



# **NI 43-101 Technical Report**

**on the  
Handeni Property  
centred at  
39.97°E, 5.753°S  
Tanga Province, Kilindi District  
Tanzania**



For  
**Canaco Resources Inc  
500-602 West Hasting Street  
Vancouver, BC  
V6B 1P2 Canada**

By  
**EurGeol Dr. S. M. Archibald, PGeo  
Aurum Exploration Services**

**March 1st 2011**



## TABLE OF CONTENTS

|   |           |
|---|-----------|
| <b>1. EXECUTIVE SUMMARY.....</b>  | <b>7</b>  |
| <b>1. EXECUTIVE SUMMARY.....</b>  | <b>7</b>  |
| <b>2. INTRODUCTION AND TERMS OF REFERENCE.....</b>                                      | <b>11</b> |
| <b>3. RELIANCE ON OTHER EXPERTS.....</b>  | <b>12</b> |
| <b>4. PROPERTY DESCRIPTION AND LOCATION .....</b>                                       | <b>13</b> |
| TENURE RIGHTS (HANDENI PROPERTY) .....  | 13        |
| TENURE RIGHTS (GENERAL) .....   | 16        |
| <b>5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY.....</b> | <b>20</b> |
| ACCESSIBILITY .....   | 20        |
| CLIMATE .....   | 21        |
| LOCAL RESOURCES.....  | 21        |
| Tanzania.....   | 21        |
| Tanga Region .....  | 23        |
| INFRASTRUCTURE .....  | 24        |
| PHYSIOGRAPHY .....  | 27        |
| <b>6. HISTORY.....</b>  | <b>28</b> |
| PROPERTY HISTORY.....   | 28        |
| <b>7. GEOLOGICAL SETTING .....</b>  | <b>32</b> |
| REGIONAL GEOLOGY .....  | 32        |
| PROPERTY GEOLOGY .....  | 34        |
| <b>8. DEPOSIT TYPES.....</b>  | <b>40</b> |
| <b>9. MINERALIZATION .....</b>  | <b>42</b> |
| <b>10. EXPLORATION .....</b>  | <b>47</b> |
| HISTORICAL .....  | 47        |
| SOIL SAMPLING .....   | 48        |
| NITON WORK ON SOILS.....  | 49        |
| CHIP SAMPLING.....  | 52        |
| AIRBORNE GEOPHYSICS .....   | 52        |
| <b>11. DRILLING .....</b>   | <b>54</b> |
| REVERSE CIRCULATION DRILLING.....   | 54        |
| RAB DRILLING .....  | 56        |

|  |            |
|--|------------|
| DIAMOND DRILLING.....  | 59         |
| MAGAMBAZI .....  | 60         |
| MAGAMBAZI NORTH.....   | 65         |
| MAGAMBAZI CENTRAL .....  | 67         |
| <b>12. SAMPLING METHOD AND APPROACH .....</b>                    | <b>69</b>  |
| SOIL SAMPLING .....  | 69         |
| ROCK SAMPLING .....  | 70         |
| REVERSE CIRCULATION DRILL SAMPLING .....                         | 71         |
| ROTARY AIR BLAST DRILL SAMPLING.....                             | 72         |
| DIAMOND DRILL SAMPLING .....                                     | 72         |
| <b>13. SAMPLE PREPARATION AND ANALYSIS AND SECURITY .....</b>    | <b>80</b>  |
| GENERAL.....   | 80         |
| SOIL SAMPLES .....   | 80         |
| ROCK SAMPLES (GRAB, CHIP, CORE) .....                            | 82         |
| QAQC.....  | 83         |
| <i>Soil Samples</i> .....  | 83         |
| <i>Niton Samples</i> .....                                       | 83         |
| <i>Channel/Chip Samples</i> .....                                | 83         |
| <i>Diamond Drill Samples</i> .....                               | 83         |
| ASSESSMENT .....   | 84         |
| <i>Soil Sampling</i> .....                                       | 84         |
| <i>Diamond Drill Samples</i> .....                               | 84         |
| <b>14. DATA VERIFICATION .....</b>                               | <b>88</b>  |
| SOIL SURVEYING .....   | 88         |
| NITON SAMPLE WORK .....  | 91         |
| GRAB/CHANNEL/CHIP SAMPLES .....                                  | 91         |
| DIAMOND DRILLING.....  | 91         |
| DATA COLLECTION VERIFICATION .....                               | 97         |
| PERSONAL DATA VERIFICATION.....                                  | 97         |
| <b>15. MINERAL RESOURCE AND MINERAL RESERVE ESTIMATION .....</b> | <b>98</b>  |
| <b>16. MINERAL PROCESSING AND METALLURGICAL TESTING .....</b>    | <b>98</b>  |
| <b>17. ADJACENT PROPERTIES .....</b>                             | <b>99</b>  |
| <b>18. OTHER RELEVANT DATA AND INFORMATION .....</b>             | <b>99</b>  |
| <b>19. INTERPRETATIONS AND CONCLUSIONS .....</b>                 | <b>100</b> |
| <b>20. RECOMMENDATIONS .....</b>                                 | <b>102</b> |

|  |            |
|--|------------|
| REGIONAL .....   | 102        |
| SEM WALIKO .....   | 102        |
| MAGAMBAZI AREA .....   | 102        |
| DRILL TESTING .....  | 102        |
| <b>21. COST ESTIMATES .....</b>  | <b>103</b> |
| <b>22. REFERENCES .....</b>  | <b>104</b> |
| <b>23. DATE AND SIGNATURE PAGE .....</b>                                 | <b>107</b> |
| <b>24. CERTIFICATE OF QUALIFICATIONS.....</b>                            | <b>108</b> |
| <b>APPENDIX I .....</b>  | <b>109</b> |
| MINERAL TITLES IN TANZANIA AND MINERAL RIGHTS LEGISLATION OVERVIEW ..... | 109        |
| <i>Prospecting Licence</i> .....   | 109        |
| <i>Special Mining Licence</i> .....                                      | 109        |
| <i>Mining Licence</i> .....  | 110        |
| <i>Retention Licence</i> .....   | 110        |
| <i>Primary Licences</i> .....  | 111        |
| <i>Licences and Fees</i> .....   | 111        |
| MINERALS LEGISLATION OVERVIEW .....                                      | 112        |
| <b>APPENDIX II .....</b>   | <b>114</b> |
| ACME SOIL AND CORE INDEPENDENT SAMPLE CERTIFICATES.....                  | 114        |

