5 Accessibility, Climate, Local Resources, Infrastructure & Physiography**

The Tamakay Project can be accessed via a combination of air, river, and road. From Tamakay landing (the “**Tamakay Landing**”), the project is accessed by tractor or ATV along a poorly maintained dirt track to the campsite.

The climate is equatorial and humid, with two dry seasons, one from approximately March to mid-April and the other from August to November. The dry season’s onset and duration vary from year to year. The heaviest precipitation is expected in May and June. The Tamakay Project can operate throughout the year without any interruptions related to the weather. However, laterite road conditions deteriorate significantly during the rainy seasons and might cause transportation delays.

The region’s infrastructure is underdeveloped, lacking power, roads, communications, and general services. The city of Bartica (population about 10,000), at the confluence of the Essequibo, Mazaruni and Cuyuni rivers, is the primary hub for artisanal mining activity in northwest Guyana. There is no available grid electrical power in the region. The entire Guyana power system currently runs on heavy

diesel thermal plants installed along the coast and at Linden and Bartica. There are no power lines or substations in the project's vicinity.

The project's geomorphology is variable with gentle relief and broad alluvial flats. The project is covered in thick vegetation and trees, typical of the tropical region.

## **1.6 History**

Gold was discovered in 1937 when a quartz boulder was found containing visible gold (Macdonald, 1968). This led to further exploration which resulted in the discovery of a quartz vein hosted by a granitoid close to a contact with mafic volcanic rocks. The "Main Vein has a strike of N 23° E and dips south at 40° (023/40). The average width was about 30 centimeters ("cm") and could be traced discontinuously along strike for up to 1,000 m. The grade was about 1¼ ounces per ton". This vein was mined for two years at shallow depths. In addition, two other veins were discovered, Florian and Queens Lane, ~1.6 km east of the main vein, both of which had a NE strike.

Tamakay Resources Inc. indicates that mining was first recorded in 1937 within the Tamakay area. Between 1953 and 1954 Diamond and Metal Exploration Inc. produced 564 ounces of gold and conducted prospecting in the region focused on alluvial gold.

Golden Star Resources Ltd. conducted reconnaissance exploration activities in the late 1980s.

Regional geochemical stream sediment survey was also carried out within the area by the Guyana Geology and Mines Commission.

## **1.7 Geological Setting & Mineralization**

The Tamakay Project is located within the Guiana Shield, at the northeastern edge of the Amazonian Craton, and is over 900,000 km<sup>2</sup>, covering eastern Venezuela, Guyana, Suriname, French Guiana, the northern part of Brazil, and easternmost Colombia.

Within the Guiana Shield, large Rhyacian (2.20-2.05 Ga) granite-greenstone belts of the Trans-Amazonian Province are comprised of volcano-sedimentary rocks, metamorphosed to greenschist facies referred to as greenstones, intrusive granitoids, and TTG (tonalite-trondhjemite-granodiorite) gneisses (Vanderhaeghe et al., 1998; Santos et al., 2000; Tedeschi et al. 2018, Tedeschi et al., 2020).

In Guyana, the greenstone belts form the Barama-Mazaruni Supergroup and are described from oldest to youngest as basalt with local ultramafic rocks, intermediate to felsic volcanic rocks, and finally, volcanoclastic and turbiditic sedimentary rocks (Gibbs, 1980; Tedeschi et al., 2020). While the granite-greenstone belts host numerous gold deposits, little is known about the controls on gold mineralization (Tedeschi et al., 2020). Recent work by Hainque et al. (2025) at the recently discovered Oko West gold deposit is beginning to shed light on the relationship between gold mineralization and deformation.

## **1.8 Project Geology**

The Tamakay Project area is characterized by a large multi-phase intrusion, comprised of granite, granodiorite and diorite to the north, in contact with an east-west striking package of mafic to ultramafic volcanic rocks and interbedded sedimentary rocks to the south.

An extensive network of alluvial mining, saprolite pits and some underground shafts cover the central part of the project overlying the contact between the felsic intrusions and volcano-sedimentary package to the south. Given the coincident location of saprolite mining and underground hard-rock mining operations, it appears that the mined alluvial materials are locally sourced with little transport. The alluvial material is unconsolidated sands to gravel, typically clean and well-sorted, except for the basal gravels where sorting may be poor but often contains the highest concentrations of gold. The saprolite and underground mining operations appear to have targeted shear veins along the contact, or extensional veins oblique to the main structure parallel to the second foliation striking northeast-southwest with a very steep dip.

Weathering in the project area is relatively shallow as some of the underground workings have encountered unweathered rocks 15 meters (“m”) below the surface. Outside of the central alluvial plain, the depth of the weathering profile is not known; however, in this tropical environment saprolite may extend to a depth of greater than 100 m (Butt and Zeegers, 1992).

## **1.9 Deposit Types**

The property is prospective for structurally controlled quartz vein gold deposits and will be explored as such. Tamakay is approximately 20 km from Aris Mining’s Toraparu project, a large undeveloped gold, copper and silver deposit with 5.37 M oz Au, 118,000 tonnes Cu and 5.35 M oz Ag in the

measured and indicated category (Mining Plus, 2023). Toraparu has been interpreted as an intrusive related gold-copper deposit (SRK, 2019). In general, gold endowment in the Barama-Mazaruni greenstone belts are structurally controlled and are interpreted to be variants on the orogenic gold class of deposits with the exception of Toraparu.

Oko West is 130 km east of Tamakay. Oko West is a grassroots discovery made by Reunion Gold and recently transferred to G Mining, which is developing the mine. Oko West has a Proven and Probable (Open Pit and Underground) Reserve of 4.642 Moz at an average grade of 1.89 g/t gold (G Mining Ventures, 2025). The Oko West gold mineralization can be classified as a structurally controlled, orogenic gold deposit. The mineralization occurs along shear zones in greenstone belts and is associated with granitic bodies and D2 deformation (Hainque, 2025).

### **1.10 Tamakay Exploration**

Reunion Gold conducted an initial site visit to the Hopkinson properties, in the Tamakay area from November 22 to 26, 2022. During the visit, geological mapping and sampling were carried out, mainly around the Hopkinson, Moto Saw and Piaui pits, sites of previous mining.

At the time of the initial site visit, all open pit areas, with high-grade quartz-pyrite-gold veins, were underwater and could not be sampled in situ. Several grab samples were collected around the old workings. The areas with saprolite exposure around the pit walls were sampled, totaling 25 samples.

Reunion Gold returned to Tamakay in April 2023 for seven (7) days. During this time, a small geochemical program was conducted consisting of 312 soil samples collected along ridge and spur lines and 125 channel samples along four (4) trench pit walls. These results were encouraging, which justified a follow-up geochemical program in November 2023.

Between November 12 and December 21, 2023, 1037 soil samples were collected along with 63 grab samples from in situ saprolite, fresh rock and quartz veins. These samples had encouraging results with gold values from the Piaui Pit reaching 968.8 g/t Au. During this time, two (2) technicians completed a ground magnetics survey over 62.8-line km.

Between July 31 and August 3, 2024, another team was deployed to Tamakay to obtain information on the new shaft that was installed by Hopkinson Mining Security Services Inc. (“**Hopkinson**

**Mining**”). Grab samples, from around the workings, returned values ranging from 85-119 Au ppm. In addition, 3D scans of the shaft along with structural orientation of the veins were obtained.

Between August to December 2024, 1799 additional soil samples were collected to follow up on previous results. In addition, an Induced Polarization (IP) and ground magnetics survey was conducted with 49.8-line km of IP and 22.8-line km of ground magnetics.

From April 2023 to December 2024, 22 trenches including channel sampling were completed. These were conducted along open pit walls to investigate in situ sources for anomalous soil results and to identify lithological contacts.

### **1.11 Data Verification**

The author, Ross Sherlock, Ph.D., P.Geo., visited the property from November 16 to 20, 2024. A series of geologic stops were made to verify the presence of mineralization and the geologic interpretation by Greenheart Gold geologists, and independent sampling of different zones was conducted. The sampling conducted by the author yielded results which are consistent with previous exploration efforts.

### **1.12 Adjacent Properties**

Tamakay is approximately 20 km from Aris Mining’s Toroparu project, a large undeveloped gold, copper, and silver deposit with 5.37 M oz Au, 118,000 tonnes Cu and 5.35 M oz Ag in the measured and indicated category (Mining Plus, 2023). Toroparu has been interpreted as intrusive related gold-copper deposits (SRK, 2019). In general, gold endowment in the Barama-Mazaruni greenstone belts is structurally controlled and are interpreted to be variants of the orogenic gold class of deposits with the exception of Toroparu.

### **1.13 Interpretations & Conclusions**

The Tamakay Project covers approximately 1,375 ha or 13.75 sq. km. and is underlain by mafic volcanic rocks and felsic intrusions, typical of Precambrian greenstone belts, worldwide. At the Project, artisanal gold miners are recovering alluvial and hard rock gold from high grade auriferous quartz sulfide veins. Current exploration works completed include geochemical testing, geological field mapping and geophysical methods.

The geology of the Project is prospective for orogenic style gold deposits but has seen minimal systematic exploration for primary gold deposits.

Data presented were reliably obtained from the Orebase database through third-party database management. Geophysical products were provided by Greenheart Gold. Geochemical data were sampled on a 200m by 50m grid. Ground magnetics were collected at 200m spacing and IP was selective over the tenure at 200m spacing as well.

The long history of artisanal mining combined with the limited work by several companies indicates that this area has exploration potential and deserves to be the subject of a comprehensive, multi-disciplinary, exploration program.

#### **1.14 Recommendations**

A multidisciplinary exploration program is recommended, including an initial 1,000 m drill program to test geologic and geophysical targets. Estimated costs for this program are about C\$450,000.

Subject to receiving positive results from this initial program, it is recommended that a Phase 2 exploration program, consisting of follow-up drilling and a LiDAR survey, be carried out over the Project area, with proposed exploration budgets of C\$2,250,000 for drilling and C\$20,000 for LiDAR survey respectively.

## 2. INTRODUCTION & TERMS OF REFERENCE

This Technical Report has been prepared by the author, Ross Sherlock, PhD, P. Geo, at the request of Greenheart Gold, to provide detailed information and recommendations on the Tamakay Project.

The Tamakay Project does not contain mineral reserves or an economic study such as a preliminary economic assessment, pre-feasibility study or a feasibility study.

The report was prepared in accordance with NI 43-101. The information in this report is current as of July 1, 2025, unless otherwise noted.

All information reported or used in this report uses the metric system, and the currency is expressed in Canadian dollars (“**C\$**”) unless otherwise stated.

1 troy ounce = 31.103 grams

1 ppm = 1 part per million

1 ppb = 1 part per billion

1 Mt = 1 million tonnes

g/t Au grams gold per tonne

1 oz Au/t = 31.25 g/t gold

1 Moz Au means 1 million troy ounces gold

100 hectares = 1 square kilometers

1 tonne (metric) = 1000 kg

1 hectare = 10,000m<sup>2</sup> = 2.471 acres

### **3. RELIANCE ON OTHER EXPERTS**

The author has relied on a legal opinion prepared by Luckhoo & Luckhoo, a Guyana law firm, as to the validity of the Tamakay mineral rights and the rights of Greenheart Gold to acquire, through its Guyana subsidiary, a 100% interest in the Tamakay Project. The author expresses no opinion on these matters.

