



NI 43-101 Technical Report
Butiá Prospect
Rio Grande do Sul
Brazil



Prepared for Amarillo Gold Corporation

Prepared by:
Antony J. Amberg CGeol
Simon Mortimer MSc M.AusIMM

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¹ Cover photo - LDH-123, quartz-flooded vein breccias with > 10 ppm Au

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1 Summary

1.1 Project Summary

The Butiá gold prospect is located 4km west of the town of Lavras do Sul, in the state of Rio Grande do Sul, Brazil. Access from Porto Alegre, the state capital is approximately 320km or a 4.5 hour drive on a well maintained highway. The last 4km's from the town to the prospect is by dirt road. The prospect is located on unimproved land grazed by cattle.

Gold was discovered at Lavras do Sul by Portuguese pioneer miners in 1776. Since then various companies have worked multiple prospects in the Lavras do Sul area with successive gold rushes in the 1880's and 1930's. There are numerous diggings and excavations throughout the area in the oxide soil horizons where the gold was liberated and relatively easy to extract using the technology of the time.

Between 1980 and 1990 the Companhia Brasileira do Cobre (CBC) carried out detailed surface exploration and drilling, mainly at Butiá and Cerrito areas. They drilled 1,520m in 13 holes at Butiá. From 2003 to 2006, Rio Tinto Desenvolvidos Minerais Ltda. (RTDM) a wholly owned sub division of the Rio Tinto Group and Iamgold carried out exploration in the Lavras do Sul district. During this period RTDM consolidated the mineral title in the area by staking ground and making deals with underlying title owners, CBC and Maria Lucia Vidal. In 2005 RTDM completed 892m of drilling in 5 holes at Butiá. The RTDM data is used in the Amarillo resource calculation. The original data is available and is of a very high quality. The half core that was not used as sample is stored in the Amarillo core store and is in a good condition.

In October 2006 Amarillo entered an option agreement with RTDM, after an open competitive bid. The Butiá prospect is included in this option agreement. Amarillo has met the prerequisites of the agreement to date.

To gain tenure RTDM had an option agreement with various mineral right owners in the area. Amarillo has taken over the RTDM position within this underlying option agreement. The terms of this option have been met and Amarillo is in the process of forming, formal joint venture agreements with the various mineral right owners.

Amarillo Gold have drilled a total of 11,056.37 metres core between 1996 and March 2010 on the Butiá prospect. The RTDM and Amarillo core is stored at the well maintained core storage facility on the Lavras do Sul property.

The Lavras do Sul intrusive suite is situated in the far south of the Neoproterozoic Mantiqueira Province, a 2700-km long belt of tectonically and magmatically accreted terrains from the Tonian (1000-850 Ma) through the Cryogenian (850-

650 Ma) to the Neoproterozoic III (650-540 Ma) periods. It stretches as far south as the coastline of central Uruguay into southern Bahia in Brazil.

Lavras do Sul intrusive suite is 10km by 10km in area and consists of a monzonite/granodiorite core surrounded by a rim of perthitic granite. The Butiá prospect occurs near the western boundary of the intrusive complex within the perthitic granite. The Butiá alteration zone strikes E-W for 1.7km and is 500m wide as mapped by the presence of green sericite and hematite. The Butiá prospect occurs in the western 500m of this alteration zone. The gold mineralization zone at Butiá as defined by the current drilling is associated with intense alkali alteration that forms an episyenite microbreccia. The gold mineralization forms an "L" shape at surface controlled by an E-W structure 250m long and a N-S structure 250m long. The mineralization, which outcrops at surface, attains its greatest extent at a depth of 70m-90m below surface and then decreases in area at depth.

The Lavras do Sul Intrusive Suite is probably host rock to the mineralization as opposed to parent rock. The parent rock for the generating fluid has not yet been identified but it is suggested that the late syenitic magma would be responsible for generating the hydrothermal magmatic fluid responsible for Lavras do Sul gold mineralization.

The first stage of the mineralization was an alkaline, silica-undersaturated gold-bearing fluid that migrated along secondary fluid pathways, where fluid partial pressure was sufficiently low and alkalinity was still high enough in the early phases to promote broad, low-grade, low-temperature (250°C) gold (presence of phengite suggests 350 degrees) mineralization. It is inferred that this silica-undersaturated fluid originated from syenite or similar intrusive plugs in the Lavras do Sul Intrusive Suite at 580 Ma, although these may be deep and have not yet been discovered.

The second phase the fluid evolved into a silica-saturated and more neutral solution that also deposited other alteration species in a long and complex paragenetic sequence, forming more intermediate altered and poorly to non-mineralized rocks at lower temperatures (200°C).

A third phase in fluid evolution represents the most important phase of mineralization from an economic point of view. As the fluid interacted with the relatively acid granitic wallrock, it became both acid and silica-saturated passing the critical pH barrier beyond which gold is once again insoluble in the fluid. Now in focused channelways, precipitated high-grade brecciating vein-hosted gold, overprinting the earlier microbreccias (See cover photo).

Lavras do Sul is testimony to a two-stage gold precipitation history as a result of a single fluid evolution path from extremely alkaline and silica undersaturated to quartz-flooding with increased fluid focus.

Atticus have estimated Indicated and Inferred Mineral Resources for the Butiá prospect in accordance with the CIM guidelines (CIM 2005) which have been adopted as part of NI 43-101. 3D models for lithology and weathering were created. By merging these two models together 5 domains were created that have been used for the resource estimation.

The drill hole data was composited to 2.5 metres. The basic statistics and variograms were created for each domain. Experimental variograms were calculated on Gaussian transformed values and back-transformed. The ordinary kriging search ellipsoid radii and orientations were defined from the variogram analysis. No measured resources were delineated due to several factors that diminish the certainty of estimates. Among them is the lack of a detailed topographical survey of the prospect and the wide separation between drill holes. The high grade samples in the perthitic granite were cut to 10 ppm for the resource estimation. This results in a reduction of the average grade which also affects the global results.

The ordinary kriging estimation results are Indicated Resources of 6.39 millions of tonnes grading 1.05 ppm containing 215 thousand ounces Au (at a 0.3 ppm Au cut-off) and Inferred Resources of 12.88 millions of tonnes grading 0.74 ppm Au containing 308 thousand ounces Au (at a 0.3 ppm Au cut-off). The effective date of this mineral resource estimate is 30 July 2010, which represents the cut-off date for information used in the resource estimation.

1.2 Conclusions and recommendations

1.2.1 General

Amarillo have an option over a large area of the Lavras do Sul intrusive suite which is situated in the far south of the Neoproterozoic Mantiqueira Province. Gold was discovered in the area in 1776 and has been mined since then with a peak of activity in from 1901 to the 1930's. Amarillo have identified at least 11 prospective areas and the Butiá prospect is the most advance area.

The gold mineralization zone at Butiá as defined by the current drilling is associated with intense alkali alteration that forms an episyenite microbreccia. The gold mineralization forms an "L" shape at surface controlled by an E-W structure 250m long and a N-S structure 250m long. The mineralization, which outcrops at surface, attains its greatest extent at a depth of 70m-90m below surface and then decreases in area at depth.

1.3 Mineral Tenure

Atticus has not reviewed the Amarillo and RTDM option agreements or the underlying mining claims and is not qualified to comment on their validity.

However Atticus has no reason to doubt the validity of these contracts or agreements.

Atticus have not reviewed the Lavras do Sul environment permits but have no reason to doubt that the environmental permitting requirements have not been met. Amarillo have a high level of environmental management with care being taken in preparing the drill platforms and the rehabilitation of the drill sites after drilling.

1.4 Exploration

Amarillo has drilled 11,056.37 metres between 1996 and March 2010 on sections with 50 meter spacing at the Butiá prospect. The current drill spacing is sufficient to delineate the episyenite core of the prospect but is not sufficient to model the high grade structures that extend out into the perthitic granite from the central core. Infill drilling will enable these high grade structures to be modeled and then included in the resource estimate.

The collar coordinates have been surveyed using hand held GPS which have an inherent accuracy of ± 5 m. A detailed topographic survey is needed to accurately locate the drill holes. All but three of the drill hole have down hole survey data. This data shows the drill holes do not have strong deviation or curvature.

1.4.1 Drill hole logging and sampling protocols and procedures

The current logging and sampling protocols and procedures are acceptable and in line with industry standards. The lithology and weathering descriptions should be reviewed to produce a master list of lithology codes that can be used for the logging. Sectional interpretations of the lithology, alteration and weathering should be prepared and then updated as new drill holes are drilled. These sections will encourage the geologist to envisage the geology in 3D and also help identify when the logging of neighbouring drill holes should be reviewed.

The end of each sample should be clearly marked. Currently the core is marked before cutting the core but it is not always easy to identify the end of the samples once the core has been cut. The end of the sample could be marked by placing a marker in the core box and or by marking the end of the remaining half core with a paint pen.

1.4.2 Data verification and QA/QC

Amarillo have implemented QA/QC procedures that are in line with industry standards. The results do not indicate any inherent problems or bias in the assay results. Atticus did not visit the assay laboratories but the ACME and ALS Chemex laboratories are reputable international groups who meet or exceed the industry standards for sample preparation and analysis.

The CRM results are good with very few samples outside of the two standard deviation limit from the recommended value. The twin samples must not be

mixed before sending for analysis and the results monitored carefully. The laboratory pulp duplicates should be monitored systematically or pulp duplicates should be inserted into the assay batches.

Amarillo should routinely submit samples to a second laboratory for check assay. They should send one in 20 samples from the mineralized areas and one in 40 from the poorly mineralized areas.

The batch documentation and data entry of the QA/QC data should be doubled checked to ensure that the correct data is entered into the database. All QA/QC data for each batch should be checked before the data is finally imported into the database.

1.4.3 Metallurgical test work

RTDM submitted some sample from Butiá for preliminary metallurgical sampling. About 17.5kg of sawn half core from Butiá with a head grade of 0.48 ppm was sent to RTDM's Brasilia facility under supervision of their metallurgist, Mr. J. Clark. The mineralized sample was given a standard laboratory test of grinding, Knelson gravity recovery and bulk sulphide flotation. Indications are that these ores are suitable for flotation concentration at coarse sizes followed by cyanidation of the concentrate rather than fine grinding and whole ore cyanidation. The best metallurgical route would probably be flotation concentration followed by roasting of the concentrate and cyanidation of the cinder. The recovery of gold should be 92% by flotation followed by a further 92% by cyanidation or net 85%.

Butiá has a complex history of structural control, alteration and multiphase mineralization. It is recommended that further mineralogical studies be carried out to better understand the timing of the different alteration, brecciation and veining events.

1.4.4 Mineral Resource estimation

Atticus have estimated Indicated and Inferred Mineral Resources for the Butiá prospect in accordance with the CIM guidelines (CIM 2005) which have been adopted as part of NI 43-101.

3D models for lithology and weathering were created. By merging these two models together 5 domains were created that have different geostatistical characteristics. The domains created were: cover, saprolite, episyenite and perthitic granite in oxides, fresh episyenite and fresh granite.

The drill hole data was composited to 2.5 metres. The basic statistics and variograms were created for each domain. Experimental variograms calculated on original composited values are excessively fluctuating and difficult to model. The spatial behaviour of grades in the different domain cannot be depicted from these variograms. Therefore, experimental variograms were calculated on

Gaussian transformed values and back-transformed. The back-transformed variograms are more continuous and allow a better modeling of the spatial continuity of grades.

The ordinary kriging search ellipsoid radii and orientations were defined by the variogram analysis. The dimension of the search ellipsoid for indicated resources are concordant to the range of the short scale structure in the variogram models, and the search ellipsoid radii for the inferred resources have lengths similar to the ranges fitted for the second variogram model structure. No measured resources were delineated due to several factors that diminish the certainty of estimates. Among them is the lack of a detailed topographical survey of the prospect and the wide separation between drill holes.

The high grades samples in the perthitic granite were cut to 10 ppm Au for the resource estimation. This results in a considerable reduction of the average grade which also affects the global results.

The ordinary kriging estimation results are listed below in Table 1 for a 0.3 ppm Au cut-off. Figure 1 shows grade versus tonnage curves for various gold grade cut-offs.

Table 1: Summary of the Estimated Resources for a 0.3 ppm Au cut-off

Cut off	Class	Tonnes	Au grams	Au Oz	Avg. Au ppm
0.3	Indicated	6,390,000	6,720,000	215,000	1.05
0.3	Inferred	12,880,000	9,600,000	308,000	0.74

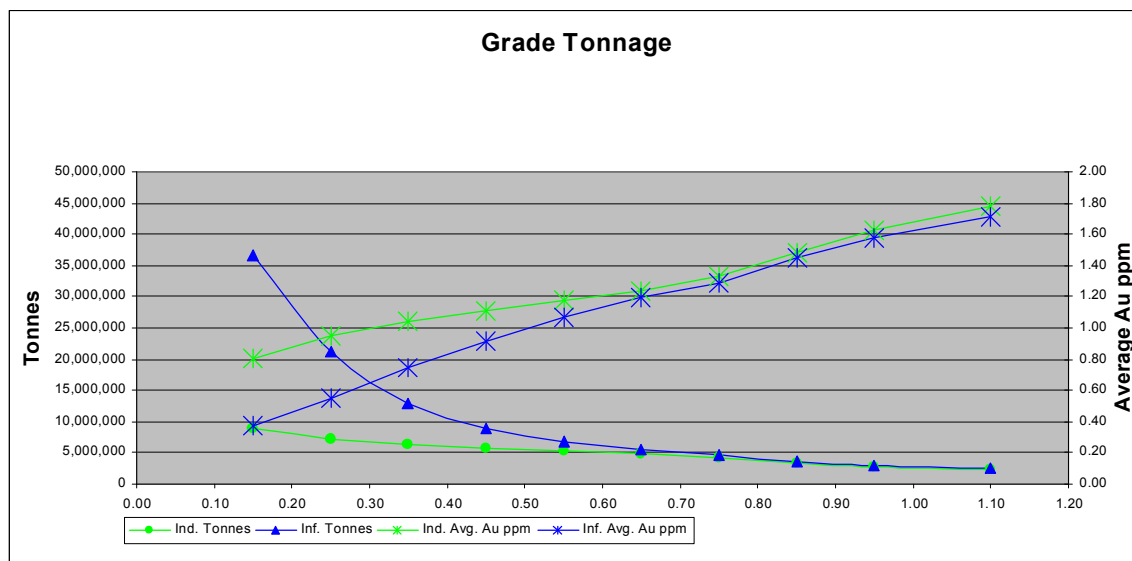


Figure 1: Grade tonnage curves for Ordinary Kriging estimates

2 Introduction

Amarillo Gold Corp. (Amarillo) commissioned Atticus Consulting SAC (Atticus) of Lima Peru, the task of conducting the first resource estimate on the Butiá prospect. This report is prepared in compliance with the disclosure requirements of the Canadian National Instrument 43-101 (NI 43-101).

The qualified persons for the report are Mr. Antony Amberg who visited the Butiá prospect between 11th – 14th May 2010 and Simon Mortimer. During the site visit Antony Amberg reviewed the drill sampling and logging procedures, collected verification samples, discussed the property geology and drilling programs with the Amarillo geologists and checked the location of various drill hole collar locations.

Antony Amberg was responsible for sections 1 through to section 26 of the technical report. Simon Mortimer was responsible for sections 1, 2 and 17 of the technical report.

The effective date of this report and the mineral resource estimate is 30 July 2010, which represents the cut-off date for information used in the report. There has been no material change to the information between the effective date and the signature date of the technical report.

2.1 Background

The Butiá prospect is located 4km west of the village of Lavras do Sul, in the state of Rio Grande do Sul, Southern Brazil.

In October 2006 Amarillo entered an option agreement with RTDM, after an open competitive bid. The Butiá prospect is included in this option agreement. Amarillo has met the prerequisites of the agreement to date. To gain tenure RTDM had an option agreement with various mineral right owners in the area. Amarillo has taken over the RTDM position within this underlying option agreement. The terms of this option have been met and Amarillo is in the process of implementing formal joint venture agreements with the various mineral right owners.

2.2 Terms of reference

In May 2010, Atticus was requested by Amarillo to conduct a site visit and estimate the Mineral Resources for the Butiá prospect in southern Brazil. The Mineral Resources are the first to be estimated for the Butiá Prospect and are detailed in this NI 43-101 Technical Report.

Atticus and the qualified persons are independent from Amarillo. Atticus's fee for this Technical Report is not dependent in whole or in part upon any prior or

future engagement or understanding resulting from the conclusions of this report. This fee is in accordance with standard industry fees for work of this nature

The effective date of this report is 30th July 2010, which represents the cut-off date for information used in the report. There has been no material change to the information between the effective date and the signature date of the technical report.

3 Reliance on Other Experts

Unless otherwise stated Atticus has relied on Amarillo Gold personnel for details of the exploration license tenure, legal, mining and environmental legislation in Brazil. Atticus has not attempted to verify the validity of Amarillo's Gold's option agreement with Rio Tinto Desenvolvidimentos Minerais Ltda or the Rio Tinto Desenvolvidimentos Minerais Ltda option agreement with the Mineração Carmec Ltda. Atticus has not independently investigated the tenement status of the prospect or the requirements of the Brazilian mining law. Atticus of this report is not qualified to provide comment on the legal issues associated with the Butiá Prospect, including any agreements, joint venture terms or the legal status of the Land Tenure. Copies of the original contracts between Amarillo Gold and RTDM and between RTDM and Mineração Carmec Ltda. have been provided to Atticus by Amarillo Gold personnel. The license claim status can be reviewed on the Brazilian government Internet site www.dnpm.gov.br

The geostatistical analysis, preparation of the semi variograms and the multivariate kriging and population of the block model was carried out by David Machuca. David Machuca is a mining engineer who is a PhD candidate in Geostatistics at the Centre for Computational Geostatistics, University of Alberta, Canada. At each stage of the prospect the results of his work were reviewed by Atticus before proceeding to the next stage. The block model and the resource classification was validated by Atticus.

4 Property Description and Location

4.1 Location

The Butiá prospect is located 4km west of the town of Lavras do Sul, in the state of Rio Grande do Sul, Brazil. Access from Porto Alegre, the state capital, is by travelling west along highway BR290, and then south along RS357, approximately 320km or a 4.5hrs drive. The last 4kms from the village to the prospect is by dirt road. The prospect is located on unimproved land grazed by cattle. ↗

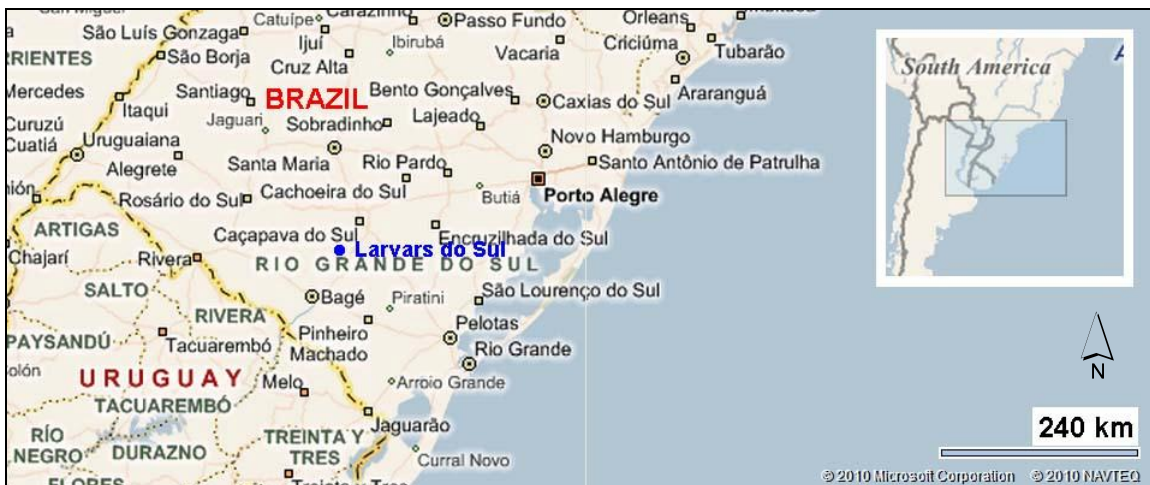


Figure 2: Lavras do Sul location

4.2 Tenure

Atticus has relied on Amarillo Gold personnel for details of the exploration license tenure, legal, mining and environmental legislation in Brazil. Atticus has not attempted to verify the validity of Amarillo's Gold's option agreement with Rio Tinto Desenvolvimentos Mineraiis Ltda or the Rio Tinto Desenvolvimentos Mineraiis Ltda option agreement with the Mineração Carmec Ltda. Atticus has not independently investigated the tenement status of the prospect or the requirements of the Brazilian mining law. Atticus is not qualified to provide comment on the legal issues associated with the Butiá Prospect, including any agreements, joint venture terms or the legal status of the Land Tenure. Copies of the original contracts between Amarillo Gold and RTDM and between RTDM and Mineração Carmec Ltda. have been provided to Atticus by Amarillo Gold personnel. The license claim status can be reviewed on the Brazilian government Internet site www.dnpm.gov.br

In October 2006 Amarillo entered an option agreement with Rio Tinto Desenvolimentos Minerais Ltda (RTDM), after an open competitive bid. The Butiá prospect is included in this option agreement. Amarillo has met the prerequisites of the agreement to date. Future obligations to RTDM include:-

1. A US\$ 880,000 payment on the formation of a Joint Venture with the underlying owners. Payment is triggered by the transfer of title to that Joint Venture.
2. A US\$ 1,000,000 payment to RTDM within 90 days of completion of a bankable feasibility study.
3. A US\$ 6.50/oz cash payment for every one million ounces of recoverable gold reserves under Amarillo's control
4. RTDM has a back-in right to acquire 70% of Amarillo's interest in the property by paying Amarillo three times their expenditure in the event that Amarillo's equity interest contains in excess of 7 million ounces of recoverable gold.

To gain tenure RTDM had an option agreement with various mineral right owners in the area. Amarillo has taken over the RTDM position within this underlying option agreement. The terms of this option have been met and Amarillo is in the process of forming, formal joint venture agreements with the various mineral right owners.

The Butiá prospect lies on exploration permits 810.138/1987 and 810.375/1997 owned by the company Mineração Carmec Ltda (Carmec) which is a subsidiary of Companhia Brasileira do Cobre. Rio Tinto Desenvolimentos Minerais Ltda have an option agreement with Mineração Carmec Ltda for the license areas.

The property boundaries are located by monuments identifying the corner points using Latitude/Longitude coordinates in 1969 South American Datum.

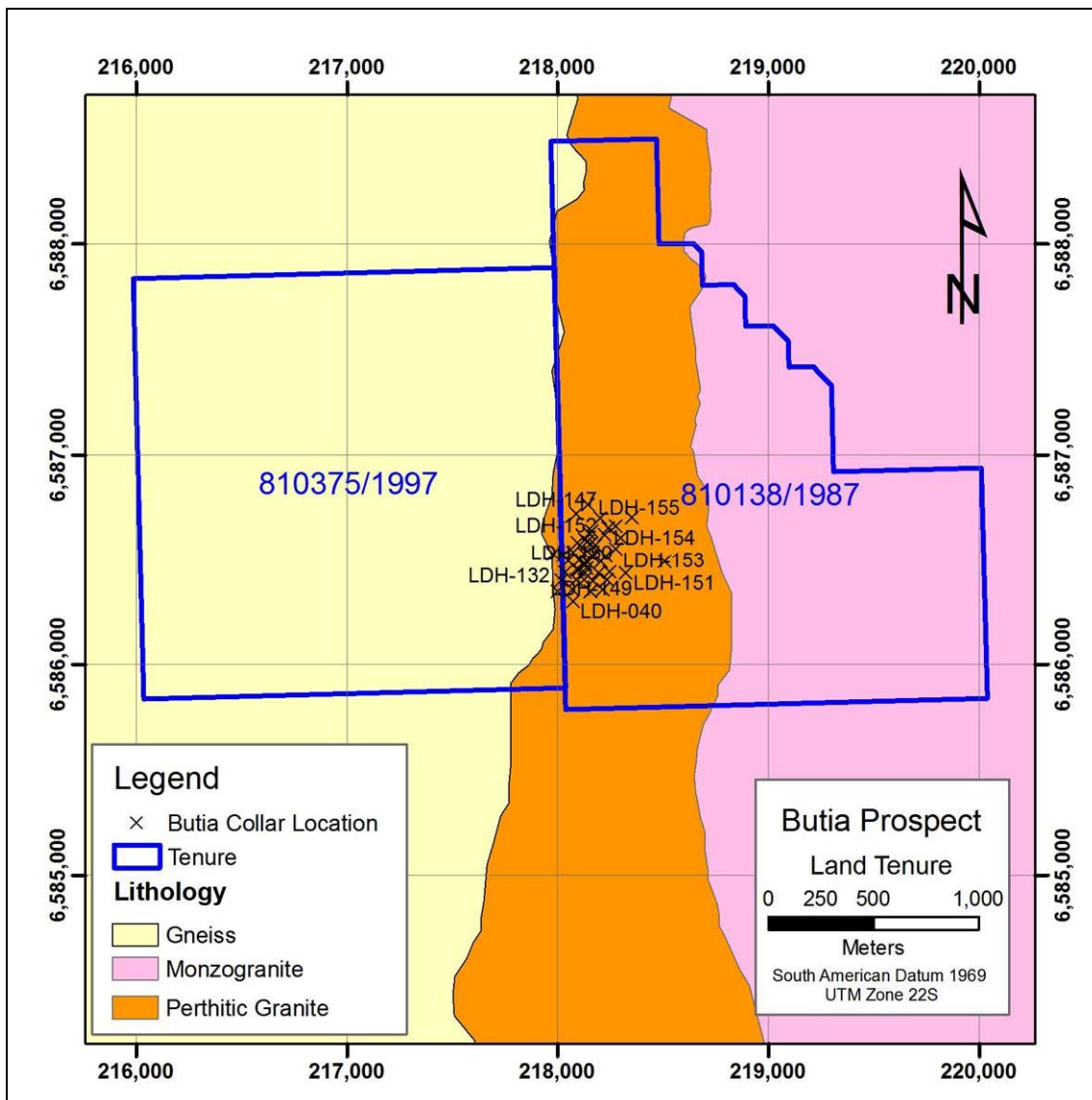


Figure 3: Butiá Prospect Land Tenure

Table 2: DNPM claim status

DNPM Process Number	Owner	Area Hectares	DNPM Status
810.138/1987	Mineração Carmec Ltda	363.08	"Relatorio Final de Pesquisa"
810.375/1997	Mineração Carmec Ltda	400.00	Exploration Permit Granted

Amarillo has secured a binding letter of intent from the Mineração Carmec Ltda that indicates:-

- a. Agreement on the general terms of the 60% Amarillo, 40% Carmec, Joint venture
- b. Carmec will dilute and not contribute.
- c. Agreement on the dilution formula,

- d. Once Carmec reaches 10% their interest converts to a 1.5% royalty.