**FIGURES**

|   |    |
|---|----|
| <b>Figure 1.</b> Property location .....  | 15 |
| <b>Figure 2.</b> Property tenure map .....  | 18 |
| <b>Figure 3.</b> Property access routes (Google Maps) .....   | 20 |
| <b>Figure 4.</b> Tanzania GDP (World Bank) .....  | 22 |
| <b>Figure 5.</b> Tanzania infrastructure (UN, 2005) .....   | 25 |
| <b>Figure 6.</b> Map showing artisanal working in the Magambazi area (the large polygons represent outcrop/subcrop: greens are amphibole gneisses and pinks are feldspathic gneisses).....  | 30 |
| <b>Figure 7.</b> Map of the Semwaliko area showing artisanal workings .....   | 31 |
| <b>Figure 8.</b> Schematic map of Tanzanian craton (D. Groves 2010).....  | 34 |
| <b>Figure 9.</b> Property regional geology (Geological Survey of Tanzania) .....  | 35 |
| <b>Figure 10.</b> Surface geology of the Magambazi hill with geological interpretation by I. Groves (2009) ....   | 37 |
| <b>Figure 11.</b> Simplified geology map of the Handeni Property interpreted from airborne magnetic data. Linear magnetic anomalies illustrated by red and blue lines. ....   | 39 |
| <b>Figure 12.</b> Location of diamond drillholes at Magambazi. Gold intercepts > 2 g/t are illustrated by red lines on the drillhole trace. Dashed green lines represent the boundaries between the three drilling areas at Magambazi. ....                   | 41 |
| <b>Figure 13.</b> Drill section 60,440N through Magambazi. The synformal nature of the ore body is evident, as to are the thickness of the ore intercepts. Each grid square is 50 x 50 m. Planned holes are illustrated as traces (I. Groves, 2010). ....     | 44 |
| <b>Figure 14.</b> Drill section 60,760N through Magambazi Central. Mineralization is steeper than sections in Magambazi North and the main Magambazi zone to the south (I. Groves, 2010). ....  | 45 |
| <b>Figure 15.</b> Drill section 60,760N through Magambazi North. Drilling to the west reveals the synformal nature of the mineralized structure and the presence of faults (I. Groves, 2010). ....  | 46 |
| <b>Figure 16.</b> Gold anomalies and trends (red) in soil at Handeni, as Interpreted by I. Groves (2010). ....  | 49 |
| <b>Figure 17.</b> Plot of arsenic concentrations in Magambazi soils using XRF (Carmen, 2008) .....  | 50 |
| <b>Figure 18.</b> Plot of cobalt concentrations in Magambazi soils using XRF (Carmen, 2008).....  | 51 |
| <b>Figure 19.</b> Magnetic analytical signal.....   | 53 |
| <b>Figure 20.</b> First vertical derivative .....   | 53 |
| <b>Figure 21.</b> Digital terrain model .....   | 53 |
| <b>Figure 22.</b> Total radiometrics .....  | 53 |
| <b>Figure 23.</b> Semwaliko reverse circulation drill plan showing the location of artisanal alluvial, pit and shaft workings.....  | 55 |
| <b>Figure 24.</b> Handeni Property Rotary Air Blast (RAB) drill plan showing the maximum gold intercepts recorded over 4 m intervals. The background image is the magnetic analytical signal. The location of RC and diamond drillholes is also plotted. .... | 58 |
| <b>Figure 25.</b> Magambazi drill hole plan showing the collar locations, section numbers and zone names. The red section lines are cross sections illustrated in Figures 23, 24 and 25. ....   | 63 |

|  |    |
|--|----|
| <b>Figure 26.</b> Magambazi drill hole plan (>2.0 g/t Au vertical projections). Drilltraces plotting off the diagram (un-numbered) were either unmineralized or either did not contain assay data at the time of writing (Hole 100). | 64 |
| <b>Figure 27.</b> Magambazi North drill hole plan (>2.0 g/t Au vertical projections)   | 67 |
| <b>Figure 28.</b> Magambazi Central drill hole plan (>2.0 g/t Au vertical projections)   | 69 |
| <b>Figure 28.</b> Graph showing the caution-failure for 544 blank samples assayed for Au (y-axis in ppm)   | 86 |
| <b>Figure 29.</b> Gold analyses for soil pulp duplicates   | 89 |
| <b>Figure 30.</b> SGS original core gold assay pulp duplicate comparison   | 93 |
| <b>Figure 31.</b> ALS VS SGS core gold assay pulp duplicate comparison   | 93 |
| <b>Figure 32.</b> ALS standard check analyses  | 94 |
| <b>Figure 33.</b> Variation 110 gold assay analysis for standard G999-4 over ten months  | 96 |
| <b>Figure 34.</b> Variation 39 gold assay analysis for standard AUOI-3 over 32-months.   | 96 |