### **4. LOCATION, PROPERTY DESCRIPTION & TITLE**

#### **4.1 Location**

The Tamakay Project is located in the Cuyuni-Mazaruni Mining districts of Guyana, approximately 235 km west-southwest of Georgetown, the capital of Guyana, and 180 km west of Bartica, the nearest medical center. The property covers approximately 1,375 ha. The exploration camp located within the property is at ~ N 006° 24' 13.5" – W 060° 14' 07.1" (DMS). Figure 1

The Tamakay Project consist of three (3) medium-scale mining permits and forty-one (41) small scale claim licences, all held by third parties. The project has a total surface area of 1,375 ha. (3397.47 acres). Figure 2.



Figure 1. Location Map of Tamakay Project.

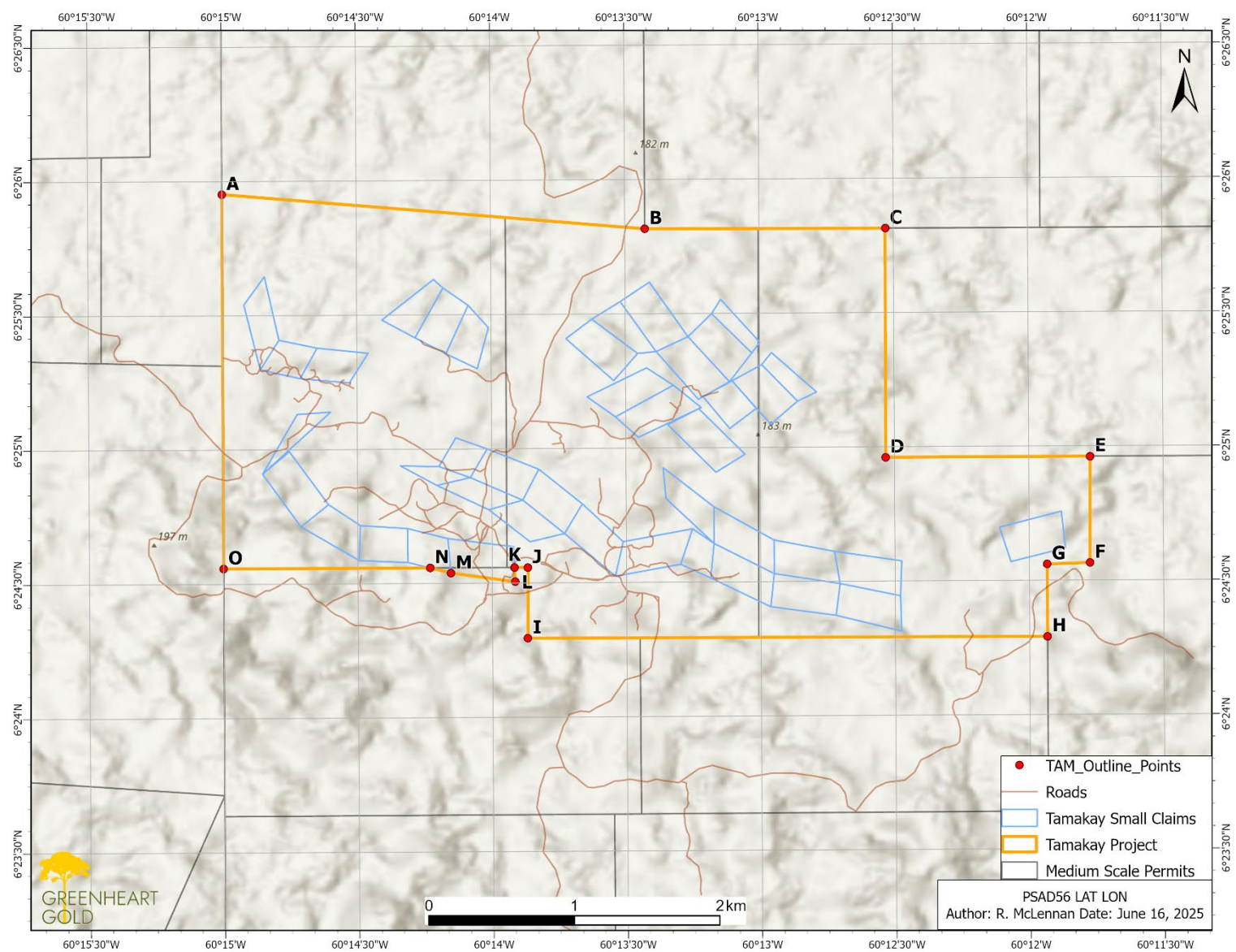


Figure 2. Map of Tamakay Project. Letters correspond to corners referenced in Table 1 below. Note the internal small claims (sky blue) are a part of the project tenure.

*Table 1. Latitude and Longitude of Tamakay Project. Note the internal small claims (sky blue) are a part of the project tenure. Coordinates are in PSAD56 Degrees Minutes Seconds.*

Points	PSAD56 LAT	PSAD56 LONG
A	6° 25' 57.13"N	60° 14' 59.99"W
B	6° 25' 48.98"N	60° 13' 25.55"W
C	6° 25' 48.82"N	60° 12' 31.81"W
D	6° 24' 57.66"N	60° 12' 31.98"W
E	6° 24' 57.66"N	60° 11' 45.48"W
F	6° 24' 33.92"N	60° 11' 46.43"W
G	6° 24' 33.62"N	60° 11' 55.99"W
H	6° 24' 17.48"N	60° 11' 55.99"W
I	6° 24' 17.62"N	60° 13' 52.09"W
J	6° 24' 33.46"N	60° 13' 51.99"W
K	6° 24' 33.47"N	60° 13' 55.02"W
L	6° 24' 30.3"N	60° 13' 54.9"W
M	6° 24' 32.3"N	60° 14' 9.2"W
N	6° 24' 33.5"N	60° 14' 14.0"W
O	6° 24' 33.49"N	60° 15' 0.0"W

## 4.2 Mineral Tenure

Mining in Guyana is managed by the Guyana Geology and Mines Commission (the “**GGMC**”) under the Mining Act of Guyana (the “**Act**”). The Act establishes that the State is the owner of all subsurface mineral rights in Guyana and authorizes the GGMC to manage these resources.

The Act allows for three (3) scales of operation: small, medium, and large-scale permits or licences. Small-scale claim licences, medium-scale prospecting permits (“**PPMS**”) and medium-scale mining permits (“**MPMS**”) can only be issued to Guyanese citizens and partnerships, cooperatives or companies beneficially owned by Guyanese citizens. Foreign companies can enter into joint ventures and option arrangements with local titleholders.

The claim licences are valid for one (1) year commencing on January 1 and expiring on December 31 of each calendar year. The claim holder must pay an annual rental fee for each acre within the claim licence.

Medium-scale mining permits are valid for a period of five (5) years. These permits must be renewed every five (5) years. The permit holder must pay an annual rental fee for each acre within the mining permit at a rate set out by the GGMC.

Large-scale prospecting licences (“PL”) and large-scale mining licences can be issued to Guyanese citizens as well as Guyanese and foreign companies. PLs cover areas between 500 and 12,800 acres. A PL grants an exclusive right of occupation and exploration within the PL area. PLs are valid for a period of three (3) years with two (2) rights of renewal of one (1) year each for the purpose of exploring gold, base metals, and rare earth elements. Rental rates are US\$0.50 per acre for the first year; US\$0.60 per acre for the second year, and US\$1.00 for the third year.

### **4.3 Tamakay Project Ownership & Agreements**

Greenheart Gold, through its wholly-owned subsidiary Abuya, is entitled to acquire a 100% interest in the mineral rights covering the Tamakay Project pursuant to five (5) option agreements entered into in 2024 and 2025. These mineral rights include three (3) medium-scale mining permits and forty-one (41) small scale claim licences currently held by third parties. The small claim licences were issued prior to the issuance of the three (3) mining permits and are located on the Mining Permits.

The Tamakay Project refers to the area covered by the Mining Permits, together with the forty-one (41) overlapping small scale claim licences.

Except as noted below, (i) the agreements permit Abuya to exercise the option at any time during the option period, provided that the corresponding option payments have been made in full, (ii) Abuya may terminate the agreements at any time with a 30-day prior notice without further financial obligations, and (iii) each agreement includes additional contingent payments based on production following commencement of commercial production.

The specific provisions relating to mineral titles, option periods and financial payment schedules under the agreements are summarized below.

1. On September 27, 2024, Abuya entered into an agreement with an arms’ length local mineral rights holder entitling Abuya to acquire a 100% interest in three (3) mining claims covering an area of 0.22 sq. km. The agreement is valid for a period of six (6) years with Abuya having the sole discretion to extend it by up to four (4) additional years at no cost. Abuya will be entitled to exercise the option at any time during the option period, provided that it has completed the required option payments totaling US\$100,000. To maintain its

rights under the option agreement, Abuya is required to make annual payments of US\$50,000 on or before September 30, 2025 and September 30, 2026, respectively.

2. Abuya entered into an agreement effective as of November 26, 2024 with an arms' length local mineral rights holder entitling Abuya to acquire a 100% interest in seventeen (17) mining claims, fourteen (14) of which are located on the Mining Permits, covering an area of 1.50 sq. km. The agreement is valid for a period of six (6) years with Abuya having the sole discretion to extend it by up to four (4) additional years at no cost. Abuya will be entitled to exercise the option at any time during the option period, provided that it has completed the required option payments totaling US\$350,000. To maintain its rights under the option agreement, Abuya is required to make three (3) scheduled payments: annual payments of US\$75,000 on each of the 1<sup>st</sup> and 2<sup>nd</sup> anniversaries of the execution of the agreement, and a final payment of US\$200,000 on the 3<sup>rd</sup> anniversary.
3. Abuya entered into an agreement effective as of December 6, 2024 between Abuya and an arms' length local mineral rights holder entitling Abuya to acquire a 100% interest in nine (9) mining claims covering an area of approximately 0.70 sq. km. The agreement is valid for a period of six (6) years. Abuya will be entitled to exercise the option at any time during the option period, provided that it has completed the required option payments totaling US\$200,000. To maintain its rights under the option agreement, Abuya is required to make three (3) scheduled payments: annual payments of US\$50,000 on or before September 30, 2025 and September 30, 2026, respectively, and a final payment of US\$100,000 on or before September 30, 2027.
4. Abuya entered into an agreement effective as of February 28, 2025 with two (2) arms' length local mineral rights holders to acquire a 100% interest in three (3) medium-scale Mining Permits covering what is currently referred to as the Tamakay Project (approximately 13.72 sq. km). The agreement is valid for a period of ten (10) years. Abuya will be entitled to exercise the option at any time after the 4<sup>th</sup> anniversary of the date of the agreement, provided that it has completed the required option payments totaling US\$800,000. To maintain its rights under the agreement, Abuya is required to pay equal installments of US\$80,000 annually during the 10-year option period. An initial payment of US\$80,000 was

made following the execution of the agreement. This agreement also includes additional contingent payments based on production and based on net profits derived from the mining property.

5. Abuya entered into an agreement effective as of June 18, 2025 with two (2) arms' length local mineral rights holders entitling Abuya to acquire a 100% interest in eighteen (18) small claims covering an area of approximately 1.34 sq. km. The option agreement is valid until the option is exercised in accordance with the terms of the agreement. Abuya will be entitled to exercise the option at any provided that it has completed the required option payments totaling US\$1,000,000. To maintain its rights under the option agreement, Abuya is required to make five (5) scheduled payments. The initial payment of US\$150,000 was paid following the execution of the agreement. Thereafter, Abuya shall make annual payments of US\$150,000 on each of the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> anniversaries of the execution of the agreement, with a final payment of US\$400,000 due on the 4<sup>th</sup> anniversary. This agreement also includes additional contingent payments based on production and based on net profits derived from the mining property including a payment to be made by Abuya based on a Technical Report to be delivered within ninety-six (96) months from the effective date of the agreement, estimating the number of ounces of gold in the measured and indicated resource category within the claims area.

