

**NI 43-101 Technical Report  
Geology, Mineralization and Exploration Potential of  
the Haute Mana Property,  
Commune of Saül,  
French Guiana**

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**Report prepared for:**



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# 1 Summary

This report was prepared as a National Instrument 43-101 Technical Report (the Report) for Reunion Gold Corporation (RGD) by Terracognita Geological Consulting Inc. (TGC, the Consultant). The Report concerns the Geology, Mineralization and Exploration Potential of the Haute Mana Property (the Property) that is constituted by eight mining concessions (the Concessions) located within the Commune of Saül, in central French Guiana. The Property is a brownfields gold exploration property. Historical exploration activity, including trenching, pitting, mapping, geochemical and geophysical surveys, limited underground workings and drilling have identified multiple zones of gold mineralization located along an apparent structural trend. The thicknesses, average grades and continuities of mineralized zones remain to be defined.

TGC understands that RGD has entered into an option agreement (the Transaction) dated December 1, 2016 with Union Minière de Saül (UMS) pursuant to which RGD is entitled to acquire an 80% interest in the Property by completing a preliminary economic assessment (PEA). The Transaction is subject to the approval of the TSX Venture Exchange (TSX-V). This Report is intended for use by RGD in seeking such approval.

## 1.1 Property Description, Location and Ownership

The Property currently consists of eight contiguous Concessions covering an area of 122.5 km<sup>2</sup> within the Commune of Saül, in central French Guiana, about 170 km southeast of the city Cayenne (Figure 1). The different Concessions were initially awarded to *le Bureau Minier Guyanais* (BMG) between July 21, 1909 and November 16, 1912. In the late 19th and early 20th centuries, many mining permits were awarded as a function of placer and vein gold deposits that were worked during that time by artisanal miners.

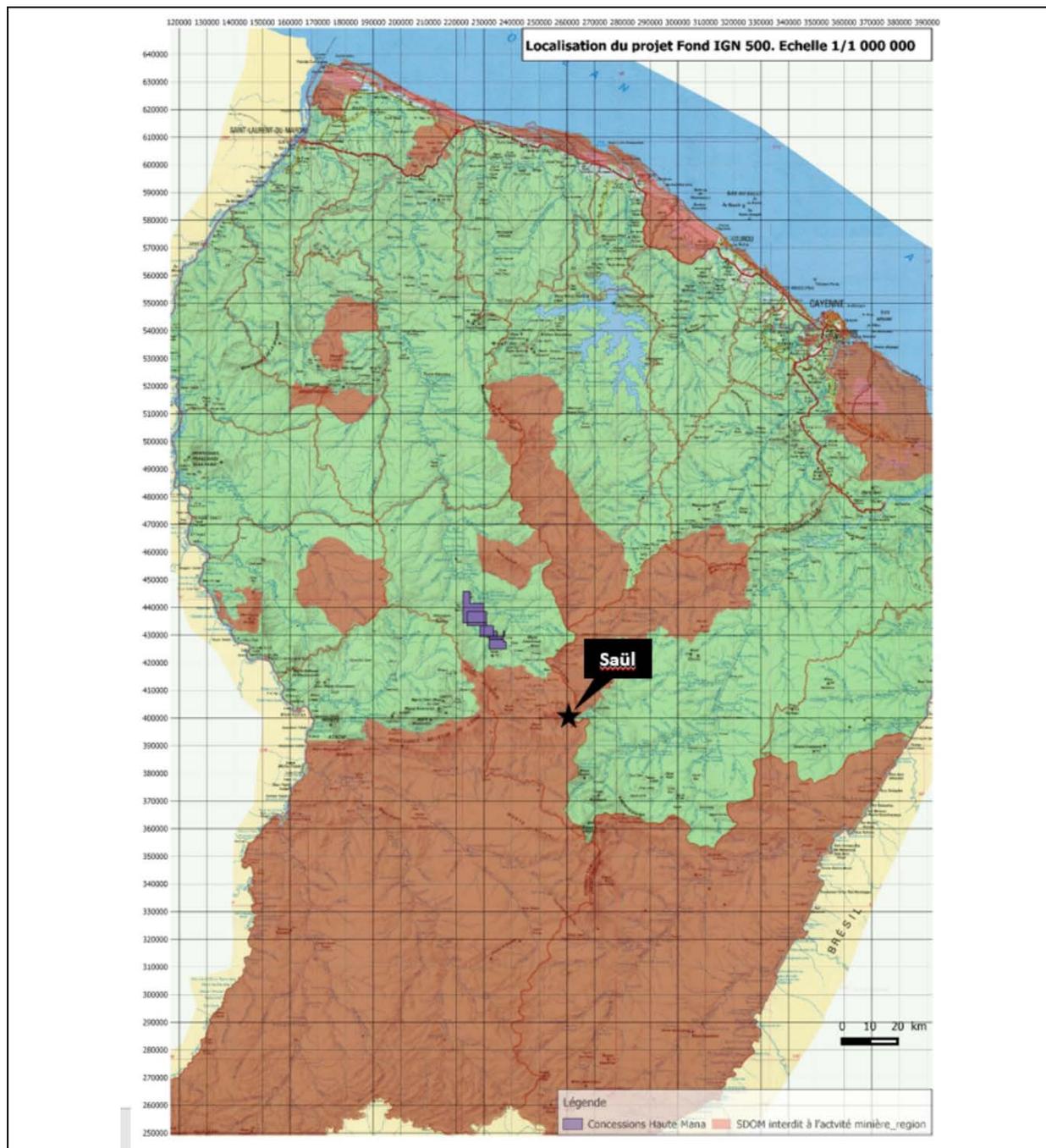
The Concessions that constitute the Property were inherited by the successor organization to the BMG, *le Bureau de Recherches Géologiques et Minières* (BRGM) around 1974. The Concessions were subsequently ceded to UMS in 2008.

The Concessions are 100% owned by UMS. In French Guiana, all Concessions that have historically been considered perpetually valid, such as the Haute Mana Concessions, and that are not renewed by December 31, 2018 will expire on that date. Renewal applications for seven of the Concessions are currently being processed, UMS does not plan to request a renewal for the remaining one.

## 1.2 Geology and Mineralization

The Property is underlain by Paleo-Proterozoic rocks belonging to the Paramaca greenstone stratigraphic assemblage (Delors et al., 2003) and some intrusive bodies of compositions ranging from quartz-diorite to granodiorite. The intrusive bodies are most likely members of the tonalite-trondhjemite-granodiorite (TTG) suite that is contemporaneous with the Paramaca greenstone units.

Auriferous quartz veins are spatially associated with a more-or-less well defined NW-SE trending structural lineament known as the Sophie-Saül lineament, that follows a contact between the Paramaca greenstones, located to the SW of the lineament and the TTG intrusive units located mostly to the NE of the lineament. The structural lineament appears to be continuous over the approximately 25 km NW-SE extent of the Property.



**Figure 1.** Location map of the Haute Mana Concessions (shown as purple polygons) in central French Guiana. The red-shaded regions are designated *Schémas Départementaux d’Orientation Minière* (SDOM) which are protected regions where mining activity is prohibited. The UTM coordinate system is WGS84.

Within south-central French Guiana, the Paramaca greenstones form a belt that mainly consists of mafic and felsic metavolcanic rocks, metasedimentary units (flysch-type) and tonalite-trondhjemite-granodiorite (TTG) plutons that intruded the volcanic and sedimentary rocks (Delors et al., 2003). Several gold mining districts are hosted within the belt in French Guiana, notably Haute Mana, Dorlin and Yaou.

### 1.3 Status of Exploration, Development and Operations

The Property has been the object of historical and ongoing artisanal and small-scale mining activity. UMS does not maintain an exploration program. Development and operations currently are limited to: 1) alluvial mining that is carried out under the direction of P. Rey, who is one of the partners in UMS; and 2) vein mining that is carried out by a subcontractor, Société PRYLOR SAS (PRYLOR) who maintains a camp, a crusher and a gravity circuit on the Property. The PRYLOR contract has been in force since December 31, 2011 and is set to expire on December 31, 2018.

### 1.4 Mineral Resources and Reserves

There are no Resources or Reserves reported for the Haute Mana Property.

### 1.5 Property Infrastructure

There are three camps on the Property that would require some upgrading in order to serve as base camps for one or more exploration teams. The camps are situated in the Repentir, Félix and Dagobert sectors. Transport within the Property is along tracks that are presently passable using an ATV vehicle; they could be fairly easily upgraded to allow for the passage of other light 4WD vehicles such as pick-up trucks and for moving drilling equipment from point to point on the Property. A 750 m-long landing strip is maintained at the Félix site.

### 1.6 Environmental Studies and Permitting

Twelve zones of previous alluvial gold mining that require environmental rehabilitation have been identified by UMS, who have submitted a rehabilitation work plan to the *Direction de l'environnement, de l'aménagement et du logement* (the DEAL) for approval. The Consultant cannot confirm that the work plan has been validated by the DEAL.

### 1.7 Conclusions and Recommendations

The historical exploration information reviewed in the present Report indicates that the Haute Mana Property represents a significant land position situated along a potentially regional-scale structure that is known to be the locus of multiple auriferous quartz veins as well as alluvial deposits. The mineralization is most likely of the orogenic mesothermal lode gold type. Any future exploration should first target systems of auriferous quartz veins hosted mainly by intrusive bodies of intermediate to felsic compositions.

Due to the limited exploration information currently available for the Property, comparisons with deposits elsewhere that might be potential analogs must be considered with caution.

Potential analogs for the Haute Mana Property may be the Omai deposit in Guyana, or the Chirano deposit in the Birimian shield area of Ghana, West Africa. By cautious comparison of the apparently favorable geological environment and mineralization of the Haute Mana Property with those deposits, the Property is considered to be an attractive brownfields exploration play, albeit one that is at an early stage of exploration.

There has been insufficient exploration to define a mineral Resource on the Property and it is uncertain if further exploration will result in the delineation of any mineral Resource there.

A two-stage exploration program is recommended. Stage 1 would involve a data compilation and exploration targeting program and might also include the completion of a new airborne geophysical survey. Stage 2 would include trenching and diamond drilling programs to be executed on a selection of the highest value targets derived during Stage 1 in order to properly characterize the nature and continuity of the mineralization and the structures that host the mineralization. The total cost of the two-stage exploration program is estimated to be C\$2,447,000 (Canadian dollars).

## 2 Introduction

### 2.1 Terms of Reference and Purpose of the Report

The present document was prepared as a National Instrument 43-101 (NI 43-101) Technical Report (the Report) for Reunion Gold Corporation (RGD). It is the understanding of TGC, based on an electronic communication from Réjean Gourde, CEO of RGD, that the Report is intended for use by RGD when seeking the acceptance of the TSX-V for RGD to enter into an option agreement to acquire an interest of 80% in the Property.

### 2.2 Qualifications of the Consultant

The Consultant, Keith B. Benn, P. Geo., is the President and Principal Consultant of Terracognita Geological Consulting Inc. He holds degrees in Geology from l'Université de Montpellier II (Doctorate), France, Laval University (Masters), Québec, and the University of Western Ontario (BSc). He has over 25 years of geological experience since completion of his Doctorate and has been a practising P. Geo. (Association of Professional Geoscientists of Ontario; APGO) for over 11 years. He has held senior Exploration roles in the Canadian Shield, West and East Africa, and the Guiana Shield. His professional career also includes 17 years as a tenure-track and tenured academic at the University of Ottawa. He is English-French bilingual and an expert in Structural Geology, Geological and Structural Modeling, Orogenic Gold and Geological Mapping. He has published over 50 peer-reviewed articles, book chapters and government reports on Structural Geology, the Structure of Mineral Deposits, Precambrian tectonics and Tectonic modeling. He has trained and mentored numerous young geoscientists. The Consultant is currently a practising member in good standing of the APGO.

The Consultant has no beneficial interest in Reunion Gold, in Union Minière de Saül, in the Haute Mana Property or in any neighboring mineral property. The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Reunion Gold or L'Union Minière de Saül and the Consultant. The Consultant is being paid a fee for his work in accordance with normal professional consulting practice.

The Consultant, by virtue of his education, experience and professional association is considered a Qualified Person (QP) for this Technical Report as defined in the NI 43-101 standard.

### 2.3 Sources of Information

Sources of information for the Report include documents containing exploration information and other geosciences information provided to the Consultant by RGD and also other documents acquired in person by the Consultant from the offices of the *Direction de l'environnement, de l'aménagement et du logement* (the DEAL) in Cayenne, between the 14th

and the 18th of February, 2017. The principal documents consulted are cited in the text of the Report and they are identified in the list of references in Item 19.

All information regarding regional geology and some information on local geology and mineralization was sourced by the Consultant in the scientific literature and in public domain publications of the *Bureau de Recherches Géologiques et Minières* (BRGM), the French national geological service. Other information and data on property geology, historical exploration work and exploration results were taken from the documents provided by RGD and the other documents that were sourced by the Consultant at the offices of the DEAL.