## TABLES

|  |     |
|--|-----|
| Table 1. Property tenure location list (current title documents)               | 14  |
| Table 2. Tanzanian species at risk (Iucn, 2004)                                | 19  |
| Table 3. Tanzania economic fact sheet  | 23  |
| Table 4. Summary of Niton soil analyses  | 51  |
| Table 5. Reverse circulation drillhole locations, Semwaliko                    | 56  |
| Table 6. Magambazi diamond drill holes   | 61  |
| Table 7. Chip sampling key intervals   | 71  |
| Table 8. Reverse circulation drill hole key intercepts                         | 72  |
| Table 9. Magambazi diamond drill hole significant intercepts                   | 74  |
| Table 10. Magambazi Central diamond drill hole significant intercepts          | 77  |
| Table 11. Magambazi North diamond drill hole significant intercepts            | 78  |
| Table 12. Niton sampling specifications  | 81  |
| Table 13. Diamond drilling inserted standards and blanks by hole (001 to 045)  | 87  |
| Table 14. High gold soil sample standard results                               | 90  |
| Table 15. Comparison of composite analyses, SGS and ALS                        | 92  |
| Table 16. SGS VS ALS pulp rerun range comparison                               | 94  |
| Table 17. Comparison between high/low – caution and failure rates of standards | 95  |
| Table 18. Independent core and soil sampling analytical results                | 98  |
| Table 19. Recommended programme costs  | 103 |

## PLATES

|                  |   |    |
|------------------|---|----|
| <b>Plate 1.</b>  | A. Canaco field office. B. Communications are provided by satellite-based internet. ....  | 24 |
| <b>Plate 2.</b>  | General pictures of the Handeni camp. A. Outdoor core logging area. B. Core sawing facilities.<br>C. Core storage area. D. Pulp and soil storage area. E. General storage shed. F. Ongoing<br>construction at the Handeni Camp .....  | 26 |
| <b>Plate 3.</b>  | Magambazi Hill (looking southwest) rising above the surrounding low-lying plain. Magambazi<br>North is present on the right, the central hill is Magambazi Central and the main Magambazi<br>mineralized zone is present to the left (forming a flat top to the hill) .....       | 28 |
| <b>Plate 3.</b>  | Artisanal workings at Magambazi's "Big Pit". Note person for scale (circled). ....  | 36 |
| <b>Plate 4.</b>  | Typical lithologies from the Handeni Property. A. Garnet-bearing amphibolite, B. Feldspathic<br>gneiss, C. Kyanite-bearing feldspathic gneiss, D. Garnet-silica rock (GASIL), E. weathered Sulfide<br>zone containing graphite, F. Massive graphite with feldspathic gneiss. .... | 38 |
| <b>Plate 5.</b>  | A. Siliceous high-grade gold ore displaying free gold (circled in yellow) and associated with<br>arsenopyrite. B. Quartz vein cutting garnet-rich amphibolite with free gold and arsenopyrite at<br>the margins. Both veins are from MGBZD001. ....                               | 43 |
| <b>Plate 7.</b>  | Reverse circulation drilling, Semwaliko area (archival photo) .....   | 54 |
| <b>Plate 8.</b>  | Drilling of a shallow inclined diamond hole, Magambazi North.....   | 59 |
| <b>Plate 9.</b>  | Niton X-ray analyzing shallow soil samples. ....  | 82 |
| <b>Plate 10.</b> | A. Core orientated and marked-up ready to be split in two. B. Splitting core at the camp. ....  | 82 |

## **1. EXECUTIVE SUMMARY**

This report is an independent, National Instrument 43-101 compliant technical review and report for the Handeni Property, being explored by Canaco Resources Inc. The work programs reviewed cover the time span from May 2007 to December 2010. Canaco Resources Inc. (CAN) is currently exploring the Handeni Project through an active programme of diamond drilling.

The Handeni Property (the “Property”) comprises two contiguous properties; the Kilindi Prospecting Licence, 100 % CAN owned, and the Magambazi Primary Mining Licences that encompass the present active artisanal mines at Magambazi Hilltop. The Property is located in the Tanga Region of northeastern Tanzania, 130 kilometres north-northeast of the city of Morogoro and 30 kilometres due south of the town of Handeni. Access is via paved highway from Dar es Salaam, travelling northwest to Mkata, and taking an all-weather dirt road 80 km westward through Handeni.

Situated in the Paleoproterozoic Usugaran/Ubendian Metamorphic Terrane, and along the northern extension of the north-trending Proterozoic Mozambique Mobile Belt, the Handeni area is interpreted to comprise a metamorphosed eastern extension/remnant of the Lake Victoria cratonic belt. During the last two decades, these greenstone terranes have undergone increased exploration, becoming some of the larger producers of gold from Archean greenstone-related orogenic lode-gold deposits.

The geology of the Handeni area is poorly defined and the protolith is uncertain since it is characterized by highly metamorphosed and migmatized gneissic assemblages. However, the lack of historic exploration means the Handeni area represents a new target area for gold exploration, possibly hosting deposits of a similar scale to those in western Tanzania.

A number of artisanal hard rock and placer gold deposits and gold occurrences are noted on the Property. In 2003, gold was discovered by artisanal miners in the Magambazi area of east central Tanzania and the mineral rights subsequently acquired by Primary Mining Licence. In September 2005, Midland Minerals was awarded the 2700 km<sup>2</sup> New Kilindi Prospecting Licence, which was optioned by Canaco in March of 2007. Canaco optioned the adjoining Magambazi Primary Licences in July of 2007. In December 2007, CAN renegotiated their rights position to the entire New Kilindi property, in exchange for a 100% interest in the reduced area (196 km<sup>2</sup>) Kilindi Prospecting Licence. The combined Kilindi and Magambazi properties comprise the Handeni property, the subject of this report.



The Property is underlain by an assemblage of felsic gneiss and associated amphibolite gneiss. A veneer of saprolitic/lateritic cover overlies the majority of the property. Prominent structural and lithological features on the property trend NNW and ENE as defined by recent geological mapping and regional geophysics.

Since late 2007 Canaco has carried out a programme of geophysical and remote sensing compilation, geological mapping, soil surveying, rock chip sampling, petrologic studies, an airborne magnetic and radiometric survey, and rotary air blast (RAB), reverse circulation (RC) and diamond drilling. These techniques were employed to assist in identifying the initial gold mineralized discoveries, and further assist in identifying and defining additional gold mineralization.