The status of the two claims 810.138/1987 and 810.375/1997 can be reviewed on the Internet site www.dnpm.gov.br. This site indicates that both claims are valid and payments are up to date.

4.3 Frontier Law

The Federal Law 6634/79 of the 2nd May 1979 sets out special requirements for companies to do business in border zones and this includes mining companies. The frontier zone (Faixa de Fronteira) is defined an inner band 150 km wide from the frontier. One of the requirements of the law is that within the Frontier zone defined by the Federal Law 6634/79 of the 2nd May 1979 any mines within the frontier zone must be owned 51%, directly, or indirectly, by Brazilian citizens, however in the case where a minority party is funding project development separate shareholder agreements may be enacted. Other Canadian listed companies operate gold mines within this zone.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1.1 Accessibility

The prospect is 4 km from the town of Lavras do Sul. Access is over an unimproved dirt road. The capital of the state Rio Grande do Sul, Porto Alegre, is 320 km from the prospect. Access is on the asphalt highway RS-375 to Caçapava do Sul a distance of 61 km and then the main roads BR-392 and BR-290 to the capital. The journey takes approximately 4 hours in a car. Porto Alegre has an international airport.

5.1.2 Climate

Rio Grande do Sul lies within the South Temperate Zone and has a subtropical or temperate climate. There are four relatively well-marked seasons and rainfall is well distributed throughout the year. The winter months, June to September, are characterized by heavy rains and by a cold south-westerly wind, called minuano, which sometimes lower the temperature to below freezing. In summer, the temperature rises to 30 °C (86 °F).

5.1.3 Local Resources and Infrastructure

The town is at the center of the Lavras do Sul municipality in the state of Rio Grande do Sul, Brazil. The town has a municipal center. The economy of the region is primarily based on livestock grazing and is a market center. It has one of the most traditional gaucho carnivals, and holds various events throughout the year.

5.1.4 Physiography

The vegetation consists mostly of medium-tall grasslands, with areas of palm savannah, gallery forests along rivers, and enclaves of submontane forest. The area known as the Brazilian-Uruguayan savannah is a subtropical grassland and eco-region which includes all of Uruguay, some areas of north-eastern Argentina and southernmost Brazil.

6 Project History

Lavras do Sul (“diggings of the south”), was the subject of successive gold rushes in the 1880’s and 1930’s. There are numerous diggings and excavations throughout the area in the oxide soil horizons where the gold was liberated and relatively easy to extract using the technology of the time.

According to Herlinger (2008), gold was discovered by Portuguese-led pioneers bandeirantes, at Lavras do Sul in 1776, possibly with the influence of a Tupi Indian legend regarding the existence of a golden hill in the vicinity of Lavras do Sul. Mexias (2000) attributes the discovery to miners from Minas Gerais embedded in the Portuguese forces fighting the Spanish.

A succession of predominantly garimpeiro activities was initiated thereafter, henceforth being known as the arroio Camaquã das Lavras (Teixeira & Leinz 1942 in Ramgrab et al. 2002). Herlinger (2008) reports that alluvial gold was produced by the Fazenda Real of the Portuguese Empire employing some one thousand people. The Frenchman Daniel Laut built the first mill to treat ore in 1870 (Teixeira & Leinz 1942 in Mexias 2000).

An English company, the Gold Mining Company, mined the area and started to build the town of Lavras do Sul but this prospect was not successful (Herlinger 2008)

In 1898 the Companhia Lopes e Tallouard, under the title of Messrs. Spaniard Francisco Lopes and Frenchman Paul Tallouard, mined the area using a Uruguayan mill but this prospect also ended in failure. (Herlinger 2008)

In 1901, the Belgian Compagnie de Mines d’Or du Cerrito, on the strength of the shares of the Gold Mining Company and the capital of the sold interests and assets of the Companhia Lopes e Tallouard, raised stock capital in Brussels. They purchased crushers, cyanide tanks and built dams but by 1909, the Belgian firm sold all its interests and assets to the English company called Brazilian Goldfields. The latter produced gold for three years and thereafter the area was only mined by garimpeiros.

In 1936 the Ouro do Bloco Butiá Ltda. company purchased the exploration rights over Butiá (Herlinger 2008) and built a mill using the remnants of the Belgian firm’s equipment. Gold was sold to the Banco do Brazil. In 1938 it sold 18 tonnes of pyrite concentrate at 69 ppm Au to Japan.

In 1941 the federal monopoly forced companies to sell their gold product to the Banco do Brazil at a premium lower than the international market offered. There were reportedly 673 excavations in the district at this time (Ramgrab et al. 2002). By 1950 no companies were working in the Lavras do Sul district due to this change in the law.

In 1981 the public Companhia Riograndense de Mineração attempted to mine gold from the Volta Grande metavolcanic succession at the Homonym mine but due to technical problems failed to extract gold from oxidized material (Mexias 2000 and Herlinger 2008).

Between 1980 and 1990 the Companhia Brasileira do Cobre (CBC) carried out detailed surface mapping (Reischl 1980) and drilling exploration, mainly at Butiá and Cerrito areas (Reischl 1999 in Mexias 2000). They drilled 1,520m in 13 holes at Butiá. Not much usable material remains from this work as the core storage shed was burned in a forest fire. All the CBC assets including Lavras do Sul land rights and datasets were sold in a public auction in 2001.

From 2003 to 2006, the companies, RTDM and Iamgold carried out exploration in the Lavras do Sul district. RTDM was first attracted to the area by the analogy with Paracatu, a profitable Brazilian gold mine formerly owned by the Rio Tinto Group. During this period RTDM consolidated the mineral title in the area by staking ground and making deals with underlying title owners CBC and Maria Lucia Vidal. In 2005 RTDM completed 892m of drilling in 5 holes at Butiá. This core is intact and kept at Amarillo's storage facility at Lavras do Sul.

The drilling that has been carried out in the Lavras do Sul district is summarized in Table 3

Table 3: Lavras do Sul drilling summary

Company	Target	No Drill Holes	Metres Drilled
CBC	Butiá	13	1,520
CBC	Cerrito	40	3,368
CBC Total		53	4,888
RTDM	Butiá	5	892
RTDM	Cerrito	4	794
RTDM Total		9	1,686
AGC	Aurora	5	542
AGC	Butiá	45	11,056
AGC	Caneleira	12	2,490
AGC	Cerrito	27	3,815
AGC	Paradao	9	1,156
AGC	Sao Jose	1	24
AGC Total		99	19,083
Totals		223	25,657

7 Geological Setting

7.1.1 Regional Geology

The following description of the regional geology was modified by the author from (Baars 2008).

The Lavras do Sul intrusive suite is situated in the far south of the Neoproterozoic Mantiqueira Province, a 2700-km long belt of tectonically and magmatically accreted terrains from the Tonian (1000-850 Ma) through the Cryogenian (850-650 Ma) to the Neoproterozoic III (650-540 Ma) periods. It stretches as far south as the coastline of central Uruguay into southern Bahia in Brazil, the famous landscape of Rio de Janeiro is part of this belt. Figure 4 summarizes the geology of the belt, showing that it is a northwest-verging system. The Lavras do Sul deposit is located within the region of the geographic interplay the Camaquã foreland basins and post-tectonic granites, west of the Pelotas magmatic arc (also named the Dom Feliciano Belt) and east of the older São Gabriel nascent arc system. Small Palaeoproterozoic remnants are preserved within the Pelotas Origen and Camaquã foreland basins.

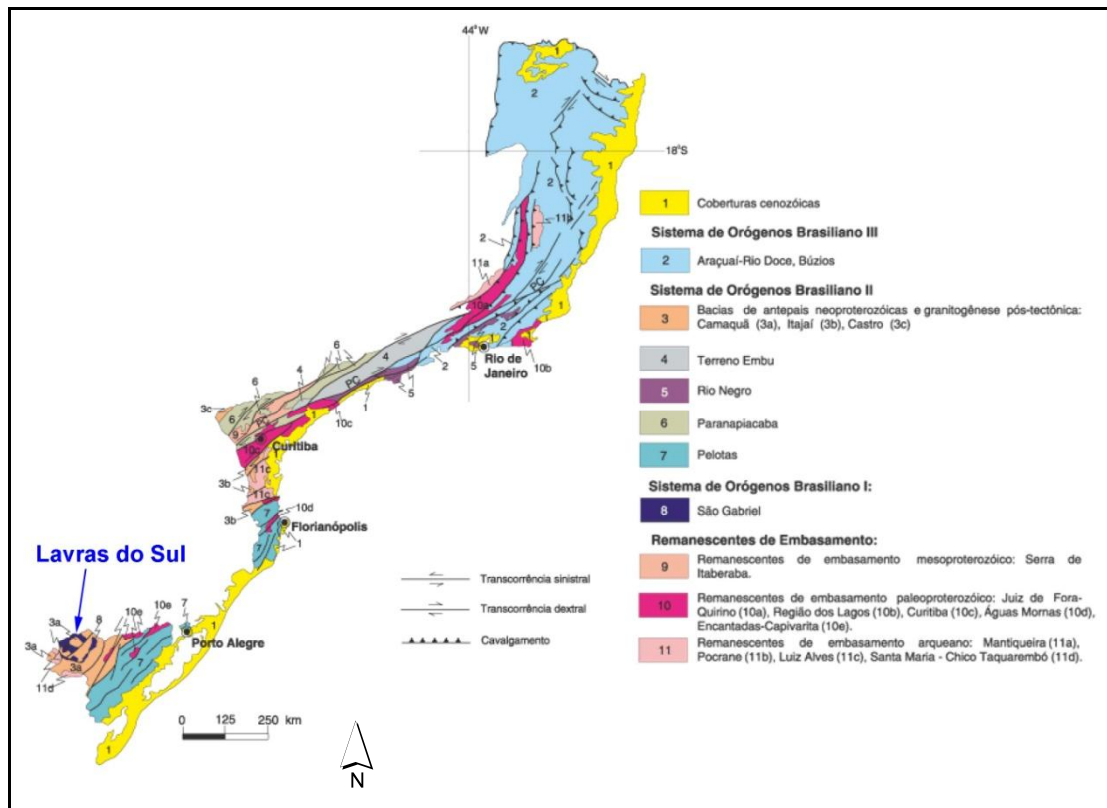


Figure 4: Neoproterozoic Mantiqueira Province

Figure 5 shows, the southernmost Brazilian portion of the Mantiqueira Province, sometimes called the Rio Grande do Sul Shield, the tectonic framework for the Lavras do Sul Intrusive Suite and its associated gold mineralization. According to Chemale Jr. (2002), the Lavras do Sul Suite is situated within the Vila Nova Belt (Figure 5), where it is shaded black. The belt itself records a very complex history of: continental collision and welding between 760 and 700 Ma, sedimentation, granitic and basic to intermediate volcanic volcanism generated during the late to post-orogenic stages of the Dom Feliciano Event centered in the magmatic arc and Tijucas Belt further to the east, at around 610 to 470 Ma.

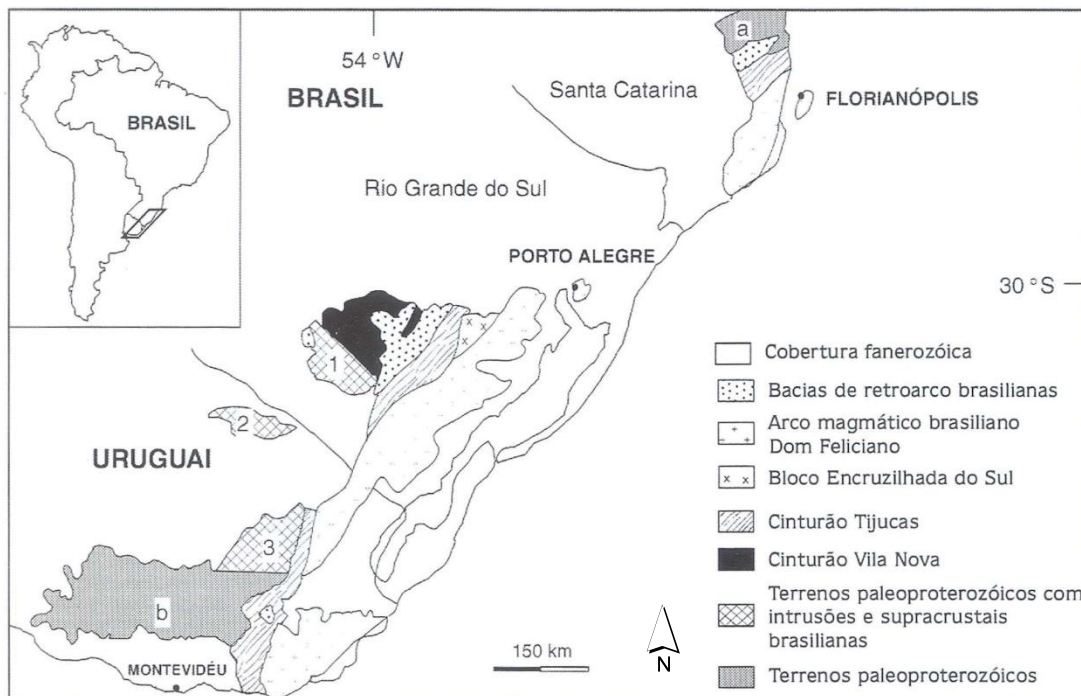


Figure 5: Southern Mantiqueira Province

Further complexity on Figure 5 is borne out by the presence of the Taquarembó Block immediately to the south of the NW-SE Ibaré Lineament, a fossil transform fault. The unit is comprised of the Santa Maria Chico Granilite Complex, containing Palaeoproterozoic and Archaean rocks with variably Archaean Sm-Nd model ages.

Figure 6 simplifies the geological units displayed on Figure 5, restricted to Rio Grande do Sul, Brazil. The strong asymmetry of the Neoproterozoic belt becomes apparent. The Vila Nova Belt, a foreland-preserved back-arc basin overlying a juvenile mobile belt is interpreted, orthogonally juxtaposed against Palaeoproterozoic granulites.

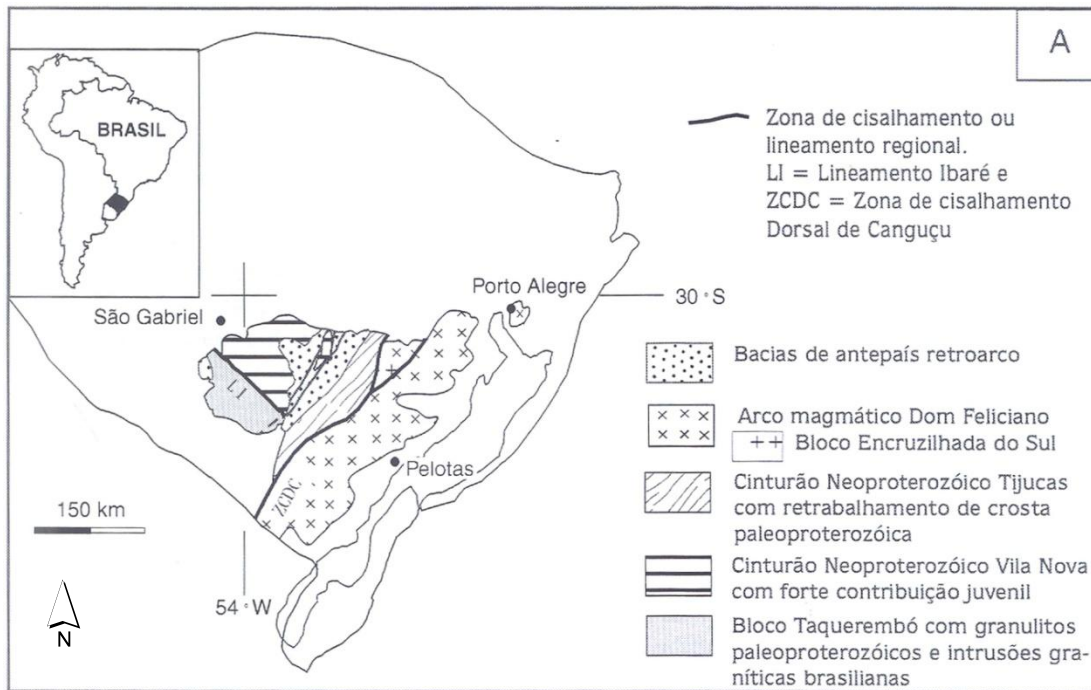


Figure 6: Simplified geological map of the Rio Grande do Sul Shield within the principal geotectonic units as per Chemale Jr. (2002)

Figure 7 provides the definitive context of the Lavras do Sul Intrusive Suite. It very clearly reflects the internal complexity of the Vila Nova Belt and also the frequency of the high-K, post-tectonic Lavras do Sul type intrusions in the region. These intrusive suites are typically emplaced into Cambaí Group gneissic hosts, the latter interbedded to the west with either mafic-ultramafic rocks or Vacacaí Group banded magnesian schists, serpentinites, metabasalts or quartzites, and are overlain by Camaquã Group intermediate to acid volcanic and volcanoclastic rocks and sediments. This geological record is compacted into some 200 km² of which some 15% of the surface is constituted by the late to post-tectonic granites.

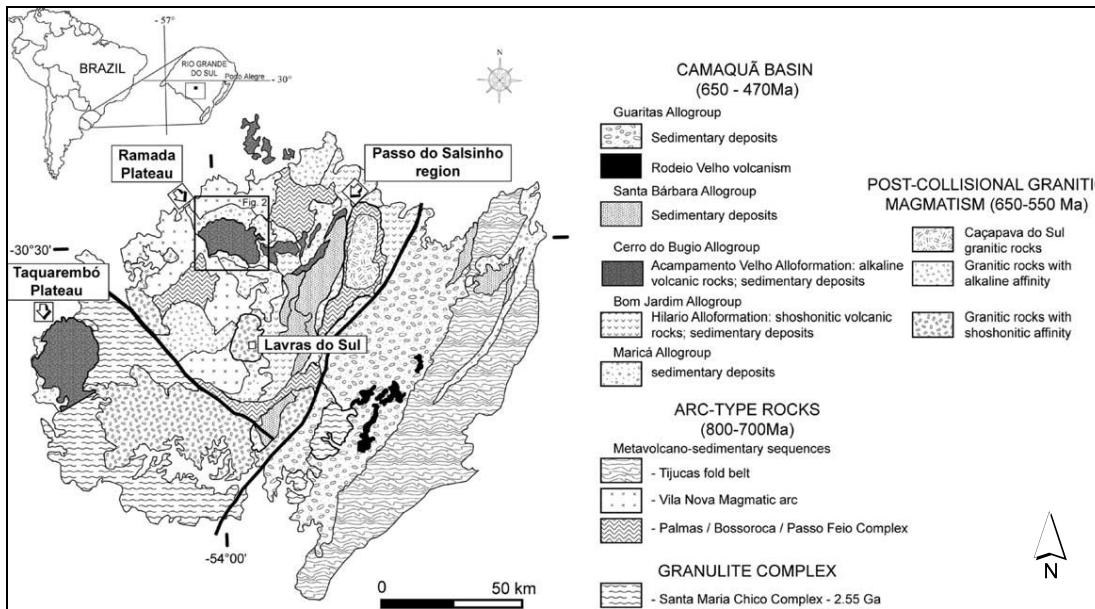


Figure 7: Geological map of the Vila Nova Belt and the Taquarembó Block, Sommer (2004)

The tectonic evolution of the crust containing the Lavras do Sul Intrusive Suite is shown in the model proposed by Chemale in Figure 8 to Figure 11 Chemale (2002). A four-phase model, two early 900-800 Ma nascent ocean floors (Figure 8), separated by an intra-oceanic arc, were compressed and partially subducted to the east between the South American Rio del Plata Craton and the African Kalahari Craton.

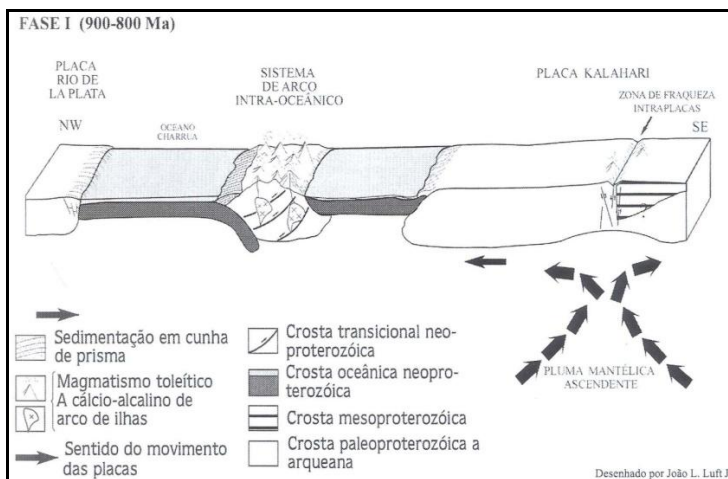


Figure 8: Evolutionary model for the Rio Grande do Sul Shield, Tonian and early Cryogenia, Chemale Jr. (2002)

Full subduction and obduction at 800-700 Ma (Figure 9) led the Palma Metamorphic Complex, the Tijucas Continental arc Belt, the foreland Encantadas Microcontinent and, in Namibia, the Gariep back-arc Rift.

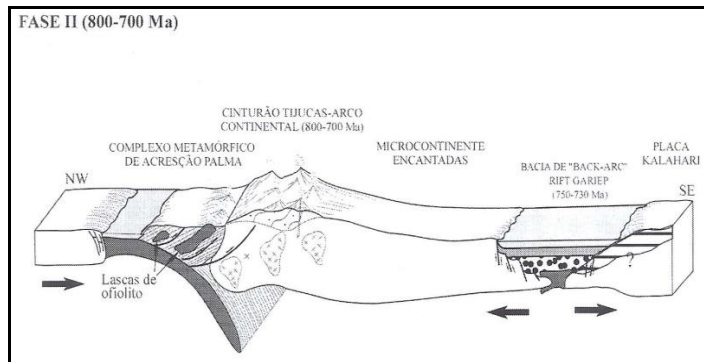


Figure 9: Evolutionary model for the Rio Grande do Sul Shield, Cryogenian Periods of the Neoproterozoic Erathem

Between 650 and 595 Ma, the Gariep Rift developed into a full-fledged ocean floor (Figure 10), effectively reversing the tectonic vectors in the Rio del Plata hinterland, producing a major west-vergence in the Dom Feliciano Belt (Pelotas Orogen), including its magmatic arc. Although little importance has been given to the Ibaré Lineament, the suggestion that it is a fossil on-land transform fault is fundamental with regard to tectonic, metamorphic and metallogenic aspects and should be pursued. It separates the juvenile foreland, the Vila Nova Belt, formed at this stage from the basement, possible metamorphic dome complexes.

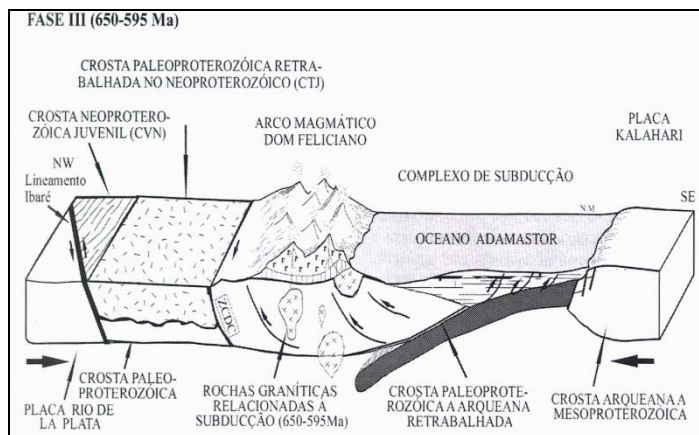


Figure 10: Evolutionary model for the Rio Grande do Sul Shield, Early Neoproterozoic III

The final stage (Figure 11), between 595 and 540 Ma, saw the emplacement of voluminous late- to post- tectonic high-K granite suites mainly but not exclusively in the foreland and later the development of the volcanic and sedimentary back-arc Camaquã basin.

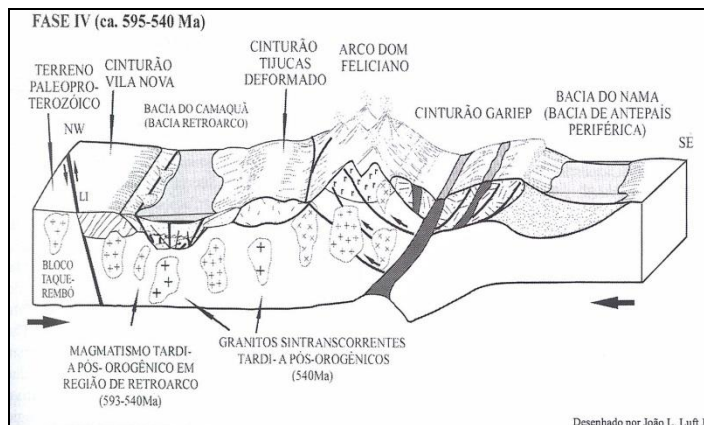


Figure 11: Evolutionary model for the Rio Grande do Sul Shield, Late Neoproterozoic III Periods of the Neoproterozoic Era

7.1.2 Regional Metallogenic Potential

There are many precious metal, base metal, and non-metallic occurrences throughout the Mantiqueira Province and the subordinate Dom Feliciano Belt and Vila Nova Belt (Bizzi et al. 2003), although many are currently thought to be small and sub-economic. Large parts of the province have low-grade metamorphic facies and there are numerous epithermal mineralization occurrences (Castro, Campo Largo, Guaratubinha, Camarinha, Camaquã) and low-temperature mineralization is widespread, most notably in the Vale do Ribeira.