## 2.4 Property Inspection

The Consultant visited French Guiana from the 14th to the 18th of February, 2017. Several days were spent in Cayenne researching documents and information and meeting in person with Réjean Gourde, CEO of RGD, Karim Robo, a consultant based in French Guiana who was working on behalf of RGD, and Gauthier Horth, who is a representative of UMS.

On February 17, the Consultant traveled from Cayenne by helicopter to the Property and spent the day inspecting the geology, the physiography, the infrastructure and the state of current small-scale mining operations there. During the site visit the Consultant was accompanied by Réjean Gourde and Karim Robo. The site visit also allowed the Consultant to discuss ongoing small-scale mining on the Property with the site managers of those operations.

### 3 Reliance on Other Experts

The Consultant relied upon a verbal communication from a representative of UMS, Gauthier Horth on February 16, 2017, regarding the history of the property, ownership of the Concessions, potential environmental liabilities on the Property and the intention of UMS to obtain an *Authorization d'ouverture des travaux miniers* (AOTM; a permit authorizing mining operations).

TGC has not verified the status of any contracts or agreements to which UMS may be a signatory. TGC has not independently verified any other potential liabilities to which UMS or any of the partners in UMS might be subject.

Any geological interpretations presented within the present report, derived from the available exploration information, are those of TGC unless otherwise explicitly stated in the text.

## 4 Property Description and Location

### 4.1 Area of the Property and Geographic Location

The Haute Mana Property currently consists of eight contiguous Concessions covering an area of 122.5 km<sup>2</sup> (Figure 2) within the Commune of Saül, in central French Guiana, about 170 km southwest of the city Cayenne (Figure 1). As a whole, the Concessions are centred approximately on 230,000E, 430,000N, in the WGS84 UTM coordinate system. They are roughly aligned along a northwesterly trend following an interpreted regional structural lineament called the Sophie-Saül lineament that is further discussed below. The Concessions fall outside of any areas where mineral exploration and mining activities are prohibited or restricted, such as the *Schémas Départementaux d'Orientation Minière* (SDOM) (Figure 2).

### 4.2 Mineral Tenure: Title, Surface Rights, Legal Access, Obligations

Table 1 lists the eight Concessions that comprise the Property and provides, for each of the Concessions, the identifying names and numbers, surface areas, centre coordinates and an indication as to whether a renewal has been requested. The eight Concessions were transferred to UMS on July 9, 2008 by Decree of the Minister in charge of the Mines in France, copy of which has been provided to the Consultant. The Concessions for which renewals have been requested range in surface area from 2.5 km<sup>2</sup> to 39.0 km<sup>2</sup>. UMS has a 100% interest in all of the Concessions that comprise the Property.

In French Guiana, a Concession is a title that allows mining activities to be carried out; it is in essence a mining permit. Under the Mining Code, Concessions are awarded by decree issued by the Conseil d'État. Details of the Mining Code (*Code minier*) are provided in section 16.2 of the present Report. Previously, Concessions were perpetually valid; however, recent changes to the Mining Code include an upper limit of 50 years on the duration of a Concession with the possibility to apply for renewals of not more than 25 years each.

In French Guiana, all Concessions that were previously considered perpetually valid, such as the Haute Mana Concessions, and that are not renewed by December 31, 2018 will expire on that date. Renewal applications for seven of the Concessions are currently being processed (Table 1). UMS does not plan to request a renewal for the remaining one.

According to article 13(d) of the Transaction, UMS has the responsibility to obtain the renewal of the Concessions and in the case where one or more of the Concessions should not be renewed, UMS must apply for exploration permits (*Permis de Recherche* (PER)) on those zones no later than the 1st of January, 2019.

The granting of a Concession in French Guiana does not include surface rights, which in the case of the UMS Concessions belong to the State. Access to the land inside the Concessions is granted to UMS by a *Convention d'occupation temporaire du domaine forestier privé de l'état*

*pour activité minière*, effective from the 23rd of July, 2008 until the 22nd of July, 2018. Renewal of the *Convention* would be required for continued occupation of the land surface for exploration and mining activities. The use of the land by UMS is governed by the same *Convention* and by an *Arrêté* issued by the State on the 27th of July, 2010. RGD is granted full access to the Concessions in order to carry out exploration activities by virtue of article 13(b) of the Transaction.

### 4.3 Royalties and Other Agreements

The Concessions are 100% owned by UMS and there are no royalties or loans outstanding. The Consultant was informed verbally by Mr. Gauthier Horth, a representative of UMS, that taxes due on gold production in 2016 are currently being paid on an installment plan.

According to article 15 of the Transaction, should RGD decide to exercise its option to acquire an 80% interest in the Property following the completion of a Preliminary Economic Assessment: 1) UMS may chose to maintain a 20% share in the Project; or 2) should UMS choose to no longer participate in the project, the 20% interest of UMS in the Project would be converted to a 5% Net Smelter Royalty (NSR) payable to UMS; or 3) should UMS choose to no longer participate in the project, UMS may choose to sell its share in the Project to RGD. Should UMS choose the first of those three options then RGD may chose to form a joint venture or a similar agreement with UMS, with the understanding that should either of the partners' share in the Project be diluted to less than 10% then that partner's share would be converted to a 5% NSR.

### 4.4 Permits Required

UMS has submitted an environmental reclamation plan to the *Direction de l'environnement, de l'aménagement et du logement* (DEAL) for about fifty hectares impacted by its own small scale mining activities since acquisition of the Property in 2008. At the time of the Consultant's visit to French Guiana, the DEAL had yet to validate the plan submitted by UMS. The DEAL would also be required to validate the reclamation work once completed.

Environmental impacts at the Haute Mana Property are documented by the *Direction de l'Environnement, de l'Aménagement et du Logement* (DEAL) and reported to the *Direction Générale de l'Aménagement, du Logement et de la Nature* (DGALN). According to UMS, the environmental impacts of the areas mined prior to 2008 are well mitigated. Specifically, erosion and sedimentation are being managed by natural vegetation in the drainage, waste and pit areas. No environmental reclamation requirements have been identified for the areas mined prior to 2008.

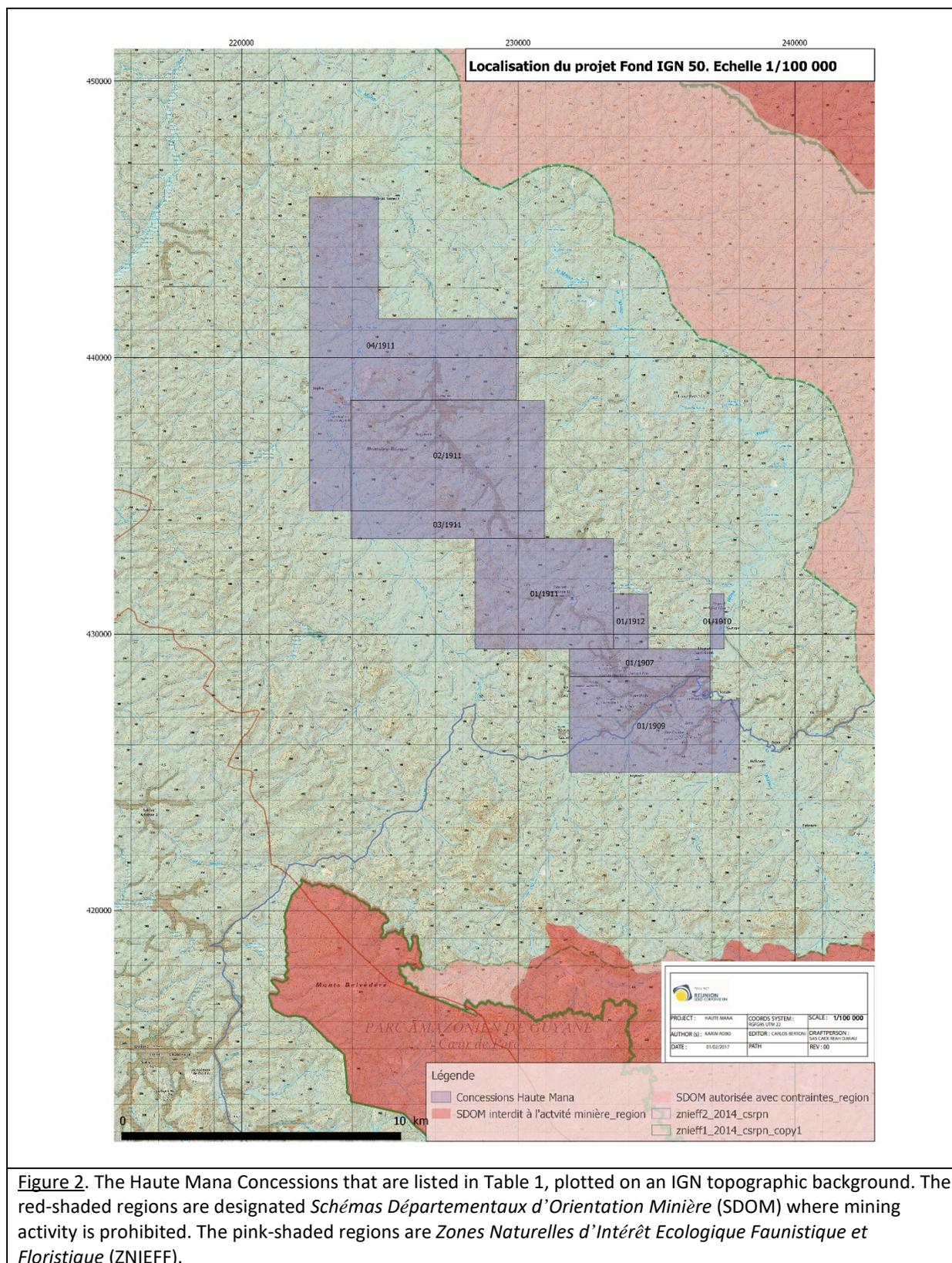
Currently, alluvial and vein mining are being carried out on the Property without the required *Autorisation d'ouverture de travaux miniers* (AOTM). The Consultant was informed by Gauthier Horth that UMS will apply for the required AOTM for those activities.

Prior to undertaking future exploration activities on the Property, a *Déclaration d'ouverture de travaux miniers* (DOTM) might be required or an *Autorisation d'ouverture de travaux miniers*

(AOTM) might need to be awarded by the State. The requirement for either a DOTM or an AOTM depends mainly upon the scale and type of work being proposed. For instance, drilling or trenching would most likely require obtaining an AOTM.

#### 4.5 Other Significant Factors and Risks

The Consultant is not aware of any further factors and risks that might affect access, title or ability to perform work on the Property.



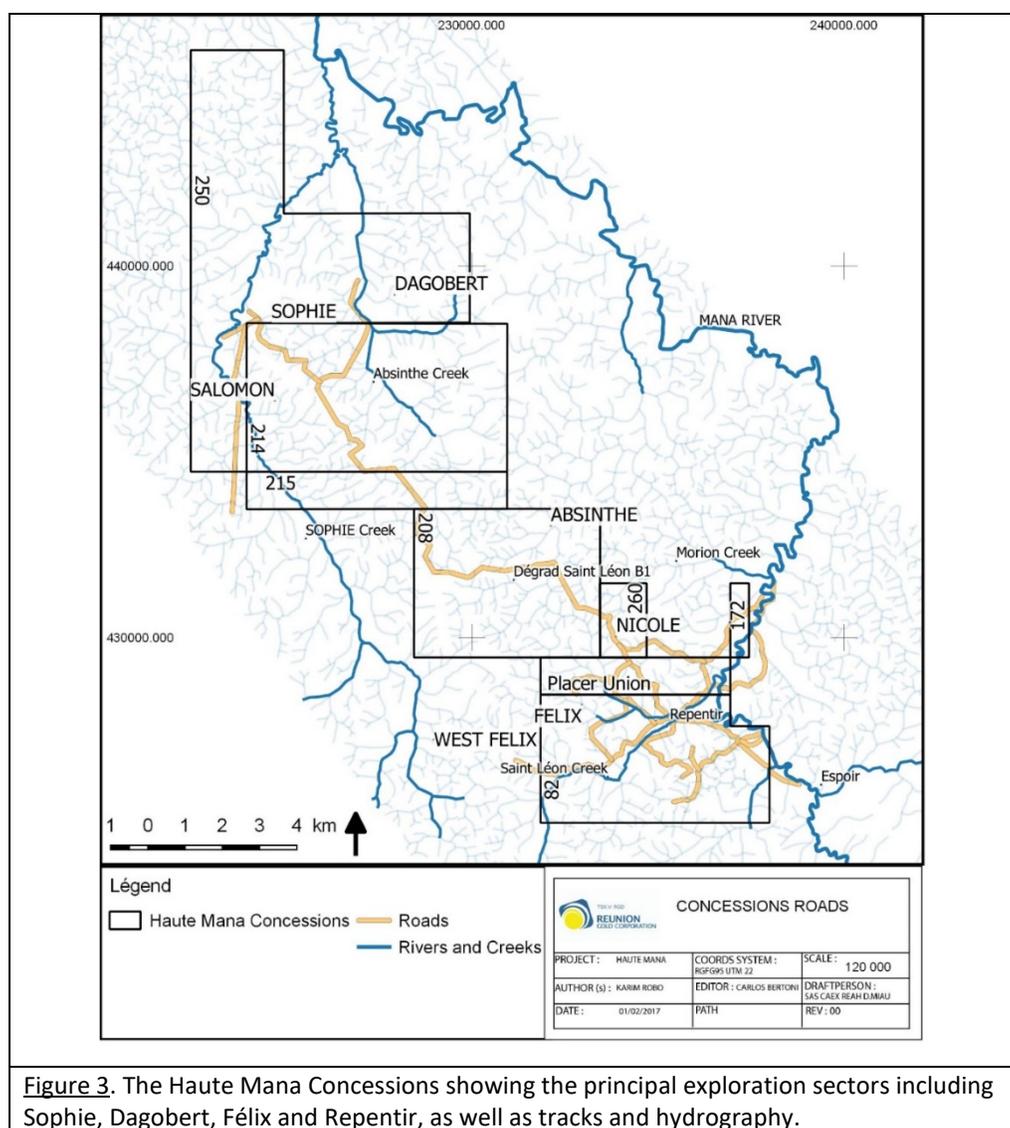
**Figure 2.** The Haute Mana Concessions that are listed in Table 1, plotted on an IGN topographic background. The red-shaded regions are designated *Schémas Départementaux d’Orientation Minière* (SDOM) where mining activity is prohibited. The pink-shaded regions are *Zones Naturelles d’Intérêt Ecologique Faunistique et Floristique* (ZNIEFF).