Gold mineralization at Handeni occurs in a number of styles as shown through recent drilling. Surficial gold was concentrated in surface placers and also locally within lateritic/saprolitic cover. *In situ* gold is spatially associated with quartz vein zones within silica and garnet altered amphibolite gneiss. Mineralization is commonly associated with arsenopyrite (possibly also loellingite), pyrrhotite and graphite. Visible gold is commonly present in drillcore.

Exploration to date has defined an 11 km long gold in soil anomaly extending from Magambazi northwestwards towards Semwaliko and Semwaliko North, and continuing northwards towards Majiri Bomba.

Reverse circulation drilling was targeted to systematically undercut the Semwaliko artisanal workings area. Gold results from this drilling yielded maximum intercepts in Hole 1 of 1.04 g/t Au over 12 m, including 1 m @ 6.47g/t Au. Subsequent deeper exposures created by artisanal mining suggest that, while the targeted veins are steeply dipping, the mineralized horizons hosting the veins are moderately to gently dipping, and are potentially cut at depth by a basal thrust. A more detailed review of the geology and structure of this area is warranted, and targeting along the anomalous trend remains open along strike to the north and south, and potentially down dip to the east.

At Majiri Bomba, trenching has been initiated in the vicinity of the soil gold anomaly, and results to-date are mixed. A broad zone of a low order bedrock gold anomaly has been identified (62 m @ 0.2 g/t Au), and two, one metre chip samples grading over 3 g/t Au were identified as having potential for upgrading in status (see Majiri Bomba QA/QC). A source of gold has been defined in bedrock by the initial

trenching, and further trenching and drilling are required to ascertain the width and grade of mineralization.

At Magambazi, Magambazi North, and Magambazi Central, CAN identified a gold mineralized system through preliminary exploration (including research of artisanal mining, data compilation, mapping, grab and chip sampling, soil sampling, and associated interpretation) and is presently engaged in diamond drill testing these three key mineralized zones. Drilling is set up on 40 m grid lines, and is systematically testing down dip and along strike extension to established mineralization.

The Magambazi area of interest straddles the boundary of the Kilindi Prospecting Licence and the Magambazi Primary Mining Licences. Diamond drilling to date has defined the three significant mineralized horizons, Magambazi, Magambazi Central and Magambazi North. The Magambazi zone is characterized as a shallow, NW-trending, NW-plunging gold mineralized horizon. A key intercept of 56.2 m of 6.39 g/t Au (true thickness estimated between 39.3 and 50.6 m) in MGZD0012 defines the core area discovered to date, and expansion on this zone is continuing. Gold is spatially related to quartz veins within silica and garnet altered amphibolite.

The Magambazi North Zone has a similar host rock and mineralization profile as Magambazi, however it appears to contain more variable arsenopyrite, with a peak high-grade intercept of 9.9 m of 6.25 g/t Au (true thickness estimated between 8.9 and 9.9 m). This zone also trends NNW, although mineralization dips to the ENE and plunges SE. As of December 1, 2010, Canaco has drilled and reported on 101 diamond drill holes for a total of 20479.14 m in the Magambazi (13190.26 m) and Magambazi North (7288.88 m) areas.

Drilling between the two zones has identified new significant mineralization at Magambazi Central. The peak high-grade grading 6 m of 29.40 g/t Au (true thickness estimated between 4.8 and 6 m). A recent dispute regarding the tenure of this area has been resolved.

The author has reviewed the drill program and core logging on the property for the period of this report and finds the work to be of a professional nature, and is satisfied that the sample preparation, security and analytical procedures meet the standards set out in NI43-101 for gold sample procedures. Additional duplicate procedures will assist in identifying potential error envelopes through the sampling and preparation cycle.

The project has significant potential to expand the known mineralization in the Magambazi area due to the on-going drill programmes. Continued drilling is recommended to extend and potentially connect known mineralized areas. Results of RC drilling from Semwaliko and trenching from Majiri Bomba have identified source bedrock gold within the target areas of soil anomalies and existing workings.

Airborne geophysics was recently flown over much of the Handeni Property and this data should be fully scrutinized and integrated with the results of soil sampling and surveying of existing workings. Additional geophysical programmes, such as I.P. and EM surveys, could be performed to assist in refining target areas and identifying new target zones. This work would assist in identifying high Sulfide zones, magnetic pyrrhotite, and graphite associated with faults and potentially mineralization. The information would also support the continued development of the structural and lithological interpretation for the Property area.

A budget of \$ 5,862,500 US is required to advance the project to level which will permit the initiation of resource definition drilling at Magambazi, and cover additional exploration programmes (including RC and RAB drilling) within the Handeni Property.

## 2. INTRODUCTION AND TERMS OF REFERENCE

Aurum Exploration Services was retained by Andrew Lee Smith, President and CEO of Canaco Resources Inc. ("CAN"), to conduct a technical review of the Handeni Property ("Property"), and prepare an Independent Technical Report (the "Report") compliant with National Instrument 43-101 ("NI43-101"), companion policy NI43-101CP, and Form 43101F1. The property site review was conducted between the dates of December 14, 2010 and December 16, 2010.

CAN was formed through a name change from Canaco Resources Ltd. on November 10, 2003. The company is presently listed on the TSX Venture Exchange (CAN).

This report presents a geological appraisal of the Handeni Property, owned by CAN, and makes recommendations for further work. It is prepared by Aurum Exploration Services for CAN, and has been prepared under the terms set out in NI43-101.

The information herein is derived from a review of the documents listed in the References section and from information provided by CAN. Previous in-house reports and reviews on the Property by CAN have been utilized extensively herein as they document a very complete summary of previous work. Much of the background information for this report is based on an unpublished report by J. Heidema, 2010. The purpose of this report is to assess recent exploration results and to identify and recommend areas for follow-up investigation. A list of the reports available to the author is found in the References section of this report. The author has acquired experience in the exploration and review of orogenic gold deposits through previous exploration work conducted in gold producing belts of West Africa (Mauritania, Mali and Ghana), the Proterozoic Skellefteå Belt, Sweden and the Palaeozoic Caledonian orogen in northern Britain and Ireland.