In Rio Grande do Sul, the metallogenic patterns of the Dom Feliciano and Vila Nova Belt, while poorly documented, are clearly those of classic orogenic or foreland belts with base metal and precious metal clusters and zonations. There has been little systematic exploration in the area.

7.1.3 District Geology

The Lavras do Sul Suite of late Neoproterozoic III age intrudes rocks of various ages, including units of an early Cryogenic ocean-basin remnant. To the west, it intrudes granites and gneisses probably of Neoproterozoic age according to Gastal and Lafon (1998). The intrusive suite itself has an exposed diameter of some 11 km, necessarily suggesting a multiphase intrusion from one or many sources. Surface textures suggest that the preserved intrusion is relatively shallow.

The Lavras do Sul Suite comprises an inner core of granodiorite or monzodiorite in parts porphyritic, 9 km in diameter and centered on the town of Lavras do Sul. It is surrounded by a variably thick and narrow rim of calc-alkaline to alkaline K-feldspar pink granite. A third, late phase of syenite and nepheline occurs as plugs and dykes. See Figure 12: Lavras do Sul district geology

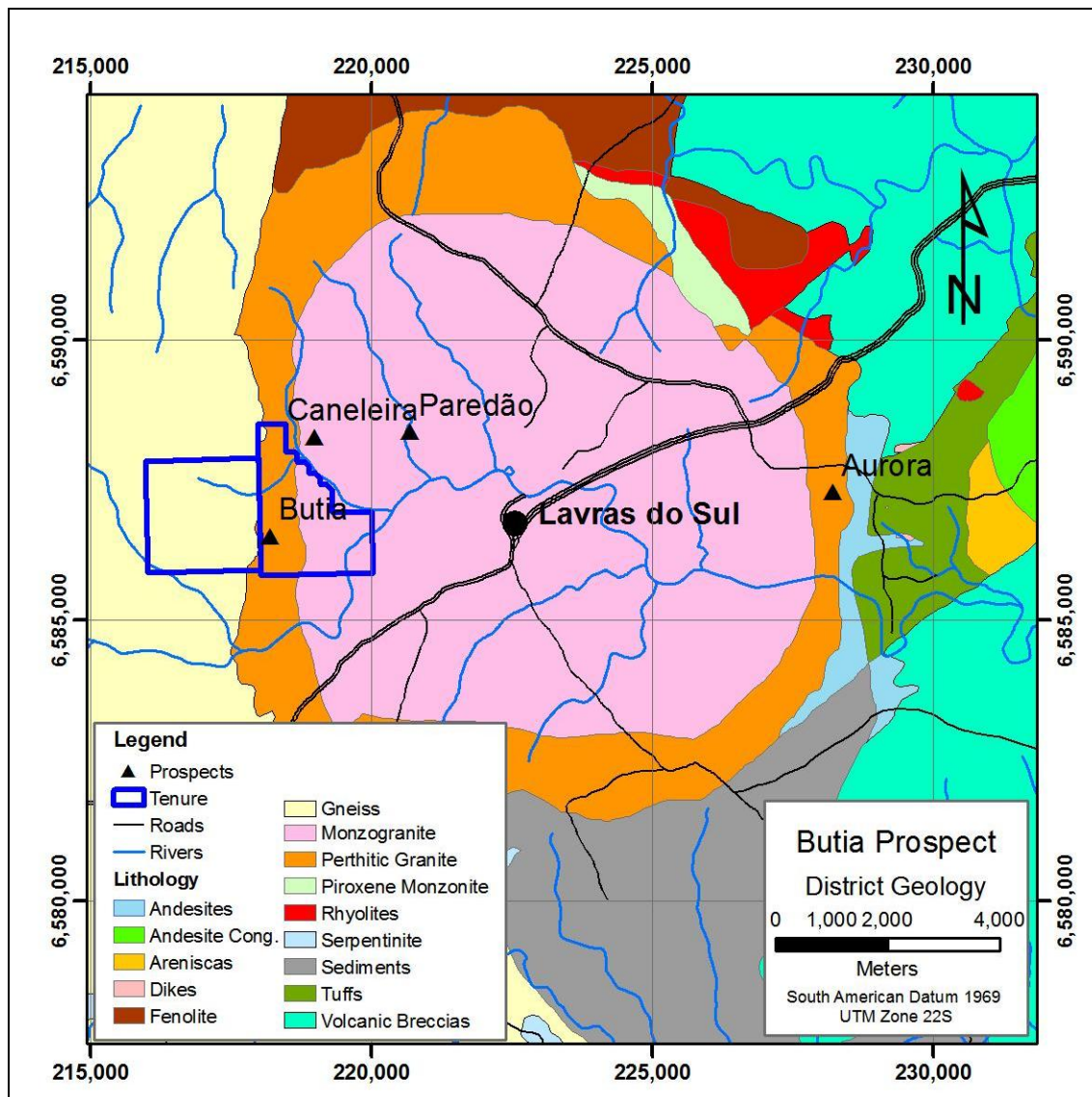


Figure 12: Lavras do Sul district geology

It is important to note that Mexias (2000) refers to a rock called episyenite being present, i.e. a rock that essentially appears to be a syenite but clearly is not one (as per the IUGS recommendation, Zharikhov et al. 2007). In the case of Lavras do Sul, the preliminary petrographic work indicates that the protolith granite is preserved, despite advanced “episyenitic” metasomatism and therefore the term episyenite is probably inappropriate. The episyenite should be called a microbrecciated sericitic granite. Further work should be carried out on the petrographic and petrogenetic characterization of these igneous rocks to clarify this point.

The late-tectonic nature of the Lavras do Sul Intrusive Suite is borne out by the age for crystallization of the unit by Mexias (2000, in Lopes et al. 2005) at 597 Ma during the late Neoproterozoic III period. Mineralization is dated by Mexias

(2000) by studying hydrothermal zircons that are synchronous with the hydrothermal mineralization assemblage. The age is shown to be 580 Ma. (Baars, 2008)

7.1.4 Lavras do Sul Suite Geophysics

The airborne geophysical signature of the Lavras do Sul Intrusive Suite not only provides an exceptional view of the internal differentiation of the igneous body, but also gives access to the structural make-up of the unit and thereby direct indications to fluid mineralization channels and sites. Figure 13 below demonstrate the internal complexities, particularly with regard to ground composition and structural variations.

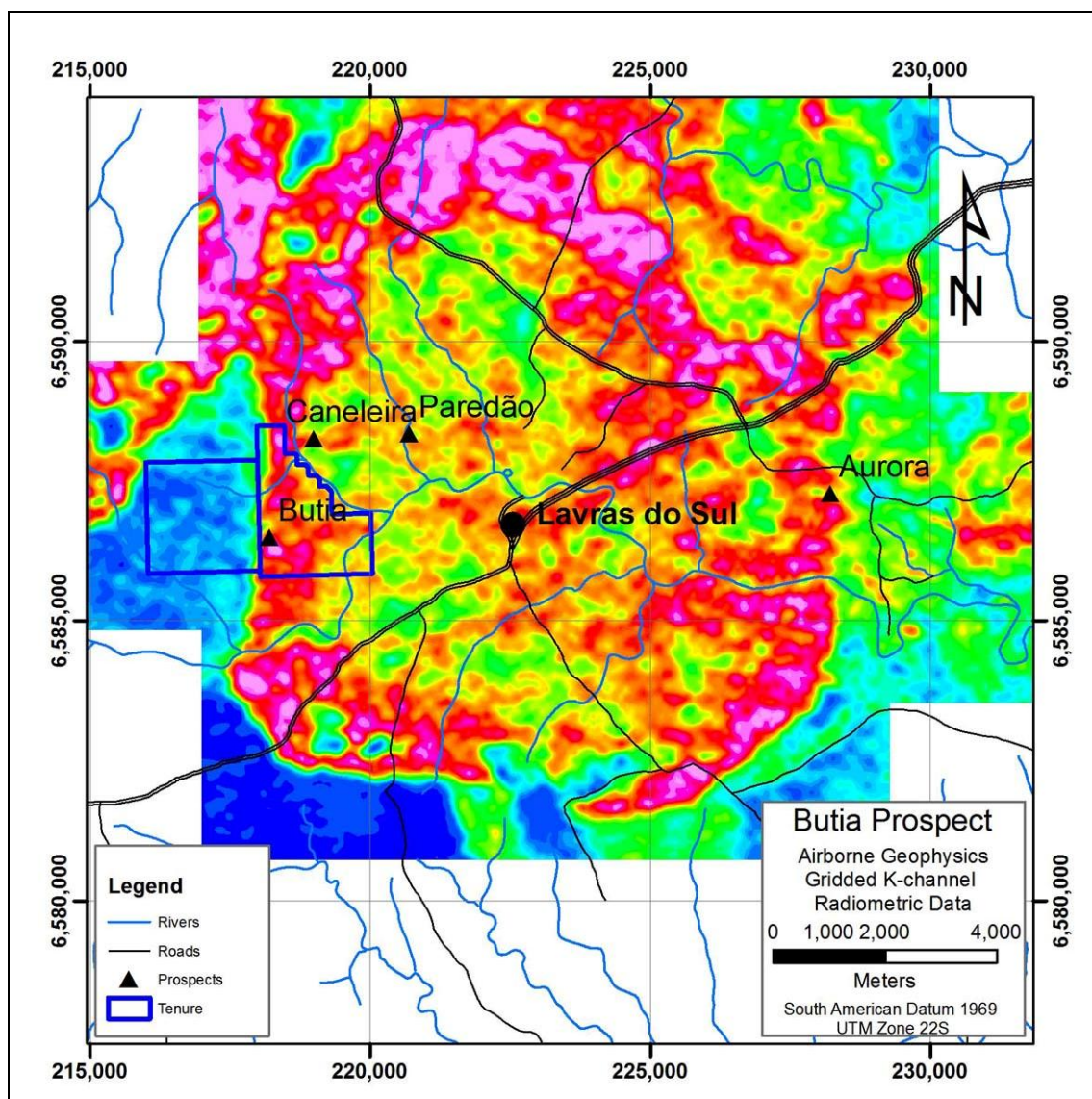


Figure 13: Airborne Geophysics Gridded K-channel Radiometric Data

One of the most striking features of the airborne geophysical signature is the very high radiometric character of the outer rim of K-feldspar granite of the intrusive suite with thorium being the best channel to identify the margins of the units. The central monzogranite to granodiorite appears to be demagnetized in its northern hemisphere with respect to the southern hemisphere and also the outer rim. It has been suggested that this may reflect the product of a hydrothermal magnetite- destruction process. There are also significant radiometric differences between the northern and southern hemispheres.

Most markedly though, perhaps, is the way that the magnetic signature clearly marks, by way of its derivatives, a network of brittle structures crisscrossing and irradiating from the centre and the eastern rim of the suite. The EW through ESE-WNW and SE-NW structures appear to coincide with the field definition of sericite alteration zones and have responded well as drill targets, hosting mineralization in planar bodies. The structures do not appear to penetrate country rock. Since this is the case and fluids are known to have been confined to the suite, all these structures should be considered to be potentially mineralized.

7.1.5 Lavras do Sul Suite Petrogenesis

Limited scientific work has been published on the petrogenetic development of the Lavras do Sul Intrusive Suite. This work is not reviewed here since it does not materially affect the conclusion that majority of the rocks of the Lavras do Sul Intrusive Suite are no more than host rock to the mineralization as opposed to parent rocks. In fact, it is argued that while it appears the parent rock for the mineralizing fluid is part of the Lavras do Sul Intrusive Suite, it has not yet been identified.

If indeed late syenitic phases exist and intrude the earlier, more voluminous granitic phases then these may have exploration implications. It appears unlikely that they are the differentiate equivalents of the granites, since the petrochemical evolutions of a calc-alkaline granitic suite and an under saturated alkaline suite are necessarily quite distinct and cannot have the same parent magma or the same metallogenetic associations. On the basis of restricted geological evidence, it is suggested that the late syenitic magma would be responsible for generating the hydrothermal magmatic fluid responsible for Lavras do Sul gold mineralization. Nevertheless, significant systematic petrography is still required and recommended in order to understand the petrogenetic evolution of the intrusive and most importantly its mineralization.

8 Deposit Types

The deposit at Lavras do Sul is not easy to classify into one deposit type and there is no deposit in the literature that has exactly the same features as those at Lavras do Sul. While the geologic model itself at Lavras do Sul is nothing extraordinary, it appears to be sufficiently unusual not to have described in other systems.

In Rio Grande do Sul, the metallogenic patterns of the Dom Feliciano and Vila Nova Belt, while poorly documented, are clearly those of classic orogenic or foreland belts with base metal and precious metal mineralization. The Lavras do Sul gold mineralization is within the area of foreland, late-tectonic alkaline granite emplacement, with possible back-arc development. While the substrate is unclear, it is likely to be Palaeoproterozoic gneiss implying significant crustal contamination and possibly assimilation into the differentiating peralkaline granitic stock. The temporal and geographical distance from the magmatic arc, crustal contamination and advanced alkaline differentiation would have jointly promoted single-metal, gold favorability.

Lavras do Sul has a two-stage gold precipitation history as a result of a single fluid evolution path from an extremely alkaline and silica undersaturated to quartz-flooding with increased fluid focus.

Macroscopic textures identified in the in the drill core can be compared to known deposits. For example the Rounded and ovoided brecciation and fragmentation as can be seen in Figure 14 Wabu Gold Prospect, Bilogai, West Papua, Indonesia and also in Figure 15 sericitic microbrecciated granite from Butiá.

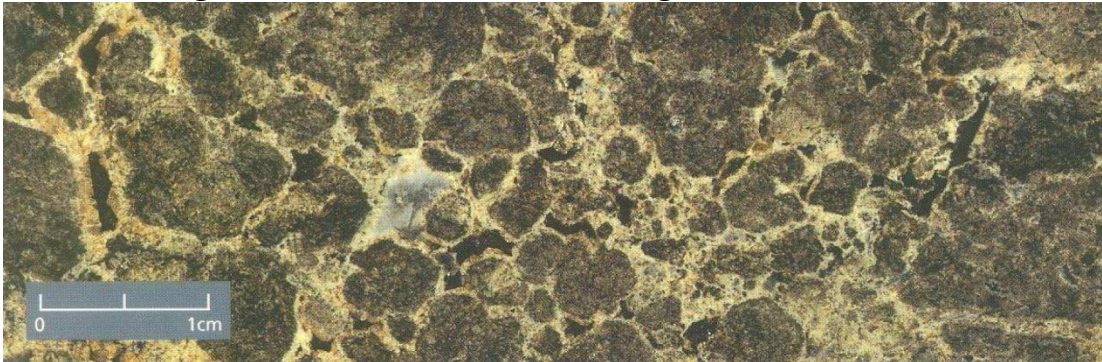


Figure 14: Wabu Gold Prospect, Bilogai, West Papua, Indonesia



Figure 15: Sericitic microbrecciated granite, Butiá

Pronounced brittle fracture (brecciation) overprinted by alteration and infill (tourmaline) as shown in Figure 16 from Kangaroo Hills Tinfield, Queensland, Australia. Figure 17 Quartz-flooded sericitic microbrecciated granite from Butiá.



Figure 16: Kangaroo Hills Tinfield, Queensland, Australia

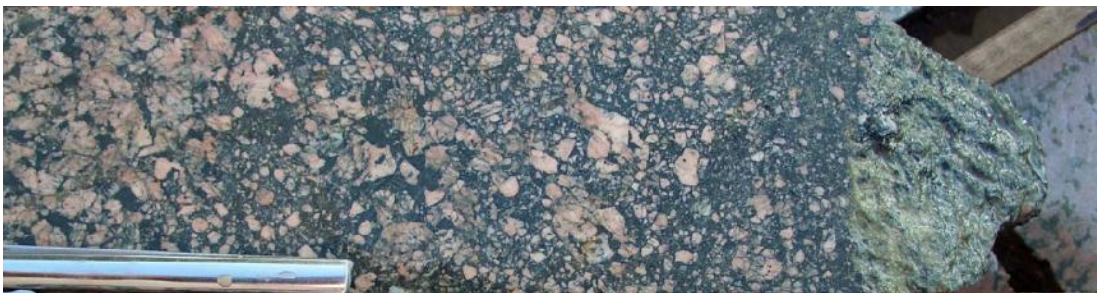


Figure 17: Quartz-flooded sericitic microbrecciated granite, Butiá

9 Mineralization

As mentioned in the previous section the Lavras do Sul mineralization does not fit neatly into any one deposit type classification. Petrographic work carried out by Amarillo Gold has identified the following points related to the mineralization.

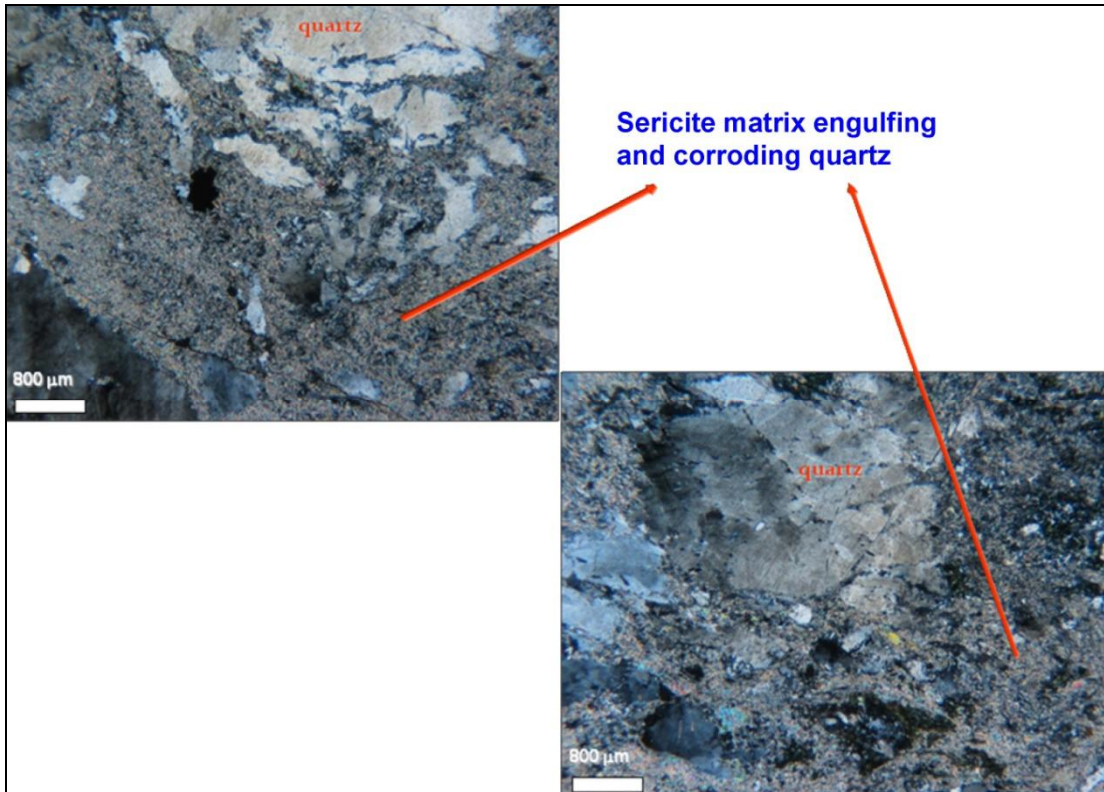


Figure 18: Evidence of arrested brecciation and consumption of quartz

The mineralization types and some barren wall rocks from the Lavras do Sul suite can be classified as breccias. It is a very intensely hydrothermally and structurally altered igneous rock whose inter-grain boundaries have been completely recrystallized to the extent that the rock can be characterized as being a rounded or ovoid breccia. See Figure 15

Figure 18 shows the evidence of arrested brecciation and consumption of quartz at the expense of sericite precipitation. This is evidence of the presence of an early quartz-undersaturated mineralizing fluid, later resaturated in silica and enriched in gold.

Evident in the drill core at Lavras do Sul is a strong quartz and feldspar replacement reaction where the precipitate mineral is exclusively sericite. This is a metasomatic reaction producing a sericite microbrecciated granite from the

original granite. It is hard to calculate the thickness of this early, proximal alteration zone but it is suspected to be of the order of 100 to 200 m around a structural fluid channel. The fluid was an alkaline, silica-undersaturated gold-bearing fluid that migrated along secondary fluid pathways, including intercrystalline microchannels, where fluid partial pressure was sufficiently low and alkalinity was still high enough in the early phases to promote broad, low-grade, poorly focused, low-temperature (250°C) Au mineralization. It is inferred that this silica-undersaturated fluid originated from syenite or similar intrusive plugs in the Lavras do Sul Intrusive Suite at 580 Ma, although these may be deep and have not yet been discovered.

Nevertheless, the fluid soon evolved into a silica-saturated and more neutral solution that also deposited other alteration species in a long and complex paragenetic sequence, forming more intermediate altered and poorly to non-mineralized rocks at lower temperatures (200°C): sericite-zircon- phengite?-chlorite-quartz-albite-pyrite-rutile-titanomagnetite. This would explain why the minerals are spatially present where the gold mineralization occurs, but show no abundant correlation with it, in that they represent an overprint of a slightly later hydrothermal alteration.

A third phase in fluid evolution represents the most important phase of mineralization from an economic point of view. As the fluid interacted with the relatively acid granitic wallrock, it became both acid and silica-saturated passing the critical pH barrier beyond which gold is once again insoluble in the fluid, now in focused channel ways, precipitated high-grade brecciating vein-hosted gold, overprinting the earlier microbreccias.

Lavras do Sul is testimony to a two-stage gold precipitation history as a result of a single fluid evolution path from extremely alkaline and silica undersaturated to quartz-flooding with increased fluid focus.

10 Exploration

10.1 Topographic Surveying

The holes drilled by CBC, RTDM and Amarillo's have been surveyed using Garmin GPS map 76CS and Garmin GPS map 60S without differential correction. The coordinates are therefore to an accuracy of $\pm 5\text{m}$. A detailed survey of the prospect area should be carried out using either theodolites or professional GPS with differential correction.

There is mineralization to surface and so a detailed topographic map should be prepared to create a DEM for the area showing the mined out areas and the topographic relief.

10.2 Geological Mapping

Amarillo has carried out surface geological mapping of the Lavras do Sur area and the Butiá prospect. Some surface sampling has been carried out, but because the surface has been significantly disturbed by artisanal mining these results have not been used in the resource estimate. See Figure 19: Butiá Prospect Geology

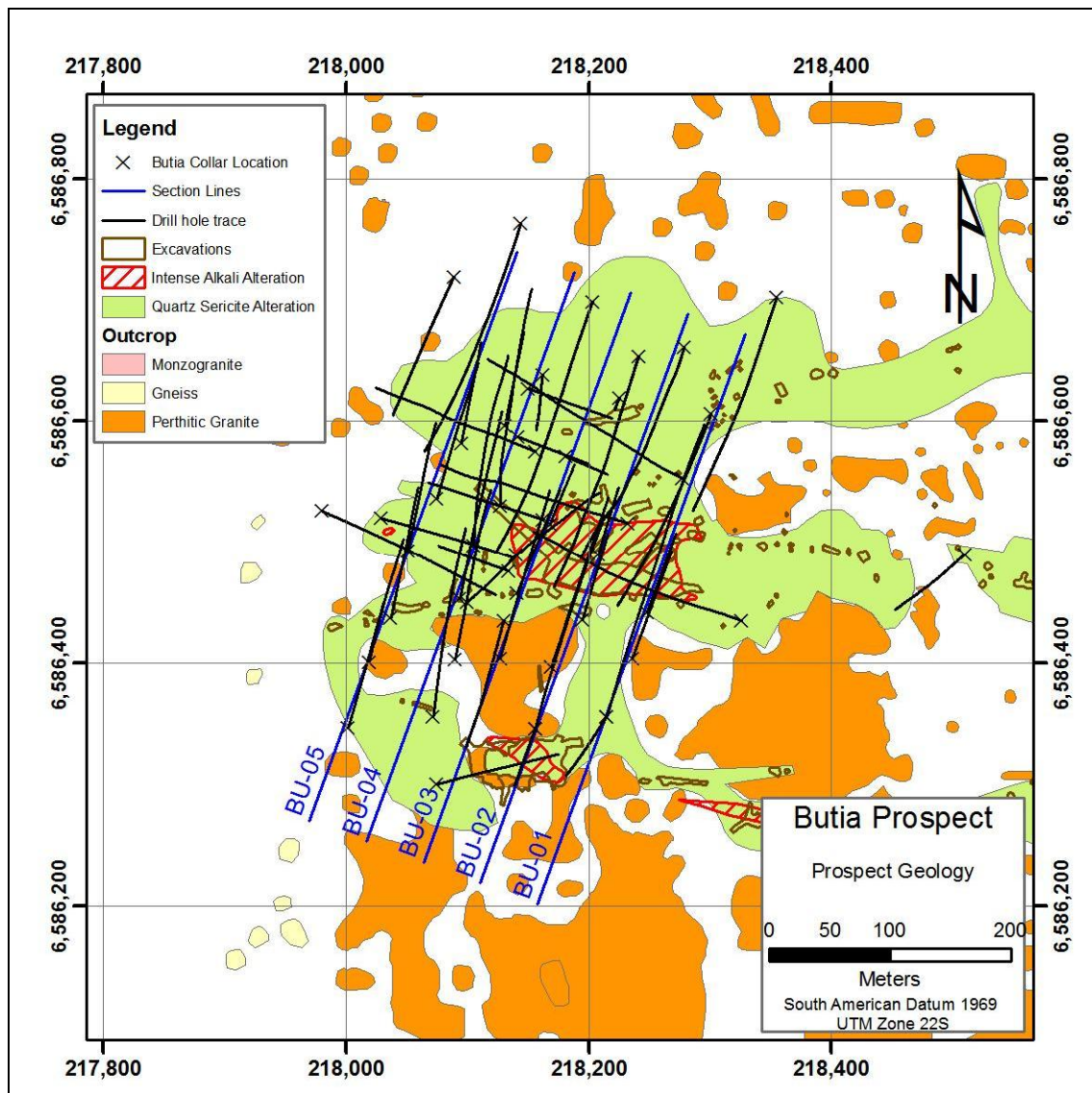


Figure 19: Butiá Prospect Geology

10.3 Geophysics

Amarillo has carried out IP and surface magnetic surveys of the Butiá project in 2008.