Table 1. The Haute Mana Concessions that are shown in Figure 2.

Concession No. or Name	DEAL Id. No.	Area (km <sup>2</sup> )	Centre coordinates (UTM WGS84)	Renewal requested
Placer Union	01/1907	5	234399E 428961N	YES
82	01/1909	20	234924E 426736N	YES
172/168	01/1910	1	237199E 430461N	NO
208	01/1911	20	230949E 431461N	YES
214/167	02/1911	28	227452E 436461N	YES
215/166	03/1911	7	227449E 433957N	YES
250/169	04/1911	39	226197E 440136N	YES
260/170	01/1912	2.5	234069E 430461N	YES
<b>Total Area</b>		<b>122.5</b>		

## 5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Concession outlines are shown in Figure 3 along with the traces of the principal tracks, the local hydrography and the locations of the principal sectors of historical exploration activities. In the present Report, all individual areas of recognized historical exploration activities on the Property are referred to as "sectors", e.g., in Figure 3 they include the Sophie, Dagobert, Salomon, Absinthe, Nicole, Félix and Repentir sectors. The limits of each sector are not precisely defined. Each of the sectors may include more tightly defined historical "targets" which were generally individual quartz veins or a grouping of quartz veins, some of which are specifically referred to in the Report.



**Figure 3.** The Haute Mana Concessions showing the principal exploration sectors including Sophie, Dagobert, Félix and Repentir, as well as tracks and hydrography.

## 5.1 Accessibility

The Property is reached from Cayenne by fixed wing light aircraft or by helicopter; travel by air from Cayenne to the Property takes about one hour. An approximately 750 m-long air-strip is situated near the camp in the Félix sector (Figure 4) on the southeastern-most Concession (Figure 3). In the Sophie sector, on the northwestern-most Concession (Figure 3) there is an approximately 600 m-long air strip that is overgrown with grass and that would need to be refurbished to render it usable. Several usable helicopter landing zones are available at the Repentir, Sophie, Dagobert and Félix sectors.



Figure 4. The air strip at Félix can be seen in the upper part of the photo, above the pond.

The Property can be accessed by road from the nearest population center, the village of Saül (population 150) that is located 35 km SSE of the Property (Figure 1). A 1200 m-long public air strip, served by commercial flights, is situated in Saül.

The Property can be also reached overland from Cayenne by driving 82 km on the paved National Road No. 2 to Belizon and then driving about 185 kilometers SW on a forest track to the camp at Félix. Convoys take about one week to complete the trip depending on weather conditions and on the types of vehicles used. An upgraded Belizon-Félix track could provide an efficient overland route for transporting personnel, supplies and equipment.

## 5.2 Climate

The climate is equatorial and humid with two dry seasons, one that lasts from approximately March to mid-April and the other from approximately August to December. The onset and duration of the dry seasons varies somewhat 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 French Guiana one can expect typical daily highs around 34°C to 36°C and typical night time lows of 16°C to 18°C. Annual rainfall of about 2,500 mm is recorded at Saül.

### 5.3 Local Resources

Local resources are limited. The village of Saül has a population of approximately 150. Neither the Property nor the village of Saül is connected to an electrical grid. Electrical power for an exploration program at the properties could be provided by diesel generators. Solar panels could be used to charge batteries for small appliances such as laptop computers and for night time lighting in camps. Personnel for an exploration program could be recruited from Cayenne or from other population centres within French Guiana.

### 5.4 Infrastructure

There are three camps on the Property that would require upgrading in order to serve as base camps for one or more exploration teams. The camps are situated in the Repentir, Félix and Dagobert sectors. The so-called Kiko camp (visited by the Consultant) in the Repentir sector is currently used by a group that is mining alluvial gold under an agreement with UMS. That camp has a mess and a main bunkhouse (Figure 5) with 20 small rooms. Most buildings in the existing camps on the Property, and also at other exploration and mining camps in French Guiana previously visited by the Consultant, are constructed of planks made from locally harvested wood. The buildings are locally referred to as *carbets*. Camps could be upgraded and expanded by addition of new buildings or by installing tents, or by a combination of both.



Figure 5. The main bunkhouse at Kiko camp. Such dwellings are generally constructed of planks made from locally harvested wood and they are known in French Guiana as *carbets*.

Transport within the Property is along tracks (Figure 3) that are presently passable using ATV vehicles; they could be fairly easily upgraded to allow for the passage of light 4WD vehicles such as pick-up trucks and for moving drilling equipment.

A subcontractor, PRYLOR, maintains a crusher and gravity circuit for gold extraction in the Repentir sector.

Electricity at the Property is provided by diesel generators. Diesel fuel for the generators, vehicles and other equipment is airlifted by helicopter as needed. Fuel storage tanks are present in the Repentir, Félix and Dagobert sectors. The total capacity of the available fuel storage tanks and the condition of the tanks have not been verified by the Consultant.

There is currently no potable water supply at the Property. Bottled drinking water is flown to the Property from Cayenne. The existing wells can supply water for personal hygiene for only a small number of people; it is likely that one or more new wells would be required to supply an exploration program of any significant size. Water for drilling needs can be pumped from the numerous rivers and creeks.

To the best knowledge of the Consultant, no studies have been carried out to define potential areas for tailings storage, waste disposal, leach pads or plant sites.

## 5.5 Physiography

Equatorial forest covers the many hills in the region. Elevations range from about 200 m to about 300 m above sea level. Tree canopy reaches 30 m in height. The Property lies within the Mana River watershed whose source is to the south. Numerous smaller rivers and creeks also drain the area. The larger creeks that drain the Property area are Sophie and Absinthe (Figure 3).

## 6 History

Much of the history of geological studies and mineral exploration in French Guiana up to 1995 is recorded in the document *Inventaire minier du département de la Guyane – Bilan des résultats* (BRGM, 1995). The *Inventaire minier* of French Guiana was carried out by the BRGM over a 20-year period, from 1975 to 1995 and it resulted in varying levels of mapping, geophysical surveys, geochemical sampling, trenching, drilling and other geoscientific studies and exploration work that covered about half of the landmass of French Guiana. The work carried out for the *Inventaire minier* on the Property, or including the Property, was mainly completed from the mid-1970's to the mid-1980's and is reported, in part, in several BRGM documents that were reviewed for this Report (Plat, 1986; Le Chapelain, 1988; Nagel, 1996).

Other historical exploration information was taken from two reports produced by Franc-Or (1994; 1995), an internal report for Franc-Or prepared by Giaro (1996), an application for an Exploration permit (*Permit A*) in proximity to the Property (KWG, 1994), and an application for renewal of that same exploration permit (Franc-Or, 2000). The request for renewal of the exploration permit was subsequently abandoned by Franc-Or.

The overview of historical exploration on the Haute Mana Property provided here should not be considered as a complete inventory of all exploration work completed or data collected. The historical record of exploration on the Property is somewhat fragmentary with much of the documentation that remains in existence available in hard copy (on paper) only. It is the opinion of the Consultant that the historical exploration information reviewed for the present Report is sufficient to establish the essential historical record of exploration and to judge the potential for a significant gold endowment on the Property. Intensive research of historical documents, especially reports published by the BRGM during and following the period of the *Inventaire minier* might possibly reveal further details of exploration work on the Property, including, potentially, original data gathered during the various work programs.

There was insufficient information available to the Consultant to validate policies and procedures for sampling, analyses or sample security for the historical exploration programs. Therefore, the Consultant cannot confirm the level of precision or accuracy of the analytical results reported in this section.

The different Haute Mana concessions were initially awarded to the *Bureau Minier Guyanais* (BMG) between July 21, 1909 and November 16, 1912. In the late 19th and early 20th centuries many of the mining permits (now referred to as Concessions) in French Guiana were awarded as a function of placer and vein gold deposits that were worked during that time by artisanal miners. Artisanal mining was carried out on the concessions from the late 19th century through the middle of the 20th century and small-scale mining is ongoing.

In the 1950's, the BMG carried out exploration activities using the traditional methods employed at the time; prospecting outcrops, trenching, some drilling and limited underground

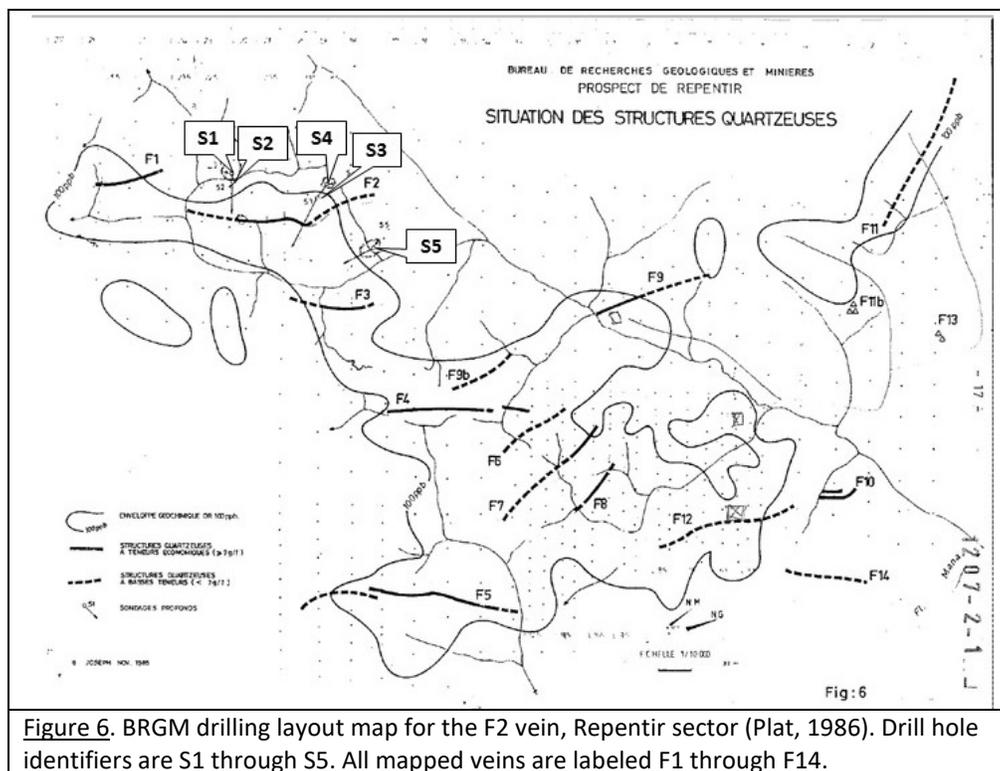
workings. As a result, several systems of auriferous quartz veins were documented in the Sophie, Salomon, Dagobert, Félix and Nicole sectors as well as at a few other targets on the Property. Details of the exploration work carried out by the BMG have not been compiled; they may be available from the BRGM offices in Cayenne or Orléans, possibly on a hard-copy (paper) support. Following the work by the BMG, the company Société nouvelle des Mines de Saint-Elie – Adieu-Vat mined gold veins in the Sophie sector from 1957 to 1960.