On April 23, 2025, Abuya terminated an option agreement entered into in August 2024, which was entitling it to acquire ten (10) mining permits adjacent to the Mining Permits mentioned above. Abuya has decided not to pursue exploration activities on that ground and to focus its efforts on the area covered by the three Mining Permits and claims currently under option.

#### **4.4      Surface Rights**

The Guyana Government holds the surface rights to the medium-scale mining permits and the small claims area.

#### **4.5      Royalties & Other Encumbrances**

The Government of Guyana imposes a royalty of 8% on gold produced from large-scale mines within the country.

#### **4.6      Environmental Liabilities**

There are no known environmental liabilities associated with the Tamakay Project.

## **5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE & PHYSIOGRAPHY**

### **5.1 Accessibility & Roads**

The Project can be accessed via numerous methods (see Figure 1).

1. By river, a 7–8-hour boat journey from Parika to Tamakay Landing. When accessing the project area by road, transport is taken from Georgetown through the mining town of Linden, to Itabali where the ETK-Puruni Road is accessed. This road leads to the Poppy Show Landing with the journey lasting approximately 12 hours. A small boat or pontoon should then be taken upstream to Tamakay Landing about 45 minutes to one hour. From here, either a tractor or an ATV is used, which takes about ~ 1 hour and 30 minutes to the campsite.
2. By air, a one-hour flight from Ogle Airport in Georgetown, the capital city of Guyana, is available by charter during daylight hours to Olive Creek airstrip. A small, chartered boat is then taken upstream to the Tamakay Landing for about one hour. The Tamakay Project can operate throughout the year without any interruptions related to the weather. However, laterite road conditions deteriorate significantly during the rainy seasons and might cause transportation delays.

### **5.2 Climate**

Guyana falls under the Köppen climate classification as “Af” which signifies a tropical rainforest climate where the country experiences consistently high temperatures and abundant rainfall throughout the year, with minimal seasonal variation. The climate is equatorial and humid, with two (2) dry seasons, one (1) from approximately March to mid-April and the other from August to November. The onset and duration of the dry season varies from year to year. The heaviest precipitation is expected in May and June. The average yearly temperature is about 26.5°C. In the interior regions of Guyana, one can expect typical daily highs around 34°C to 36°C and typical night-time lows of 16°C to 18°C.

### **5.3      Local Resources**

There are limited local resources available for the Project:

- Aggregate made from the Bartica gneiss and with good specifications for concrete, currently produced at the Bartica quarry, 180 km to the east and on the other side of the Mazaruni river.
- High-quality hardwood is available for construction and foundation pylons.
- Duricrust is available for laterite road pavement.

### **5.4      Infrastructure**

The region's infrastructure is underdeveloped, lacking power, roads, communications, and general services. The city of Bartica (population of about 10,000), at the Essequibo, Mazaruni and Cuyuni rivers' confluence, is the primary hub for artisanal mining activity in northwest Guyana, often called the "gateway to the interior". Its main industrial activity is a quarry providing aggregate and boulders (for sea wall construction) for the entire western Guyana, shipped by barges to Parika. It houses the government administrative offices for Region 7 and has basic commercial, transportation and manufacturing facilities. It is linked to Parika by regular river "buses" transporting people and cargo. It has a hospital, an elementary-level school, and cell phone communication.

The town of Itabali, at the left margin of the Mazaruni river, is the gateway for the road transportation of goods and services to all the artisanal mining operations not reachable by a river. It is also where wood logs harvested in the region get loaded into barges for transportation to the sawmills in Parika.

There is no available grid electrical power in the region. The entire Guyana power system currently runs on heavy diesel thermal plants installed along the coast and at Lynden and Bartica. There are no power lines or substations in the Project vicinity.

## **5.5      Physiography**

### **5.5.1.   Vegetation**

The entire Project region is covered by what Granville (1988) called an “upland moist forest”. This equatorial evergreen forest type is the most common and floristically richest forest formation of the Guianas, found extensively on undulating terrain and well-drained ferralic and sandy soils. Their general characteristics are the presence of a high and dense canopy at 20-45 m and emergent trees up to 50-60 m. The forest on higher elevations and over duricrust appear less species-rich and have a lower canopy, many lianas, and a scrubby undergrowth.

### **5.5.2.   Topography**

The Tamakay area is underlain by a greenstone belt, composed mostly of mafic volcanics. Tropical weathering of these releases iron, forming pisolitic concretions near the paleosurfaces. At the water table the pisolitic concretions coalesce and forms concrete-hard duricrusts. This weathering phenomenon is expressed in the local topography, where duricrusts form higher elevations.

## **6. HISTORY**

### **6.1 Prior & Current Ownership.**

The mineral rights comprising the Tamakay Project have been held by various Guyanese miners and local entrepreneurs and were originally granted by the GGMC.

### **6.2 Exploration and Mining History**

The discovery of gold in the region dates back to the 1930's, Macdonald (1968). In 1937, a quartz boulder was found containing visible gold. This led to further investigation which resulted in the discovery of a narrow quartz vein in the granite close to its margin. He further mentioned that the "Main Vein has a strike of N 23° E and dips south at 40°. The average width was 12" and it had an intermittent (023/40) length of 3,000 feet. Grade was about 1 ¼ ounces per ton". The Main Vein was mined for 2 years at shallow depths. In addition, two other veins are present namely, Florian and Queenslane, ~1 mile east and west of the main vein, both trending NE (Macdonald, 1968).

According to E.R. Pollard, 1956, "The Geology of the Issineru-Enachu District, Mazaruni River", Bulletin No 29, mining in the project area was first recorded in 1937, when a local organization Tamakay Mining Syndicate operated two stamp mills near the Tamakay Creek. The production figures are not available. In the same year the report stated that W. Gomes, a Guyanese miner, installed a 10-ton ball mill to process ore from his mining claims Trial 1 and Trial 2. It was reported that 772.262 ounces of gold were produced. M.C. Correia operated two stamp mills in the area in 1938 and produced 893.59 ounces and from 1953 - 1954, a company "Diamond and Metal Exploration Inc" using rock crushers and ball mill produced 564 ounces of gold. In summarizing, it is reported that the area produced 2887.507 ounces of gold from 1937 to 1954. There is no other information available although it is known that Golden Stars Resources Ltd. conducted some exploration in the late 1980's to the early 1990's.

Regional geochemical stream sediment survey was also carried out within the area by the GGMC.

## **7. GEOLOGICAL HISTORY & MINERALIZATION**

### **7.1 Regional Geology**

The Tamakay Project is located approximately 235 km west-southwest of Georgetown, Guyana, in the Trans-Amazonian province of the Guiana Shield (Figure 1). The Guiana Shield corresponds to the northeastern portion of the Amazonian Craton. With a total area of 900,000 sq. km. it covers eastern Venezuela, Guyana, Suriname, French Guiana, the northern end of Brazil, and easternmost Colombia (Daoust 2016; Tedeschi et al. 2020). The Guiana Shield is mainly composed of Paleoproterozoic rocks accreted during the Trans-amazonian orogeny (2.2 - 2.0 Ga) and affected by tectonic, metamorphic, and intrusive events (Vanderhaeghe et al. 1998; Milési et al. 2003). Small Archean relics are preserved in eastern Venezuela (Imataca Complex) and northern Brazil (Amapá Block) (Tassinari et al., 2004; Tedeschi et al., 2020).

The Trans-Amazonian Province is composed of large Rhyacian (2.20 - 2.05 Ga) granite-greenstone belts, including volcano-sedimentary rocks, metamorphosed to greenschist facies, intrusive granitoids, and TTG (tonalite-trondhjemite-granodiorite) gneisses (Vanderhaeghe et al., 1998; Santos et al., 2000; Tedeschi et al. 2018, Tedeschi et al., 2020). In Guyana, the greenstone belts are described from oldest to youngest as basalt ± ultramafic rocks, intermediate to felsic volcanic rocks, and finally, tuffs and turbiditic sedimentary rocks (Gibbs, 1980; Tedeschi et al., 2020). They host multiple gold deposits; however, little is known about the relationship between gold mineralization, magmatism, and deformation (Tedeschi et al., 2020).

Two (2) major deformation events, D1 and D2, which took place during the Trans-Amazonian orogeny, have been recognized (Ledru et al., 1991; Gibbs and Barron, 1993; Vanderhaeghe et al., 1998; Delor et al., 2003a). The Trans-Amazonian orogeny originates between 2.26 and 2.20 Ga, forming a juvenile oceanic crust from tholeiitic magmatism. The first major deformation event (D1) occurs between 2.18 and 2.13 Ga and is associated with the N-S convergence of the Archean African and Amazonian cratons. Between 2.11 and 2.08 Ga, the N-S convergence of African and Amazonian cratons evolves towards an oblique NE-SW convergence, with the closure of the volcanic arc basins (Delor et al., 2003b). This sinistral strike-slip regime, is considered the D2a event, is marked by granitic magmatism, minor mafic intrusions, and regional greenschist metamorphism. It also led to the folding of the volcano-sedimentary formations of the greenstone belts and the development of

thrust faulting and EW to NW-SE regional sinistral strike-slip shear zones (Vanderhaeghe et al., 1998; Delor et al., 2003a; Tedeschi et al., 2020). The D2b event occurred between 2.07 and 2.06 Ga (Delor et al., 2003a). It is marked by dextral reactivation of WNW ESE strike-slip shear zones and significant crustal thinning, leading to mantle rise and regional high-temperature metamorphism (Delor et al., 2003a; Tedeschi et al., 2020) and peraluminous intrusions.