Time Domain Induced Polarization and Electroresistivity survey were carried on 48.1 line kilometres on 100 m sections, using dipole-dipole collinear array ($a = 50$ m; $n = 6$), and data processing and interpretation. Magnetic survey using vertical gradiometry was also employed using the same sampling grid. At Butiá 12 line kilometres lines were surveyed.

The study of the final results for the electrical method techniques was based on bi-dimensional modeling of the chargeability and electrical resistivity using controlled inversion on the Interpex RESINV2D software. Sections with the 2-D

geolectric models for these two properties were then georeferenced and interpolated to generate a volume representation for them (3-D physical property models). These models were then sliced horizontally at each 50 m to generate a map at different altitudes to represent the spatial variation. This study was complemented with the qualitative magnetic field interpretation. See Figure 20

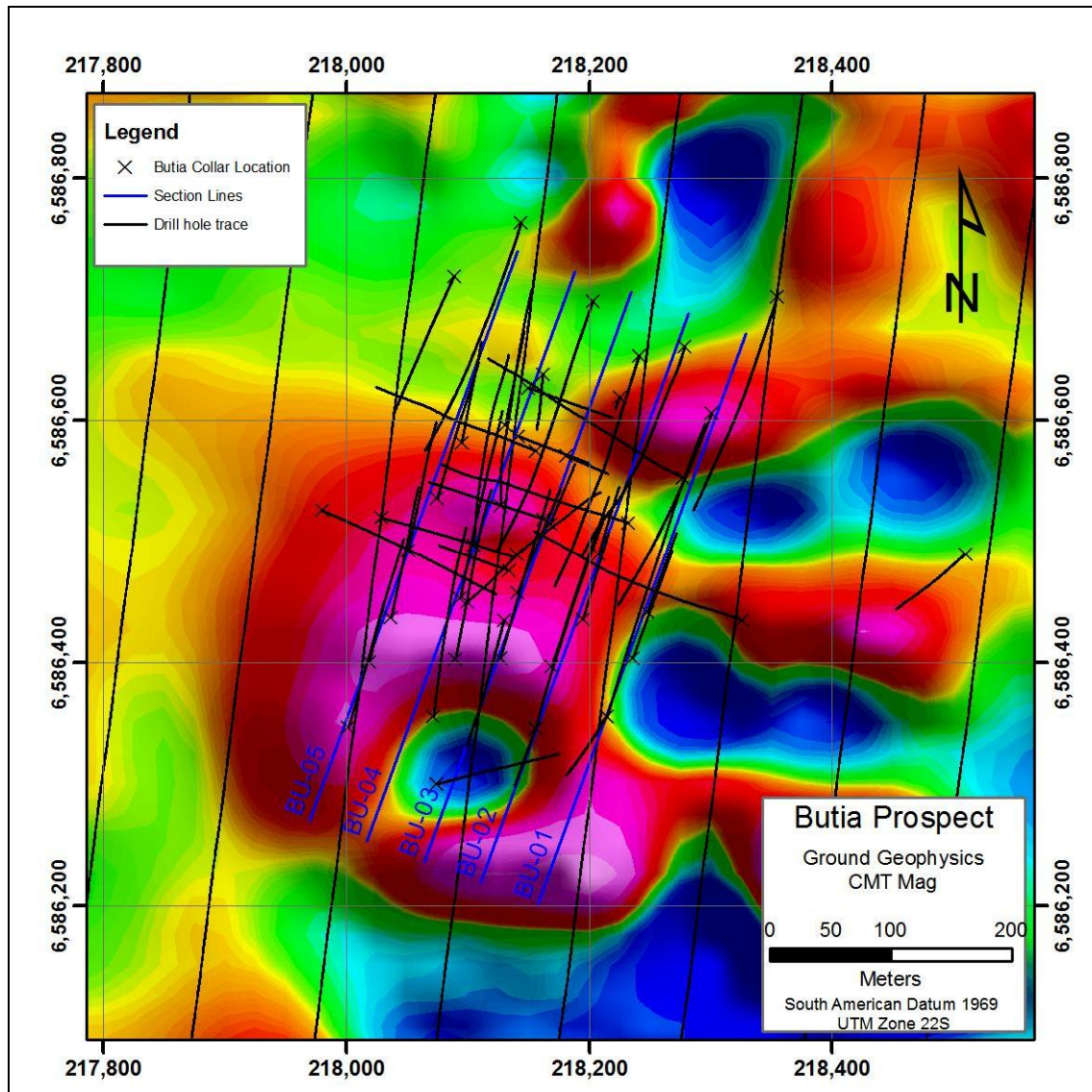


Figure 20: Ground Geophysics CMT Mag

Regional and local geologic information could help a better understand the physical model generated. These analyses showed that the physical property studied and the associated geophysical fields varies significantly under the surveyed target areas, also that these variations are difficult to group and to correlate one with another, which seems to indicate severe spatial lithological variations and a structural interference, revealing a complex geological spatial behaviour.

11 Drilling

11.1 CBC and RTDM Drilling

As detailed in “Section 6: Project History” CBC and RTDM previously drilled the Butiá prospect

Between 1984 and 1985 the CBC carried out detailed surface exploration and drilling, at Butiá. They drilled 1,520m in 13 holes. Not much usable material remains from this work as the core storage shed was burned in a forest fire.

From 2003 to 2006, the companies, RTDM and Iamgold carried out exploration in the Lavras do Sul district. In 2005 RTDM completed 892m of drilling in 5 holes at Butiá. This core is intact and kept at Amarillo's storage facility at Lavras do Sul. The original logging and the assay results have been imported into the Amarillo Gold drilling database so that they can be used in the geological and resource modeling.

The RTDM data is used in the Amarillo resource calculation. The original data is available and is of a very high quality. RTDM carried out QA/QC monitoring of their sampling and assaying. The half core that was not used as sample is stored in the Amarillo core store and is in a good condition. Two validation samples were collected from the RTDM drill holes.

11.2 Amarillo Drilling

Amarillo Gold has carried out drill programs on the Butiá prospect since 1996 having drilled a total of 11,056.37 metres between 1996 and March 2010. See details in the Table 4 and the location of the drill holes in Figure 22

Table 4: Butiá Drilling

Company	Year	No. of Drill Holes	Metres Drilled	Drill holes	Contractor
CBC	1984 to 1985	13	1,519.55	BB-01-84 to BB-11-85	CBC
RTDM	2005	5	891.50	2005LG001DD to 2005LG005DD	RTDM
AGC	2006 to 2007	3	573.35	LDH-001 to LDH-003	AGC/MT
AGC	2008	7	1,151.65	LDH-036 to LDH-043	AGC/MT
AGC	2008	11	2,609.37	LDH-122 to LDH-132	AGC/Geosol
AGC	2008 to 2010	17	4,631.50	LDH-133 to LDH-149	AGC/Geologica
AGC	2010	7	2,090.50	LDH-150 to LDH-155	Geologica

The drilling has been carried by three different companies AGC/MT, Geologica and Geosol.

During their first drilling program Amarillo drilled using PQ and HQ/HTW down to 300 m, below that depth was drilled using NQ/NTW core. During their second drilling program the drill holes were drilled using HQ/HTW down to 100 m and NQ/NTW after 100 m. The core recovery is very good in the fresh rock with over 98% recovery average. The core recovery for the HQ core in the Saprolite is 76% and the oxidized rock is 87%. The core recovery for the Amarillo drilling at the Butiá prospect is summarized in the Table 5.

Table 5: Core recovery

Weathering	Core Size	Recovery %	Metres Drilled	No Runs
Soil	HQ	93%	205	55
Soil	HTW	96%	271	43
Saprolite	HQ	76%	1,291	124
Saprolite	HTW	94%	125	18
Oxide	HQ	87%	6,033	175
Oxide	HTW	94%	2,838	207
Oxide	NQ	99%	4,073	38
Fresh	HQ	98%	210,292	2,906
Fresh	HTW	98%	93,256	1,338
Fresh	NQ	98%	173,894	1,272



Figure 21: Diamond drill rig at Butiá

The drill holes are mainly drilled on sections lines with 50m spacing but recent drill holes have drilled diagonally to the sections to better define the lateral extent of the mineralization.

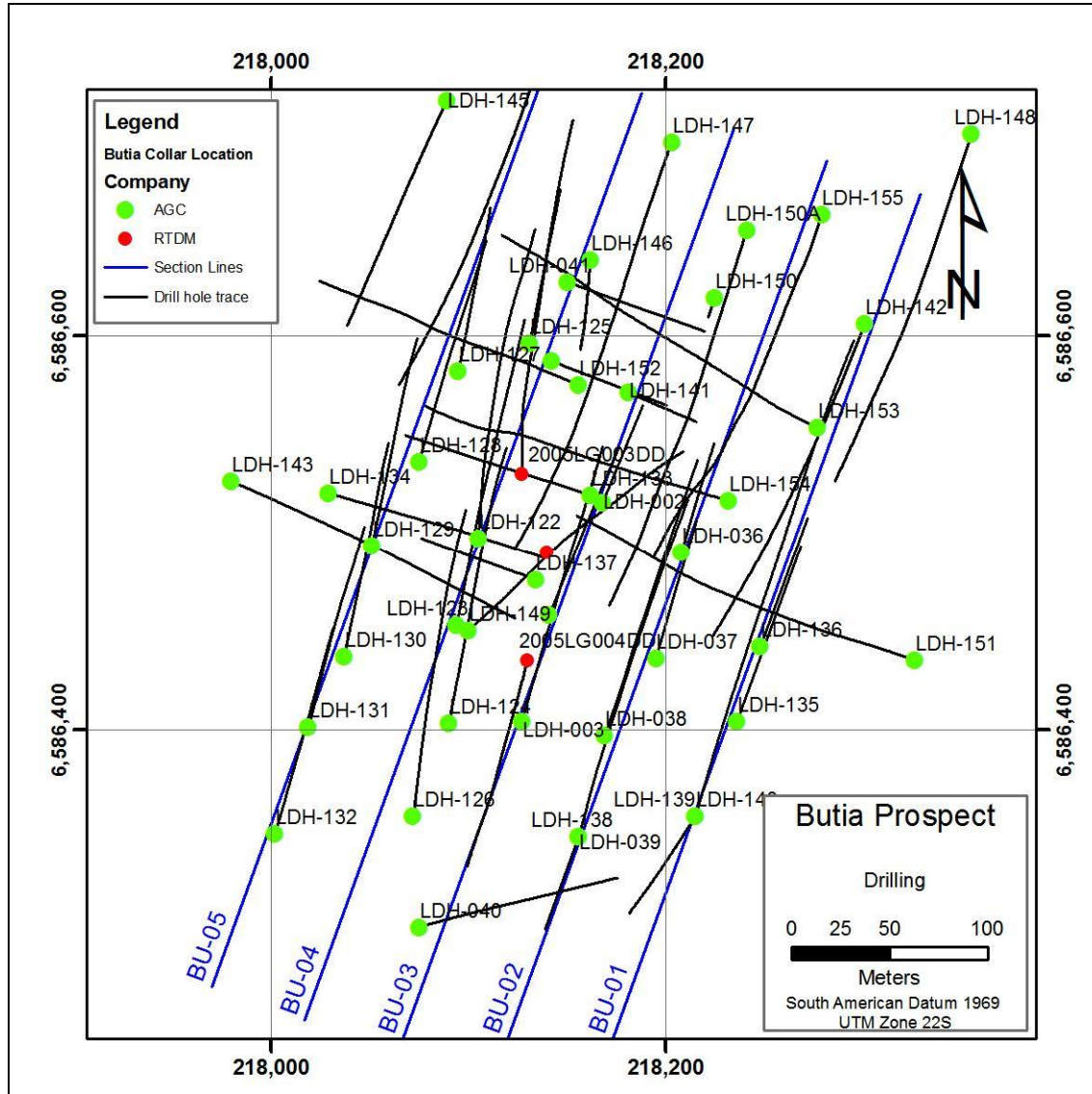


Figure 22: Butiá drill hole location

11.3 Surveys

The coordinates and elevations for the drill holes have been captured using Garmin GPSmap 76CS and Garmin GPSmap 60 GPSs. No differential correction was used when collection this data and there will be an inherent error in these measurements.

Down holes surveys have been carried out on all drill holes but the data is missing for three holes namely: LDH-135, LDH-136, and LDH-137. For the resource estimate the initial azimuth and dip has been used for the whole drill hole.

For the drill holes LDH-001 to LDH-134 measurements were taken on average every 50 metres using the Tropari instrument made by Pajari Instruments Ltd

For the drill holes LDH-138 to LDH-143 measurements were taken every 30 metres using the Reflex EZ-Trac – A multi shot magnetic survey instrument.

For the drill holes LDH-139 to LDH-155 measurements were taken every 30 metres using the Globaltech's Pathfinder instrument.

The drill holes do not have strong deviation or curvature. The maximum deviation over the whole drill hole is 22 degrees in the azimuth and 10 degrees in the inclination. The average deviation in the azimuth is 6 degrees and the inclination is 2.5 degrees. There is little magnetite in core and the magnetic susceptibility for the core is measured every meter.

The magnetic susceptibility readings are low and will not affect the down hole survey readings. The maximum reading is 70×10^3 SI Units. This would indicate between 2 and 3 percent magnetite. The average reading is 3.7×10^3 SI Units

All azimuth readings are magnetic readings. To correct the reading to true north 13 degrees was subtracted from the magnetic reading to account for the magnetic declination.

12 Sampling Method and Approach

All core boxes are marked with a stamped metal plate showing the core box number, drill hole number and depth of the core by the drilling contractor. Markers showing the depth at the end or each core run and the core recovery are stamped on metal plates that are nailed inside the core boxes.



Figure 23: Core boxes clearly marked

At the end of each shift the drilling contractor transports the sealed core boxes from the drill site to the Amarillo's core logging facility in the town of Lavras do Sul. The Amarillo technical team check the end depths and the core recovered against the markers.

The geotechnical log is carried out by an Amarillo technician who records the number of fractures in each run and the length of core over 15 cm long. From this the RQD percentage is calculated. Also measure is the rock strength, fracture roughness, fracture fill and the weathering.

The geological logging includes the lithology, percentage of sulphides, percentage of minerals, alteration, weathering, alpha angles for fractures and veins.

Each core box is photographed with a white board indicating the box number and the meters drilled.

The magnetic susceptibility is measured using one reading for every meter.

Once the geotechnical, geological, photographs and the magnetic susceptibility logs have been checked, the geologist marks the core for sampling. The core is joined together and a line is marked where the core should be cut. The samples intervals are marked. The sample size is generally 1 meter samples in the mineralized zones and 2.5 metres in areas with little visible mineralization.

The core is stored at a core storage location 4 kilometres outside of Lavras do Sul. All core boxes from the RTDM and Amarillo Gold drilling are present. A fire at a previous storage area destroyed some of the CBC core boxes. The storage area is well set out and the core stored in sealed boxes in covered shelving. The area is not locked and there is no guard present to ensure security. The security at the site needs to be increased to ensure only authorized personnel have access.



Figure 24: Core storage area at Lavras do Sul

The core is cut using a diamond saw. One half of the core is placed in a plastic bag with a card indicating the sample number. The sample is then placed in a second plastic bag and another card with the sample number is placed in the sample bag so that it is visible.

Amarillo are inserting quality control samples into sample batches. Approximately every 25 samples blanks, duplicates and standards are inserted. These are placed in sample bags and given sequential number by the geologist. The bag is sealed with string.

The sample bags are placed in large white bags where the number of the bag, type of sample and the sample sequence numbers are written. The bags are sealed with string and tape and an address label added. A form is filled out with the batch number, samples sequence and analysis desired. A copy of this form is sent with the samples and copies emailed to ACME and the geologist. A copy of the form is stored in Lavras do Sul Amarillo offices.

An invoice is prepared indicating the type of material, weight and the destination. Copies are sent to Inland Revenue, one to the Amarillo offices and two copies are

sent with the bags. The bags are transported from Lavras do Sul to Canoas using the company Monte Claro and then from Canoas to ACME lab en Goiás state.

On reception of the samples, they are checked against the shipping documents and an email is sent confirming reception.

12.1 Database and data capture

The logging is carried out on paper logs and then is imputed into Excel spreadsheets. There is one spreadsheet for each drill hole with separate worksheets for each data type. The raw data is imported into the GeoticLog database. The database is used to merge the logging and sampling data with the assay certificates. The merged data can be exported back in Excel and for analysis of the QAQC.

12.2 Density Determination

A total of 192 samples from five different drill holes have been measured for density. Half core samples were weighed on a digital scale, sealed and then inserted into a graduated glass tube filled with water. The density was calculated by

$$\text{Density} = \text{weight of sample (g)} / \text{volume of water (cm}^3\text{)}$$

The average density for the perthitic granite was 2.61 g/cm³ and that for episyenite was 2.68 g/cm³

Table 6: Episyenite and perthitic granite densities

Description	Density g / cm ³		
	All Samples	PG	ESY
Average	2.65	2.61	2.68
Max	2.91	2.80	2.91
Min	2.39	2.46	2.39

13 Sample Preparation, Analyses and Security

The samples collected by Amarillo Gold have been assayed in the ALS Chemex laboratory in Bello Horizonte and the ACME Labs in Vancouver.

The ALS Chemex preparation laboratory crushes the half core samples to 70% -2mm and then split using a riffle splitter. A 1000 gram split is pulverized 85% passing 75 microns. The gold fire assays are carried out on a 50 grams sample with an AA finish. All samples are assayed using the Au-AA24 process with a detection limit of 0.005 ppm and maximum detection limit of 10 ppm Au. Samples with a grade of greater than 10 ppm are assayed using an ore grade process Au-AA26 which has a lower detection limit of 0.01 ppm. The ICP assays are carried out using 35 Element Aqua Regia ICP-AES analysis.

The ACME samples are prepared in their preparation laboratory in Goiás state Brazil. The 1 kg of sample is crushed to 80% passing 10 mesh, split 250g and pulverize to 85% passing 200 mesh. The samples are then shipped to Acme Vancouver where they are analyzed by the by ICP and Fire Assay. The ICP process is for sample splits of 15g are leached in hot (95°C) Aqua Regia and analyzed using ICP-MS for 36 elements.

For the drill holes LDH-144 to LDH-149 all samples were assayed using Aqua Regia digestion and ICP-MS analysis (1DX2). Only those samples of >200 Au ppb were sent for fire assay.

Starting with drill hole LDH-150 all samples are now analyzed using Fire Assay on a 30g split with a lower detection limit 0.005 ppm and an upper limit of 10 ppm. All samples with values of greater than 10 ppm are automatically assayed using G6 Lead collection fire assay fusion with a gravimetric finish.

14 Data Verification

14.1 RTDM QA/QC

The RTDM QA/QC data has not been reviewed in detail. RTDM did carry out systematic QA/QC of their sampling but there is no report available describing their QA/QC procedures and results. The original logging files identify the blanks and standards that were inserted into sample number sequence and it would be possible to identify these standards in the original assay certificates and review the results.

14.2 Amarillo QA/QC

Amarillo gold has carried out systematic QA/QC program with the insertion of approximately one in ten samples to validate the assay results. Twin sample (quarter core samples), Certified Reference Material (CRM) and blanks are inserted into the sample sequence.

As the CRM is already a pulp sample the assay laboratory is aware that these samples are for QA QC purpose. Amarillo inserts different CRM material into every batch to ensure that the laboratory is unaware of the grade of the CRM material.

14.2.1 Blanks

A total of 288 blanks have been inserted into batches and only one blank has been returned with a value of over 0.1 ppm and nine samples with values of greater than 0.01 ppm. Two samples had been identified as blanks but had returned grades within two standard deviations of CRM material that was being inserted into the assay batch. It is most probable that this standard had been poorly identified when preparing the batch documentation.

14.2.2 Twin Samples

Twin samples are quarter core samples that are mainly used to assess the mineralization homogeneity and sampling variance. The sample is prepared by cutting in half the original half-core sample to generate two quarter core samples. One quarter representing the original sample and the other quarter representing the twin sample. Both samples are then analyzed and their results compared. If the mineralization is disseminate evenly throughout the core one would expect the results to be the same, but if the mineralization is not homogeneous and nuggety it is possible to have large variations between the two samples. It is important to assess mineralization homogeneity and sampling variance the so that the drilling and sampling techniques can be tailored to minimize its effects.

Currently the Amarillo technicians are cutting the half core in half and then mixing the both fractions before splitting the sample. This is counter productive as it means the twin samples are not assessing the sampling variance between the

two quarter core samples but the sampling variance of splitting broken core. The samples must not be mixed but processed separately as two separate quarter core samples.

The correlation between the first drilling program, LDH-001 and LDH-003, was poor with a correlation coefficient for the samples of 0.1. The drill holes in all subsequent campaigns had values of between 0.8 and 0.9 with a value of 0.87 for the 274 twin samples. The Twin samples need to be monitored more closely to ensure that the sample variance for the half and quarter core is reasonable.

14.2.3 Certified Reference Material

Amarillo gold has used a total of eight different CRM. Normally a high grade (3-5 ppm Au), medium grade (1-2 ppm Au) and a low grade (0.3 to 0.5 ppm Au) CRM inserted every 20 samples, see Table 7. The purchased material is placed inside a sample bag along with the sample tag before being inserted into the sequence of samples for the batch. The laboratory can identify that this sample is CRM but it is not possible for the laboratory to identify which standard has been used.

Table 7: Amarillo Certified Reference Material

Standard Name	Recom- mended Au ppm	Between Lab two Standard Deviation	Certificates
CDN-GS-1P5A	1.37	0.12	http://www.cdnlabs.com/Certificates/GS1P5A%20Certificate.pdf
CDN-GS-1P5B	1.46	0.12	http://www.cdnlabs.com/Certificates/GS1P5B%20Certificate.pdf
CDN-GS-3C	3.58	0.31	http://www.cdnlabs.com/Certificates/GS3C%20Certificate.pdf
CDN-GS-5C	4.74	0.28	http://www.cdnlabs.com/Certificates/GS5C%20Certificate.pdf
CDN-GS-P3	0.30	0.04	http://www.cdnlabs.com/Certificates/GSP3%20Certificate.pdf
CDN-GS-P5B	0.44	0.04	http://www.cdnlabs.com/Certificates/GSP5B%20Certificate.pdf
STD1	4.21	0.30	Standard prepared by ACME, Chile for Amarillo Gold
MR	4.20	0.14	No certificate available

The CRM SDT1 was used in the first drilling campaign from drill hole LDH-001 to LDH-003. The material was prepared by ACME in Santiago, Chile for Amarillo Gold using material from the Mara Rosa prospect. The mean and standard deviation was calculated from a round robin from three separate laboratories.

The batch A750229 had results for the STD1 in the range between 0.68 – 1.5 ppm Au. This batch was not reanalyzed at the time but the results have been used in the database as they will underestimate the true gold values. If the coarse rejects or pulp rejects for this batch still exist they should be reanalyzed to confirm the grade of these samples.

The drill programs from drill hole LDH-036 have used of-the-shelf CRM purchased from CDN Resource Laboratories Ltd.. The results of this material have been good with few results falling outside of the two standard deviation range for the CRM. Where one CRM sample has an assay value outside of the two

standard deviation range, but the other standards within the same batch are within these limits, the batch is not reanalyzed and assay results used in the database.

The CRM CDN-GS-P5B has a recommended value of 0.44 ppm Au. The CRM has been used in batches analyzed by both ALS Chemex and by Acme Analytical Laboratories and the Average grade for all assays is 0.41 ppm Au. The accepted limits for this CRM have been adjusted to 0.41 ppm Au \pm 0.04. As can be seen in Figure 25, all but one of the results fall within the two standard deviations of the mean value.

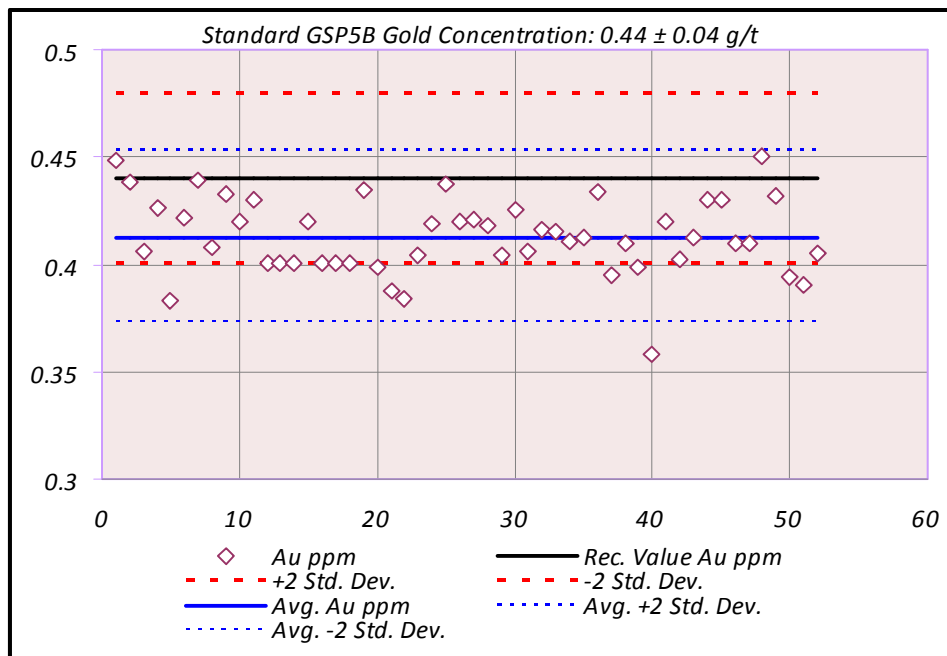


Figure 25: Results for CRM CDN-GS-P5B

One other standard identified as MR has been used in conjunction with other CRM. The standard was prepared for Amarillo but no certificate prepared by the laboratory can be located for this material. The CRM has only been used eight times in four batches. The average grade for these samples is 4.23 ppm Au and the standard deviation is 0.14. This compares favourably to the CNDLabs CRM where the standard deviation is 0.28 for samples with a similar gold grade. All the results fall within two standard deviations of the average grade. This standard is no longer used.