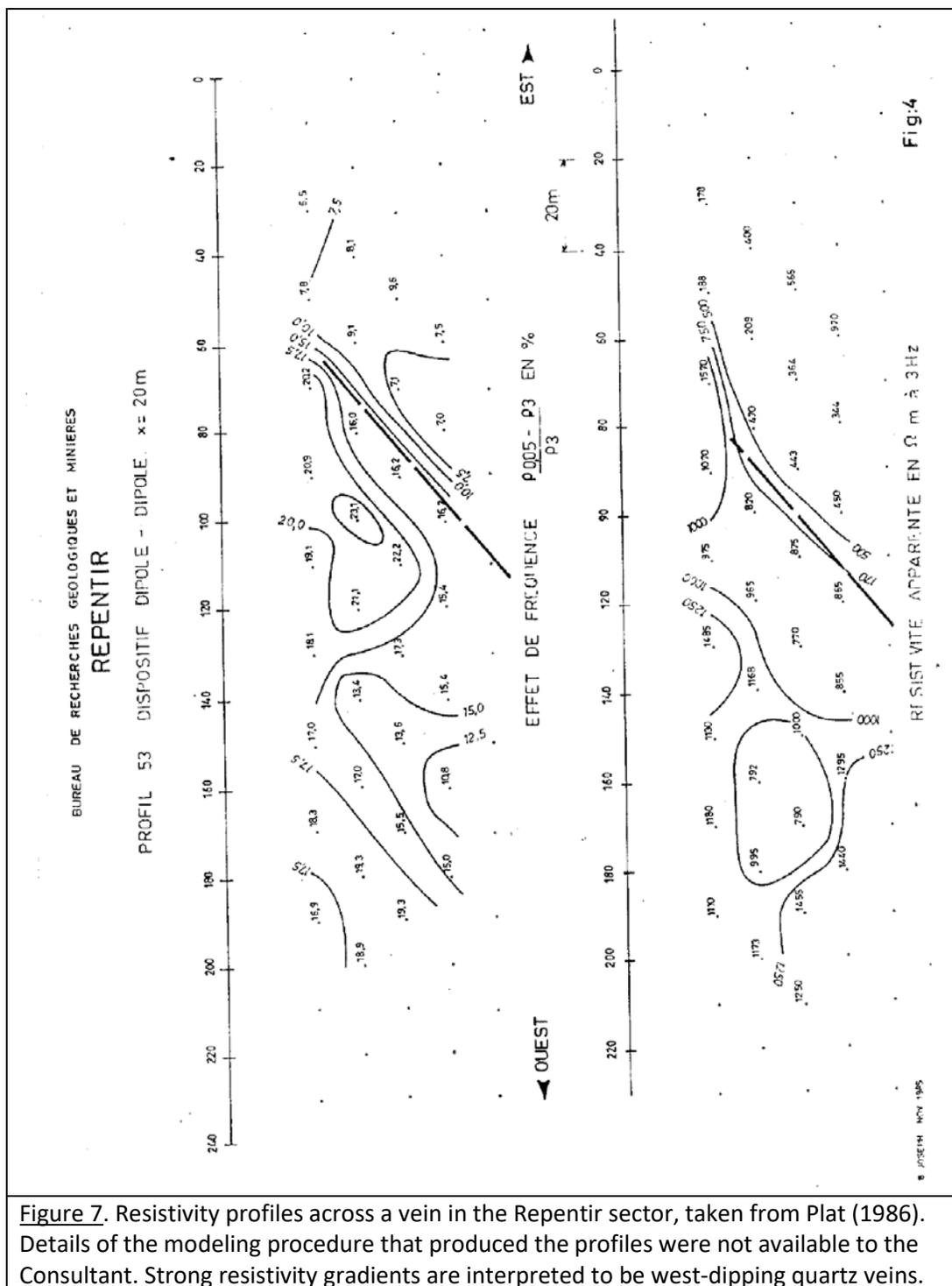
The Haute Mana Concessions were inherited by the successor organisation to the BMG, *le Bureau de Recherches Géologiques et Minières* (BRGM) around 1974. The BRGM subsequently established a series of partnerships with several companies, including (in apparent chronological order) COMILOG, Cyprus Mining Company, Guyane Ressources, KWG Guyane SARL and finally Franc-Or Guyane SARL.

As part of the 20-year *Inventaire minier du département de la Guyane* (the *Inventaire*; Mineral inventory of French Guiana) that lasted from 1975 to 1995, a significant amount of work was carried out that covered all or part of the Property. The *Inventaire minier* program used large-scale geochemical, geophysical and geological investigations to identify target areas for subsequent more detailed studies. The BRGM completed geological and structural interpretations of the regional aeromagnetic database that was established in 1974 for the major part of French Guyana including the Property area (Dubreuil, 1976) in the early days of the *Inventaire minier*.

The BRGM work on the Property was mainly focused on the Félix and Repentir sectors and it included:

- Geochemical analyses of at least 1,603 soil samples gathered on 362 linear km of cut lines (*layons*) in 1976, the results were used to help define exploration targets;
- Geochemical analyses of 127 stream sediment samples;
- Identification of 14 quartz veins hosted by granodiorites, of which the "4 or 5" principal veins are described as representing a total of 1,200 m strike length (Figure 6);
- Assays of 217 grab samples from quartz veins;
- Ground dipole-dipole IP surveys in 1976, 1978 and 1985 representing a total of 11,910 linear meters on 21 profiles; only resistivity profiles are provided in the documents that were available to the Consultant and they suggest the presence of some moderately (ca. 45°) west-dipping structures (Figure 7);
- Ground magnetic measurements at 277 stations, which revealed no anomalies;
- A total of 1,964 auger holes representing 8,635 m;
- Seven pits and trenches;
- Five diamond drill holes representing 824.15 m of drilling (Figure 6).





The BRGM also completed some exploration work in the Nicole sector in 1987. The resulting report (Le Chapelain, 1988) provides a summary view of that campaign, which involved a limited amount of channel sampling of quartz veins and auger drilling in a zone previously defined as a soil geochemical anomaly. The work confirmed anomalous gold values in the sampled pyrite-bearing quartz veins and it also confirmed a 1.4 km-long linear geochemical anomaly of  $\geq 200$  ppb values of gold in soils in the Nicole sector.

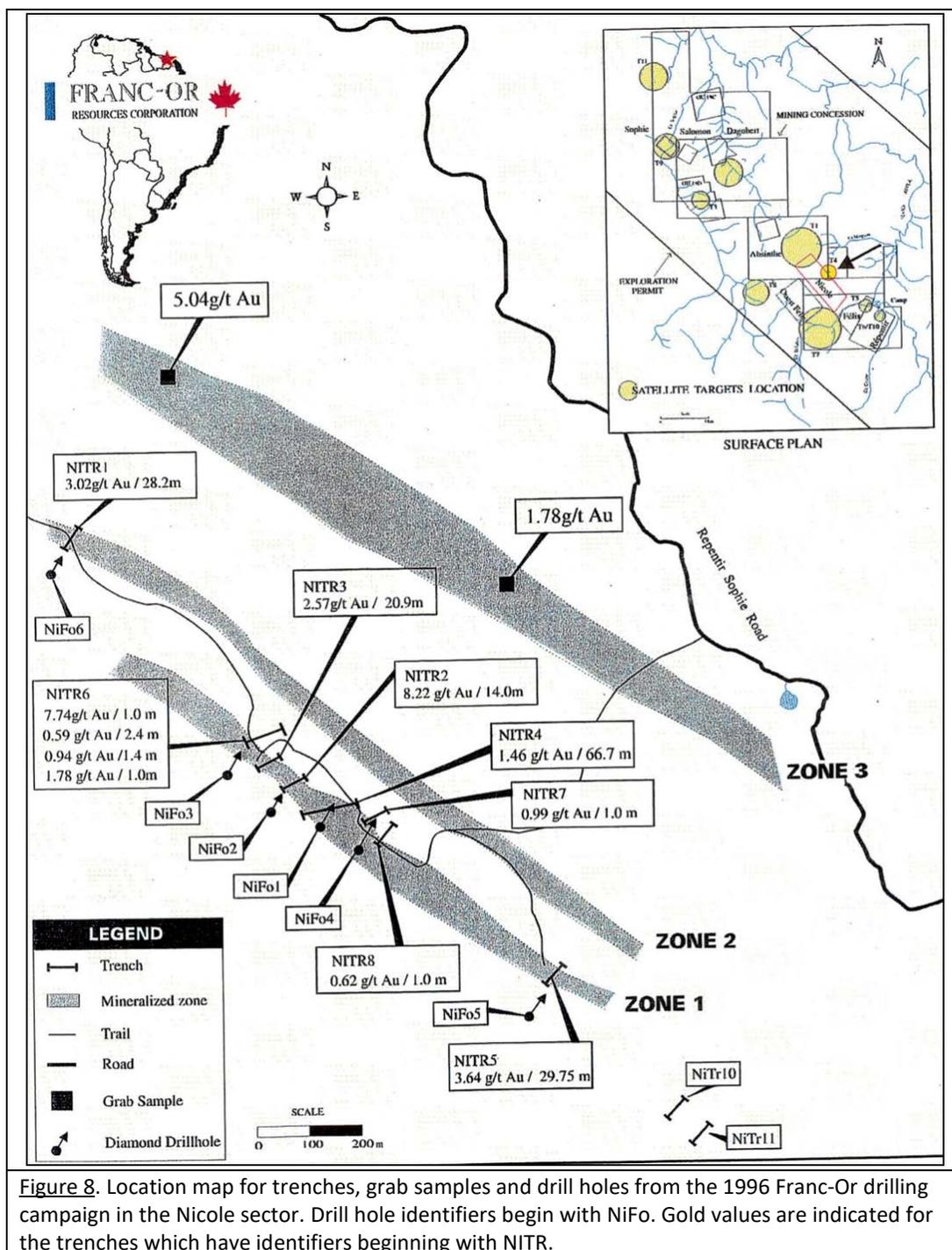
During the period 1994-1996, Franc-Or established base camps at the Repentir and Sophie sectors. They also opened a 6 m-wide, 25 km long main track linking Repentir to Sophie, 14.5 km of secondary tracks, four bridges over the St. Leon and Sable creeks, and five helicopter landing zones. TGC has verified in the field that the principal track still exists; it is likely that the secondary tracks and bridges also still exist but they may require some maintenance to be usable for an exploration program.

Airborne magnetic and radiometric surveys were commissioned by Franc-Or and carried out by AERODAT of Mississauga, Ontario in August, 1994. The survey consisted of 1,850 linear kilometres oriented  $065^\circ$ , with a 200 m line spacing. Also in 1994, a lineament analysis of ERS-1 (European Space Agency) radar images was carried out by MIR Télédétection. The geophysical and radar imagery products were used by Franc-Or, along with geochemical data produced by both BRGM and Franc-Or to establish drilling and trenching targets. The aeromagnetic maps and radar image interpretations were not available to the Consultant.

Franc-Or carried out various field-based exploration activities beginning in 1995. Figure 8 shows some results of trenching and grab sampling that was completed on three mineralized trends in the Nicole sector, as well as the locations of drill holes for which results are shown in Table 2. Of special note are the results of 3.64 g/t over 29.75 m in the trench NITR5 and 1.44 g/t over 20.11 m in drill hole NiFo-6. Those two results indicate mineralization over thicknesses significantly greater than the reported thicknesses of individual auriferous veins on the Property. It is the opinion of the Consultant that the NITR5 and NiFo-6 may have sampled packages of closely spaced veins or, potentially, stockwork zones of significant thicknesses.

As a result of its exploration campaigns, Franc-Or reported an inventory of seven quartz vein-hosted gold occurrences in the Sophie-Saül trend, mainly between Repentir and Sophie (Franc-Or, 1995).

The Concessions were ceded to UMS in 2008 under the only condition that UMS should complete the environmental rehabilitation of some alluvial workings in Absinthe Creek, work that has been completed (Gauthier Horth, oral communication).



**Table 2.** Assay results from the Franc-Or 1996 drilling campaign in the Nicole and Dagobert sectors. Drill holes in the Nicole sector are located in Figure 8.

Sector or Target	Hole ID	From (m)	To (m)	Length (m)	Grade (Au g/t)
Nicole	NiFo-2	3.00	10.00	7.00	7.13
	NiFo-2	28.96	32.01	3.05	1.39
	NiFo-2	38.60	41.80	3.20	2.92
	NiFo-2	102.90	109.50	6.60	2.49
	NiFo-3	72.00	74.00	2.00	2.28
	NiFo-4	25.91	28.91	3.00	1.19
	NiFo-5	3.05	8.10	5.05	1.75
	NiFo-5	15.80	16.76	0.96	2.15
	NiFo-5	68.40	69.60	1.20	24.74
	NiFo-5	88.27	89.43	1.16	1.02
	NiFo-6	33.53	35.05	1.52	9.10
	NiFo-6	55.89	76.00	20.11	1.44
T1	T1Fo-1	131.30	132.90	1.60	1.44
Dagobert	DaFo-1	121.64	123.64	2.00	1.66
	DaFo-1	12.72	127.9	1.22	1.63

## 6.1 Historical Production

It is not possible to determine with accuracy the quantity of gold that has been produced from the Property; the quantities stated in this section should be considered approximations.