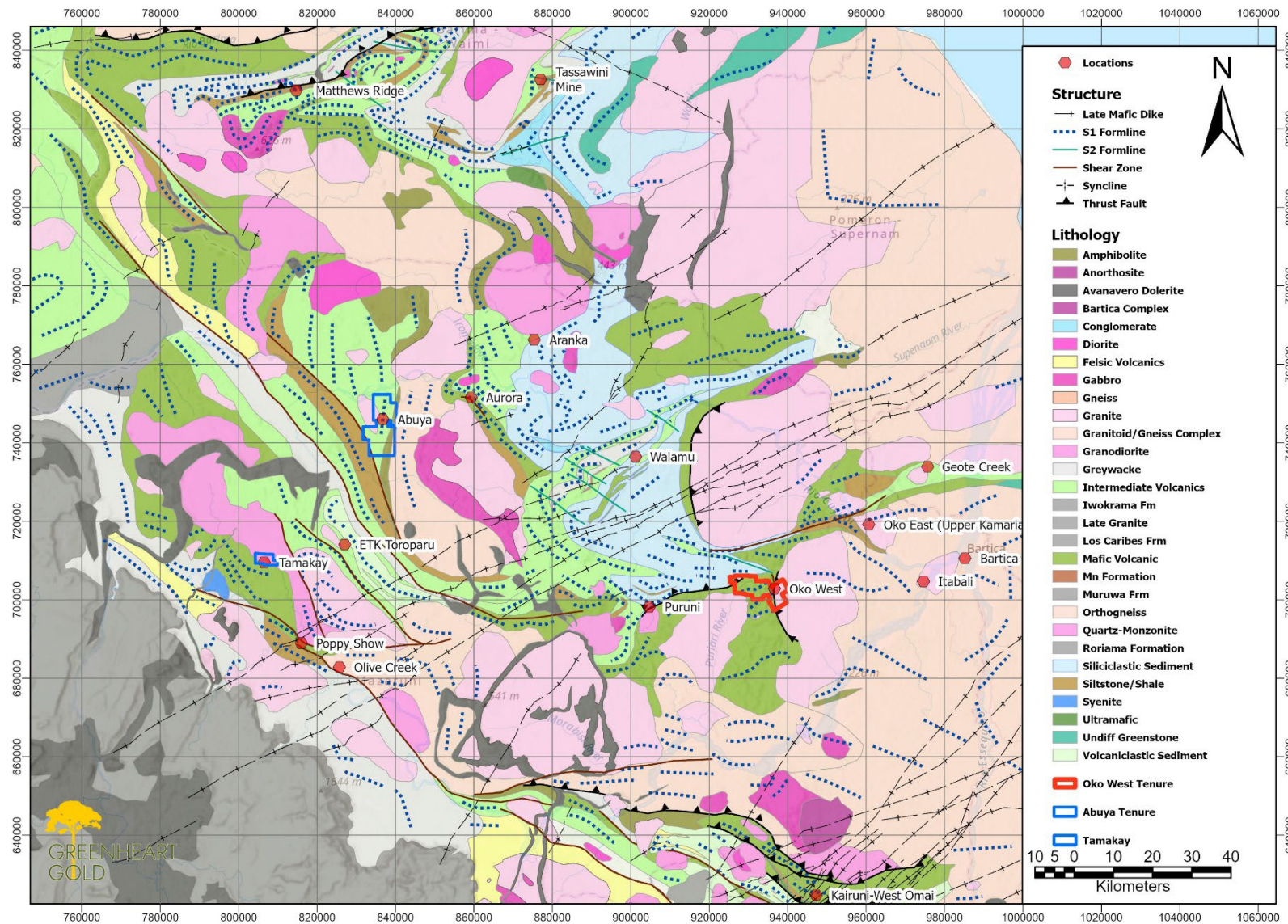


Figure 3. Regional geology map of Guyana with respect to the Tamakay Project.

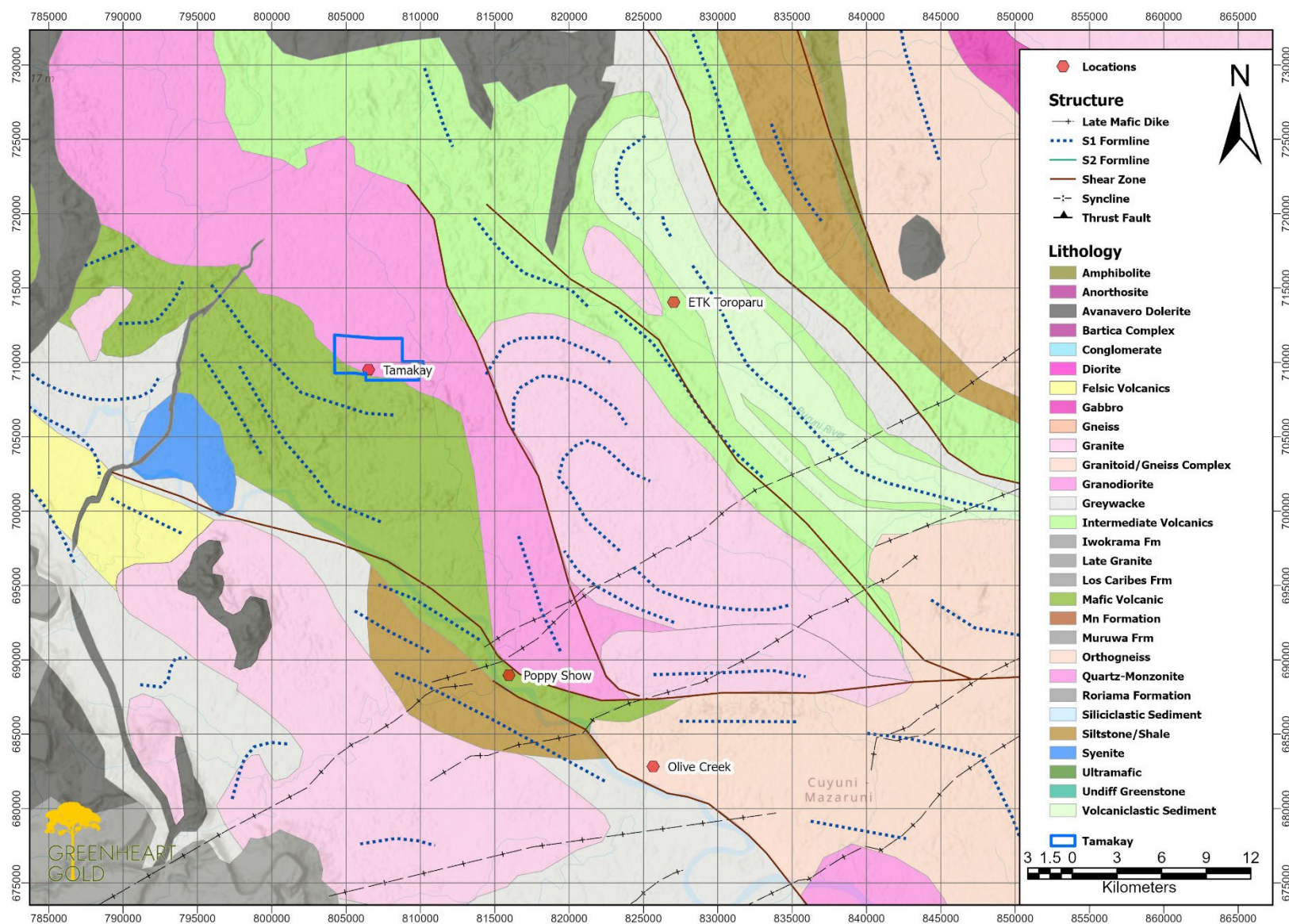


Figure 4. Semi regional geology map in respect to Tamakay Project.

## 7.2 **Property Geology**

Long chemical weathering typical of humid equatorial paleoclimate produced a thick lateritic profile down to a depth below 100 m from the surface. This profile is typically composed of a veneer of pisolitic colluvium and latosols overlaying a massive clay zone, which passes into a mottled zone and then saprolite / sap-rock before reaching un-weathered rocks at depth.

Tropical weathering in the project area is intense and complicated (Butt and Zeegers, 1992). As is the case for much of the tropical rain forest covered areas of South America, deep and overprinting weathering is characteristic of the geology of the Tamakay Project. Saprolite may extend to a depth of greater than 100 m. Supergene enrichment of gold and other minerals is also a characteristic of this type of terrain including the formation of laterite, often expressed as iron rich duricrust or true laterite. In areas of topographic relief, a transported colluvium is overlying the saprolite. This material is variably consolidated and consists of unsorted clasts of iron oxide, duricrust, indurated saprolite and pisoliths floating in a beige clayey matrix. Alluvial material, the focus of artisanal miners, occupies the stream beds. This material is unconsolidated sands to gravel, typically clean and well-sorted. It is important to be cognizant of these surficial processes when designing exploration programs and interpreting geochemical and other data. Lithologies can be mapped through the weathering. Felsic intrusions will weather a pale color with more abundant kaolin development. Mafic volcanic rocks will weather dark red as they are relatively iron-rich and will readily develop a lateritic or duricrust zone.

The northern half of the project contains a large multi-phase intrusion of granite, granodiorite and diorite and forms a plain with little relief due to the high and even rate of weathering (Figure 4 & Figure 5). Saprolite showings and underground shafts provide excellent sites for mapping and sampling. The southern half of the project is in contact with an east-west striking package of mafic volcanic and interbedded sedimentary rocks. There are few mining operations in the volcano-sedimentary package, and the geological interpretation is based on soil geochemistry and trenching carried out by Greenheart Gold. All units appear to have undergone at least two phases of deformation, with an east-west penetrative foliation, and a cross-cutting northeast-southwest foliation that disrupts the earlier penetrative foliation.

The intrusion appears to be structurally juxtaposed with the volcano-sedimentary package as underground mining as exposed shear zones parallel and in close proximity to the contact. Within the shear zone and at high angles extending away from the main shear are a series of quartz-pyrite  $\pm$  chalcopyrite  $\pm$  bornite  $\pm$  sphalerite shear and extensional veins respectively.

An extensive network of alluvial mining, saprolite pits and some underground shafts cover the central part of the project overlying the sheared contact zone and along northeast-southwest trending valleys. Given the coincident location of saprolite mining and underground hard-rock mining operations, it appears that the mineralized alluvial material is locally sourced with little transport. The alluvial material is unconsolidated sands to gravel, typically clean and well-sorted. The basal gravels are poorly sorted and contain the highest concentrations of gold. The saprolite and underground mining operations appear to be targeting shear veins along the contact, or extensional veins oblique to the main structure parallel to the second foliation striking northeast-southwest with a very steep dip.

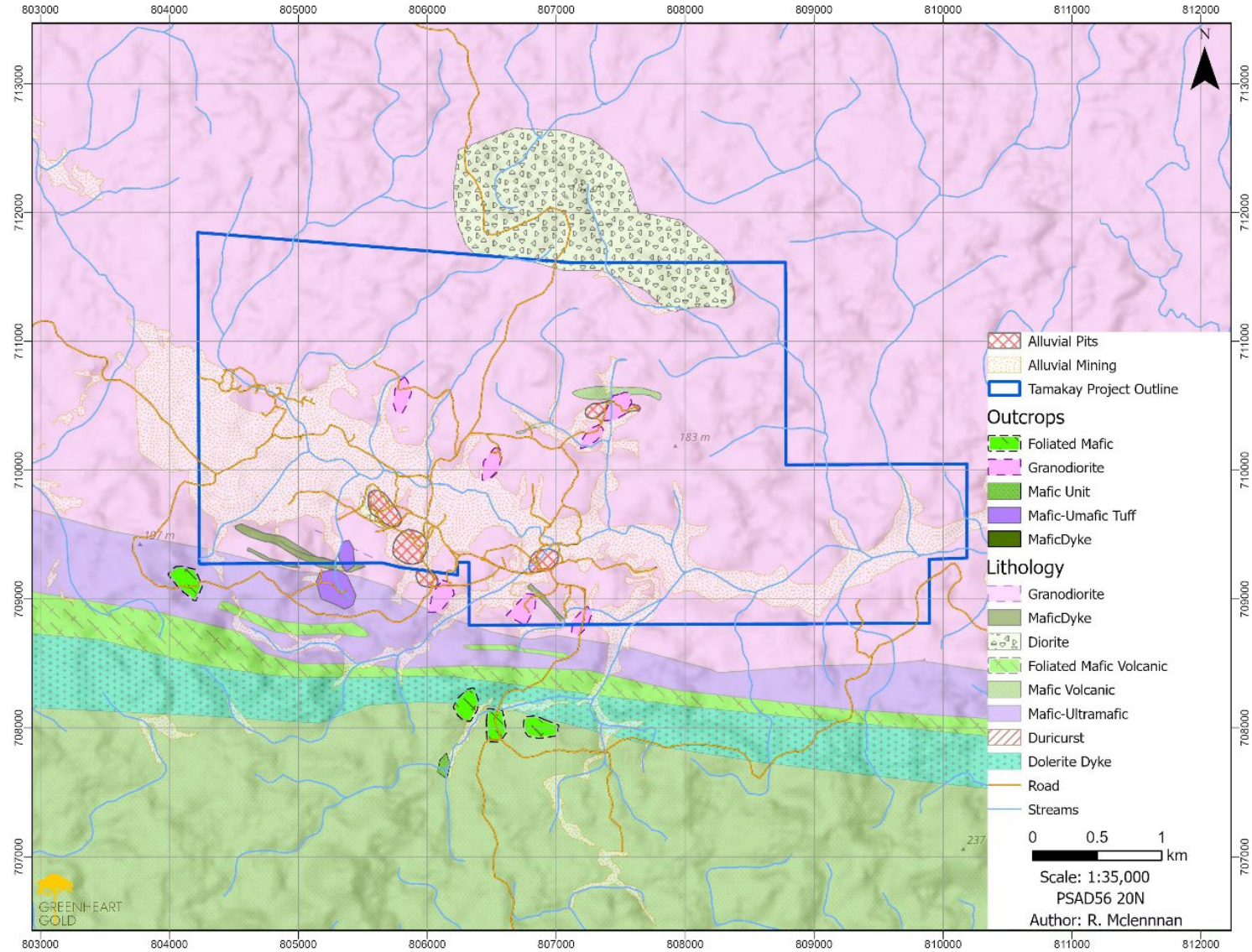


Figure 5. Geology of the Tamakay Project showing mineral tenure.