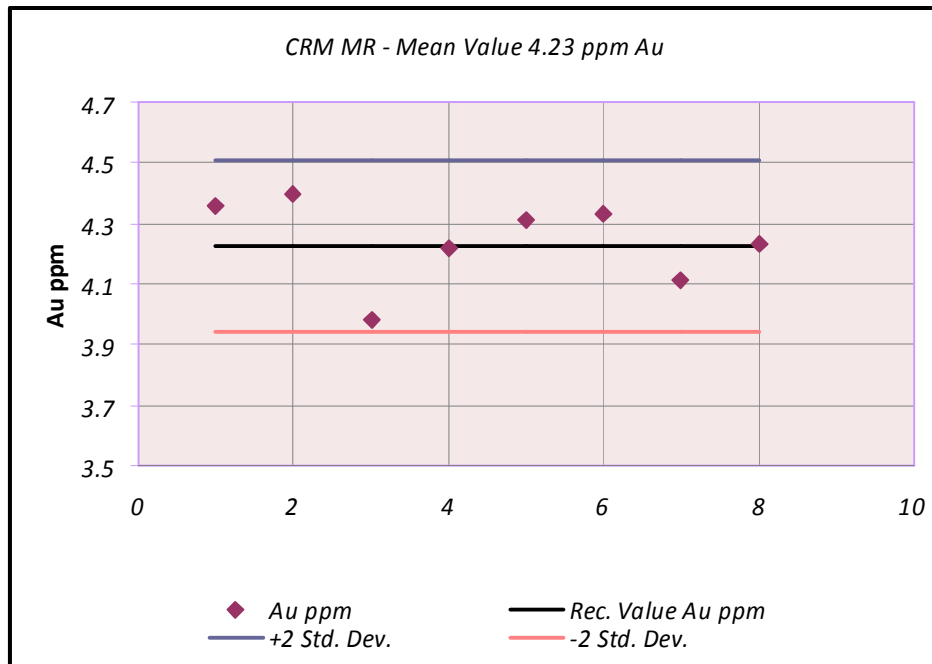


Figure 26: Results for CRM MR

Some of the assay results in the original GeoticLog database for the CRM fell outside of the two standard deviation limit those standards. Reviewing the results it became apparent the these CRM had probably been incorrectly entered into the database because the assay results fell within the two standard deviation limit for other standards that were being used at the time. The standards have very similar names. A total of 16 samples were reassigned from GS-P5B to GS-1P5B. One GS-1P5A sample was reassigned to GS-5C. One blank sample was reassigned to GS-1P5B. Due to similar names for the CRM great care must be taken when preparing the batches and entering data into the database.

14.3 Data Verification by Atticus Associates

14.3.1 Drill hole collars

Atticus checked the location of the 10 drill hole collars using a Garmin GPS. The holes selected included holes drilled in each drilling campaign and holes drilled by CBC and RTME. The minor difference in coordinates recorded were within the error associated with hand held GPS's of 5m.

All drill hole collars checked are clearly marked with plastic tubing in a base of concrete. The drill hole number is stamped into a metal plate attached to the base and or has been inscribed into the plastic cap on top of the plastic tube.



Figure 27: Collar monuments for LDH-139, 2005-LG-001-DD and F-BB-02-84

14.3.2 Geological Logging and database

Atticus reviewed the drill hole files during the site visit. These files include the collar coordinate information, daily drill reports including the down holes survey data, geotechnical logging, magnetic susceptibility, geological logging, core box intervals, sample intervals and the assay certificates. A random selection of drill holes was checked against the digital data and no inconsistencies were found. The paper archive was found to be excellent and well maintained.

The paper records are entered into Excel spreadsheet and then these files are imported into the GeoticLog database (<http://geotic.net/>). This database contains all the survey, logging, sampling, assay certificates and QA/QC data. The merged data from the database can be export into one large Excel file (or other database formats), for importing into mine modeling software.

The database provide by Amarillo gold was up to date to drill hole LDH-149. The data for the drill holes LDH-150A to LDH-155 was provided in separate Excel files and as the original assay certificates. All the data was imported into a Microsoft Access database. A few errors in logging intervals were identified and then checked against the original logging sheets and found to be data entry errors.

The original logging data used a total of 28 codes for the lithology. In conjunction with the Amarillo geologists these codes were grouped into six main lithologies that would be used in the 3D model. There were a total of 38 weathering codes in the original weathering logging and these codes were simplified into five weathering types for the 3D domain modeling.

The database contained some Au assay values of greater than 0.2 ppm Au that had been obtained from ICP analysis but did not contain the fire assay results for the same sample. These batches were identified and fire assay certificates imported. A total of 75 assay certificates were imported into the database to provide the assay data for the drill holes LDH-150A to LDH-155 and to check the assay data drill holes LDH-001 to LDH-149. No errors were identified between the imported certificates and the GeoticLog database values.

14.3.3 Ranking of duplicate assays

Amarillo Gold has been entering logging and assay data for the Lavras do Sur prospect into a GeoticLog database. For each sample there are often more than one analysis carried out. A ranking list was prepared to select the most accurate of the multiple assays. All data originally in the GeoticLog database was selected giving preference to the Screen Fire Assay (SFA) results over the Fire Assay results and those results over the Geochemistry ICP results. Where there were ICP results with values over 0.2 ppm Au but no FA results in the GeoticLog database assay certificates for the fire assay were imported and the results updated.

The following ranking was used to select the “best” Au assay where there were multiple assays for each sample.

Table 8: Assay method ranking

Rank	Company	Method Code	Description	Test Weight (g)	Minimum Detection Limit(ppm)
1		SFA	Geotic database SFA		
2	ACME	G6 Grav	Fire assay Au by gravimetric finish	30	0.17
3	ACME	G6	Lead collection fire assay fusion - Grav finish	30	0.17
4	ALS	Au-GRA22	Au 50g FA-GRAV finish	50	0.05
5	ALS	Au-AA24	Au 50g FA-AA finish	50	0.005
6	ACME	G601	Fire Assay fusion Au by ICP-ES	30	0.05
7	ACME	G601	Fire Assay fusion Au by ICP-ES	30	0.01
8	ACME Stgo.	Au Grav		?	0.1
9		ICP	Geotic database ICP		0.005
10	ACME	1DX15	Aqua Regia digestion ICP-MS analysis	15	0.005
11	ACME Stgo.	Au			0.005

14.3.4 Verification Sampling

Verification samples were collected by Atticus during the site visit. Suitable samples were selected from 10 different drill holes drilled by CBC, RTDM and Amarillo Gold. Amarillo marks the sample prior to cutting the core but no marker is placed into the core box at the end of the sample and the remaining half core is not marked identifying the beginning and the end of each sample. This made it difficult to identify exactly the core used in the original sample. To minimize this risk samples were selected that coincided with the drill run markers where possible.

The selected samples were marked up by Atticus and then the half core was cut by the Amarillo technician. The samples were bagged and sealed by Atticus using a random sequence to ensure that the Amarillo staff did not know which of original samples related to the verification samples. Two CRM samples and one blank were inserted into the sample sequence. The sample batch and documentation was prepared as per the usual system and the bag containing all the verification sampling was sealed and taken to the transport company in the presence of the Atticus for transport to the ALS Minerals laboratory in Bello Horizonte, Brazil.

The samples were prepared by ALS Minerals crushing the sample to 70% <2mm and then split using a riffle splitter to create a 1kg sample. The 1kg sample was pulverized to 85% <75um. The analysis was carried out using fire assay with an atomic absorption finish on a 50g sample.

Sample number 205432 was a CRM CDN-GS-1P5B sample which has a recommended value of 1.46 +- 0.12 ppm Au returned a value of 0.897 which is outside of the two standard deviation limit set for this CRM. Sample number 205436 was a CRM CDN-GS-P5B sample which has a recommended value of 0.44 +- 0.04 ppm Au returned a value of 0.378 which is within the two standard deviation limit set for this CRM. ALS Minerals were asked to repeat the batch. The repeated batch did not include the assay values for the two CRM samples because all the original material had been used in the first batch. ALS Minerals inserted two of their own CRM samples into the first batch and six CRM sample into the second batch. All internal check samples were within their defined limits. The assay values for the validation samples were similar in both batches.

The results for the validation are all lower than the original assay values except for one sample, but are within the expected range for quarter core samples where there is coarse grain gold. The sample number 205435 had an assay value of 1.79 ppm Au in the original sampling but the verification sampling had values of 0.229 ppm Au and 0.227 ppm Au. It is possible that the validation sample did not match exactly the same sequence of core from which the original sample was collected for the reasons explained above. The results of the Verification Sampling are summarized in Table 9

The validation sampling demonstrates that there is fair correlation between the original sampling and the verification sampling. The absolute values cannot be fully trusted due to the failure of the one of the CRM samples. The remaining pulp sample should be returned to the Amarillo gold and resubmitted with new CRM material inserted into the sequence.

Table 9: Verification sampling results

Original Sample data					Verification Assay 1		Verification Assay 2	
DDH	From	To	Sample number	Au ppm best	Sample ID	Au ppm	Au ppm	Au check ppm
LDH-122	199	200	338952	2.1	205427	2.1	1.605	1.955
			Rocklabs Blank		205428	<0.005		
BB-01-84	65	66	BB-01-84_65_66	0.8	205429	0.684	0.657	
LDH-144	244	245	342626	1.139	205430	0.809	0.732	
BB-01-85	100	101	BB-01-85_100_101	1.1	205431	0.428	0.445	
			CDN-GS-1P5B	1.46*	205432	0.897		
LDH-144	194	195	342579	0.587	205433	0.458	0.42	

Original Sample data					Verification Assay 1		Verification Assay 2	
DDH	From	To	Sample number	Au ppm best	Sample ID	Au ppm	Au ppm	Au check ppm
LDH-01	95	96	933134	1.44	205434	1.57	1.555	
LDH-03	96	97	333027	1.79	205435	0.229	0.277	
			CDN-GS-P5B	0.44*	205436	0.378		
2005LG002DD	84	85	BR0055885	0.001	205437	<0.005	<0.005	
2005LG003DD	106	107	BR0056816	1.56	205438	1.205	0.966	1.195
BB-01-85	142	143	BB-01-85_142_143	1.1	205439	0.929	0.877	0.907

* CRM recommended value

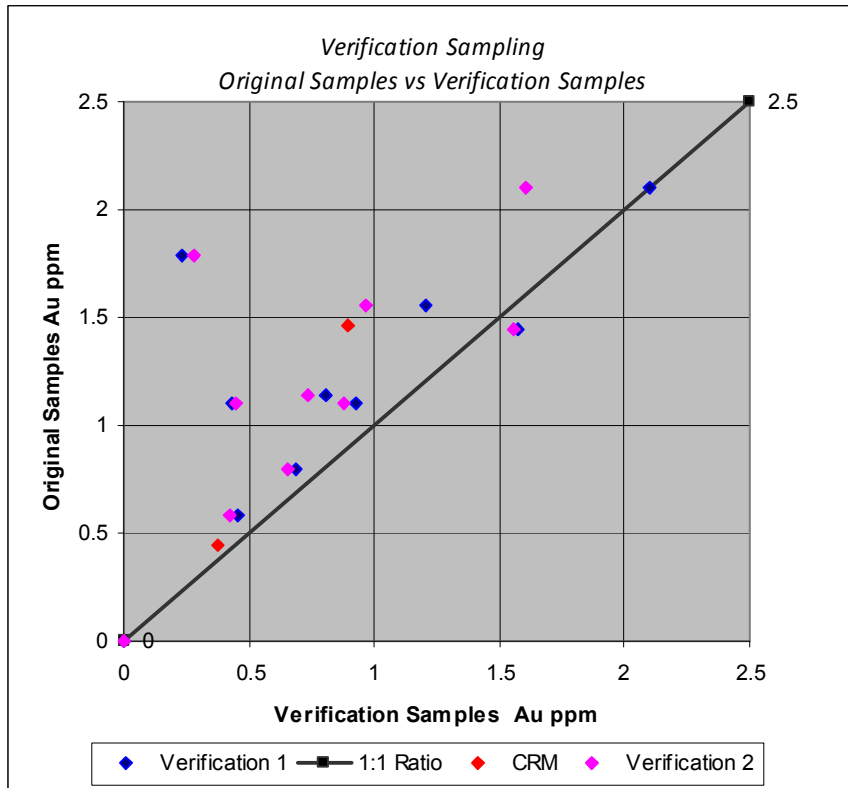


Figure 28: XY Plot original sampling vs. verification sampling

15 Adjacent Properties

The Lavras granite complex hosts numerous areas of historic diggings and small mine workings that were the subject of gold rushes in the 1880's and 1930's. Gold mineralization had been drill-confirmed in the 1980's at Cerrito and Butiá, where it was found to be hosted in structurally controlled alteration zones with sericite and pyrite, +/- sheeted quartz veins. None of the other areas of workings and alteration (which number more than 12), have ever been drill-tested. Amarillo has systematically mapped these areas and followed up with a drill program where warranted. Paredão, Caneleira and Aurora are the first such areas to be so tested.

15.1 Cerrito Prospect

The style of mineralization at Cerrito is typical of the Lavras prospect. Mineralization is hosted in alteration zones of the Lavras granite intrusive complex. The alteration is dominated by sericite, hematite, and minor chlorite. The gold mineralization occurs hosted within the broader alteration in structural control zones.

At Cerrito CBC drilled a total of 40 drill holes, RTDM 4 drill holes and Amarillo Gold have drilled a total of 27 drill holes, a total of 3,815 metres. The drilling to date has revealed three zones of gold mineralization on the prospect. The central zone strikes for about 600m and is up to 70m wide and is open at depth. The other zones are less well defined and require more drilling.

15.2 Paredão Prospect

The Paredão prospect lies just west of the village of Lavras do Sul on pasture lands. The prospect is divided into the southern, central and northern zones. The Amarillo drilling to date has identified mineralization in all three zones with LDH-105 intersecting 12m at 4.54 ppm Au, The mineralization is probably controlled by a SE-NW structure.

15.3 Caneleira Prospect

The Caneleira prospect lies 4 kilometres to the west of the town of Lavras do Sul on pasture lands. The mineralization appears to be controlled by a subvertical SE-NW structure. Amarillo Gold has drilled nine holes at Caneleira totalling 1,673m. The mineralization on the prospect has been continuously mapped as an alteration zone for 1 kilometre and the airborne magnetics indicate that it may extend up to 2.5 kilometres.

15.4 Aurora Prospect

Aurora differs from most of the other prospects at Lavras do Sul, in that it is hosted near the edge of the granite complex and dominated by quartz, carbonate, actinolite and hematite alteration with accessory fluorite and tourmaline. The

workings here are more extensive than elsewhere with tunnels, adits and shafts. However, the drilling results to date have been disappointing.

15.5 Camaquã copper mine

The Camaquã copper mine includes the Uruguai and the São Luiz ore bodies, hosted by sandstone and conglomerate of the Neoproterozoic to Early Palaeozoic Camaquã basin. Despite a great controversy regarding the evolution of the Camaquã basin, it is generally accepted that the basin was initially marine and progressively changed into a continental environment.

The ore is massive sulphides in veins, pipes and stringers, and disseminated sulphides. The sulphide paragenesis in the primary ore consists of chalcopyrite, bornite, chalcocite, and pyrite. Other sulphides, such as wittichenite, idaite, molybdenite and carrollite are minor phases. Native gold is closely associated with hematite. A number of supergene minerals occur in the weathering zone, including covellite, digenite, antlerite, chrysocolla, brochantite, cuprite, malachite, azurite, tenorite, and native copper. Traces of gold and silver have also been found in the oxidized zone close to surface. Primary ore formation could be the result of multiple mineralization events. In a discrete mineralizing event, quartz was the first mineral to form, followed by pyrite, chalcopyrite and bornite. Carbonate and barite appeared by the end of the process. The structural control of mineralization, the occurrence of superimposed mineralizing events, the temperature of deposition of the early-formed ore minerals (330 to 190 °C) and the sulphur isotope ratios indicate that the Camaquã Mine may be considered as a hydrothermal type deposit, resultant of distal magmatic fluids focused into a relatively oxidized clastic succession.

15.6 Andradas

Andradas is a volcano-sedimentary copper deposit in the vicinity of a major acid intrusion; the Caçapava Granitic Stock, which caused a strong metamorphic halo responsible for the formation of thick hornfels. The main copper deposit is outcropping at the discovery hill. The mineralization is confined to intensely fractured andesitic rocks intercalated with sediments, acid tuffs and minor iron formations. It is, mostly, an oxide copper deposit with the main ore zone over 1,000 metres long. The possible primary sulphide mineralization was never tested at depth.

Andradas was discovered in the early 1940s and was controlled by CBC (Companhia Brasileira do Cobre) for many years. The deposit has been studied by a Government Agency who was responsible for the completion of a number of trenches, 30 diamond drill holes, galleries and a pilot study designed to extract the copper from the oxide ore through leaching.

16 Mineral Processing and Metallurgical Testing

RTDM submitted some sample from Butiá for preliminary metallurgical sampling. About 17.5kg of sawn half core from Butiá with a head grade of 0.48 ppm was sent to RTDM's Brasilia facility under supervision of their metallurgist, Mr. J. Clark. The mineralized sample was given a standard laboratory test of grinding, Knelson gravity recovery and bulk sulphide flotation. The test results are summarized below:

- The Knelson concentrator removed a quite clean pyrite concentrate although no free gold was observed on panning this concentrate.
- Typical Knelson concentrate grade was 10 g Au/t representing 60% recovery of gold into a concentrate mass of 1% of the head sample.
- Flotation was very rapid using 50 ppm each of mercaptothiobenzole and potassium amyl xanthate as collectors plus 30 ppm methyl isobutyl carbinol as frother. Reagent selection and quantity necessary does not seem to be very critical. Butiá rock gave up to 95% floatation recovery.
- Flotation alone without the Knelson concentrator gives just as good recoveries thus a gravity circuit in the plant appears unnecessary, especially since no free gold was detected. However unit cell flotation in the circulating load would be recommended.
- A single stage of flotation cleaning without further reagents would give a pyrite concentrate with at least 20% sulphur.

Cyanidation test work was also carried out on both whole ore and on flotation concentrates.

- A Butiá sample ground to 72% passing 100# sieve gave a 84.5% recovery from a cyanidation test, but the cyanide solution used was over strength.
- A Butiá floatation concentrate gave a 77.7% cyanidation recovery.
- Indications are that these ores are suitable for flotation concentration at coarse sizes followed by cyanidation of the concentrate rather than fine grinding and whole ore cyanidation. The best metallurgical route would be flotation concentration followed by roasting of the concentrate and cyanidation of the cinder. The recovery of gold would be 92% by flotation followed by a further 92% by cyanidation or net 85%.

17 Mineral Resource and Mineral Reserve Estimates

17.1 Resource estimation methodology

The follow methodology was used to estimate the mineral resource for the Butiá prospect.

1. Data validation of the: drill hole locations, sampling, geological logging, drill hole database and sampling QA/QC.
2. Generation of a 3D lithological and weathering domain models.
3. Exploratory data analysis.
4. Spatial continuity analysis.
5. Grade interpretation and classification of mineral resource estimates with respect to CIM (2005) guidelines.
6. Resource tabulation and reporting.

17.1.1 Drill hole database

The database preparation and validation is described in detail in 14.3 Data Verification by Atticus Associates

Amarillo provided an Excel file with the drill hole data up to LDH-149. This file had been exported from Amarillo Gold's GeoticLog database. The drill hole, logging data and sample intervals for the drill holes LDH-150A to LDH-155 was provide in separate Excel files and their assay certificates were provide in Excel and Adobe pdf format.

All the Excel data was imported into a Microsoft Access database. The data was validated in both Surpac and Leapfrog mine modeling software. Some minor errors were identified, mainly due to incorrectly entered intervals. The errors were checked with the Amarillo Gold project geologist and the database updated.

The GeoticLog database did have some assay values greater than 0.2 ppm Au that had been obtained using ICP analysis. The fire assay certificates for the batches were imported to ensure that all assay values greater than 0.2 ppm Au have been obtained by fire assay.

Some of the samples have been analyzed by multiple laboratories and assay methods. A ranking system was prepared to ensure that the assay with the greatest precision is selected to be used as the assay value for the resource estimate. See Table 8: Assay method ranking on page 51.

The original logging data used a total of 28 codes for the lithology. In conjunction with the Amarillo geologists these codes were grouped into six main lithologies that would be used in the 3D model. There were a total of 38 weathering codes in

the original weathering logging and these codes were simplified into five weathering types for the 3D domain modeling. See Appendix A – Normalization of Logging data. The normalized logging data was exported to text files and imported into the mine modeling software.

It was not possible with the current density of drilling to model the dykes. The dykes are generally post mineral but in some areas are mineralized. The dykes form 0.7% of the total drilled length. The data associated with the dykes has been included in surrounding domain.

17.1.2 Domain models

The collar, down hole survey, lithology, weathering and assay data was exported to text files. This data was imported into the geological modeling software Leapfrog. The topographic surface was generated from the collar elevations.

The geology of the Butiá prospect area was discussed in detail with the project geologists. The mineralization is controlled by east-west structures 250m long and a N-S structure 250m long. These structures form an L shape in plan view, (see Figure 29: Structural and Lithology Modeling). The structures and lithology was modeled to create 3D models for each lithology and each weathering zone. There are short intervals of perthitic granite within the main episyenite body and episyenite within the main perthitic granite. For the 3D model these smaller bodies have been ignored as it was not possible to model in such detail.

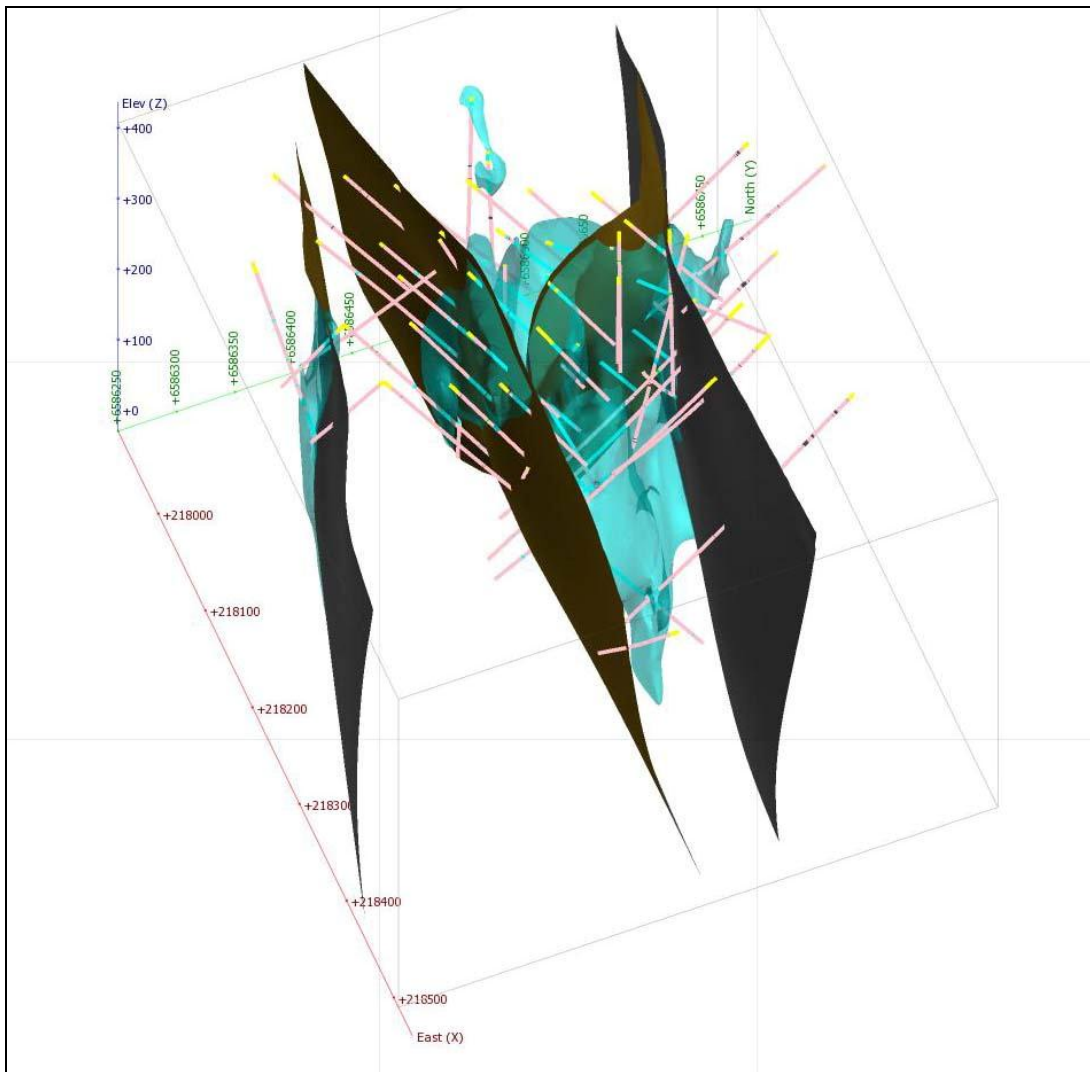


Figure 29: Structural and Lithology Modeling, Viewing north-west

By merging the lithology model with weathering model 3D solids were created for each lithology + weathering. The drill hole data was composited using these solids to identify the domains. The geostatistical analysis identified that some of these solids could be merged to create five separate domains. See Table 10.

A total of 192 samples from five different drill holes have been measured for density. Table 10 lists the rock code and density for each domain.