Alluvial mining is known to have been carried out as early as the 1860's in central French Guiana. The Sophie sector was exploited by placer miners since at least 1898 and production began in the Repentir sector shortly thereafter. Nagel (1996) estimated that 7,500 kg (264,500 ounces) of alluvial gold had been produced from those two sectors.

During the period of 1957-60, the Société nouvelle des Mines de Saint-Elie – Adieu-Vat produced 1,057 kg (37,284 ounces) of gold in the Sophie sector and 157 kg (5,538 ounces) from the Félix sector (Plat, 1986).

More recently in 2000-2003, Franc-Or, through a subcontractor, produced about 100,000 ounces of gold from the Dagobert sector, which has been confirmed partially by gold buyer's declarations (Karim Robo, personal communication).

A document provided to the Consultant by RGD and apparently prepared by Christian Pernaut (Manager, UMS) provides an estimate that 1,800 kg (63,490 ounces) of gold that may have been extracted from the Property by illegal miners from 2003 to about 2008. To the best of the Consultants knowledge, only a small number of illegal miners are now active on the Property.

Between 2013 and 2015, UMS produced about 13,330 ounces of gold from both vein and alluvial mining operations in the Repentir sector. The F2 vein at Repentir is currently mined in a pit (Figure 9) that has intersected underground workings previously established by artisanal miners. Current production from the F2 vein is approximately 100 to 400 grams per week according to the site manager. Current alluvial gold production is on the order of 100 g per day (Figure 10).



Figure 9. The current pit at the F2 vein in the Repentir sector.



Figure 10. One day of alluvial gold production (about 100 g) at the Kiko camp, in the Repentir sector.

## 7 Geological Setting and Mineralization

### 7.1 Regional Geological Setting

The Property is situated within the Guiana Shield, a large (approximately 900,000 km<sup>2</sup>) segment of the Amazonian Craton of South America. The majority of the Guiana Shield formed during Paleoproterozoic periods of intense magmatism, metamorphism and deformation. The following condensed geological description and history is taken mainly from Delors et al. (2003) and Milesi et al. (2003). The geology of the Guiana Shield in French Guiana is shown in Figure 11.

The Paleoproterozoic evolution of the Guiana Shield began with the formation of juvenile oceanic crust in the period 2.26-2.20 Ga. A period of TTG (tonalite-trondhjemite-granodiorite) type magmatism and associated greenstone belt formation occurred in the period 2.18-2.13 Ga. The TTG magmatism and greenstone belt formation is attributed to the formation of an island-arc during convergence of the African and Amazonian lithospheric blocks of Archean age. Some granitic magmatism and minor gabbroic intrusions occurred ca. 2.11-2.08 Ga in response to the closure of the island-arc basin.

Closure of the basin and tectonic collision resulted in the Transamazonian orogeny, bracketed between about 2.10 and 1.90 Ga. An early tectono-thermal event in the Transamazonian orogeny, D1, records low-pressure type metamorphism suggestive of crustal heat input from large-scale plutonism and/or crustal thinning. The later D2 event began ca. 2.10 Ga and involved sinistral wrench / transpressional tectonics (D2a) that led to the formation of pull-apart sedimentary basins within which sandstones, pelites and conglomerates were deposited. A later event (D2b) occurred ca. 2.07-2.06 Ga and resulted in the formation of NW-SE striking shear zones with dextral kinematics.

The greenstone belts of French Guiana are referred to as the Paramaca greenstone belts (PGB). The PGB form two major branches, one to the north and the other to the south of the large, predominantly intrusive core referred to as the Central TTG Complex (Figure 11). The greenstone belts trend roughly E-W and they may be traced westward from French Guiana into Surinam. The PGB are mainly composed of basic to acid metavolcanic units that represent the Paramaca assemblage and intercalated greywackes and argillites of the Armina assemblage. The northern PGB is transected by the pull-apart sedimentary basins that formed during D2a and that are referred to as the North Guiana Trough (NGT in Figure 11). The sandstones, pelites and conglomerates that make up the NGT are assigned to the Bonidoro and Orapu assemblages.

The northern PGB greenstone belt hosts a number of gold deposits including Paul Isnard, Camp Caiman and St. Elie in French Guiana, and Koolhoven and Rosebel in Surinam. The southern PGB hosts gold mineralization at Yaou, Dorlin and Haute Mana (the subject of the present Report) in French Guiana, and at Benzdorp in Surinam.

Interpreted major structural features corresponding to regional-scale shear zones are shown in (Figure 11), some of which can be traced from French Guiana westward through central Surinam and north-central Guyana.

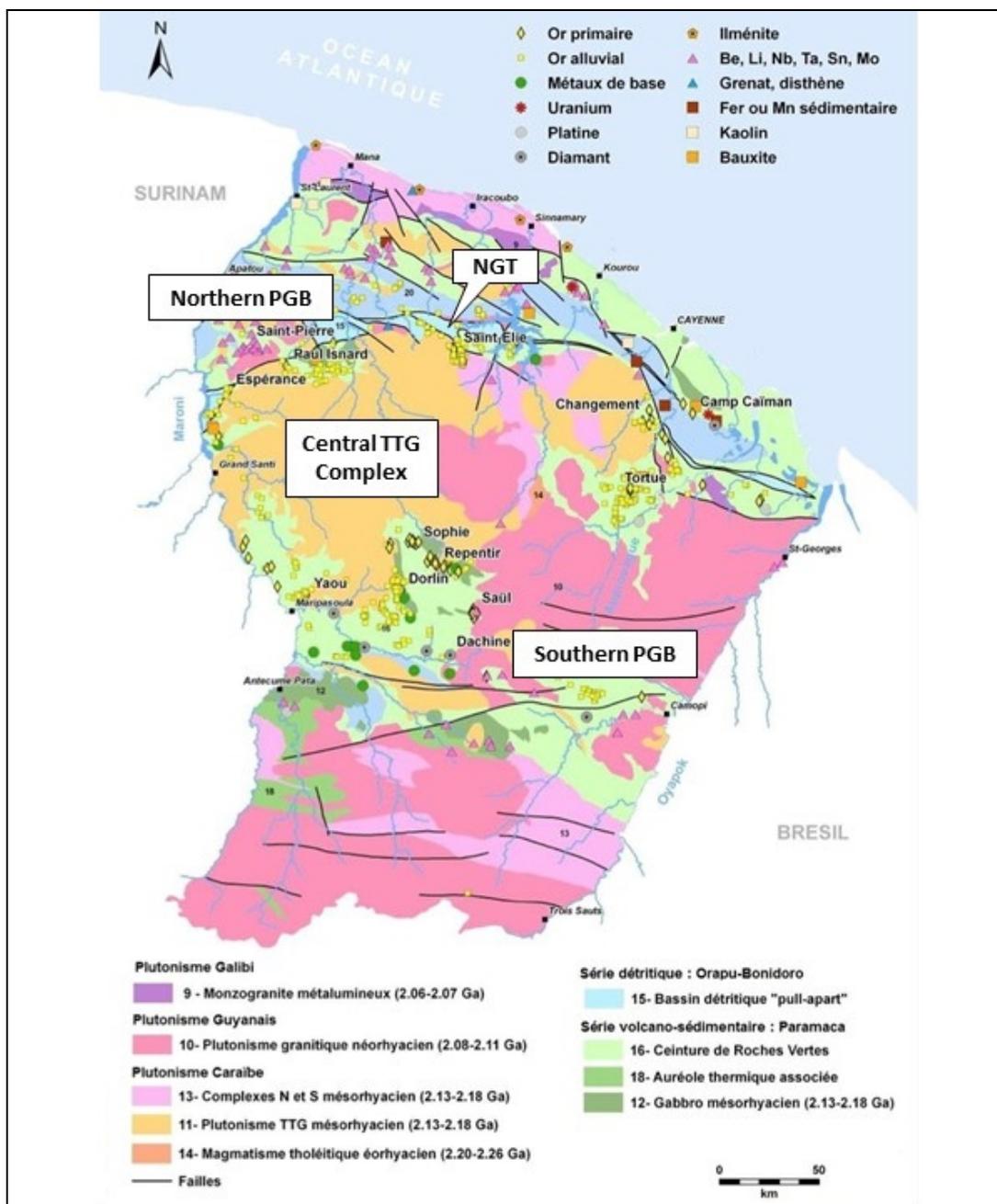


Figure 11. The regional geology of French Guiana is described in the lower legend. The heavy black polylines are major structures. Major geological features that are discussed in the text are labeled. The Haute Mana concessions are situated about 35 km to the NW of the village of Saül, between Repentir and Sophie, in central French Guiana where a roughly NW alignment of gold prospects is plotted as yellow diamonds (*or primaire* in the upper legend).

The volcano-sedimentary stratigraphy of the PGB and the clastic sedimentary rocks of the NGT are possible equivalents or correlatives of, respectively, the Birimian and Tarkwaian stratigraphic sequences of the West African Shield with which they may have been co-extensive prior to the separation of Gondwanaland in Mesozoic time.

## 7.2 Local Geological Setting

### 7.2.1 Geological units

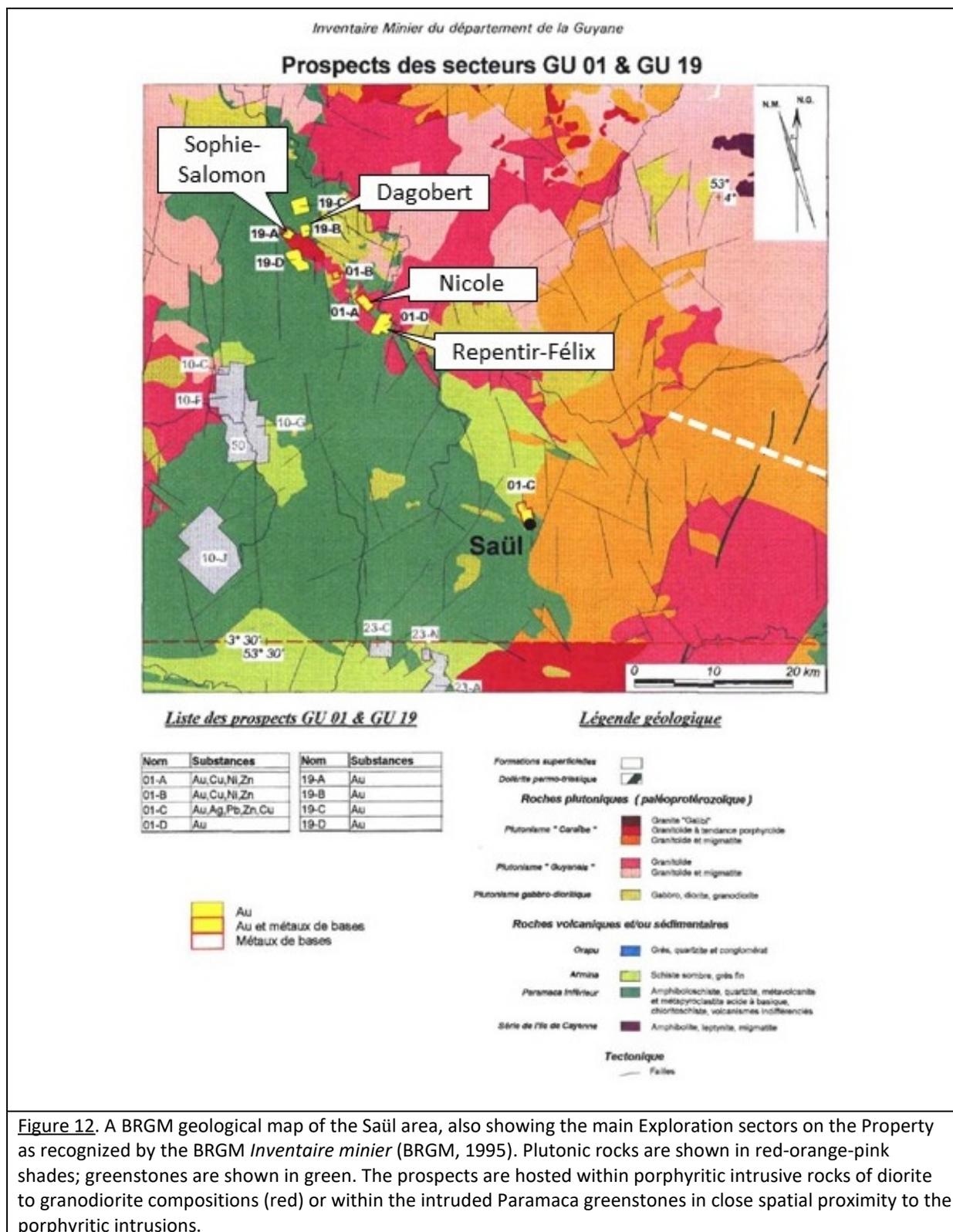
The local geology is described with reference to Figure 12. The Concessions, and the exploration sectors on the Concessions are roughly aligned along a NW-SE trend that can be traced from Saül (35 km SE of the Property, Figure 12) through the Repentir, Nicole, Sophie and Dagobert sectors. That trend is also parallel to the map trace of the contact between the Paramaca greenstones (green units in Figure 12), to the SW, and a terrane composed of multiple TTG intrusive units (red, orange, pink units in Figure 12) to the NE. The Sophie-Saül trend has long been recognized as a locus of gold mineralization and it likely represents a segment of a major regional structure, possibly a dextral shear zone related to the D2b tectonic event. Most of the primary (quartz vein) mineralization is reported to be hosted within more-or-less sheared intrusive units of porphyritic granodiorite.