The Property is located west of the Tanga Province of Tanzania (Figure 1), and is located in the predominately Proterozoic-aged Usagaran belt. A site visit to Tanzania was conducted during the period of December 14, 2010 and December 16, 2010 in the company of Mr. Musa Kassano a geologist with CAN and who is responsible for exploration of the Property. The Property field visit included a site visit to historic surface workings, trenches, and areas of past and present diamond drilling (including obtaining GPS coordinates for old collars), examination of key property outcrops, and a visit to the camp

core handling area. At the exploration camp and project office, a review was conducted of drill results and procedures, including a review of core logging and sampling procedures.

The material found in this technical report is an amalgamation of company reports, news releases, web search documentation, and consultant reports, available for review by the author. Mr. Denis Dillip, Ms. Bonnie Weston and Mr. Musa Kassano were instrumental in providing required information, and coordinating physical and digital access to information. There were no limitations placed on the author in the preparation of this report with respect to CAN information.

This current report summarizes previous work and discusses the results of the work completed from the summer of 2008 up to December 1, 2010. All intercepts have unknown true thickness unless otherwise stated.

All references to currency in this report are in US dollars.

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

Aurum Exploration Services has prepared this report using both available public information and confidential information provided by CAN. Information, conclusions, opinions, and estimates contained herein are based upon:

- Data, reports, releases, and verbal and other information supplied by CAN and third party sources at the time of report preparation.
- Assumptions, conditions, qualifications as described within the report.

Mr. Andrew Lee Smith was the QP responsible for overseeing and reporting on the Property during the period covering this report. His assistance was fundamental in providing the required current and historical information relating to the Property. Ms. Bonnie Weston, QP, a contract geologist in Vancouver, Canada was of great assistance in data collection and illustration preparation. In terms of assistance with respect to interpretive input, Mr. Iain Groves of Insight Geology Pty, Ltd, and Dr. David Groves, Technical Director of CAN have been instrumental in providing background information on the Property. Additionally, current and historic Property information was acquired from Mr. Denis Dillip, contract lead project geologist in Tanzania. Some figures and tables in this report have been supplied

directly by CAN and every effort has been made to ensure this data is correct. For the above listed non-QP source information (i.e., statements attributed to Mr. I. Groves, Dr. D. Groves and Mr. D. Dilip), the author makes no warranty, express or implied, nor assumes any legal liability or responsibility for the accuracy or completeness, of this information, nor represent that its use would not infringe on privately owned rights, and this input will be duly noted within the text.

The report has been prepared based on the assumption that the information provided was accurate at the time of report preparation, although this accuracy is not guaranteed. No resource estimation of any type is an objective of this report.

For the purposes of this report, Aurum Exploration Services has relied on the ownership information CAN has provided in database title files, and summary compilation tables of legal title for the property. In addition, copies of land title transfer and ownership were provided. No web based confirmation of title is available to check or cross reference. No formal legal opinion has been sought on the title of the Property by the author, although legal opinion has been requested and received by CAN confirming title to the satisfaction of CAN.

Except for the purposes required by applicable securities laws, any use of this report by any third party is at that party's sole risk. In terms of stated mineralization intercepts, mineralization widths shown in this report are unknown unless otherwise quantified.

#### **4. PROPERTY DESCRIPTION AND LOCATION**

The United Republic of Tanzania comprises a total area of 945,087 sq. km. and is located between longitudes 29°E- 41°E and latitudes 1°S and 12°S. The country is bounded by Kenya and Uganda on the north, the Indian Ocean on the east, to the south by Mozambique, Malawi and Zambia, and on the west by Burundi, Rwanda, and the Democratic Republic of Congo. The Handeni Property is located in northeastern Tanzania, in the Kilindi district of the Tanga Region, and is located 30 km south of the town of Handeni (Figure 1).

##### **Tenure Rights (Handeni Property)**

The Property consists of two key tenured blocks known as Kilindi and Magambazi (Figure 2 and Table 1). Kilindi is a 100 % CAN owned Prospecting Licence (PL 4781/2007; covering an area of 97.38 km<sup>2</sup> in

November 2010), obtained via agreement and official transfer from Midland Minerals on August 16, 2008. This Prospecting Licence covers artisanal workings identified as Majiri Bomba, Semwaliko, Semwaliko North, and Magambazi North. The adjoining Magambazi tenure is a combined contiguous group of four Primary Mining Licences (PMLs 7811 to 7814), presently under option by CAN from Denwill Mining Services Limited, holder of the PMLs. CAN has an option to acquire all of the outstanding shares of Denwill for US\$40,000 (which has not yet been exercised). Denwill also agreed to amalgamate the PMLs and convert them into a mining license. On May 14, 2010, Denwill entered into a royalty agreement with Magambazi Mines Company Limited ("MML"), granting MML a 2% royalty over mineral products that may be produced from the property and MML acknowledged receipt of the US\$140,000 as advance payment towards royalties even though the property has not commenced commercial production.