Table 10: Butiá Domains

Domain Description	Domain Code	Density
Episyenite in fresh rock	1	2.68
Perthitic Granite in fresh rock	2	2.61
Episyenite & Perthitic Granite in oxides	3	2.65
Saprolite	4	2.65
Cover	5	

A surface was created a distance of 40m below the base of drilling to restrict the vertical extent of the block model. This was necessary especially for the south-west Episyenite body where high grades were being assigned up to 150 metres below the base of drilling in the preliminary block model. No blocks are included in the resource estimate below this surface.

17.2 Exploratory Data Analysis

The original 16,186 samples were composited in intervals of 2.5m. The main reason for choosing this interval length is that more than 99% of the original samples have lengths equal or shorter than 2.5m (See Figure 30). This composite length is also convenient for up-scaling to match the length of composites with the possible block sizes (5m, 10m, and 15m).

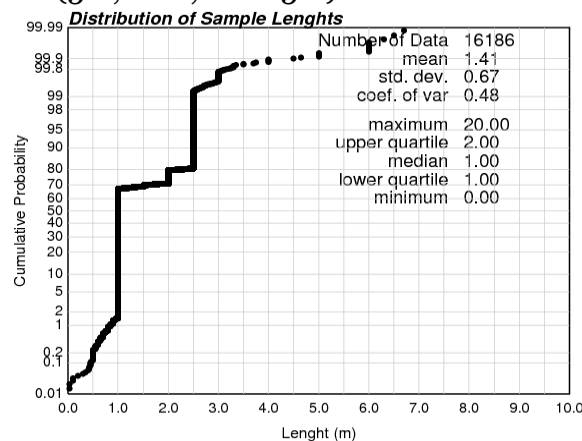


Figure 30: Distribution of sample lengths

After disregarding the samples with missing grades, 4,682 composites of 2.5m length were produced. The following statistics and analysis were performed using those composites.

17.2.1 Domains

The composited samples were divided in five domains: episyenite in fresh rock, perthitic granite in fresh rock, oxides (episyenite and perthitic granite), saprolite and cover. The domain boundaries were modeled using Leapfrog software. The samples were separated according the location of their centers within the corresponding 3-D solids.

A boundary analysis was performed between the most populated domains: episyenite and perthitic granite. This consists in the calculation of the correlation between samples belonging the two different domains and at different separation distances. Figure 31 shows that the spatial correlation coefficient across that boundary is just 0.29 for a distance of 2.5m and reaches zero at approximately 12m. Due to the low across boundary coefficient of correlation and its rapid subsidence, the episyenite-granite boundary in fresh rock is considered as a hard one. No data from across the boundary is considered in the estimation of each domain. No boundary analysis was performed for the contacts within and

between the other domains due to data scarcity. All these boundaries are also considered as hard.

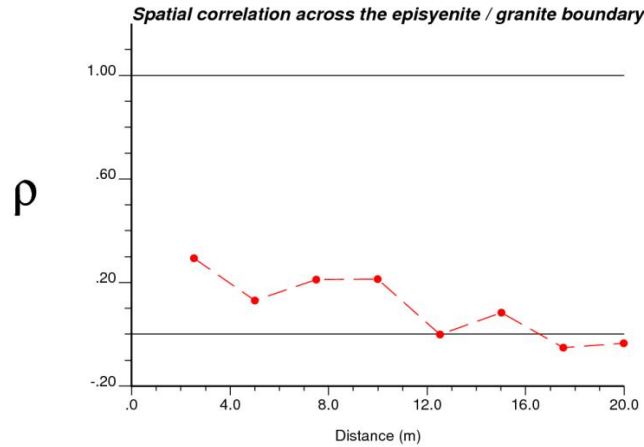


Figure 31: spatial coefficient of correlation across the episyenite – granite boundary in fresh rock.

17.2.2 Basic Statistics

Drill holes target the rich central area dominated by Episyenite. This preferential drilling may result in a bias when statistics are calculated assigning equal weight to all samples. Moreover, when estimation methods incapable of reducing this bias are applied, this may cause overestimation of resources.

Table 11: Clustered statistics per domain on 2m composites

Domain	number of data	Mean	Std. Dev.	Coeff. Of Variation	Minimum	lower quartile	median	upper quartile	maximum
ALL	4682	0.43	2.12	4.93	0.002	0.01	0.07	0.34	61.6
EPI fresh	1208	0.94	2.23	2.37	0.002	0.24	0.51	1.02	58.08
PG fresh	3233	0.25	2.11	8.44	0.003	0.003	0.02	0.11	61.6
Oxides	140	0.36	0.75	2.08	0.002	0.03	0.09	0.35	4.73
Saprolite	68	0.41	1.15	2.80	0.0025	0.01	0.03	0.28	5.93
Cover	33	0.24	0.29	1.21	0.005	0.04	0.17	0.33	1.53

17.2.3 Declustering

The cell declustering technique Deutsch (1989) was applied for reducing the bias in the exploratory statistics. Figure 32 shows the change of the global mean according the cell size. A declustering cell size of 250m x 250m x 2.5m was selected.

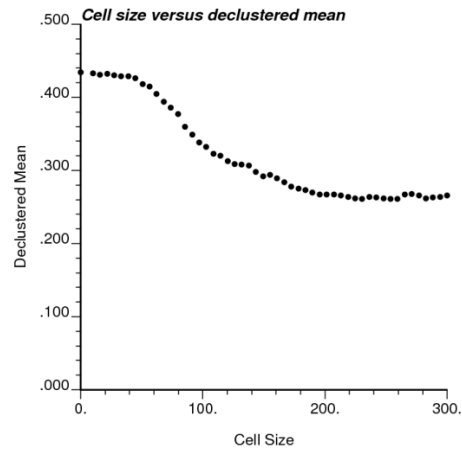


Figure 32: Progression of the declustered mean according the cell size.

Table 12 shows the global and per domain statistics after declustering. Notice that the averages and standard deviations are lower than in the Table 11. Figure 33 shows the probability plots of composites per domain.

Table 12 : Declustered statistics per domain on 2m composites

Domain	number of data	Mean	Std. Dev.	Coeff. Of Variation	Minimum	lower quartile	median	upper quartile	maximum
ALL	4682	0.26	1.46	5.62	0.002	0.003	0.02	0.15	61.6
EPI fresh	1208	0.74	1.78	2.41	0.002	0.15	0.35	0.81	58.08
PG fresh	3233	0.15	1.4	9.33	0.003	0.003	0.01	0.07	61.6
Oxides	140	0.29	0.75	2.59	0.002	0.002	0.07	0.19	4.73
Saprolite	68	0.33	0.91	2.76	0.0025	0.01	0.03	0.32	5.93
Cover	33	0.17	0.23	1.35	0.005	0.02	0.1	0.24	1.53

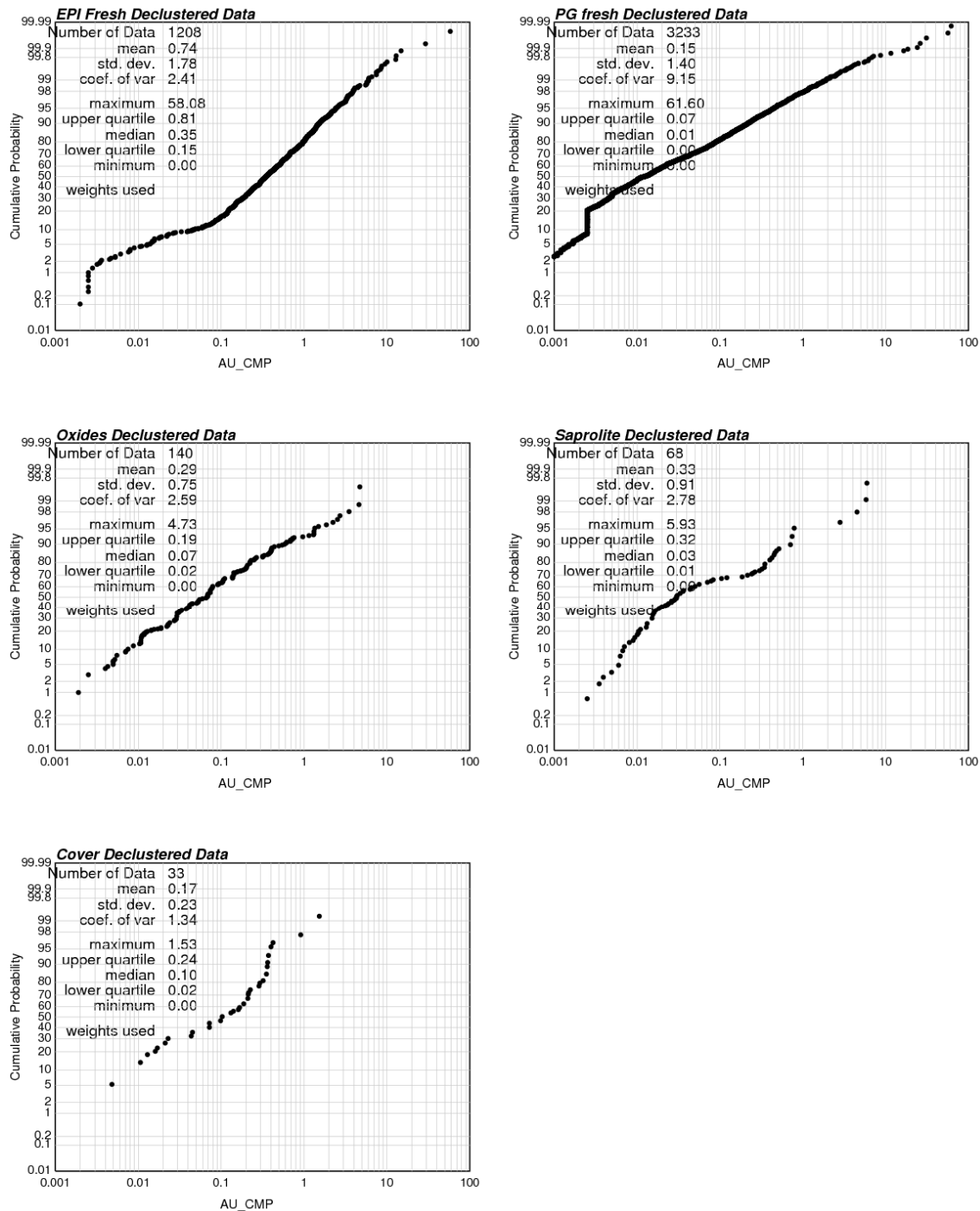


Figure 33: Probability plots per domain after declustering

17.2.4 High values capping

The cut-off used for the high grade capping in perthitic granite samples is 10 ppm Au. This value was selected because it marks a high grade break of the probability plot curve in logarithmic scale. Breaks in the probability curve may indicate the presence of different populations. In this case the high grade values are

associated with a few intersects of mineralized structures that are embedded in the perthitic granite matrix. The high grade population of values above 10 ppm Au correspond to little more than 0.1% of the composites in perthitic granite; however they may smear the extension of high grade zones in larger volumes than justified by geology.

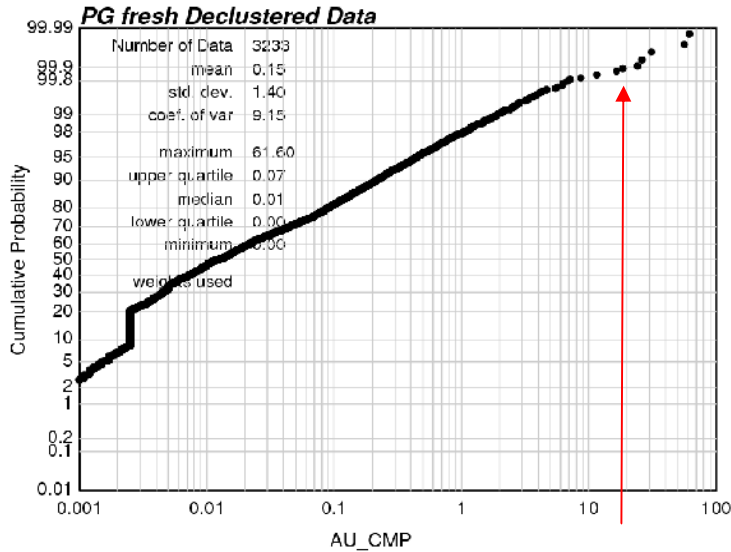


Figure 34: Definition of the high grade capping threshold in the perthitic granite.

17.3 Spatial Continuity Analysis

Experimental variograms were calculated using the original composited values. These proved to be excessively fluctuating and were therefore difficult to model. This is not unexpected from the data, which consists of bi-modal mineralization of disseminated gold and high grade gold associated with veins. The spatial behaviour of grades in the different domains could not be depicted reliably from these variograms. This is well illustrated in Figure 35, which shows the experimental variograms calculated in different directions from composite values in original units within the episyenite domain.

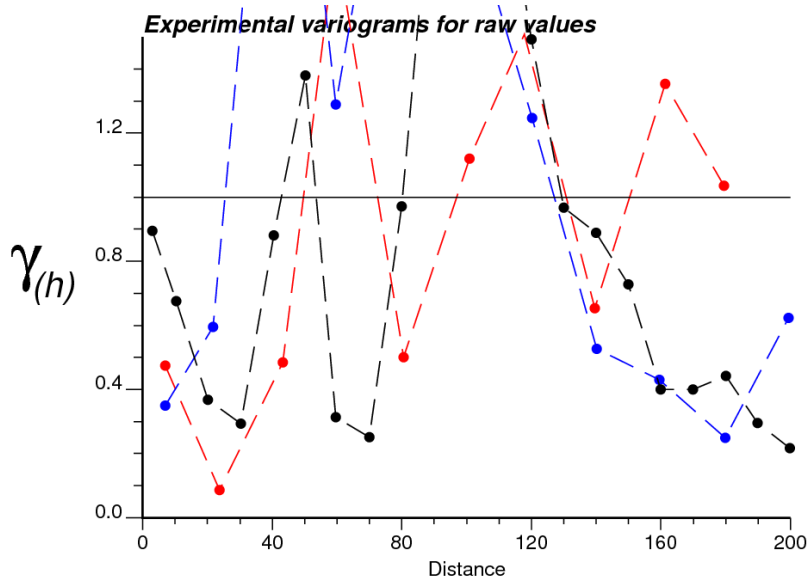


Figure 35: Experimental variograms obtained directly from composited values within the episyenite domain and in three directions: Az. 105, dip 0 (Red), Az. 15, dip 0 (blue) and Az. 0, dip -90 (black).

Experimental variograms were therefore calculated on Gaussian transformed values and back-transformed assuming biGaussianity Guibal (1987) and Vann (1995). The resulting back-transformed variograms are more continuous and is what the modeling of the spatial continuity of grades was based. Table 13 presents the parameters of the variogram model fitted on the experimental back-transformed variograms for the fresh rock episyenite. Table 14, Table 15 and Table 16 present the variogram model parameters for the perthitic granite in fresh rock, oxides and saprolite domains. Figure 36 and Figure 37 show the variogram model fitted to the back-transformed variograms in the main directions of continuity for the Episyenite and perthitic granite, respectively. More data, from further drilling, especially from the high grade zones should in theory produce better variograms in the future and the Gaussian transformation step may become unnecessary.

Table 13: Variogram parameters fitted on back-transformed Variograms of composites in Episyenite in fresh rock

Structure type	Contribution to the Sill	maximum range (Y')	minimum range (X')	Vertical range (Z')	Rotation around Z	Rotation around X'	Rotation around Y'
Nugget Effect	0.186	-	-	-	-	-	-
Exponential	0.662	50	20	20	105	0	0
Spherical	0.152	350	145	224	75	0	0

Table 14: Variogram parameters fitted on back-transformed Variograms of composites in perthitic granite in fresh rock

Structure type	Contribution to the Sill	maximum range (Y')	minimum range (X')	Vertical range (Z')	Rotation around Z	Rotation around X'	Rotation around Y'
Nugget Effect	0.15	-	-	-	-	-	-
Exponential	0.421	30	20	15	0	0	0
Spherical	0.429	111	94	220	15	0	0

Table 15: Variogram parameters fitted on back-transformed Variograms of composites in Oxides

Structure type	Contribution to the Sill	maximum range (Y')	minimum range (X')	Vertical range (Z')	Rotation around Z	Rotation around X'	Rotation around Y'
Nugget Effect	0.15	-	-	-	-	-	-
Exponential	0.522	50	20	7.25	150	0	0
Spherical	0.328	167	59	33	150	0	0

Table 16: Variogram parameters fitted on back-transformed Variograms of composites in Saprolite

Structure type	Contribution to the Sill	maximum range (Y')	minimum range (X')	Vertical range (Z')	Rotation around Z	Rotation around X'	Rotation around Y'
Nugget Effect	0.084	-	-	-	-	-	-
Exponential	0.916	80	28	20	90	0	0

Epi-fresh. Back transformed variograms

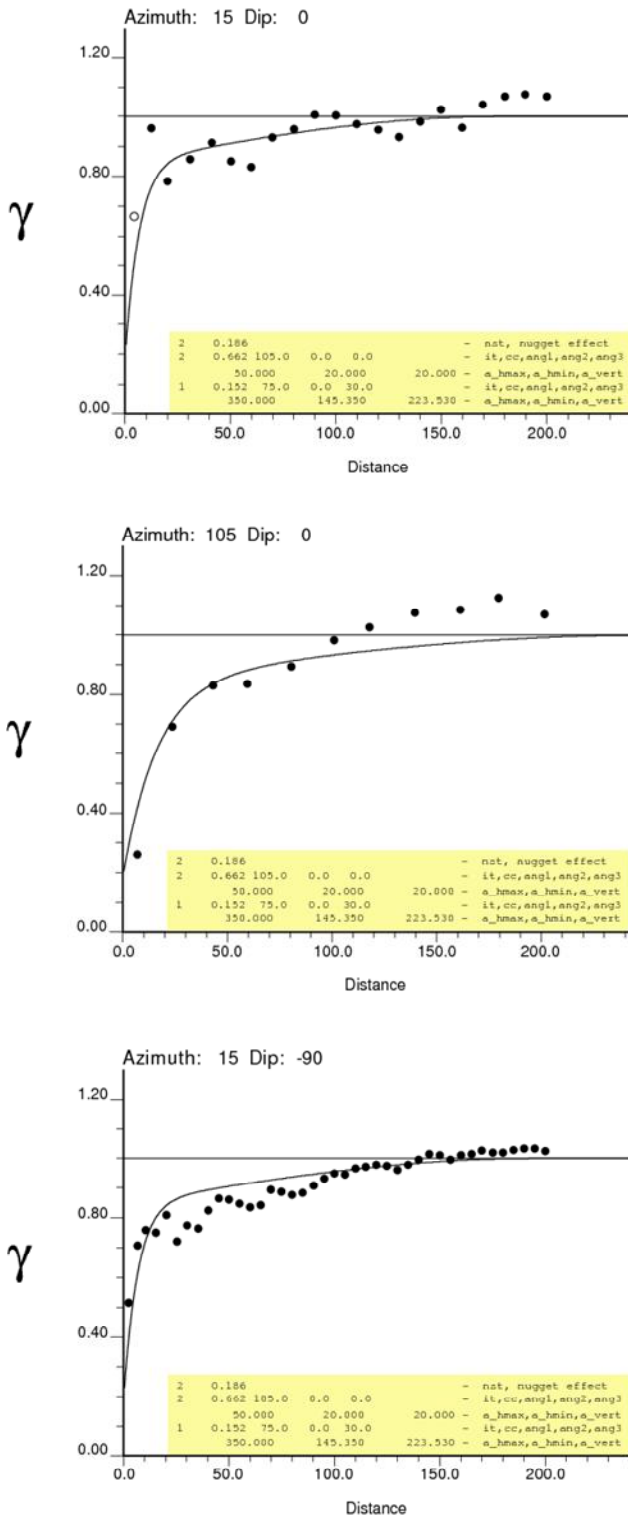


Figure 36: Episyenite Fresh – Back transformed variograms

P. Granite - Back transformed variograms

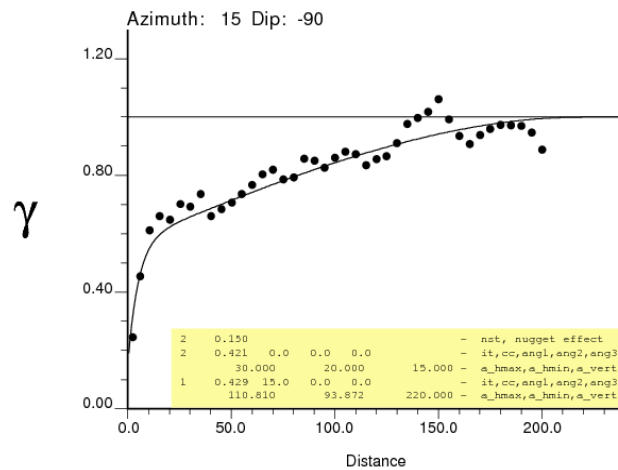
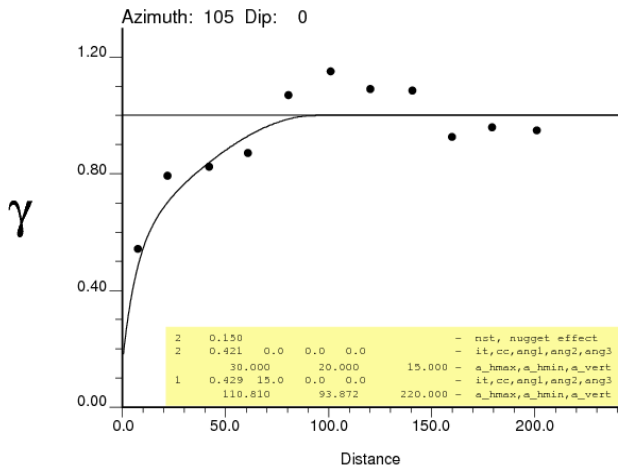
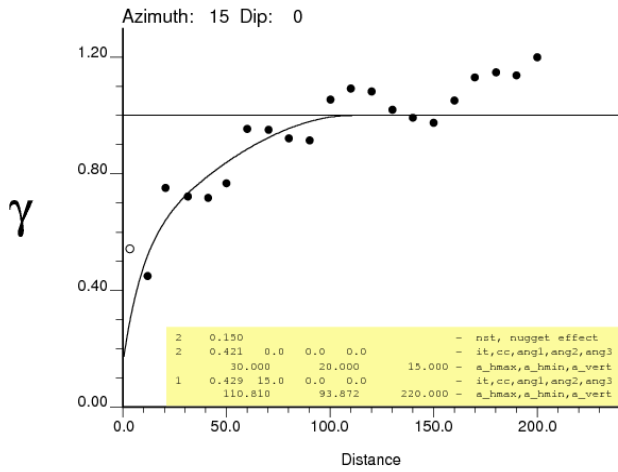


Figure 37: Perthitic granite - back transformed variograms

17.4 Grade Interpolation and Resources Classification

Table 17 shows the block model definition used for the estimation of gold grades. This block model has no rotation with respect of the coordinate axis and contains 231,000 cells. The estimation method used was ordinary block kriging within domains, using the variograms defined in the previous section.

Table 17: Block model definition

Axis	X	Y	Z
Coordinates of Origin (south-west bottom)	217,800	6,586,200	-100
Block size (no sublocking)	10	10	10
Extension	700	600	550
number of blocks	70	60	55
maximum coordinates (north-east top)	218,500	6,586,800	450

Table 18 presents the kriging plan for indicated and inferred resources at each domain. The cover domain was not estimated because the composites contained in it are scarce and because the topographic surface is not well defined. The kriging search ellipsoid radii and orientations were defined in relation to the variogram parameters. The dimension of the search ellipsoid for indicated resources are concordant to the range of the short scale structure in the variogram models, and the search ellipsoid radii for the inferred resources have lengths similar to the ranges fitted for the second variogram model structure. If just one variogram model structure was used, such as the case of the saprolite domain, the dimensions of the search ellipsoid for indicated resources correspond to half the ranges of the variogram model. No measured resources were delineated due to several factors that diminish the certainty of estimates. Among them is the lack of a detailed topographical survey of the project and the wide separation between drill holes.

Table 18: Kriging plan

Description	Domain and Resource Classification							
	Epi - FR		PG -FR		Oxides		Saprolite	
	Ind.	Inf.	Ind.	Inf.	Ind.	Inf.	Ind.	Inf.
minimum number of composites	4	4	4	4	4	4	4	4
maximum number of composites	60	60	60	60	60	60	60	60
minimum number of drill holes	2	1	2	1	2	1	2	1
Maximum search radius in rotated X (m)	50	350	30	110	50	160	40	80
Maximum search radius in rotated Y (m)	20	145	20	90	20	58	14	28
Maximum search radius in rotated Z (m)	20	224	15	220	7	33	10	20
Angle of rotation around Z axis	105	75	0	15	150	150	90	90
Angle of rotation around rotated X axis	0	0	0	0	0	0	0	0
Angle of rotation around rotated Y axis	0	30	0	0	0	0	0	0

The minimum number of drill holes for the estimation of indicated resources in all domains was set as 2. This is to favour interpolation avoiding blocks that are estimated by the extrapolation of grades belonging to a single drill hole. For inferred resources extrapolation from a single drill hole was allowed but constrained by a 70m buffer. This distance is shorter than the minimum variogram model range for the perthitic granite domain and approximately 50% larger than the average drill-hole spacing.

The maximum number of samples for the estimation of each block was set as 60. This relatively high number was chosen in order to provide robust estimates and to minimize artefacts in the interpolation. The samples above 10 ppm were cut to 10g/t during the estimation in the perthitic granite.

17.5 Summary Results and Grade Tonnage Curves

The ordinary kriging estimation results are Indicated Resources of 6.39 millions of tonnes grading 1.05 ppm containing 215 thousand ounces Au (at a 0.3 ppm Au cut-off) and Inferred Resources of 12.88 millions of tonnes grading 0.74 ppm Au containing 308 thousand ounces Au (at a 0.3 ppm Au cut-off). The effective date of this mineral resource estimate is 30 July 2010, which represents the cut-off date for information used in the resource estimation. Table 19 presents, the summary estimation results for the indicated and inferred categories.