*Figure 6. Underground image of the high-grade vein from the Piaui shaft.*

## **8. DEPOSIT TYPES**

The property is prospective for structurally controlled quartz vein gold deposits and will be explored as such. Tamakay is approximately 20 km from Aris Mining's Toraparu project, a large undeveloped gold, copper, and silver deposit with 5.37 M oz Au, 118,000 tonnes Cu and 5.35 M oz Ag in the measured and indicated category (Mining Plus, 2023). Toraparu has been interpreted as intrusive related gold-copper deposits (SRK, 2019). In general, gold endowment in the Barama-Mazaruni greenstone belts is structurally controlled and are interpreted to be variants of the orogenic gold class of deposits with the exception of Toraparu.

Oko West is 130 km east of Tamakay. Oko West is a grassroots discovery made by Reunion Gold which was recently sold to G Mining Ventures, which is developing the mine. Oko West has a Proven and Probable (Open Pit and Underground) Reserve of 4.642 Moz at an average grade of 1.89 g/t gold (G Mining Ventures, 2025). The Oko West gold mineralization can be classified as a structurally controlled, orogenic gold mineralization. Nearby in French Guiana, orogenic-type gold deposits are mainly related to D2 tectono-metamorphic deformation (between 2.1 and 2.0 Ga). The mineralization occurs along shear zones in greenstone belts and is associated with granitic magmatism. Recent data from the Karouni orogenic gold deposit in Guyana support this timing, as gold mineralization has been dated to  $2.084 \text{ Ga} \pm 14 \text{ Ma}$ . In Suriname, mineralized shear zones develop along contacts between units of varying rheologies but also, to a lesser degree, parallel to axial plane cleavages in fold noses at the Rosebel gold mine.

The proposed exploration methods will include regolith and bedrock mapping to establish lithologies and structural trends and subsequent geochemical sampling will be planned to cover prospective host lithologies and cross prospective structures that would typically host structurally controlled gold vein deposits. Follow-up drilling of about 1,000 m to test priority geologic targets is recommended.

## **9. EXPLORATION**

Reunion Gold conducted an initial site visit to properties in the Tamakay area from November 22 to 26, 2022. During the visit geological mapping and sampling was completed around the Hopkinson, Moto Saw and Piaui pits where mining had occurred.

At the time, the open pit areas with the high-grade quartz-pyrite-gold veins were underwater and could not be sampled in situ. Several grabs were collected instead. The areas with saprolite exposure around the pit walls were sampled, totaling 25 samples.

Reunion Gold returned to Tamakay in April 2023 for seven (7) days. During this time a small geochemical program was conducted consisting of 312 soil samples collected along ridge and spur lines and 125 channel samples collected along four trench pit walls. These results were encouraging which justified a follow up geochemical program in November 2023.

Between November 12 to December 21, 2023, 1037 soil samples were collected along with 63 grab samples from in situ saprolite, fresh rock and quartz veins. These samples had encouraging results with gold values from the Piaui Pit reaching 968.8 g/t Au. During this time, two (2) technicians completed a ground magnetics survey over 62.8 km.

Between July 31<sup>and</sup> August 3, 2024, another team was deployed to Tamakay to obtain information on the new shaft that was installed by Hopkinson Mining. Grab samples were taken which had anomalous results ranging from 85-119 Au ppm. In addition, 3D scans using Scaniverse app on an iPhone, of the shaft along with structural orientation of the veins were obtained.

Between August to December 2024, additional soil samples totaling 1799 were collected to follow up on previous results (Figure 7). In addition, an Induced Polarization (IP) (Figure 10 & Figure 11) and ground magnetics (Figure 9) survey was conducted with 49.84-line km of IP and 22.8 km of ground magnetics.

From April 2023 to June 2024, twenty-two (22) trenches were completed (Figure 8) within the current project tenure. These were done along pit walls, open road cuts and as a follow up on anomalous soil results using an excavator. In addition, trenching was used to test lithological contacts for its mineralization potential.

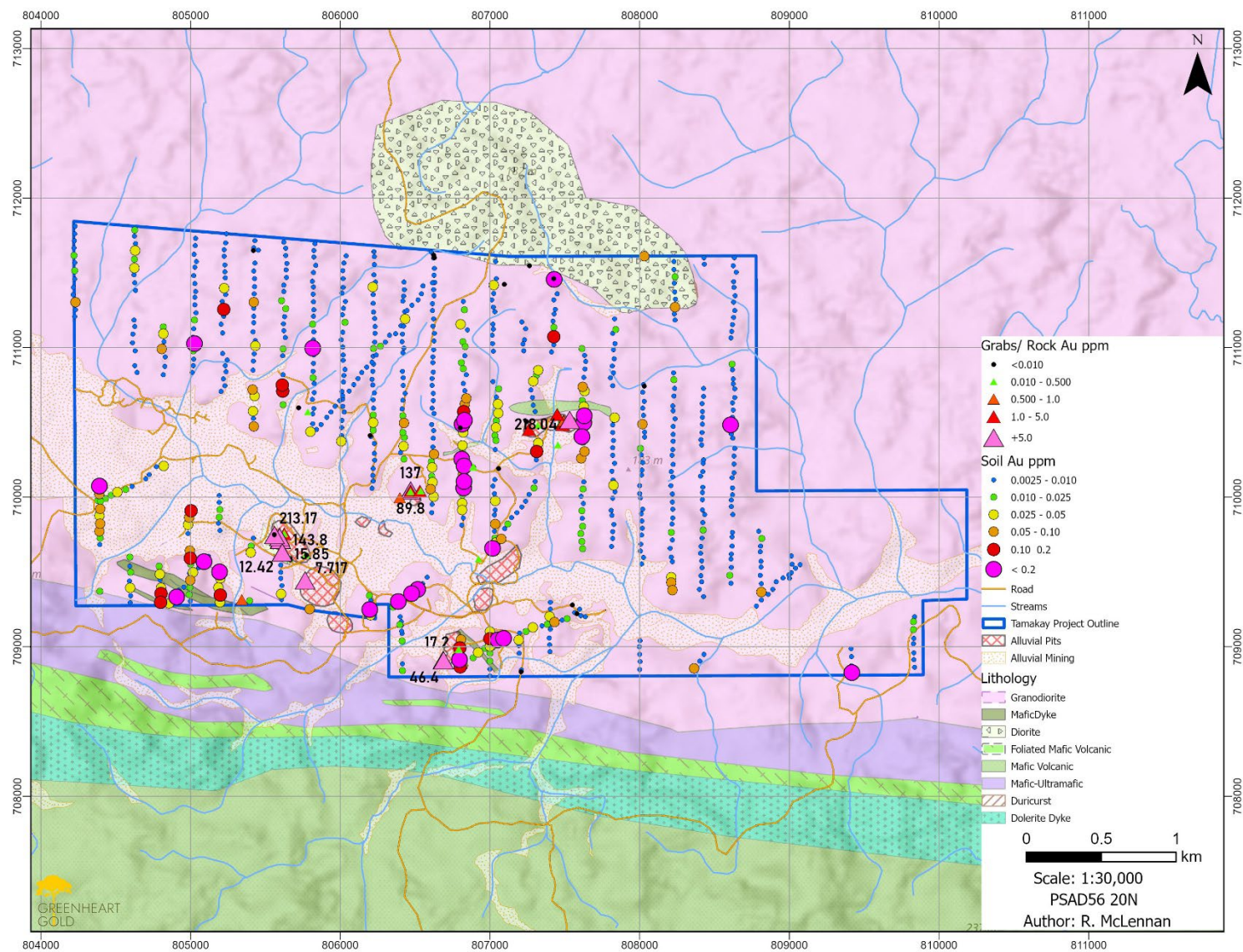


Figure 7. Soil and Grab samples collected on the Tamakay Project.

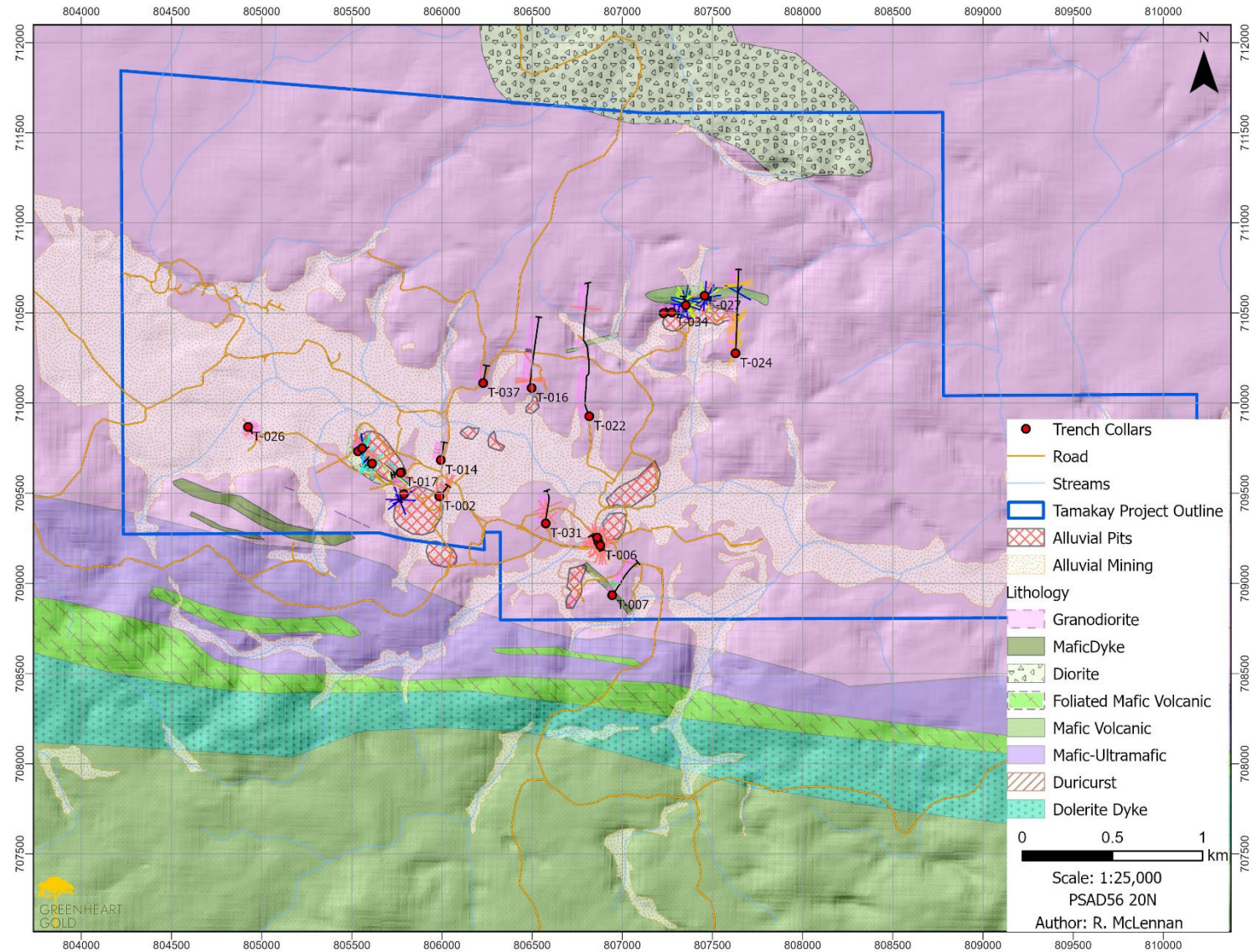


Figure 8. Trench locations within the Tamakay Project.