### 7.2.2 Structural Geology

On the Haute Mana Property, gold mineralization is associated with quartz veins of variable thicknesses, generally no more than 3 m, that have at least two predominant orientations identifiable on available maps and that are tentatively assigned to two vein sets by the Consultant. The two interpreted sets of quartz veins have locally been mapped during various geological investigations and exploration campaigns, and they can also be interpreted from the alignments of artisanal mining pits as shown in Figure 13A. From the Sophie-Dagobert sectors in the northwestern part of the Property (outside of Figure 13A) through the Nicole sector and as far south as Saint Léon Creek, veins appear to strike predominantly NW. That predominant orientation is confirmed from vein orientation measurements in the Sophie sector (Figure 14). To the south of Poto Creek, the alignments of artisanal pits suggest a N-S to NNE striking orientation for the mined veins that would define an *en-echelon* arrangement.

Figure 13B provides a simple (non-unique) structural interpretation of the two interpreted vein sets. The subparallel, predominant NW striking veins that are documented between Dagobert and Sophie in the NW and Nicole in the SE may represent R-shears in a dextral Riedel-type shear zone system (grey veins in Figure 13B). R-shears are expected to form in brittle-ductile shear systems where they will be oriented about 15° oblique to the shear zone boundaries, measured in the sense of the imposed shear. The NW striking Sophie-Saül trend has previously been interpreted by the BRGM as a dextral shear system.

In Figure 13A, it can be seen that to the SE of Saint Léon creek the predominant drainage pattern is NE-SW. That orientation can be interpreted as the orientation of a second shear zone and the N to NNE-striking vein set that has been mined there can be interpreted as extensional



veins formed in a sinistral shear system (black veins in Figure 13B). Extensional fractures are expected to form about 45° oblique to the shear zone boundaries in simple brittle-ductile shear systems, measured in the sense of rotation imposed by the shearing.

It is stressed that the Consultant's interpretation in Figure 13B is non-unique and further structural and geological analyses would be required to test that model which does, however, satisfy the available data including the documented / interpreted orientations of vein sets and the drainage pattern. Also, during the site visit the Consultant documented multiple intersecting vein sets within displaced blocks of rock mined from the F2 vein (Figure 15). The smaller-scale structures shown in Figure 15 may be indicative of the larger-scale structures interpreted in Figures 13A & B.

Further work would be required to determine if the two interpreted shear systems represented deformation arising from two distinct tectonic events, or if the two interpreted shear zones could be part of a single, larger-scale Riedel-type shear system. In either case, it is suggested that the intersections of shear zones such as interpreted in Figure 13B could represent highly prospective exploration targets. Such structural intersections would represent zones of intense shearing and possibly brecciation of the rock, providing permeability for the circulation of mineralizing fluids and also potentially providing structural traps for gold deposition.

### 7.3 Mineralization

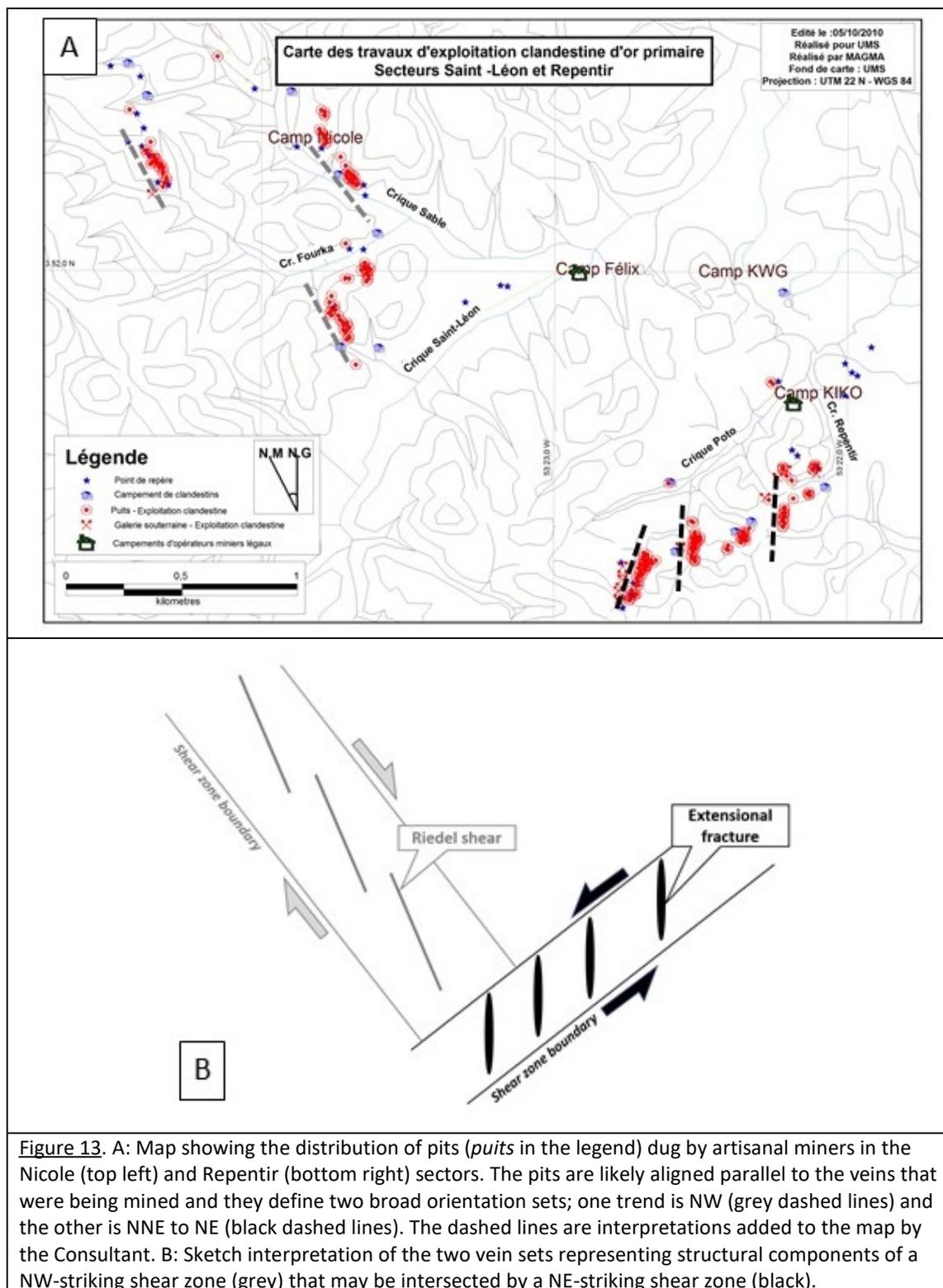
Gold is reported to occur mainly within quartz veins where it is associated with pyrite and lesser amounts of chalcopyrite, sphalerite, galena, pyrrhotite and tellurides (Plat, 1986). The walls of veins preserve a hydrothermal alteration assemblage consisting of sericite + calcite + chlorite. Petrographic studies indicate that gold is present as free grains and also as interstitial grains and as inclusions within pyrite (Plat, 1986).

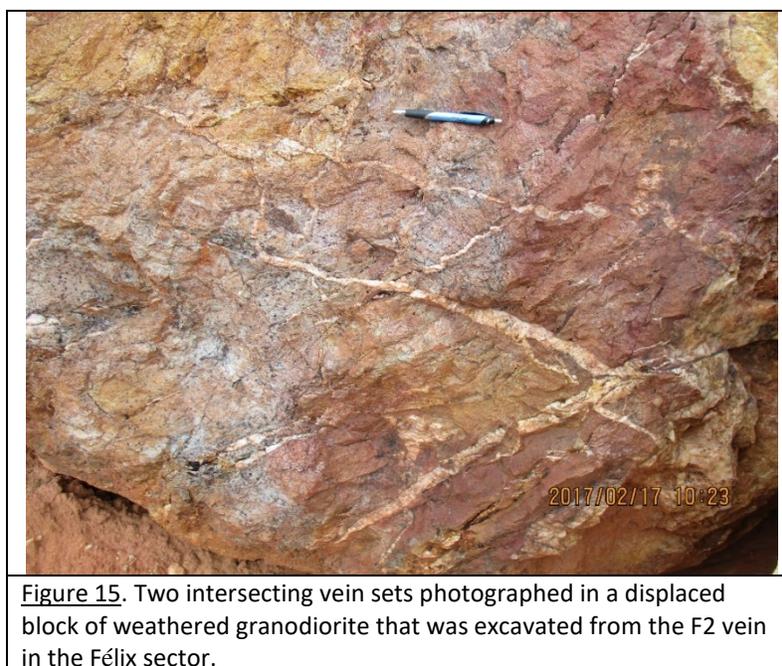
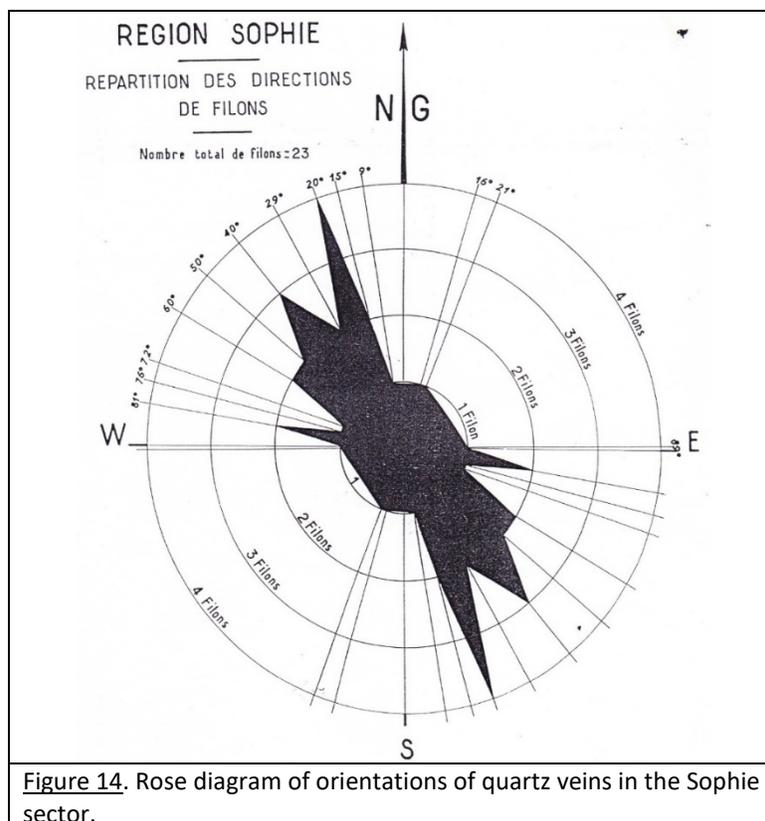
Quartz veins orientations are discussed above, in section 7.2.2. The veins vary in thickness from 1 cm to 3 m and are generally around 70 cm to 1 m thick. They are most commonly reported to occur within granodioritic intrusive bodies, in some cases hosted by shear zones, although there are reports of veins hosted by Paramaca metavolcanic units near to contacts with intrusive bodies (Giaro, 1996).

Vein continuity is reported to be quite variable, some have been traced along strike for several hundreds of metres and down dip for at least 100 m, whereas other veins pinch out along strike and down dip over only a few metres to a few tens of metres. High gold grades and visible gold are common within the veins.

The association of gold and quartz veins with shear zones in granodioritic rocks on the Property is demonstrated by drilling results produced by the BRGM from the F2 vein in the Repentir sector. The drill holes are located in Figure 6 and a section defined by two of the holes is shown in Figure 16. Two diamond drill holes, S1 and S2, intersected the down dip extension of a mineralized zone that had been identified by two auger holes that returned values of 14.8 g/t over 0.9 m and 22 g/t over 1.8 m. The down dip extension of the same structure at about 75 m

in S2 returned 59.5 g/t over 3.2 m and at about 115 m in S1 it returned 18.2 g/t over 1.8 m. The intercepts are reported as true thicknesses.