Table 19: Summary of the Estimated Resources for a 0.3 ppm Au cut-off

Cut off	Class	Tonnes	Au Oz	Avg. Au ppm
0.3	Indicated	6,390,000	215,000	1.05
0.3	Inferred	12,880,000	308,000	0.74

Table 20 shows the statistics of block estimates per domain. The average estimated grade in the episyenite domain is within the range between the clustered and declustered averages inferred from the composites. In the perthitic granite, the capping of composites with more than 10 Au ppm results in a considerable reduction of the average grade which also affects the global results.

Table 20: Statistics of block estimates per domain

Rock Type Description	No of Blocks	Mean Au ppm	Std Dev	Min Au ppm	Max Au ppm
Episyenite and granite in oxides	339	0.32	0.36	0.01	1.40
Episyenite in fresh rock	5,306	0.90	0.77	0.08	9.66
Perthitic Granite in fresh rock	40,077	0.10	0.15	0.00	2.78
Saprolite	298	0.30	0.38	0.01	2.88

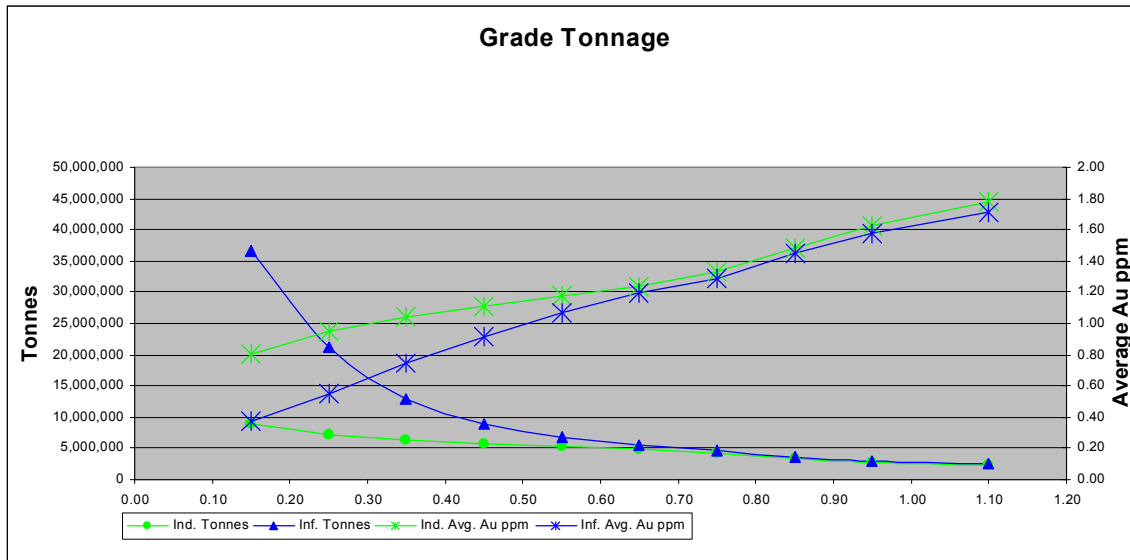


Figure 38: Grade tonnage curves for Ordinary Kriging estimates.

Table 21: Ordinary Kriging Indicated Resources

Indicated				Indicated Cumulative		
Cut off	Tonnes	Au Oz	Avg. Au ppm	Tonnes	Au Oz	Avg. Au ppm
0.1 - 0.19	1,540,000	7,000	0.14	8,840,000	229,000	0.81
0.2 - 0.29	910,000	7,000	0.24	7,300,000	222,000	0.95
0.3 - 0.39	580,000	7,000	0.38	6,390,000	215,000	1.05
0.4 - 0.49	510,000	7,000	0.43	5,810,000	208,000	1.11
0.5 - 0.59	460,000	8,000	0.54	5,300,000	201,000	1.18
0.6 - 0.69	640,000	13,000	0.63	4,840,000	193,000	1.24
0.7 - 0.79	870,000	21,000	0.75	4,200,000	180,000	1.33
0.8 - 0.89	600,000	16,000	0.83	3,330,000	159,000	1.49
0.9 - 0.99	490,000	15,000	0.95	2,730,000	143,000	1.63
> 1.0	2,240,000	128,000	1.78	2,240,000	128,000	1.78

Table 22: Ordinary Kriging Inferred Resources

Inferred				Inferred Cumulative		
Cut off	Tonnes	Au Oz	Avg. Au ppm	Tonnes	Au Oz	Avg. Au ppm
0.1 - 0.19	15,590,000	71,000	0.14	36,720,000	444,000	0.38
0.2 - 0.29	8,250,000	65,000	0.25	21,130,000	373,000	0.55
0.3 - 0.39	3,900,000	43,000	0.34	12,880,000	308,000	0.74
0.4 - 0.49	2,140,000	30,000	0.44	8,980,000	265,000	0.92
0.5 - 0.59	1,310,000	23,000	0.55	6,840,000	235,000	1.07
0.6 - 0.69	860,000	18,000	0.65	5,530,000	212,000	1.19
0.7 - 0.79	1,070,000	26,000	0.76	4,670,000	194,000	1.29
0.8 - 0.89	640,000	18,000	0.87	3,600,000	168,000	1.45
0.9 - 0.99	520,000	16,000	0.96	2,960,000	150,000	1.58
> 1.0	2,440,000	134,000	1.71	2,440,000	134,000	1.71

17.6 Remarks

Ordinary kriging was preferred for the resources estimation of the Butiá Project. The results are consistent with the data. The averages of estimates within domains fall within the ranges defined by the clustered and declustered composites means. However, it is important to acknowledge the drawbacks of Ordinary Kriging for the estimation of recoverable resources. Among them, the most important is its proclivity to smear high grades if no capping or domaining is applied, causing overestimation of the high grade tonnage. In this case such smearing was prevented in the episyenite domain, as it was well defined by the geological model. The smearing in the perthitic granite around high grade samples was recognized and controlled by cutting these samples to 10 ppm. As a check other methods such as Multi-gaussian Kriging and Sequential Gaussian Simulation we attempted, and although these may lead to more statistically robust estimates, the resulting model smeared all results to towards the mean and it did not reflect the underlying data. The Ordinary Kriging model better fit the observed mineralization, when constrained by the domains.

18 Other Relevant Data and Information

There is no other relevant data or information.

19 Interpretation and Conclusions

Amarillo has an option over a large area of the Lavras do Sul intrusive suite which is situated in the far south of the Neoproterozoic Mantiqueira Province in southern Brazil. Gold was discovered in the area in 1776 and has been mined since then with a peak of activity in from 1901 to the 1930's and finally ceasing in the 1950's. Amarillo has identified at least 11 prospective areas and the Butiá prospect is the most advance area.

The gold mineralization zone at Butiá as defined by the current drilling is associated with intense alkali alteration that forms an episyenite microbreccia. The gold mineralization forms an "L" shape at surface controlled by an E-W structure 250m long and a N-S structure 250m long. The mineralization, which outcrops at surface, attains its greatest extent at a depth of 70m-90m below surface and then decreases in area at depth.

Amarillo has drilled 11,056.37 metres between 1996 and March 2010 on sections with 50 meter spacing at the Butiá prospect. The current drill spacing is sufficient to delineate the episyenite core of the prospect but is not sufficient to model the high grade structures that extend out into the perthitic granite from the central core. Infill drilling will enable these high grade structures to be modeled and then included in the resource estimate.

The current logging, sampling protocols and procedures are acceptable and in line with industry standards. Amarillo have implement QA/QC procedures that are in line with industry standards. The results do not indicate any inherent problems or bias in the assay results. The CRM results are good with very few samples outside of the two standard deviation limit from the recommended value. Systematic monitoring of twin samples should commence and pulp duplicates should be inserted into the assay batches.

Atticus have estimated Indicated and Inferred Mineral Resources for the Butiá prospect in accordance with the CIM guidelines (CIM 2005) which have been adopted as part of NI 43-101. 3D models for lithology and weathering were created. By merging these two models together 5 domains were created that have been used for the resource estimation.

The drill hole data was composited to 2.5 metres. The basic statistics and variograms were created for each domain. Experimental variograms were calculated on Gaussian transformed values and back-transformed. The ordinary kriging search ellipsoid radii and orientations were defined from the variogram analysis. No measured resources were delineated due to several factors that diminish the certainty of estimates. Among them is the lack of a detailed topographical survey of the prospect and the wide separation between drill holes. The high grade samples in the perthitic granite were cut to 10 ppm for the resource estimation.

The ordinary kriging estimation results are Indicated Resources of 6.39 millions of tonnes grading 1.05 ppm containing 215 thousand ounces Au (at a 0.3 ppm Au cut-off) and Inferred Resources of 12.88 millions of tonnes grading 0.74 ppm Au containing 308 thousand ounces Au (at a 0.3 ppm Au cut-off). The effective date of this mineral resource estimate is 30 July 2010, which represents the cut-off date for information used in the resource estimation.

20 Recommendations

20.1 Work Program

Infill drilling will be necessary to upgrade the Indicated and Inferred Resources to Measured. The current variograms indicate a range of 50m in the rotated X axis and 20m in the rotated Y axis for the episyenite. For the granite the ranges are shorter with 30m in the rotated X axis and 20m in the rotated Y axis. A drill hole spacing study would be a useful exercise to ensure that infill drilling will delineate sufficient Measured Resources.

A detailed topographic survey should be carried out to locate the collar coordinates accurately. The surface workings should be surveyed so that a DEM can be prepared for the area.

The sampling procedures are well carried out and the core boxes clearly marked. The photographs should be taken once the core has been marked up for cutting. The current photos do not identify the sample locations. Once the core has been cut the end of samples should be marked on the half core and blocks placed in the core box indicating the end of the sample.

The density measurements are from three drill holes. This makes it difficult to model the density distribution. Density measurements should be routinely taken from all drill holes. As the drilling progresses this will build up a good distribution of measurements that can be used to create a density model. The measurement should be taken before the core is cut to ensure it is not disturbed.

Amarillo is carrying out a systematic QA/QC program but it could be improved in some aspects. Great care must be taken when preparing the batch documentation and imputing the data. The identity of the CRM material should be checked by at least two people. The results for each batch must be reviewed and signed off before the batch finally imported into the official database.

The RTDM QA/QC data should be entered into the database to check their results. The database should be up to date with the latest logging and sample information being entered directly into the database. This will ensure the data is validated and that there is no duplication of data and different versions of the same data being used.

The sampling variance should be closely monitored. The laboratory pulp duplicates should be monitored and pulp duplicates inserted into the sample number sequence. Coarse reject duplicates should also be inserted to check the variance as this stage of the sample preparation.

The twin sampling must be monitored closely. The core should be marked to ensure that any veining or visible mineralization is evenly distributed between the two samples. The two quarter core samples must not be mixed before being placed in the sample bags.

The geophysics data should be imported into the geological modeling software so that this data can be integrated with the logging and assay data.

The lithology and weathering codes should be reviewed and a list drawn up of the codes that can be used. This will ensure the database has clean data that can be modeled. The historical logging should be reviewed to update the old codes to the new approved code list.

Horizontal and vertical sections should be prepared for the lithology, alteration and weathering. As new drill holes are drilled these sections should be updated and if anomalies between sections are identified the logging of the neighbouring drill holes should be checked. This work will make the geologist think of the deposit in three dimensions and will validate the logging database.

The high grade veins and structures should be modeled within the granite. With the current drill spacing it is difficult, but as new holes are drilled the orientation of these structures will become clearer. If these structures can be modeled they will increase the grade and contained ounces of the project. If this model is kept up-to-date the time need to prepare a resource estimate will be significantly reduced.

20.2 Budget

The estimated budget for this work program is shown in Table 23

Table 23: Estimated Budget

Program	Units	Units	Unit Cost	Cost US\$
Detailed topographic survey	Survey		20,000	20,000
Drilling	Meters	10,000	170	1,700,000
Assaying	Sample	8,000	30	240,000
Geological Supervision and Management (including head office overhead, travel, accounting, and consultants)	Study			200,000
Geological Mapping and Grade Distribution studies	Study			50,000
Miscellaneous				25,000
Total				2,235,000

21 References

Baars JB, July 2008. Report on Geological Modeling of the Lavras do Sul Au Deposit, Rio Grade do Sul, Brazil. Unpublished Internal report prepared for Amarillo Gold. 65p

Bizzi LA, Schobbenhaus C, Gonçalves JH, Baars FJ, Delgado IM, Abram MB, Leão Neto R, Matos, GMM & Santos JOS 2003. Geology, Tectonics and Mineral Resources of Brazil: Geographic Information System - GIS and Maps at the 1:2,500,000 scale. Companhia de Pesquisa de Recursos Minerais. Brasília. 4 CDs.

CIM, 2005. CIM Definition Standards on Mineral Resources and Mineral Reserves. Prepared by the CIM Standing Committee on Reserve Definitions (adopted by CIM Council 11-December 2005).

Chemale Júnior F 2002. Evolução Geológica do Escudo Sul-rio-grandense. In: M Holz & LF De Ros (eds.). Geologia do Rio Grande do Sul. Universidade Federal do Rio Grande do Sul, Centro de Investigação do Gondwana, 13-52.

Deutsch C.V., 1989. "DECLUS: A Fortran 77 program for determining optimum spatial declustering weights," Computers & Geosciences, vol. 15, 1989, pp. 325-332.

Gastal MCP & Lafon JM 1998. Gênese e evolução dos granitóides metaluminosos de afinidade alcalina da porção oeste do Escudo Sul-Rio-Grandense: Geoquímica e isótopos de Rb-Sr e Pb-Pb. Revista Brasileira de Geociências 28:29-44.

Guibal D., 1987. "Recoverable Reserves Estimation at an Australian Gold Project," Geostatistical Case Studies, G.F. Matheron and M. Armstrong, Eds., Dordrecht: Reidel Publishing Company, 1987, pp. 149-158.

Mexias AS 2000. Alteração Hidrotermal e Mineralização de Ouro Associada no Distrito Aurífero de Lavras do Sul / RS – A Área do Bloco do Butiá. Unpubl. Ph.D. Thesis, Universidade Federal do Rio Grande do Sul, Porto Alegre, 317 p., annexes.

Sommer AC*, de Limab FE, Stoll LV, Graciano AM, 2005. Potassic and low- and high-Ti mildly alkaline volcanism in the Neoproterozoic Ramada Plateau, southernmost Brazil. Journal of South American Earth Sciences 18 237–254

Vann J. and Sans H., 1995. "Global resource estimation and change of support at the Enterprise Gold Mine, Pine Creek, Northern Territory - Application of the geostatistical discrete gaussian model," Applications of Computers and Operations Research in the Mineral Industry, Brisbane: 1995, pp. 171-179.

Zharikov VA, Pertsev NN, Rusinov VL, Callegari E & Fettes DJA 2007. Systematic nomenclature for metamorphic rocks:9. Metasomatic rocks. Recommendations by the IUGS Subcommittee on the Systematics of Metamorphic Rocks. Web version, <http://www.bgs.ac.uk/scmr/products.html>.

22 Date and Signature Page

The undersigned prepared this Technical Report, titled Technical Report, Butiá Prospect, Rio Grande do Sul, Brazil with an effective Date of 30th July 2010.

Signed

Antony J. Amberg, (CGeol)

30th September 2010

Signed

Simon Mortimer, MSc., M.AusIMM

30th September 2010

23 Certificates

CERTIFICATE OF QUALIFIED PERSON

I, Antony John Amberg FGS (CGeol), am employed as a Principal Consultant with Sociedad Cartografica Limitada of Santiago, Chile

This certificate applies to the Technical Report entitled “NI 43-101 Technical Report, Butiá Prospect, Rio Grande do Sul, Brazil.” (the Technical Report) effective date July 30th 2010.

I graduated with a degree in Bachelor of Science (BSc Honours) in Geology from Royal School of Mines, Imperial College, London, United Kingdom in 1985. In addition, I have obtained a Master of Science (MSc) degree in Geographical and Geodetic Information Systems, University College, London, United Kingdom in 1995

I am a Chartered Geologist and Fellow of the Geological Society of London and also a “Persona Competente en Recursos y Reservas Mineras” with La Comisión Calificadora de Competencias en Recursos y Reservas Mineras, Republica de Chile. Registration Number 0025.

I have practiced my profession continuously since 1986. Since then I have been involved in various mineral exploration projects for precious and base metals and industrial minerals in South Africa, Chile, Brazil, Peru, Argentina, Bulgaria and Kazakhstan.

As a result of my experience and qualifications, I am a “Qualified Person” as that term is defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”).

I have made a current visit to the Butiá property from 11th – 14th May 2010

I am responsible for sections 1 through to section 26 of the technical report.

I am independent of Amarillo Gold Corporation as independence is described by Section 1.4 of NI 43-101.

I have been involved with the Amarillo project during the period May 2010 to September 2010, and have prepared the mineral resource estimate.

I have read NI 43-101 and this report has been prepared in compliance with that Instrument.

As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated at Santiago, Chile this 30th day of September 2010

Signed

Antony J. Amberg, FGS (CGeol)

CERTIFICATE OF QUALIFIED PERSON

I, Simon Mortimer MSc, MAusIMM, am employed as a Principal Consultant with Atticus and Associates.

This certificate applies to the Technical Report entitled “NI 43-101 Technical Report, Butiá Prospect, Rio Grande do Sul, Brazil.” (the Technical Report) effective date July 30th 2010.

I graduated with a degree in Bachelor of Science (BSc Honours) in Geosciences from the University of St. Andrews, Scotland in 1995. In addition, I have obtained a Master of Science (MSc) degree in Mining geology from the Cambourne School of Mines, United Kingdom in 1997

I am a Professional geologists and member of the Australian institute mining and metallurgy, Registration Number 300947

I have practiced my profession continuously since 1998. Since then I have been involved in various mineral exploration projects for precious and base metals in Peru, Chile, Brazil, Canada and the US.

As a result of my experience and qualifications, I am a “Qualified Person” as that term is defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”).

I have not made a visit to the Butiá prospect.

I am responsible for parts of the sections 1, 2, and 17 of the technical report.

I am independent of Amarillo Gold Corporation as independence is described by Section 1.4 of NI 43-101.

I have been involved with the Amarillo project during the period May 2010 to September 2010.

I have read NI 43-101 and this report has been prepared in compliance with that Instrument.

As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated at Santiago, Chile this 30th day of September 2010

Signed

Simon Mortimer AusIMM

24 Additional Requirements for Technical Reports on Development Properties and Production Properties

This property is not a Development Property or Production Property

25 Illustrations and Appendixes

25.1 Appendix A – Normalization of Logging data

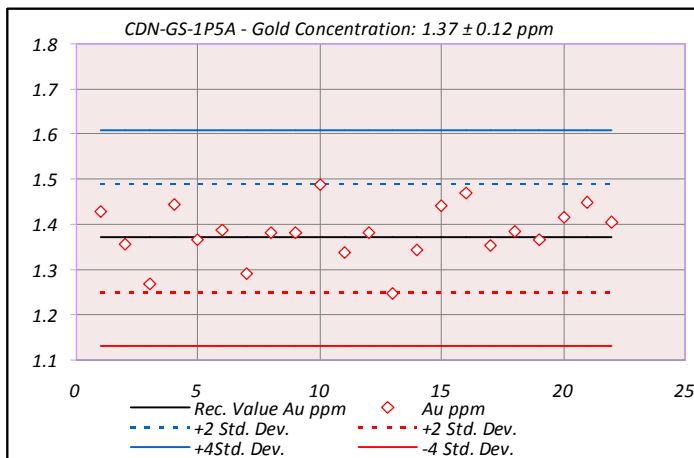
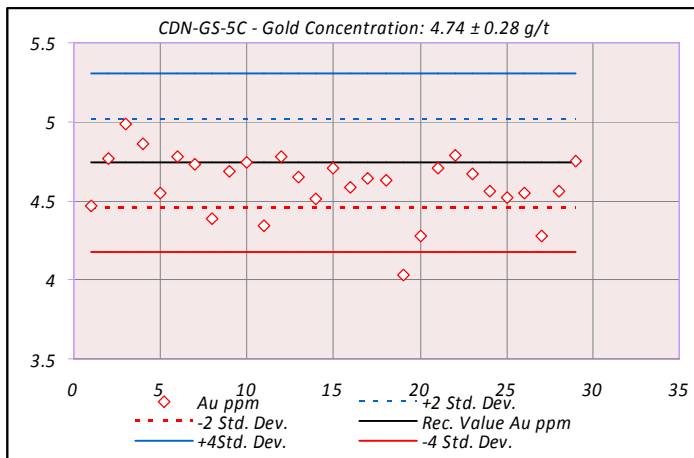
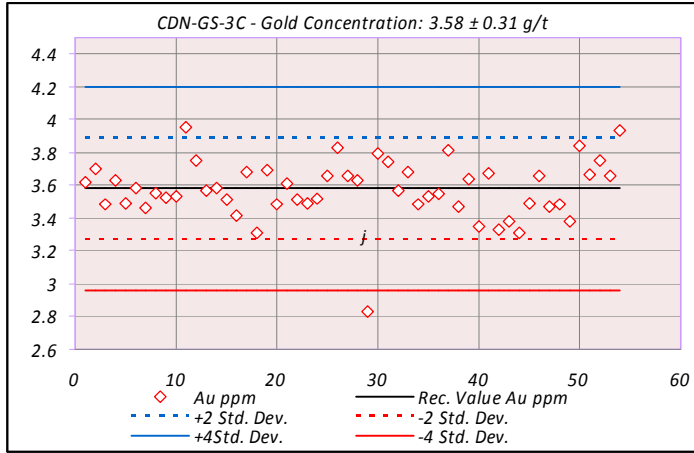
Table 24: Normalized Rock Codes

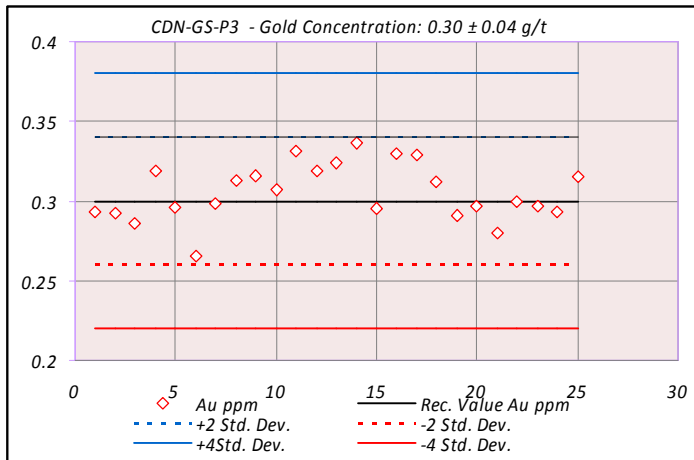
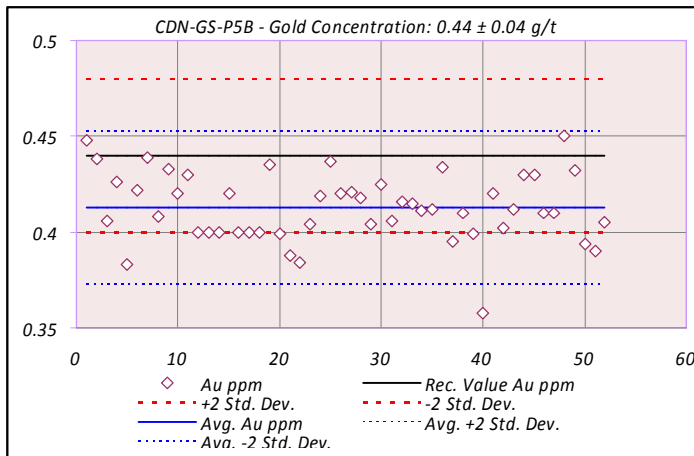
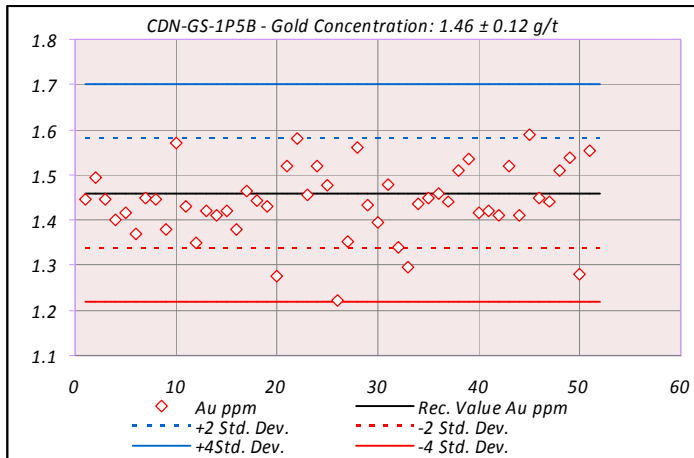
Original Logging Data				Normalized Codes	
RockType_Id	RockType_Id_Desc	Instances	Metres Logged	Rock Type	Rock Type Description
BR	Intervalo brechado	10	13.77	BR	Brecha
An	Andesite	2	1.58	Dike	Dike
APD	Dique aplítico	2	1.60	Dike	Dike
BD	Dique básico	4	10.58	Dike	Dike
BS	Basalt dike	2	0.90	Dike	Dike
DB	Rocha básica	2	4.33	Dike	Dike
DI	Dique máfico	28	16.20	Dike	Dike
DO	Dique máfico	10	7.84	Dike	Dike
MD	Maphic dike	31	30.86	Dike	Dike
RD	Dique riolítico	31	13.41	Dike	Dike
RDD	Dique riocácítico	2	0.88	Dike	Dike
UM	Dique ultramáfica	1	2.29	Dike	Dike
ESY	Episyenite	277	3,070.11	ESY	Episyenite
ESY/PG	Episyenite / Perthite Granite	1	3.17	ESY	Episyenite
ESY+PG	Episyenite / Perthite Granite	1	0.81	ESY	Episyenite
PG/ESY	Perthite Granite / Episyenite	1	3.55	ESY	Episyenite
QSY	Episyenite	6	19.39	ESY	Episyenite
SY	Episyenite	4	1.77	ESY	Episyenite
GD	PorfireGranite, Granite,	7	70.05	PG	Perthite Granite
GR	Granite	1	11.80	PG	Perthite Granite
MCG	Microgranito	3	1.17	PG	Perthite Granite
PG	Perthite Granite	478	8,111.84	PG	Perthite Granite
SA	Saprolite	31	115.46	SA	Saprolite
SAP	Saprolite	8	36.42	SA	Saprolite
RG	Rejeito de garimpo	1	5.05	SO	Soil
SO	Soil	87	329.59	SO	Soil
Soil	Soil	2	2.85	SO	Soil
SR	Residual marrom	2	21.55	SO	Soil