**Table 1.** Property tenure location list (current title documents)

| Tenure       | Tenure type         | Corner | Corner Coordinates |                |
|--------------|---------------------|--------|--------------------|----------------|
|              |                     |        | Latitude S         | Longitude E    |
| PML0007811   | Mining Licence      | A      | 5° 44' 21"         | 38° 01' 18.96" |
|              |                     | B      | 5° 44' 21"         | 38° 01' 29"    |
|              |                     | C      | 5° 44' 31.49"      | 38° 01' 29"    |
|              |                     | D      | 5° 44' 31.49"      | 38° 01' 18.96" |
| PML0007812   | Mining Licence      | A      | 5° 44' 10.5"       | 38° 01' 18.96" |
|              |                     | B      | 5° 44' 10.5"       | 38° 01' 29"    |
|              |                     | C      | 5° 44' 21"         | 38° 01' 29"    |
|              |                     | D      | 5° 44' 21"         | 38° 01' 18.96" |
| PML0007813   | Mining Licence      | A      | 5° 44' 10.5"       | 38° 01' 14.08" |
|              |                     | B      | 5° 44' 10.5"       | 38° 01' 18.96" |
|              |                     | C      | 5° 44' 21"         | 38° 01' 18.96" |
|              |                     | D      | 5° 44' 21"         | 38° 01' 14.08" |
| PML0007814   | Mining Licence      | A      | 5° 44' 21"         | 38° 01' 14.08" |
|              |                     | B      | 5° 44' 21"         | 38° 01' 29"    |
|              |                     | C      | 5° 44' 31.49"      | 38° 01' 29"    |
|              |                     | D      | 5° 44' 31.49"      | 38° 01' 14.08" |
| PL 4781/2007 | Prospecting Licence | A      | 5° 40' 48"         | 37° 57' 27"    |
|              |                     | B      | 5° 40' 48"         | 38° 01' 15"    |
|              |                     | C      | 5° 48' 18"         | 38° 01' 15"    |
|              |                     | D      | 5° 48' 18"         | 37° 57' 27"    |

Three fractional Primary Mining Licences (PMLs 6045, 6046, 11023) exist within the Kilindi Prospecting Licence, and are owned by other parties. Two exist on alluvial workings west of Magambazi, and one exists over the small section of the Semwaliko surface workings area. The Prospecting Licence corners were established by GIS coordinate points, and have not been surveyed or marked on the ground. Both Licence types have required rentals and other associated obligations and payments that require fulfilment in order to maintain and renew tenure. Title information was provided by CAN and a copy of







There are no known environmental liabilities on the Property and Mr. Smith has verbally confirmed this status. A former park existed NE of the property, but the park designation has since been removed. The author is not aware of any unusual permit requirements for the Licences during the early exploration phases.

### **Tenure Rights (General)**

Tenure rights were revamped in the 1990s to assist in the revitalization of the mining sector. Rights for prospecting and mining for minerals are licensed under the Mining Act. The Minister can grant, renew, suspend or cancel any licence. However, the Minister must serve a default notice on the licence holder specifying the grounds upon which the licence is liable to suspension or cancellation. Licences are granted on a first come, first served basis except in a situation where licences are subjected to a competitive bidding process. The types of licences which may be granted under the Mining Act include a prospecting licence, a retention licence, a special mining licence, a mining licence, a gemstone mining licence, a primary mining licence and a primary prospecting licence (see Appendix I for full details). Primary licences are restricted to Tanzanian citizens or corporate entities whose membership is composed exclusively of Tanzanian citizens.

In terms of mineral tenure requirements, the holder of a prospecting Licence must;

- commence prospecting operations within three months, or such further period as the licensing authority may allow, from the date of the grant of the licence or such other date as is stated in the licence on commencement period;
- give notice to the licensing authority of discovery of any mineral deposit with potential commercial value;
- and expend on prospecting operations not less than the amount prescribed.

The holder of a mining licence or a special mining licence must:

- develop the mining area and carry on mining operations in substantial compliance with the programme of mining operations and their environmental management plan, and commence production in accordance with the programme of mining operations;
- employ and train citizens of Tanzania in accordance with their proposals as appended to the licence; and
- demarcate the mining area and keep it demarcated in the prescribed manner.

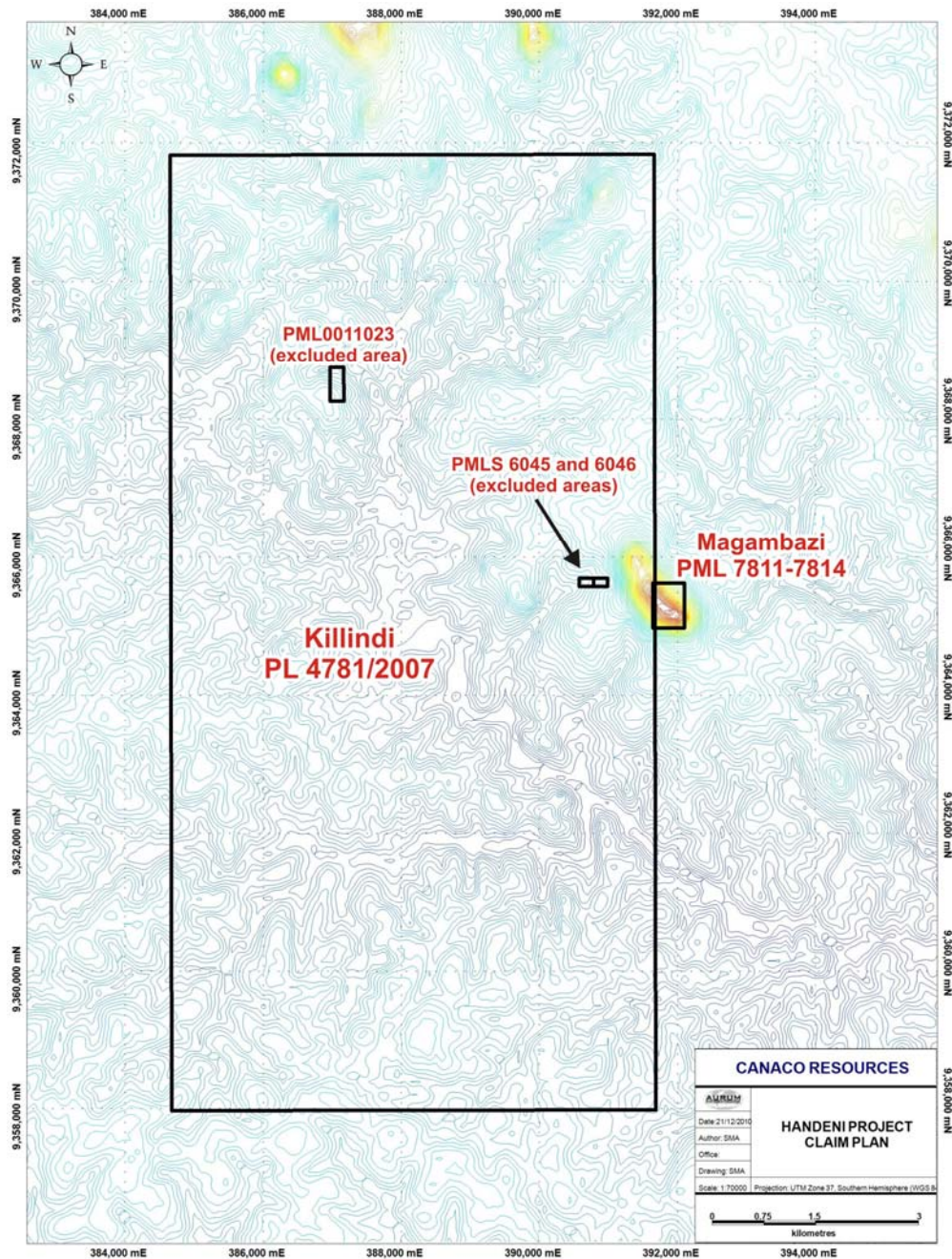
Whenever required by the minister, after consultation with the Mining Advisory Committee, licence holders must provide for the posting of a rehabilitation bond, as provided for in the regulations, to