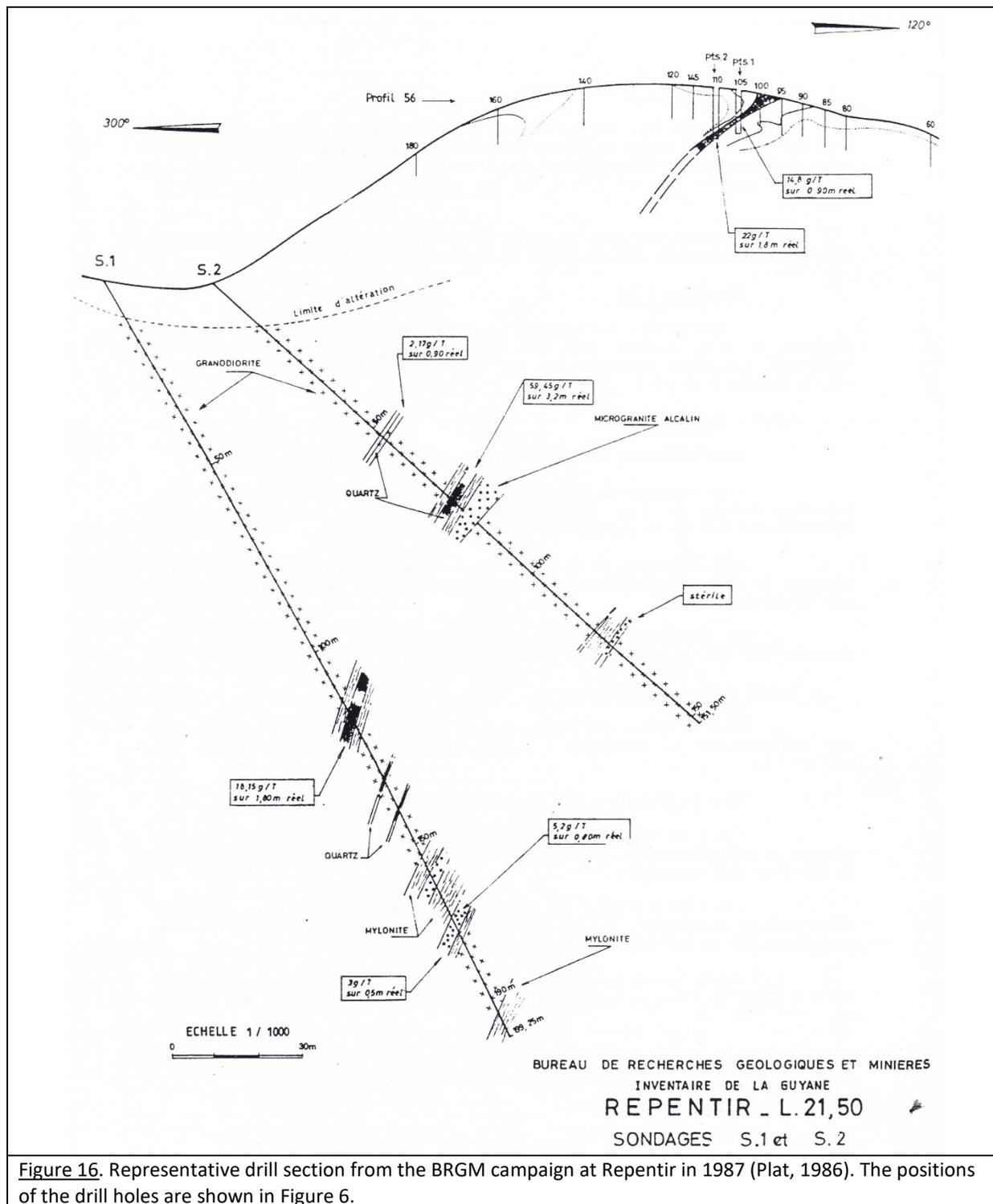


Figure 16. Representative drill section from the BRGM campaign at Repentir in 1987 (Plat, 1986). The positions of the drill holes are shown in Figure 6.

Several lower assay values were also returned for a thin quartz vein at about 55 m in S2 and from a sheared alkaline microgranite at about 170 m in S1 (Figure 16). The shear zones and mineralized quartz veins have an apparent dip of 75° NW, possibly steepening at depth. The dip direction and dip angle of the vein in Figure 16 seems to be typical according to the various documents consulted for the present Report. The thicknesses of mineralized zones as shown in Figure 16 are on the order of centimeters to about 3 m. Discussions with geologists and miners familiar with the quartz veins on the Property suggest those are typical thicknesses of veins.

Based on historical trenching and drilling results and on the distributions of artisanal exploitation pits as seen in Fig. 13A, it can be estimated that mineralized veins or vein systems could be expected to have reasonable continuities over strike lengths of approximately 300 m and widths on the order of one to a few meters. Down-dip continuity of mineralized veins can be estimated to be at least 100 m based on historical drilling results such as shown in Fig. 16.

The interpreted Sophie-Saül lineament is continuous over about 25 km on the Property and multiple mineralized veins or vein systems might be expected to occur along that structure. The presence of wider stockwork vein systems associated with the Sophie-Saül lineament is suspected (but not demonstrated) due to the relatively wide intersections (20 m to 30 m) of mineralized rock in at least one historical trench (NITR5) and at least one historical drill hole (NiFo-6) (see Item 6, above). The potential continuity of the suspected stockwork zones along strike or down dip remains unknown.

The Consultant was unable to document the sampling procedures for drill core and trenches that were employed by the BRGM or Franc-Or. It is possible that quartz veins in drill core and trenches may have been selectively sampled and assayed, and that the shoulders of veins may not have been sampled. It is common for mineralized quartz veins in sheared granitoid rocks to have altered and mineralized shoulders that may be centimeters to several meters in thickness. If that were the case at Haute Mana, then mineralized zones could be expected to be somewhat wider than those reported in the available reports. Future exploration work would be required to test that hypothesis.

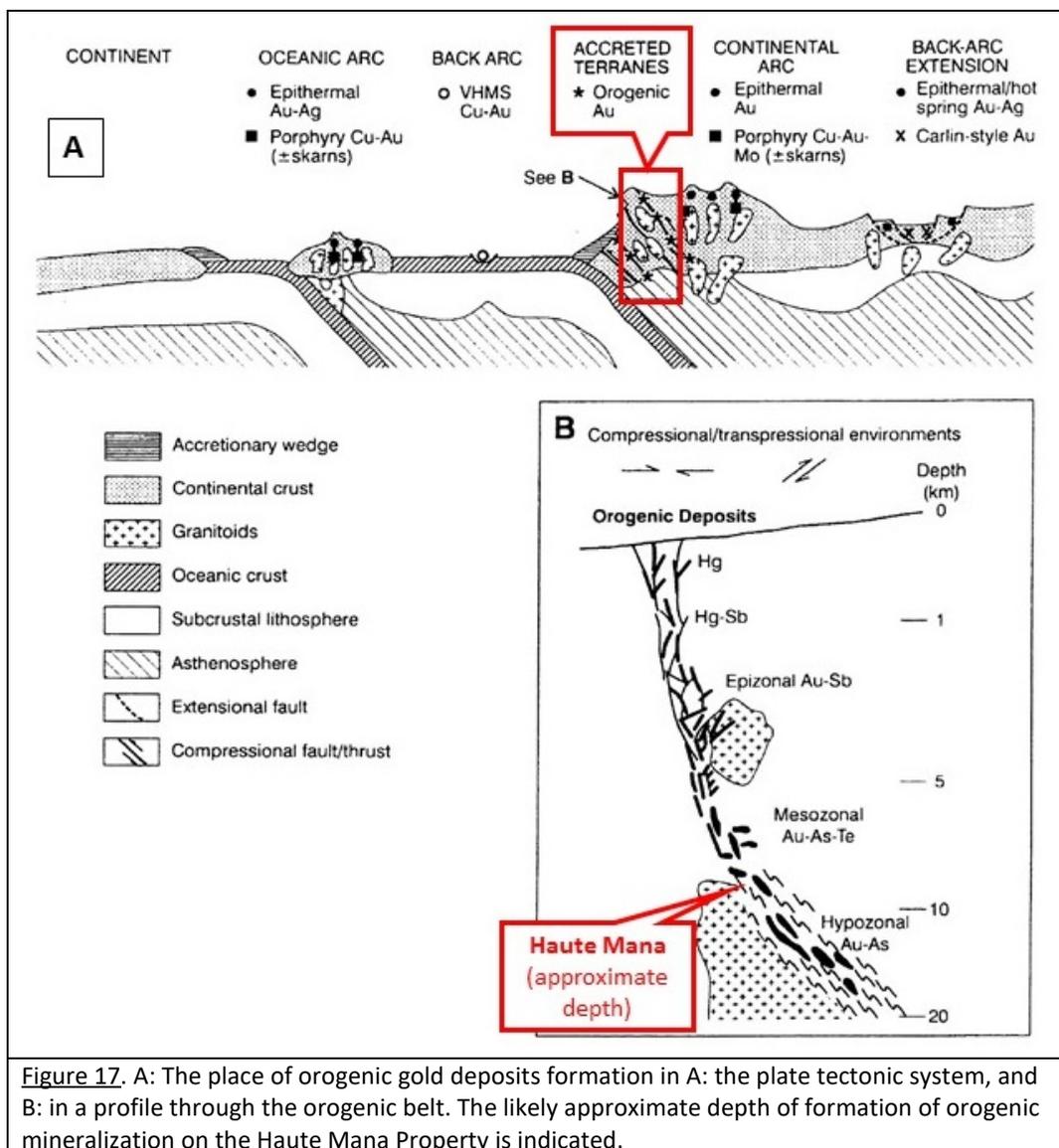
## 8 Deposit Types

The deposits that have been mined on the concessions include auriferous quartz veins hosted by granodiorite intrusive units and alluvial gold that is most likely derived from those primary vein occurrences. The association of gold mineralization of varying grades with quartz veins and in some cases shear zones, hosted by intrusive bodies of felsic to intermediate composition is a common type of orogenic mesothermal lode gold system found in Paleoproterozoic and Late Archean shield regions in Canada, Australia and West Africa.

The context of orogenic gold deposits formation in the plate tectonic framework and in a crustal profile through an orogenic belt are shown in Figure 17, which is slightly modified from Goldfarb et al. (2001). The presence of chloritic alteration associated with shear zones and quartz veins as noted in the historical exploration information for Haute Mana suggests the mineralization was formed under greenschist-grade metamorphic conditions, probably around 6 km to 10 km depth, where strain localisation within shear zones is a typical tectonic deformation style in granitoid rocks like those that host the auriferous quartz veins at the Project. Gold would have been transported to the site of vein formation in fluids derived from some crustal, lithospheric or magmatic source(s). In the model in Figure 17 a crustal-scale shear zone – fault system channels the mineralizing fluids to the site of gold deposition, which may occur within structural and / or chemical traps. At the Haute Mana Project, the Sophie-Saül lineament could potentially represent such a large-scale shear zone system.

A potential orogenic gold deposit analog for the mineralized system at the Haute Mana Project might be the Omai gold mine in Guyana. In the Fennell deposit at the Omai mine, gold is associated with multiple sets of quartz veins that are hosted within a body of quartz-monzodiorite composition that intruded greenstone belt host rocks of the Guiana Shield (Voicu et al., 1999), a geological and structural setting not unlike Haute Mana. The Omai mine produced about 3,800,000 oz of gold (78 million tonnes of ore at an average grade of 1.5 g/t) from 1994 to 2005 from two separate deposits, Wenot and Fennell (Smith and Lunceford, 2012). The author has not been able to verify what proportion of that production can be attributed to the Fennell deposit. That information is not necessarily indicative of the mineralization on the property that is the subject of the technical report.

Another orogenic gold deposit that might potentially represent an analog to the Haute Mana mineralized system may be found at the Chirano mine in the Sefwi greenstone belt of the Birimian shield area of Ghana, in West Africa. The Chirano mine (Kinross Gold Corp.), where the Consultant has considerable work experience, is hosted mainly within sheared and locally brecciated quartz diorites, tonalites and granodiorites. The mine complex is constituted of a string of open pit and underground deposits, spread over 10 km of strike length of a major structural lineament.



## 9 Exploration

There is currently no exploration program maintained on the Property.

## 10 Drilling

There is currently no drilling program on the Property.

## 11 Sample Preparation, Analyses and Security

The sampling, analytical, QA/QC and security policies and procedures applied during historical exploration work on the Property have not be validated by the Consultant due to a lack of reliable documentation. Therefore, analytical results disclosed in the Report which are all taken from historical records must be considered as approximate and unverified.

## 12 Data Verification

The data and information provided in the present Technical Report are based on the inspection of available reports, articles, press releases and other archives, some of which were provided to the Consultant by RGD and others that were sourced by the Consultant. The precision and accuracy of analytical data cannot be verified based on the available documents. Technical details related to trenching, drilling and sampling have also not been validated by the Consultant due to a lack of documentation.

No drill core was inspected as there is none preserved. No assay certificates have been obtained and it is not known if any are preserved.

Data on historical gold production from small-scale mining operations on the Property were gathered from several, somewhat fragmentary sources that are cited in the Report and the numbers can only be considered as approximations.

It is the Consultant's opinion that the data and information provided in the present Technical Report are adequate for the purposes of used in this technical report.

Future review and verification of the historical data and information might require inquiries and research at the offices of the BRGM in French Guiana (and possibly at the BRGM offices in Orléans, mainland France), as well as, potentially, inquiries with former Franc-Or management.

## 13 Mineral Processing and Metallurgical Testing

No mineral processing or metallurgical testing is known to have been carried out.