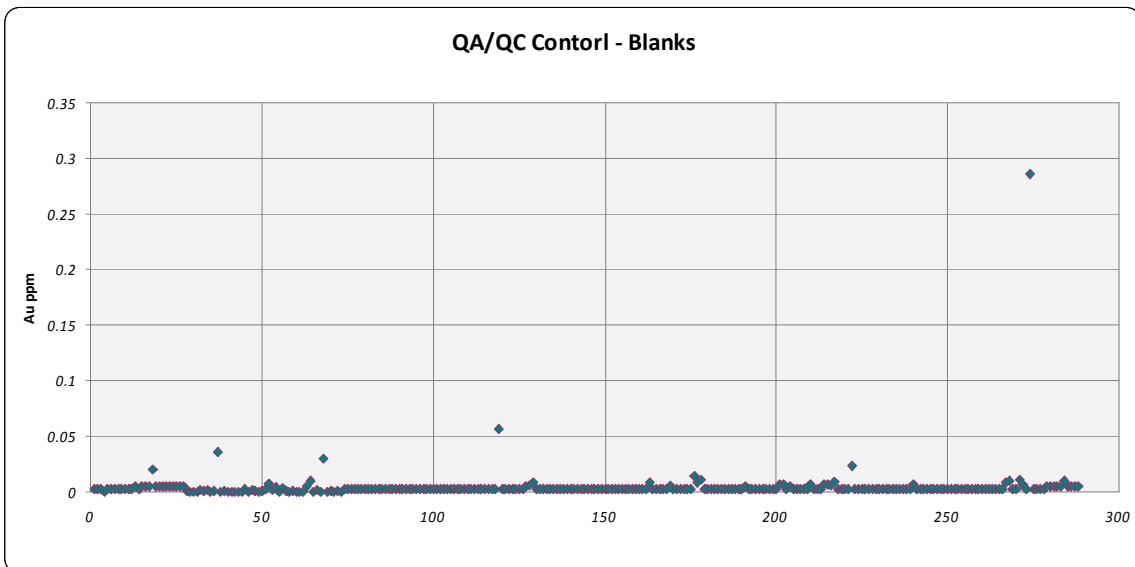
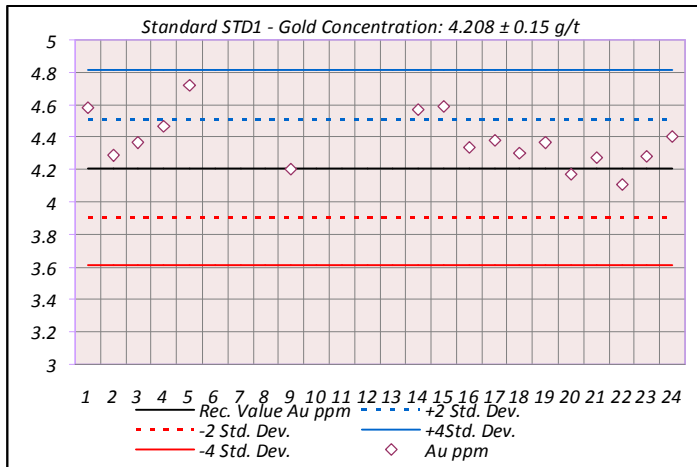
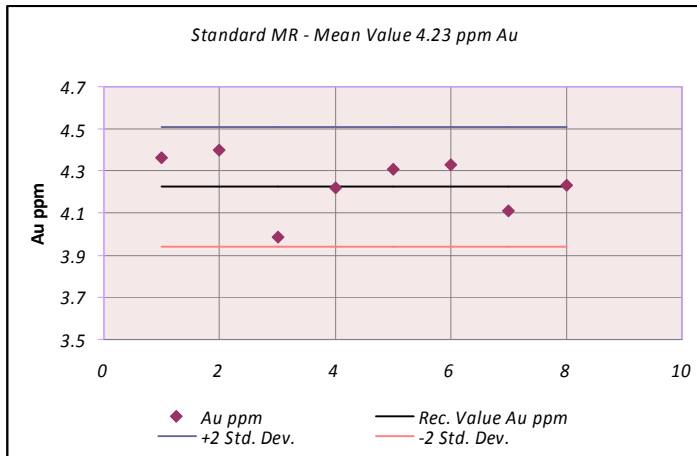
Table 25: Normalized Weathering Codes

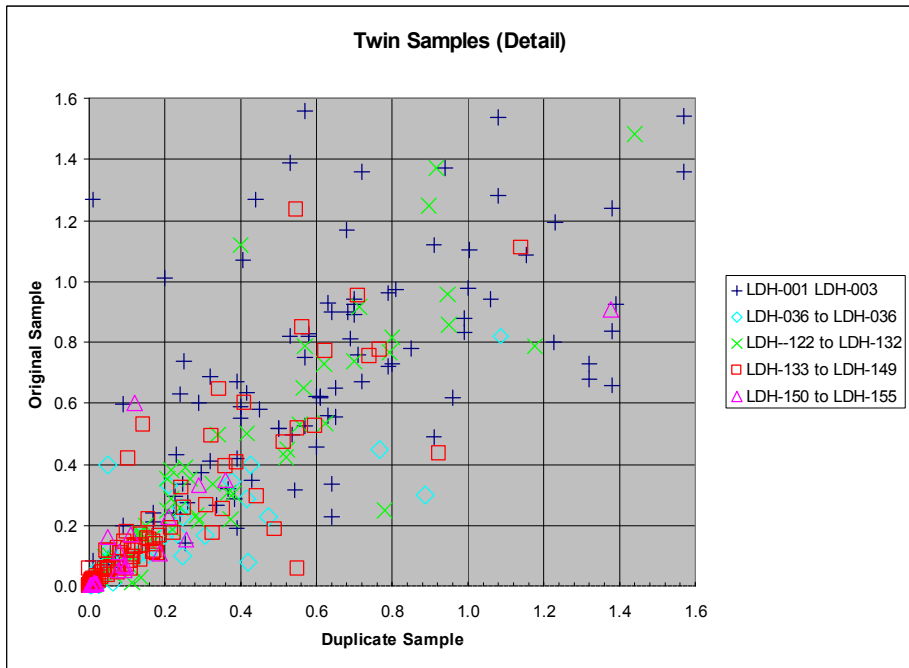
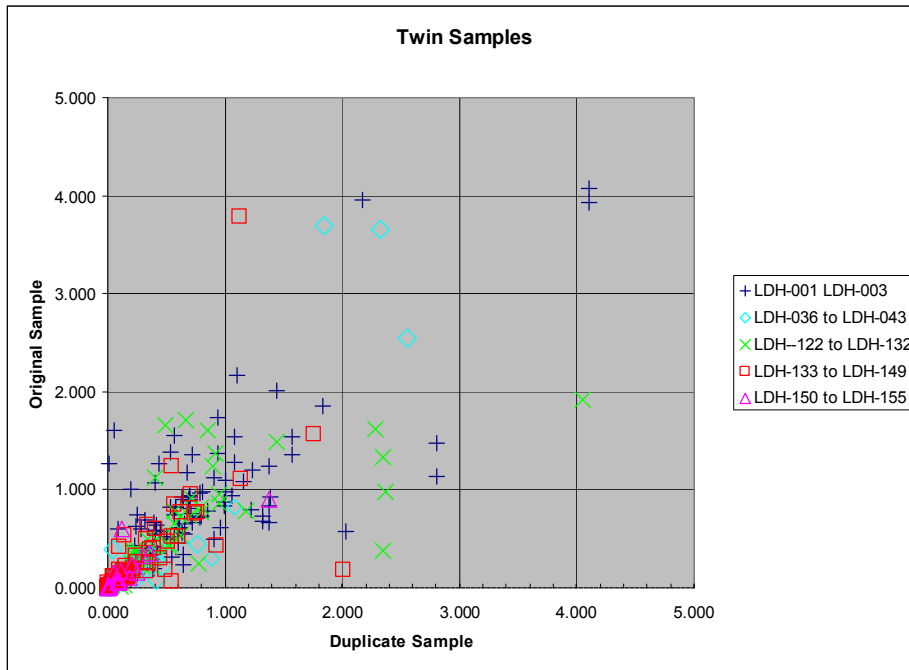
Original Logging Data			Normalized Codes	
Weathering_Desc	Instances	Metres Logged	Weathering Summary	Weathering Descripton
FR	5163	9,528.60	FR	Fresh
fresh	333	512.25	FR	Fresh
modified/fresh	3	4.65	FR	Fresh
RG	6	5.05	FR	Fresh
Rock	11	15.00	FR	Fresh
little alteration	1	1.40	OX	Oxide
modified	2	3.00	OX	Oxide
more alteration	1	1.30	OX	Oxide
OX	248	233.95	OX	Oxide
OX / Organic Soil	1	0.85	OX	Oxide
OX / TR	1	1.30	OX	Oxide
ox rock	5	5.40	OX	Oxide
ox soil	1	1.50	OX	Oxide
OX/FR	1	1.00	OX	Oxide
TR	151	220.27	OX	Oxide
TR/FR	1	1.05	OX	Oxide
Trans. Org. Soil	1	0.50	OX	Oxide
WK	6	9.15	OX	Oxide
SA	10	7.80	SAP	Saprolite
SAP	87	84.55	SAP	Saprolite
Sapro/Rock	1	1.50	SAP	Saprolite
saprolite	17	18.35	SAP	Saprolite
saprolite/rock	1	1.30	SAP	Saprolite
SR	26	21.80	SAP	Saprolite
organic soil	2	1.55	SO	Soil
organic	1	0.80	SO	Soil
organic soil	5	4.60	SO	Soil
Organic soil + OX	1	1.50	SO	Soil
organic soil and oxidized soil	1	0.85	SO	Soil
SO	20	13.40	SO	Soil
SO/SAP	1	1.00	SO	Soil
Soil	41	41.35	SO	Soil
SOIL/SAP	1	0.90	SO	Soil
soil/saprolite	1	0.55	SO	Soil
Solo	24	14.85	SO	Soil
Solo orgânico	3	2.10	SO	Soil
	0	269.10	UN	Unknown
-	12	22.25	UN	Unknown

25.2 Appendix B – CRM Plots



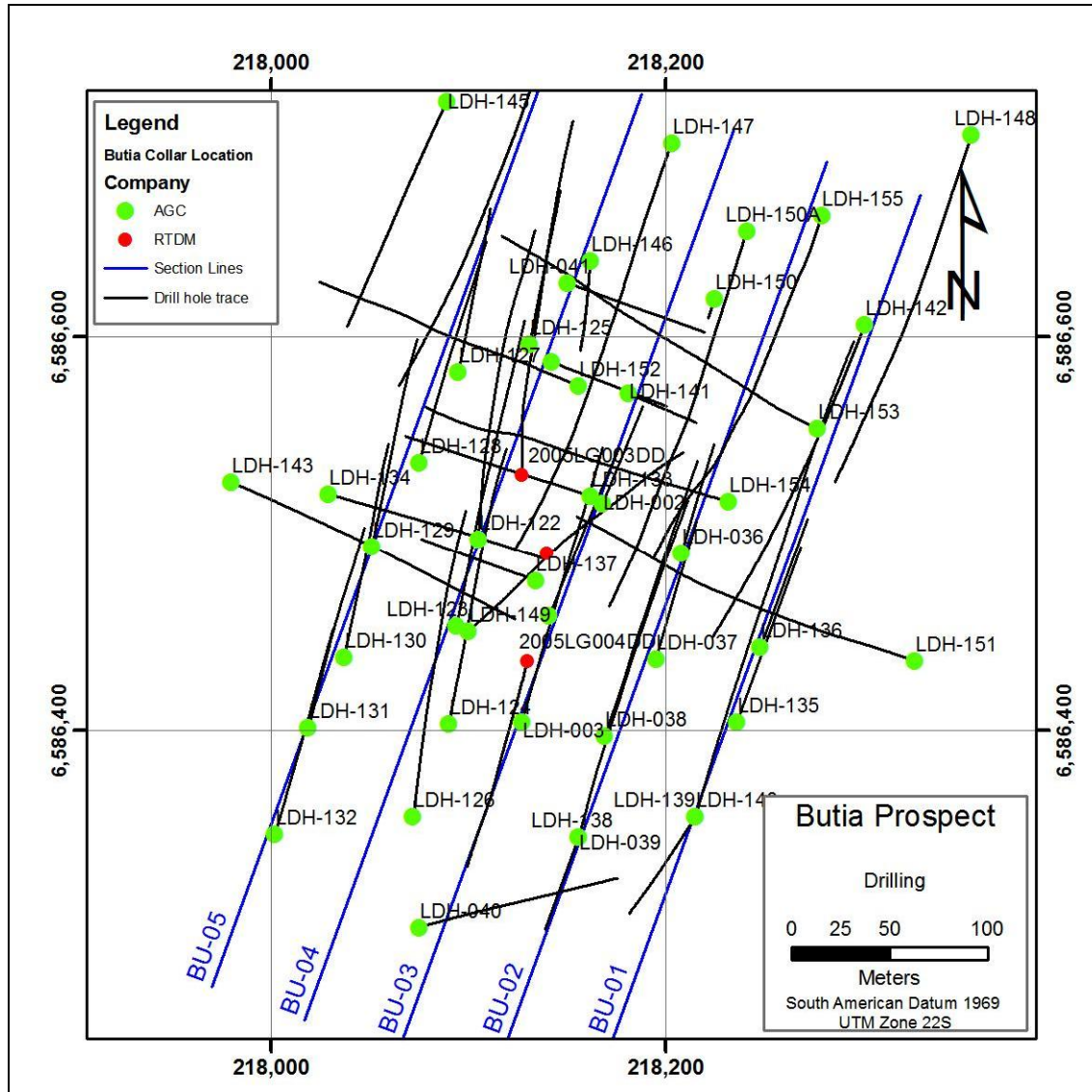


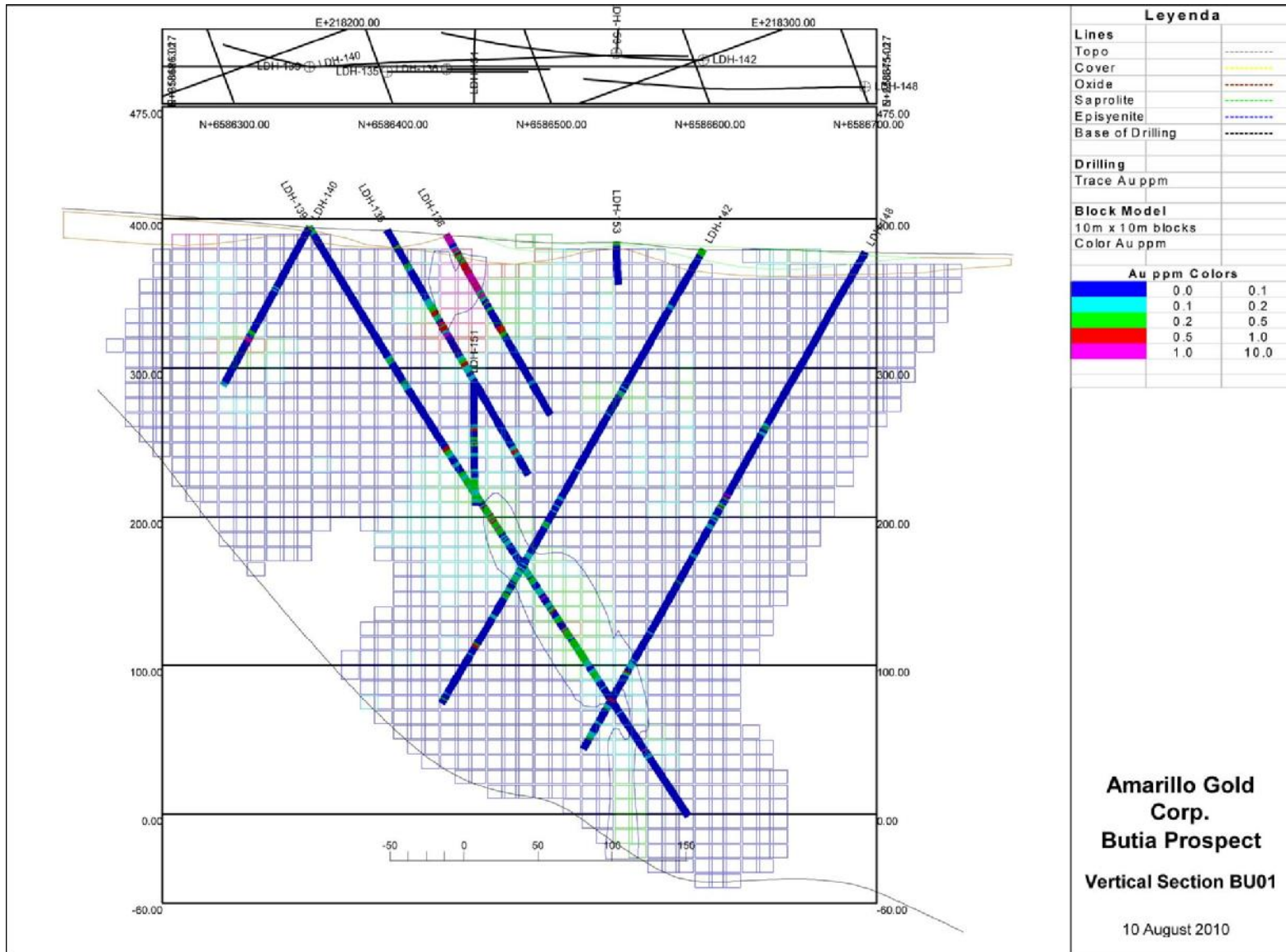


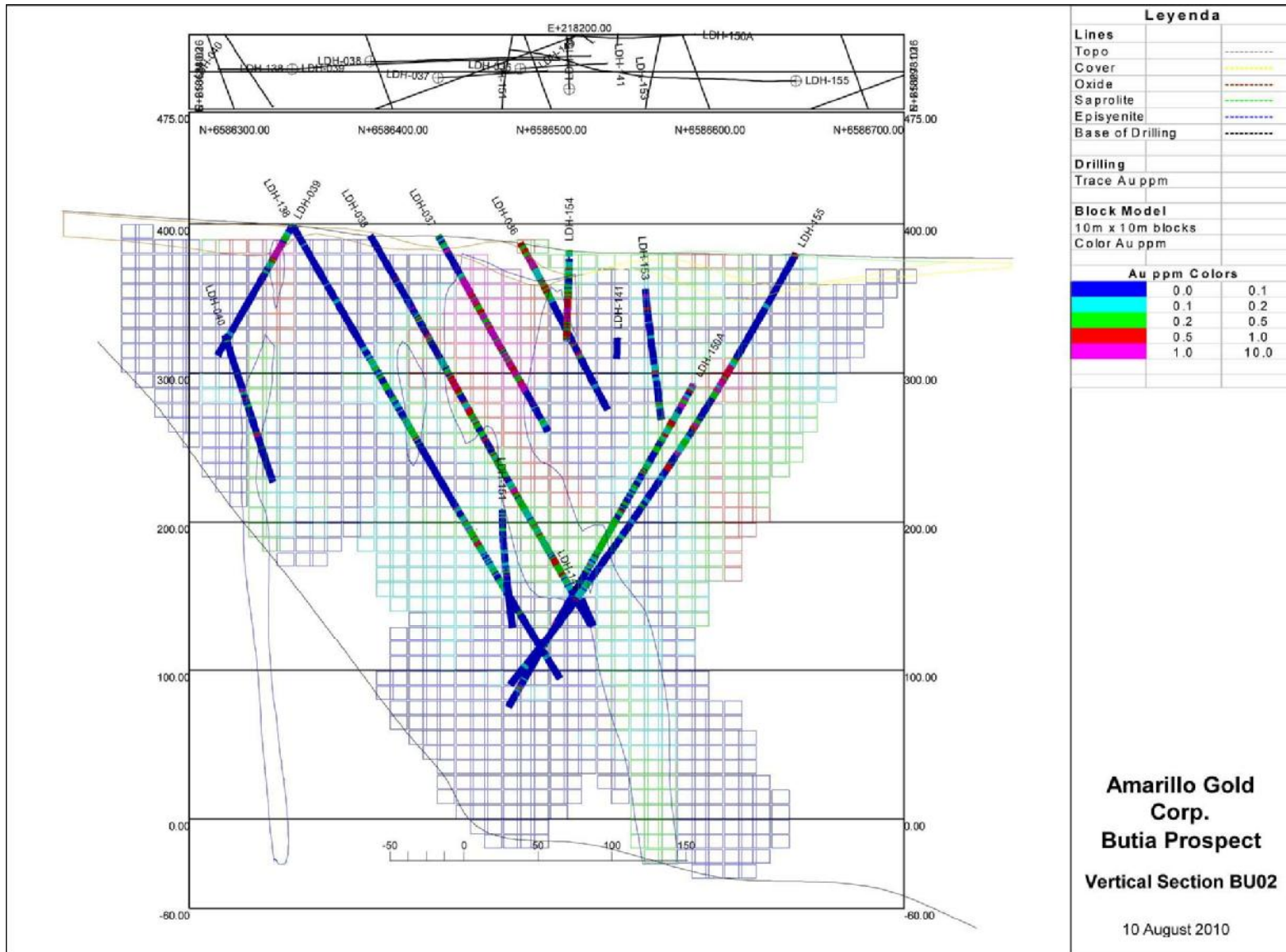


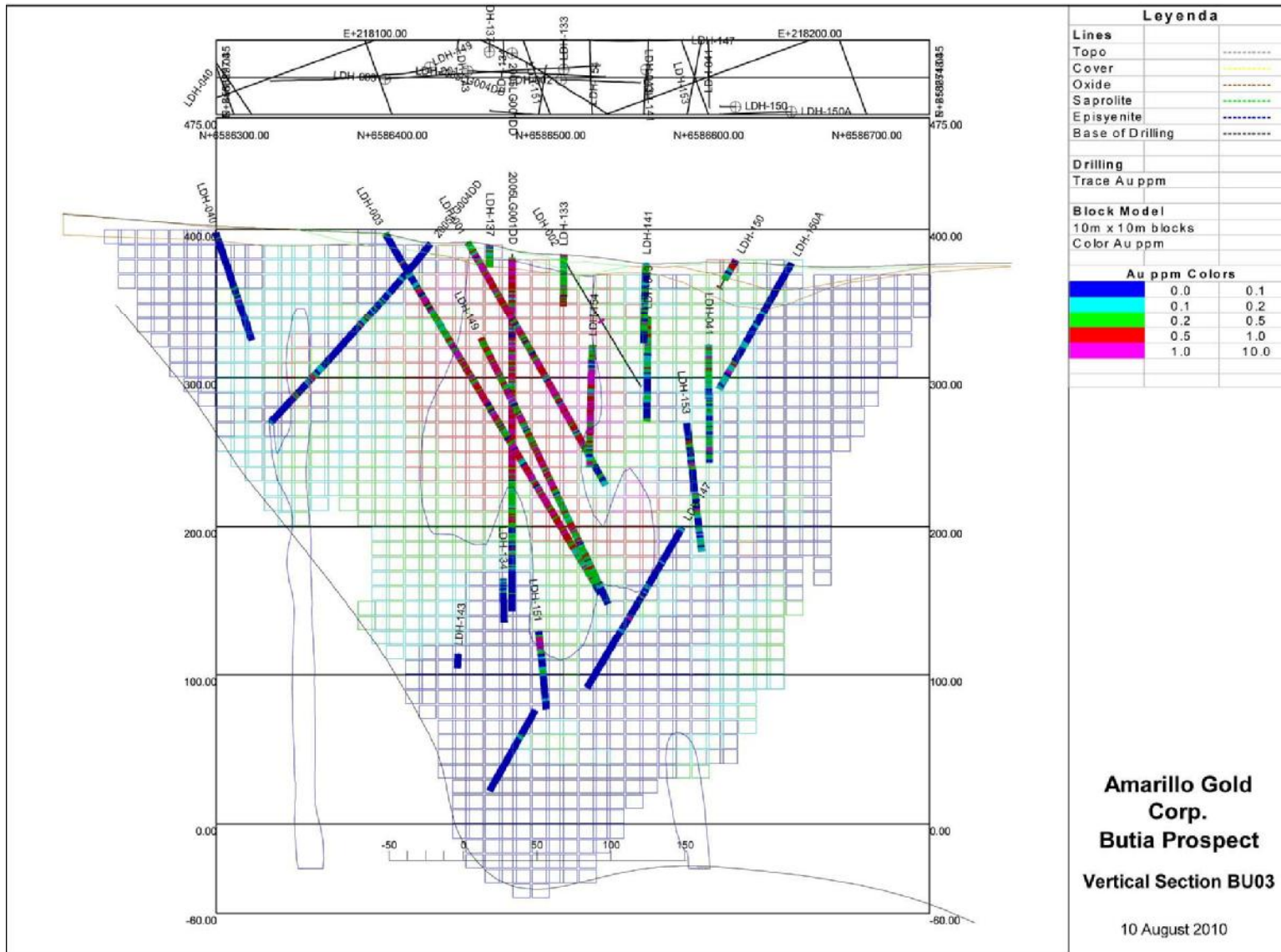
25.4 Appendix: Vertical Cross Sections

Drill hole location and cross sections









Leyenda

Lines	
Topo	-----
Cover	-----
Oxide	-----
Saprolite	-----
Episyenite	-----
Base of Drilling	-----

Drilling

Trace Au ppm

Block Model

10m x 10m blocks

Color Au ppm

Au ppm Colors	
0.0	0.1
0.1	0.2
0.2	0.5
0.5	1.0
1.0	10.0

Amarillo Gold Corp.
Butia Prospect
Vertical Section BU03
 10 August 2010