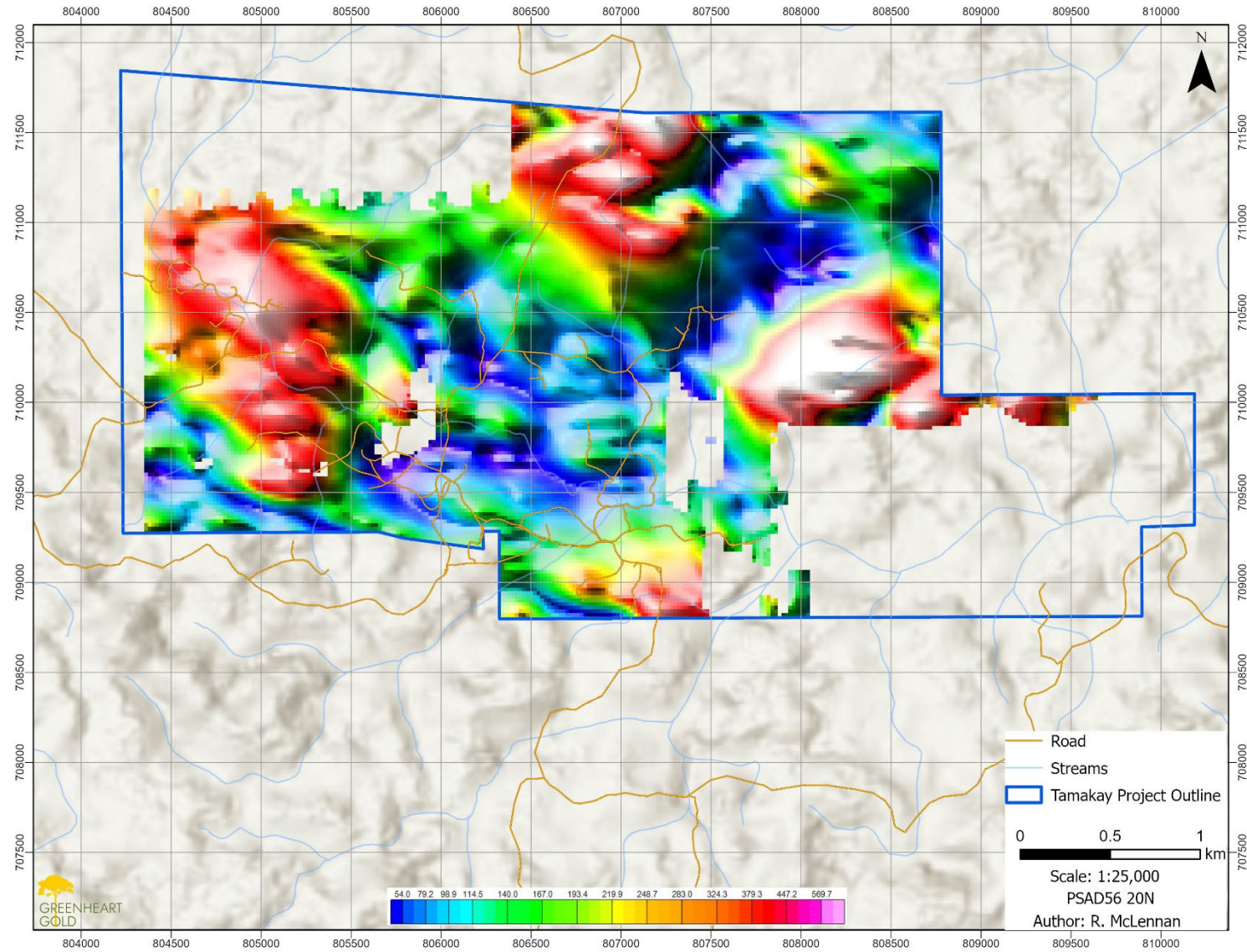


Figure 9. Ground Mag coverage – VRMI product within the Tamakay Project (High & Low mag is reps. by red & blue respectively)

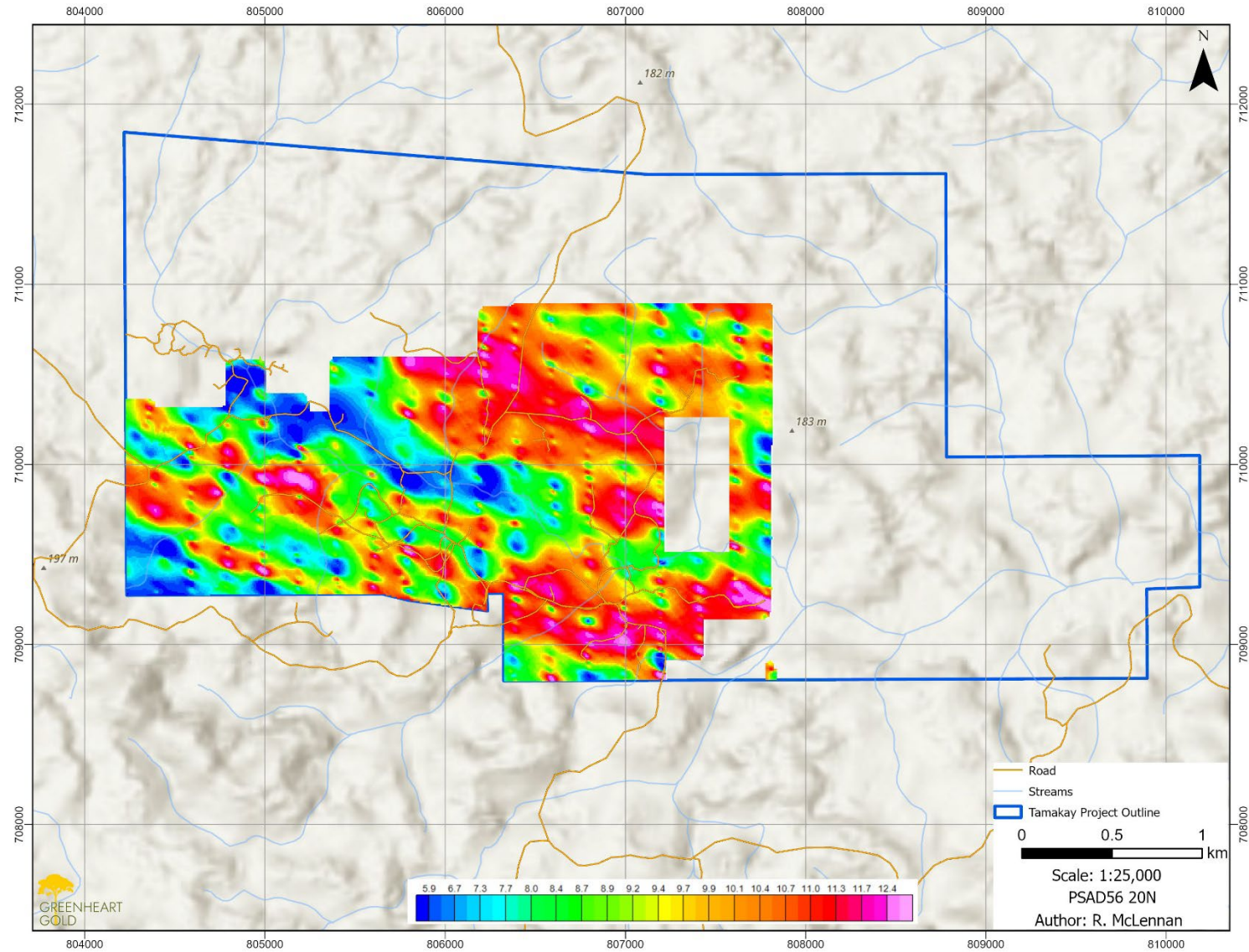


Figure 10. IP Chargeability coverage within the Tamakay Project

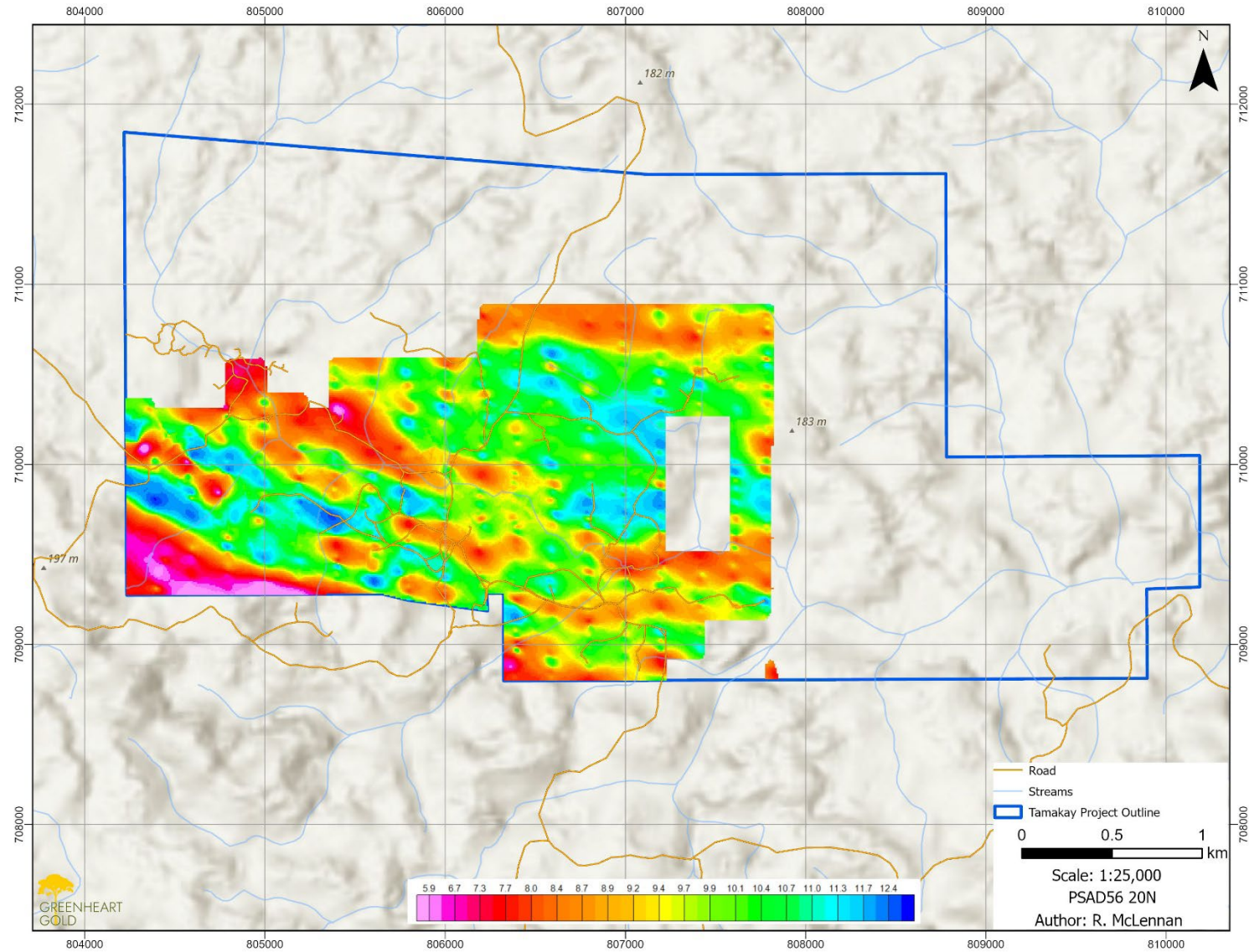


Figure 11. IP Resistivity coverage within the Tamakay Project.