finance the costs of rehabilitating and making safe the mining area on termination of mining operations where the holders of the special mining Licence have failed to meet their obligations in this respect.

Aboriginal or previously disadvantaged people do not maintain preferential rights to mining rights; however they are entitled to compensation to occupiers of land that is subject to a mining right (Nguluma, 2009).

To summarize, in terms of land holdings and cost, a Prospecting Licence grants exclusive exploration rights over an area not exceeding 200 km<sup>2</sup> for a period of three years, after which the licence may be renewed for two 2-year periods with a 50 % reduction in area for each extension. Required work expenditures and land fees per sq. km increase with each renewal. Annual work expenditures are US\$300/km<sup>2</sup> for the initial 3-year period, increasing to US\$1,000/km<sup>2</sup> and US\$3,000/km<sup>2</sup> for each successive 2-year period. Annual land rents are US\$20/km<sup>2</sup> for the initial 3-year period, increasing to US\$30/km<sup>2</sup> and US\$50/km<sup>2</sup> for each successive 2-year period. A Mining Licence can be granted for a period not exceeding 10 years, renewable for a period of up to 10 years, on presentation of a suitable feasibility study, environmental impact study and employment plan (Taylor, 2009).

Present mining royalties stand at a rate of 3%, although recent legislation indicates a move toward a 4% royalty and for government to hold a stake in future mining projects (Reuters, 2010).



**Figure 2.** Property tenure map

The 2004 IUCN Red List of Threatened Animal species in Tanzania is listed on Table 2 (<http://www.animalinfo.org/country/tanzania.htm>). No habitat ranges were provided for these species. The author is not aware of any of these species being present in the Property area.

**Table 2.** Tanzanian species at risk (Iucn, 2004)

| Common Name                     | Scientific Name             | IUCN status           |
|---------------------------------|-----------------------------|-----------------------|
| Black Rhinoceros                | <i>Diceros bicornis</i>     | Critically Endangered |
| Desperate Shrew                 | <i>Crocidura desperata</i>  | Critically Endangered |
| Pemba Flying Fox                | <i>Pteropus voeltzkowi</i>  | Critically Endangered |
| Peter's Musk Shrew              | <i>Crocidura gracilipes</i> | Critically Endangered |
| Telford's Shrew                 | <i>Crocidura telfordi</i>   | Critically Endangered |
| Aders' Duiker                   | <i>Cephalophus adersi</i>   | Endangered            |
| Black-and-rufous Elephant Shrew | <i>Rhynchocyton petersi</i> | Endangered            |
| Chimpanzee                      | <i>Pan troglodytes</i>      | Endangered            |
| Geata Mouse Shrew               | <i>Myosorex geata</i>       | Endangered            |
| Giant African Water Shrew       | <i>Potamogale velox</i>     | Endangered            |
| Rondo Dwarf Galago              | <i>Galago rondoensis</i>    | Endangered            |
| Wild Dog                        | <i>Lycaon pictus</i>        | Endangered            |
| Zanzibar Red Colobus            | <i>Procolobus kirkii</i>    | Endangered            |

As part of CAN's on-going commitment to corporate social responsibility, a variety of initiatives have been implemented in Tanzania. Malaria is a significant health issue in the area, particularly for children and pregnant women and CAN donated 100 mosquito nets to the local community hospital in the Handeni District. Due to the seasonal drought nature of the local area, a well was drilled for the local community at Nyassa to provide a secured water supply. Additionally, funds were set aside to build a new school structure in Nyassa. Sport incentives were provided through the donation of soccer uniforms and equipment. CAN and the local Handeni district office also jointly maintain the access road serving Nyassa and the local miners at Magambazi (Dillip, personal communication). Where possible and appropriate, CAN negotiates with local surface rights holders to gain fair access to exploration properties. CAN also endeavours to employ local miners and other local workers, and has also donated funds to the small scale miners association for women (Dillip, personal communication). Although CAN does not directly or indirectly represent that they subscribe to E3 Plus, it is evident that they are using the framework as a guidance in their exploration.



## 5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

\*Information for this section is largely derived and modified from a Report on Initial Technical Assessment of the Morogoro Property, September 2006, by Andrew Lee Smith.

### Accessibility

Access to the property is provided via roadway from the large coastal city of Dar es Salaam, with a population 2,497,940 (Figure 3). A paved roadway extends from Dar es Salaam via Highway A7 for 105 km to the west, then north along the Ausha/Moshi Highway for approximately 110 km to the town of Mkata. Access here changes to an all-weather dirt road heading WNW 50 km to Handeni, and southward 31 km from town of Handeni to the property camp location at the northeast end of the Property. From the camp, various dirt track routes provide access to areas of interest on the Property. A vehicle trip from Dar es Salaam to the Property takes approximately 5 hours, with the Dar es Salaam portion slowed by urban traffic congestion, and the Handeni section slowed by variably maintained dirt roads.