## 14 Mineral Resource Estimates

There are no Mineral Resources determined for the Property.

## 15 Adjacent Properties

There are no adjacent properties according to the standards of disclosure for mineral projects as defined in the NI 43-101.

## 16 Other Relevant Data and Information

### 16.1 French Guiana

French Guiana has been an overseas department of France since 1946, and is represented in the National Assembly in France by two members and in the Senate by one member. A Prefect is appointed and represents the State in Cayenne, usually for a two-year term. French and European Union Laws are enforceable in French Guiana. The currency is the Euro.

The population of French Guiana is approximately 250,000 with the vast majority living along the Atlantic coastline. The capital city, Cayenne, has a population of approximately 60,000. The other two main regional centres are Kourou and Saint Laurent du Maroni. The department covers an area of approximately 84,000 km<sup>2</sup>.

The infrastructure in the interior of the department is poor, while the coastal region benefits from about 800 km of asphalt roads.

The main industry in terms of economic activity is the European Space Centre, which was established at Kourou in 1964. Other main industries are mining (mainly alluvial operations), fishing, forestry and farming.

Corporate tax is approximately 37% and VAT equivalent taxes and duties total approximately 20%. Salaries and other operating costs are similar to other developed countries. A number of tax and duty exemptions are available for new industrial endeavors such as mining. The mining industry may also benefit from about 36% reduction in the value of industrial equipment and tools.

### 16.2 Mining Code

Mineral exploration and mining are subject to the provisions of the Mining Code (*Code minier*), which specifies that the State can grant to an operator a right to prospect or exploit the mineral resources over a specified area and period.

Special regulations have been established for the Department of French Guiana to take into account certain distinctions specific to this territory (law no98-297 of April 21, 1998). In addition to the Mining Code, that includes Exclusive Research Permits (PER) for prospecting and Concessions for mining, the regulations concerning French Guiana provide for Mining Research Authorizations (ARM), in areas managed by the *Office National des Forêts* (ONF), Exploitation Authorizations (AEX) and Exploitation Permits (PEX).

Mineral rights and mining are administered by the *Direction de l'environnement, de l'aménagement et du logement* (DEAL) under the authority of the Prefect.

The revisions to the Mining Code passed in 1998 have resulted in the former Type A and B

Exploration Permits being replaced by a *Permis Exclusif de Recherches (PER)*, which is an exploration permit that is valid for five years once granted with the option of two renewals (with an area reduction). The applicant specifies the area and shape of the PER. The granting of a PER can take up to two years from the date of application.

Five-year Exploitation Permits (*Permis d'Exploitation (PEX)*) are granted by the Prefect and are specific to medium-scale alluvial and small-scale vein-type mining. They are renewable twice. A PEX application is subject to a public inquiry and requires a professional impact notice. The area of the PEX cannot exceed the area of the original PER.

An Exploitation Authorization (*Autorisation d'Exploitation (AEX)*) of 1 km<sup>2</sup> can be granted by the Prefect for small-scale mining, usually artisanal mining of alluvial deposits or deposits hosted by saprolite. These permits are issued for a four-year duration. They are renewable once for up to 4 years. They can apply to areas covered by an existing PER, PEX or Concession, subject to the agreement of the holder of that permit.

Under the Mining Code, a mining Concession can be issued by the administration in Paris for large-scale mining operations. Granting of a Concession is subject to a public inquiry and mining authorization is subject to approval of a feasibility study and a full environmental impact study, as well as a second public inquiry. A Concession is valid for up to 50 years, with options for renewals up to 25 years providing that mining operations are active at the time of renewal.

## 17 Interpretation and Conclusions

The historical information and data reviewed in the present Report indicate that the Haute Mana Property represents an attractive brownfields land position situated along a potentially regional-scale structure, the Sophie-Saül lineament that is known to be the locus of multiple auriferous veins as well as alluvial deposits that are derived from the erosion of those veins. Historical exploration work demonstrated that multiple auriferous quartz veins, commonly with high grades and visible gold, are identified at surface and to < 200 m depth by trenching, diamond drilling and grab sampling along much of the Sophie-Saül lineament on the Property. Several of the mineralized veins are documented to be continuous over several hundreds of metres of strike length. There is also the potential for stockwork-vein mineralization although the available information does not allow to confirm it.

The primary exploration targets on the Property would be auriferous and pyritiferous quartz veins and potentially stockworks of veins, hosted within structures that cross-cut intrusive bodies of broadly granodioritic composition. At least two sets of auriferous veins are identified with NW and NNE orientations.

The Sophie-Saül lineament on the Property may represent a segment of a regional-scale, NW-SE striking shear zone that would have formed during one of the principal Transamazonian tectonic events, referred to in French Guiana as the D2b event. A shear zone of that scale is likely to be rooted quite deeply within the crust of the Guiana Shield and could have served to channel mineralizing fluids into structural and / or chemical traps in an orogenic mineralizing system. That interpretation of the Sophie-Saül lineament is based on inspection of available maps and other exploration information for the Property and also on the Consultant's general knowledge of the geology and tectonics of the Guiana Shield in French Guiana.

The mineralization on the Property is most likely of the orogenic mesothermal lode gold type, hosted by deformed granodiorite. Two gold mines are identified where deposits might represent useful conceptual analogs for potential deposits on the Haute Mana Property. Orogenic-type gold deposits at the Omai and Chirano mines, described under Item 8, are mostly hosted within variably deformed granitoid intrusive bodies that intruded Paleoproterozoic greenstone belts, one within the Guiana Shield (Omai), in Guyana; the other within the Birimian (West African) Shield, in Ghana (Chirano).

Additional exploration work would be required to validate the opinion expressed here regarding the quality of the Haute Mana land position as a gold exploration play and also to validate the comparisons of the Property with existing deposits such as Omai and Chirano. The comparison with those potential analogs is conceptual in nature and it is based on a limited amount of exploration information for the Property.

There has been insufficient exploration to define a mineral resource on the Property and it is uncertain if further exploration will result in the delineation of any mineral resource on the Property.

## 18 Recommendations

TGC recommends a two-stage exploration program. Stage 1 would include a data compilation and exploration targeting program, possibly involving an airborne geophysical survey; Stage 2 would include a trenching and diamond drilling program focused on a selection of the highest value targets derived during Stage 1. The exploration program would allow to properly characterize the nature and continuity of the mineralization. A budget for the recommended exploration program, estimated in Canadian dollar amounts, is provided in Table 3.

### 18.1 Stage I: Data compilation and Exploration Targeting

Intensive forensic work should be carried out to identify, locate and compile as much historical exploration information as possible that would have been generated by the BMG, the BRGM and their industrial partners, and later by Franc-Or. According to the documentation reviewed by the Consultant, original data sets of significance (if they are still in existence) would include soil and alluvial geochemistry databases, drill hole databases, assay and logging data from drilling and trenching programs, airborne geophysics (aeromagnetics, radiometrics), ground geophysics (induced polarization), geological mapping and interpretations of remotely sensed imagery. At a minimum, RGD should strive to compile the products derived from those data (maps, sections) and it would be preferable to recover as much of the original data as possible. The locations of historical and current artisanal and small-scale mine sites might also be compiled from public-domain satellite imagery.

For the purposes of exploration targeting, all the recovered data should be compiled on a GIS platform for convenient synoptic interpretations of multiple data sets. If original data were recovered, the following steps would be advised:

- Aeromagnetic data – If the original aeromagnetic data gathered by AERODAT in 1994 could be recovered then new map products might be generated from the magnetic data that could be very useful for structural interpretation (e.g. vertical and horizontal derivatives, analytical signal are examples). There would also be a potential for 3-D modeling of the magnetic data.
- Soil geochemical database – If the original data from one or more sampling campaigns could be recovered, they could be re-leveled and gridded.
- IP data – The original induced polarization data could be modeled using inversion methods to help with structural interpretations in the subsurface.

As part of the Stage 1 targeting initiative, RGD may wish to commission a new airborne magnetic and radiometric survey of the Property. Ideally, flight line spacing would be no more than 100 m flown at an altitude of no more than 100 m. The original airborne geophysical survey flown in 1994 used a flight line spacing of 200 m, which may be too coarse for target-scale interpretations of structural geology.

The exploration camp at Haute Mana should be established during Stage 1. While the camp is being established, a geologist could be tasked with mapping and sampling historical and current artisanal and small-scale vein mining sites. Assays from the samples would be helpful in confirming potential targets for trenching and drilling during Stage 2.

The targeting exercise should be designed to identify targets that fulfill a list of key criteria, which would depend in part on the availability of different types information. The exercise should also identify potentially distinct structural settings where different sets of mineralized veins might be present.

## 18.2 Stage 2: New Exploration Work

An exploration campaign should be designed based on the results of the Stage 1 targeting exercise. Ideally, the three or four highest ranked targets could initially be tested by a combination of 4,000 m of trenching and 6,000 m of diamond drilling, ideally to collect orientated drill core.

A properly designed trenching and drilling campaign would allow RGD to test the targets for continuity, grade and thickness. Trench mapping and structural analysis of the orientated drill core would allow the nature of the mineralization to be characterized and it would also allow for documentation and analysis of the different veins sets (and other structures) associated with mineralization. Finally, proper sampling and QA/QC procedures would provide for a fuller understanding of the grades, thicknesses and continuity of mineralization.

The results of the proposed two-stage exploration program would: 1) lead to a decision point as to the viability of the identified targets as potential economically viable deposits; and 2) provide the information necessary to identify the best deposit analog (model) to guide future exploration.

## 18.3 Proposed Exploration Budget

An exploration budget is proposed in Table 3 for the two-stage work program outlined in sections 18.1 and 18.2.

**Table 3.** Budget for the proposed two-stage exploration program. All amounts are provided in Canadian dollars.

<b>EXPLORATION PROGRAM STAGE</b>	<b>ITEM</b>	<b>COSTS (Canadian dollars)</b>	
<b>STAGE 1: 6 months</b>	Data compilation	\$15,000	
	Create GIS database	\$12,000	
	Targeting exercise	\$15,000	
	Geophysical survey	\$300,000	
	Geophysical products	\$30,000	
	Assays for samples of historical workings	\$10,000	
	Establish exploration camp	\$100,000	
	Salaries	\$100,000	
	Food for camp	\$15,000	
	Air transportation	\$100,000	
	Administrative costs / Overhead	\$30,000	
	<b>Subtotal</b>		<b>\$727,000</b>
	<b>STAGE 2: 6 months</b>	Mobilization	\$40,000
Mechanical trenching		\$100,000	
Diamond drilling (HQ)		\$900,000	
Fuel		\$60,000	
Food for camp		\$30,000	
Salaries		\$200,000	
Air transportation		\$200,000	
Assays & QA/QC		\$160,000	
Administrative costs / Overhead		\$30,000	
<b>Subtotal</b>		<b>\$1,720,000</b>	
<b>TOTAL</b>		<b>\$2,447,000</b>	

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## 20 Appendix II: Certificate of Qualified Person

### CERTIFICATE OF QUALIFIED PERSON

I, Keith B. Benn, P. Geo., APGO No. 1253, do hereby certify that:

1. I am the President and Principal Consultant of Terracognita Geological Consulting Inc., P. O. Box 100, 4874 St. Clair Parkway, Port Lambton, ON NOP 2B0, Canada.
2. This certificate applies to the Technical Report titled "NI 43-101 Technical Report – Geology, Mineralization and Exploration Potential of the Haute Mana Property, Commune of Saül, French Guiana", with an Effective Date of February 18, 2017 (the "Technical Report").
3. I graduated with a Doctorate degree in Geology, specialized in Structural Geology, from the Université de Montpellier II in 1989. I have obtained a Master of Science degree in Geology from Université Laval, in Québec, Canada, and a Bachelor of Science degree in Geology, from the University of Western Ontario, Canada. I am a practising member of the Association of Professional Geoscientists of Ontario (APGO) since 2005. I have worked as a Geoscientist for 27 years since completing my Doctorate. I held a tenure-track, then tenured academic position at the University of Ottawa from 1991 through 2007 where I taught Geosciences and conducted and supervised research in Structural Geology, Precambrian Tectonics, the Structure of Greenstone Belts and Orogenic Gold Deposits, and Structural Modeling. I have been employed in Senior Management and Geosciences roles in the Minerals industry since 2008 and during that time I have worked on gold exploration in greenstone belts in Canada, East Africa, West Africa and French Guiana. I have been working as a Consultant since January, 2016.
4. 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 the APGO and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Haute Mana Property on February 17, 2017.
6. I am responsible for all items in the present Technical Report.
7. I am independent of the issuer applying all the tests in section 1.5 of NI 43-101.
8. I am independent of the Union Minière de Saül.
9. I have had no prior involvement with the Haute Mana Property.
10. I have prepared the present Technical Report in compliance with NI 43-101 and Form 43-101F1.
11. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the present Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 27th day of June, 2017.



Signed : "Keith B. Benn", P. Geo.

Keith B. Benn, P. Geo.