## **10. DRILLING**

There has not been any drilling conducted by Greenheart Gold or, to the best of our knowledge, by any previous operators.

## **11. SAMPLE PREPARATION, ANALYSES & SECURITY**

This section describes the sample preparation, analysis, and security procedures for the soil and trenching programs performed by Greenheart Gold and also includes a quality assurance and quality control (QAQC) program as part of the sample assaying process.

### **11.1 Soil – Trench Sample Handling & Sampling**

#### **11.1.1. Soils**

Soil samples were collected by clearing a 12” x 12” area where vegetation and surface leaf material are removed and the first ~2-5 cm soil is scraped away. By digging a hole for up to approximately 30 cm deep and discarding the material within the hole. The sampler will then dig from top to bottom placing the material on the rice bag. The collected material is then sieved using a ~1-2 cm opening stainless steel sieve to remove the coarse materials and also quickly remove the organics (leaves, broken branches, or roots) by hand. Material is then bagged in a clear plastic sample bag and given a unique sample identifier and zip tied. For each sample, location (UTM PSAD56 20N), sample identifier, depth from and to, colour, regime and a descriptive comment are recorded. Samples are then packaged and transported by Greenheart Gold to Actlabs facility in Georgetown.

#### **11.1.2. Trenches**

The trenching program consisted of excavator-dug trenches along soil survey lines to a safe “shoulder” depth (approximately 1.2 m to 1.5 m) in an attempt to reach saprolitic material. Hand-cut channels on the trench walls provided continuous samples. Only in-situ material was sampled, avoiding colluvium and alluvium, with an average sample length of 2 m (2-3 kg of material). Trenches attempted to traverse the entire width of the soil anomalies. Whenever saprolite was identified, the trench geology was mapped. Trenches are considered sub-horizontal drillholes for database purposes and were surveyed accordingly.

## **11.2 Sample Transit, Security & Chain of Custody**

The sample tags are kept in a locked cabinet and issued to the geologist/geotech on an as-needed basis. The sample tag stubs are completed, and the books used are kept in a sample book library for future reference. Greenheart Gold sample tags supplied by Actlabs contain the sample information, including date, target, trench, interval from-to in meters, and sampler name. Samples submitted display the sample number and are individually tied with plastic tags and packed in rice bags (six samples per rice bag), which lists the project initials (TAM) and the batch number (001s/002t). The rice bags are also securely tied with a numbered serial tag. Access to samples is only possible by cutting the tag.

The proper storage of sample rejects received from the lab is essential for a proper QAQC system, thus assuring the integrity of samples and their easy retrieval. The laboratory must return rejects quoting their original batch or work order numbers, as these rejects will be stored by batch groups. Laboratories create their own job numbers, which are not used for storing records. Pulps are stored in cardboard boxes by a batch of 40 samples and stored safely in a locked 40ft shipping container.

The samples are sent from the project via combination of boat and truck to the Actlabs laboratory in Georgetown (Guyana) accompanied with a chain of custody form requiring signature for each stage of the entire trip to validate that all samples reach the laboratory safely. Along with the requisition form, a receipt form is submitted to the lab, listing the samples batch, and containing space for signature by a lab representative upon delivery. The lab acknowledges the receipt of a work order by e-mail to the company.

## **11.3 Sample Analysis Methods**

Sample batches are prepared following the Actlabs Code RX1 procedure. Samples are weighed, dried, crushed (<5 kg) to a fineness of 80% passing 2 mm. A riffle split of 250 g is taken from the crushed material and pulverized (mild steel) to 95% passing 105 µm (140 mesh). The laboratory technician uses sand to clean between each sample. At Actlabs, gold analysis code FAAA-1A2 is performed using a 50 g fire assay (FA) with atomic-absorption spectrometry (AAS) finish. For gold values above the upper detection limit (> 5,000 ppb), samples are assayed by fire assay with a gravimetric finish (FAGRA-13A).

#### **11.4     Standard, Field Duplicates and Blanks**

Certified Reference materials (CRMs) or Standards are introduced into the sample collection in one (1) in every twenty (20) samples collected. Sample IDs are prerecorded in the sample tag book for where the standards will be inserted. CRMs used by Greenheart are procured from Oreas Labs. Mixture of high- and low-grade standards is used and rotated. Standards used are also from oxidized material and from orogenic origin.

Field duplicates (FDUPs) are introduced one (1) in every twenty-five (25) samples collected. The duplicate sample is collected within 10 m of the original sample point. Same is done as CRMs of prerecording sample IDs.

Coarse blank samples are used in trench sampling and are introduced into the sample collection in one (1) in every twenty (20) samples collected. Same is done as CRMs of prerecording sample IDs. Blanks are sourced from barren sample of granitoid rock aggregate from either the Toolsie or Teperu quarry in Bartica, Guyana.

Blanks, certified standards, and duplicates are inserted at the same time as the sampling process is performed.

#### **11.5     Data Management**

The assay reports by Actlabs are distributed by e-mail directly to recipients listed in the work order, including gDat Solutions ([www.gdatsolutions.com](http://www.gdatsolutions.com)), a third-party, independent database manager. The report includes an Excel csv file and a pdf file, both containing the same information. The report includes the assay results for samples and CRM submitted and results for the lab CRM used. gDat imports the QA/QC results into Orebase software and runs a routine that produces graphs and statistics for each QA/QC sample, indicating if they “passed” or not the QAQC criteria. A report is sent by gDat via e-mail to Greenheart Gold project geologists, who review the results. If results are approved, gDat is informed by e-mail and incorporates the results into the database. If not, Greenheart Gold will ask the lab to re-run the samples until the results are approved. Only when approved by the project geologists, the assay results will be incorporated into the database by gDat. All the e-mail correspondence is kept on record. gDat Solutions use the Orebase Management software with complete independence. They are the only personnel authorized to introduce

database changes and make copies available to third parties. Project geologists can consult the database and download its contents via open database connectivity (ODBC). No Greenheart Gold personnel have direct access to the database.

## 12. DATA VERIFICATION

### 12.1 Site Visits

The author, Ross Sherlock, Ph.D., P. Geo, visited the property from November 16 to 20, 2024. A series of geologic stops were made to verify the presence of mineralization and the geologic interpretation by Greenheart Gold geologists. These are outlined below.



*Figure 12. Access to area with shafts and small pits exploiting high grade quartz-sulfide veins.*

#### 12.1.1. Stop 1, N 06° 24.5522 & W 060° 14.3400

Site of two (2) shafts (Figure 13) developed within the biotite-hornblende diorite exploiting a quartz vein-sulfide system. Both shafts were flooded and are currently inactive. However, samples were collected around the shafts where they were discarded. Host rocks to the quartz veins are massive biotite-hornblende diorites.

Three (3) samples were collected from this location. Two (2) samples were quartz veins (Figure 15), and one sample (Figure 14) was a brecciated host rock with sericite seams and disseminated pyrite throughout.

The veins seen in the waste piles were thin (10 cm wide) with local concentrations of sulfides, mainly pyrite, chalcopyrite, bornite (secondary) and minor sphalerite. In both samples of the vein material, visible gold was recognized as small flakes in the quartz vein.



*Figure 13. Manual hoist system constructed over inactive shaft.*



Figure 14. Sample C949965 showing representative brecciated wall rock with sericite slips and disseminated pyrite.



Figure 15. Samples C949966 & C949967 showing representative vein samples.

#### 12.1.2. Stop 2, N 06° 24.2976 & W 060° 14.1540

Motosaw pit, highwall. Near contact between mafic volcanic rocks and diorite. Yellow weathering sulfide seams, sub horizontal. Sample **C949968** - Figure 16



*Figure 16. Sub horizontal sulfide seams, near contact with mafic volcanic rocks and diorite.*

### **12.1.3. Stop 3, Trench TAMT23-011**

Anomalous gold in mafic volcanic rocks. The mafic rocks are volcaniclastic and may be more mature sediment such as a wacke as relict bedding was recognized in a sandy composition. The trench was excavated over a gold in soil anomaly and has some anomalous gold in the trench samples.

Two samples were collected:

1. C949969, N 06° 23.8972 & W 060° 14.5714
2. C949970, N 06° 23.8896 & W 060° 14.5737



*Figure 17. Example of saponite weathering in mafic volcanic rock with minor jarositic discoloration.*

#### **12.1.4. Stop 4, Deadman's Pit**

Artisanal pit is approximately 1 km northeast of Greenheart Gold camp (Figure 18). At Deadman pit (Hopkinson), mining is presumably targeting high-grade veins hosted by a dioritic intrusion. The veins are narrow, sub-horizontal and presumably a series of separate veins.



Figure 18. Overview of Deadman's pit.

#### 12.1.5. Stop 5, N 06° 25.0270 & W 060° 13.2967

**C949971 & C949972** (Figure 19) high grade narrow sub horizontal quartz veins, typically about 1 cm thick, up to 3 cm with FeOx along vein margins and within fractures.

In highwall at Deadman pit where active mining was taking place a series of wide spaced +1 m narrow <5 cm veins were recognized and sampled long with the host rocks. The continuity of the veins is reasonable traceable over 5-8 m along strike. Three samples were collected:

1. **C949973** sample of the diorite host rock +/- within 0.5 m of a quartz vein
2. **C949974** (Figure 20) & **C949975** hand cobbled quartz vein samples

Both at N 06° 25.0469 & W 060° 13.3416



*Figure 19. Sample C949972 showing sub horizontal quartz veining with minor FeOx staining along fractures and vein margins.*



*Figure 20. Sample C949974 showing sub horizontal quartz veining with minor FeOx staining along fractures and vein margins.*

#### **12.1.6. Stop 6, N 06° 25.0085 & W 060° 13.4119**

Stopped at an abandoned pit, which is full of tailings. Some quartz veins had been channeled out of the high walls. Sample **C949976** of diorite host rocks composited above and below a narrow vein.

#### **12.1.7. Stop 7, N 06° 24.5246 & W 060° 13.6295**

Stopped at Queens Lane area with active, placer and bedrock mining. Very similar geology to Deadman pit and other showings in the diorite. Host rock is a hornblende +/- biotite diorite with narrow (<2 cm thick) quartz veins with FeOx fracture coating.

Sample **C949977** composite sample of host diorite and quartz vein material.

## 12.2 Assays Data

Thirteen samples were collected during the site visit in areas previously identified by Greenheart Gold as gold bearing. Samples were transported out of Tamakay camp to the Actlabs laboratory in Georgetown and left for analysis on Nov. 20<sup>th</sup>, 2024. Table 2 below summarizes the observations, locations, description, and assays returned for the samples.

Table 2. Samples collected from Tamakay during QP visit.

Sample #	Lat	Long	Au (g/t)	Descriptions
Nov. 17, 2024				
C949965	06° 24.5522	60° 14.3400	12.42	brecciated diorite with sericite slips and disseminated pyrite
C949966	06° 24.5522	60° 14.3400	15.85	selected vein samples from shaft area
C949967	06° 24.5522	60° 14.3400	27.90	selected vein samples from shaft area
C949968	06° 24.2976	60° 14.1540	0.09	limonitic staining of shallow fractures in high wall of Motosaw pit
C949969	06° 23.8972	60° 14.5714	0.13	saprolitic weathered mafic volcanoclastic rocks with anomalous gold values ~0.2 g/t
C949970	06° 23.8896	60° 14.5737	0.14	saprolitic weathered mafic volcanoclastic rocks with anomalous gold values ~0.2 g/t
Nov. 18, 2024				
C949971	06° 25.0270	60° 13.2967	3.13	selected vein samples in highwall of Deadman pit
C949972	06° 25.0270	60° 13.2967	218.04	selected vein samples in highwall of Deadman pit
C949973	06° 25.0469	60° 13.3416	0.74	sample of diorite host rock +/- 0.5 m of a quartz vein
C949974	06° 25.0469	60° 13.3416	3.59	hand cobbled quartz veins
C949975	06° 25.0469	60° 13.3416	1.38	hand cobbled quartz veins
C949976	06° 25.0085	60° 13.4119	0.08	sample of diorite host rock +/- 0.5 m of a quartz vein
Nov. 19, 2024				
C949977	06° 24.5246	60° 13.6295	0.02	outcrop sample, diorite with narrow (<2cm quartz veins).
C949978			0.05	standard

## 12.3 QP Commentary

In the opinion of the QP, sampling and QA/QC procedures observed during the November 2024 site visit meet best industry practices. Although the site is remote, Greenheart has established a robust chain-of-custody in relation to the storage and transportation of samples, with a representative of the company traveling with samples at all times. The QP has no concerns relating to the validity of the exploration database. Although the historic sampling was not verified by the author, the samples collected during the site visit are consistent with previous exploration efforts.

### **13. MINERAL PROCESSING & METALLURGICAL TESTING**

No metallurgical testing has been completed, nor is it warranted at this early exploration stage.

### **14. MINERAL RESOURCES ESTIMATE**

There is no mineral resource estimate for the project.

### **15. ADJACENT PROPERTIES**

According to the Guyana Geology and Mines Commission, the Tamakay Project area is surrounded by 10 medium-scale mining permits covering an area of 42.8 sq. km and prospecting permits held by various Guyanese title holders. In August 2024, the Company had entered into an agreement to acquire a 100% interest in the 10 mining permits but on April 23, 2025, the Company decided not to pursue exploration activities on that ground and to focus its efforts on the area covered by the three MPs currently under option. Exploration activities conducted within the permits include:

1. Twenty (20) excavated dug trenches totaling 4653.5 m.
2. Two thousand six hundred and eighteen (2816) soil samples and seventy-seven (77) rock grabs were collected and assayed.
3. Ground magnetics and Induced Polarization surveys over portion of the tenure.

#### **15.1 Toroparu Project**

To the northeast, approximately 25 km from the Tamakay property, the ETK Toroparu Gold project can be found. It is owned by a Canada-based mid-tier gold producer Aris Mining Corporation.

The Toroparu project contains two gold deposits both having mineral resources, referred to as Toroparu deposit and approximately 5 km Sona Hill deposit to the southeast (collectively “Toroparu” unless otherwise indicated).

Toroparu is located within the Amazon Craton of the Guiana Shield, within a sequence of meta sedimentary and meta volcanic rocks along the contact of an intrusive igneous body. The Toroparu Project is a large, structurally controlled orogenic gold deposit with numerous features similar to

many other orogenic gold deposits that are strongly controlled by competency contrasts. A similar relationship is observed within the Tamakay Project area, where the mafic volcanic rocks are intruded by a large granitic unit to the north. Other gold deposits have similar intrusive bodies including Omai, Aurora and Oko West. Table 3 below summarizes the Mineral resource estimate. Mining Plus. (2023).

The author is unable to independently verify the above information and cautions that the mineralization described on the adjacent properties is not necessarily indicative of mineralization on the Tamakay Project.

Table 3. Toroparu Project mineral resources effective February 10, 2023.

Area	Category	Tonnes (Mt)	Grade Gold (g/t)	Grade Copper (%)	Grade Silver (g/t)	Contained Gold (koz)	Contained Copper (kt)	Contained Silver (koz)
Open Pit	Measured	42.3	1.45	0.14	1.8	1,967	61	2,455
	Indicated	69.0	1.42	0.08	1.3	3,159	55	2,817
	Measured + Indicated	111.3	1.43	0.10	1.5	5,126	116	5,272
	Inferred	9.7	1.29	0.04	0.8	404	4	255
Underground	Measured	0.1	1.89	0.03	0.4	8	<1	2
	Indicated	3.6	2.08	0.05	0.7	239	2	76
	Measured + Indicated	3.7	2.07	0.05	0.7	247	2	78
	Inferred	11.5	2.07	0.04	0.7	764	5	262
Total	Measured	42.4	1.45	0.14	1.8	1,975	61	2,457
	Indicated	72.6	1.46	0.08	1.2	3,398	57	2,893
	Measured + Indicated	115.0	1.45	0.10	1.5	5,373	118	5,350
	Inferred	21.2	1.71	0.04	0.8	1,168	9	517

Source: Mining Plus. (2023)

## 16. OTHER RELEVANT DATA AND INFORMATION

The author is unaware of any additional information or data that is relevant to the Project that would make the report more understandable and not misleading.

## **17. INTERPRETATION & CONCLUSIONS**

The Tamakay Project covers approximately 1,375 ha or 13.75 sq. km. and is underlain by mafic volcanic rocks and felsic intrusions, typical of Precambrian greenstone belts, worldwide. At the Project, artisanal gold miners are recovering alluvial and hard rock gold from high grade quartz sulfide veins.

Current exploration works completed include geochemical testing (soils, grabs & excavated trench sampling), geological field mapping and geophysical methods (IP & Gmag) as indicated in sections 9 & 12 above. Incorporated with the geology of the Project, the results suggest the area is prospective for orogenic style gold deposits but has seen minimal systematic exploration for primary gold deposits.

For reference, data presented herein were reliably obtained from the Orebase database through third-party database management (i.e., gDAT Solutions). Geophysical products were provided by Greenheart Gold. Geochemical data were sampled on a 200m by 50m grid. Ground magnetics were collected at 200m spacing and IP was selective over the tenure at 200m spacing as well.

The long history of artisanal mining combined with the limited work by several companies indicates that this area has exploration potential and deserves to be the subject of a comprehensive, multi-disciplinary, exploration program.

## **18. RECOMMENDATIONS**

Based on this Technical Report and discussion with Greenheart Gold exploration group, the author makes the following recommendations for the Tamakay Project:

A multidisciplinary exploration program is recommended, focused on an initial 1,000 m drill program (“**Phase 1 Program**”) to test geological and geophysical targets. Estimated costs for this program are about C\$450,000, with an all-in cost of C\$450 per meter. Subject to receiving positive results from Phase 1 Program, it is recommended that a Phase 2 exploration program, consisting of follow-up drilling (“**Phase 2 Drilling**”) and a LiDAR survey (“**LiDAR Survey**”), be carried out over the Project area. The Phase 2 Drilling and LiDAR Survey are referred to collectively as the “Phase 2 Program”.

Table 4 below summaries the proposed exploration budget for both the Phase 1 Program and the Phase 2 Program.

Table 4. Exploration Budget for Tamakay Project.

Recommended Tamakay Exploration Program		Cost (CAD\$)
Phase 1 Program	C\$	450,000.00
Phase 2 Program*		
Program Drilling	C\$	2,250,000.00
LiDAR Survey	C\$	20,000.00
<b>TOTAL</b>	<b>C\$</b>	<b>2,720,000.00</b>

\* Subject to receiving positive results from Phase 1 Program

## 19. REFERENCES

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## **CERTIFICATE OF QUALIFIED PERSON**

This certificate applies to the technical report entitled “NI 43-101 Technical Report on the Tamakay Gold Project, Region 7, Guyana, South America” prepared for Greenheart Gold Inc. with an effective date of July 1, 2025.

I, Ross Sherlock, Ph.D., P.Geo., certify that:

1. I am a principal of Tantalus Geoscience Services Ltd. a corporation having an office at 161 Jeanine Street, Sudbury Ontario, Canada, P3B 0E8. I provide geological consulting services through this entity.
2. I graduated with an HBSc degree in geology from McMaster University in Ontario, Canada in 1986, a MSc in Geology from Lakehead University, Ontario, Canada in 1989 and a PhD in Geology from University of Waterloo, Ontario, Canada in 1993.
3. I am a member of the Professional Geoscientists of Ontario (Licence Number: 2658) and Engineers and Geoscientists of BC (Licence Number: 23778).
4. I have worked continuously as a geologist for 38 years since my graduation from McMaster University in 1986, with progressively increasing responsibilities. Below are some relevant experiences as they pertain to the Tamakay project. Most recently as project manager for Miramar Mining (2004-2008) I was a senior member of the team which discovered and delineated a resource base in excess of 10 Moz of gold in the Archean Hope Bay greenstone belt. As North American manager for Gold Fields (2008-2005), I managed exploration projects for orogenic gold deposits in the Abitibi greenstone belt of Canada and conducted business development activities for orogenic deposits globally, including in the Guiana Shield. As VP Geology for Kinross Gold (2015-2016), I was a technical lead exploring for orogenic gold deposits in North and South America as well as North and West Africa. I currently hold a research chair in Exploration Targeting at Laurentian University (2017-present) where I manage and conduct research on orogenic gold deposits mainly in the Superior Craton, North America.

5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“**NI 43-101**”) and certify that by reason of my education, affiliation with a professional association (as defined by NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.
6. I am the author of this report entitled “NI 43-101 Technical Report Tamakay Gold Project Region 7, Guyana, South America” dated July 1, 2025 prepared for Greenheart Gold Inc. and I am responsible for all the sections of the Technical Report.
7. I have personally visited the property from November 16 to 20, 2024
8. To the best of my knowledge, information and belief, this Technical Report contains all the scientific and technical information that is required to be disclosed to make this Technical Report not misleading.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I am independent of Greenheart Gold Inc. with respect to the tests in section 1.5 of NI 43-101.
11. I have read NI 43-101 and Form 43-101F1 (the “**Form**”), and the Technical Report has been prepared in compliance with NI 43-101 and the Form.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this July 28, 2025

“Ross Sherlock” (signed and sealed)

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Ross Sherlock, Ph.D., P.Geo.