Figure 3. Property access routes (Google Maps)

## **Climate**

There are four main climatic zones in Tanzania: a tropical coastal area; a hot and dry central plateau; semi-temperate highland areas; and high, moist lake regions. The Handeni Property is located in the coastal and central plateau zones. There are two rainy seasons in the area, from November to December and from March through May. In the Tanga Region, most areas get at least 750 mm of rain per year which increases to 1,100-1,400 mm along the coast and can exceed 2,000 mm in the Usambara Mountains. For dry areas of the region, such as Korogwe, rainfall is below 600 mm. Maximum rainfall occurs in April and May except in the mountains where it tends to peak in November and December.

Due to the moderating influence of the Indian Ocean, temperature variations in the region are relatively minor. In hot months (December-March) the average temperature ranges from 30-32°C and in cooler months the range is 23-28°C. The region also has high humidity, often reaching 100% (lows are 65-70%).

Exploration activity can be conducted year round, although extra caution must be exercised on the roads and while crossing streams in the wet season.

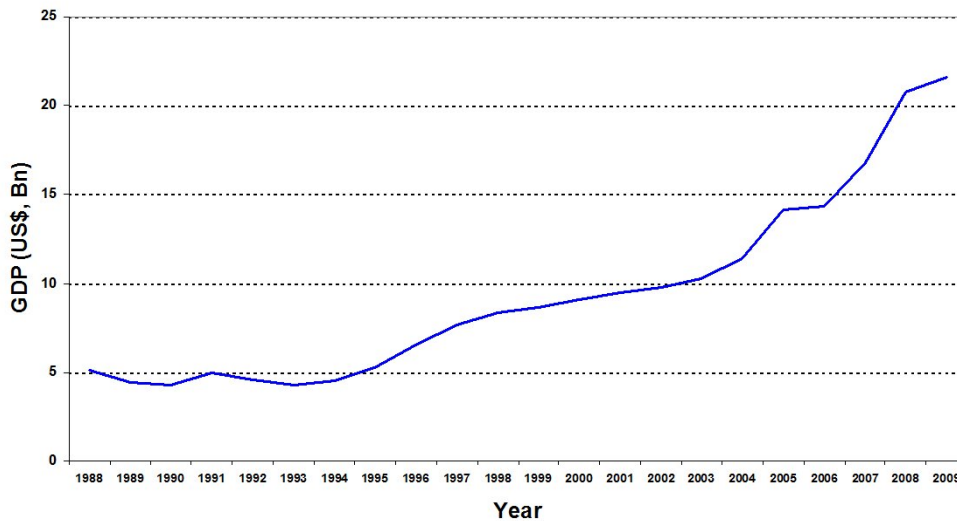
## **Local Resources**

### **Tanzania**

Tanzania is one of the poorest countries in the World. The economy depends heavily on agriculture, which accounts for almost half of GDP, provides 85% of exports, and employs 80% of the work force (Table 3). Topography and climatic conditions limit cultivated crops to only 4% of the land area. Industry traditionally features the processing of agricultural products and light consumer goods. The World Bank, the International Monetary Fund, and bilateral donors have provided funds to rehabilitate Tanzania's out-of-date economic infrastructure and to alleviate poverty. Long-term growth through 2008 featured a pickup in industrial production and a substantial increase in output of minerals, led by gold. Since 2006, GDP growth has notably accelerated (Figure 4).

The United Republic of Tanzania comprises Mainland Tanzania and the Zanzibar archipelago. Although they form one country, there are two presidents. Zanzibar also has its own parliament and exercises some autonomy. The 2000 elections were considered to be free and fair in Tanzania. Constitutional restrictions prevented Tanzanian President Benjamin Mkapa from running in the October 2005 election

and he was succeeded by Jakaya Kwete who captured 80% of the popular vote. On 31 October 2010 Kwete won the presidential vote with 62.8 % of the popular vote over his nearest rival, Willibrod Slaa, who captured 27.1 % of the popular vote.



**Figure 4.** Tanzania GDP (World Bank)

The historically state-led economy is becoming more market-based, but remains hindered by mismanagement, corruption, poor infrastructure, and a high incidence of HIV/AIDS. Tanzania still hosts more than a half a million refugees, more than any other African country. These refugees are predominantly from Burundi and the Democratic Republic of the Congo. There has been progress in privatizing state-owned enterprises, and the government generally supports economic reform and has largely followed through on commitments to donors, but vested interests opposed to liberalization have hindered implementation. Agriculture is the dominant sector, employing over 80 % of the labour force and accounting for more than 44 % of GDP.

The 1997 Tanzania Investment Act established the Tanzania Investment Centre which identified investment priorities, overhauled the company registration process, and established investor rights and incentives in an effort to attract foreign investment in all sectors. There is no limit on foreign ownership or control, though land ownership remains restricted.

HIV/AIDS is one of the greatest development challenges facing Tanzania today. As at 2007, HIV prevalence in the 15-49 age group is estimated at 5.4 %, about 940,000 people are estimated to be living with HIV/AIDS, and the country has as many as 1.2 million AIDS-related orphans (Avert, 2010). Approximately 60 % of all new HIV infections are occurring amongst young people, especially young women.

**Table 3.** Tanzania economic fact sheet

|                                 |  |
|---------------------------------|--|
| Population:                     | 41,050,000                                       |
| Total area                      | 945,087 sq. km                                   |
| GDP:                            | \$22.42 billion                                  |
| GDP growth rate:                | 4.9%   |
| GDP per capita:                 | \$1,400  |
| Major exports:                  | Gold, manufactured goods, cashew nuts, tobacco,  |
| Exports of goods and services:  | \$2.744 billion                                  |
| Major export trading partners*: | India 9.1%, Japan 6.5%, China 6.3%, UAE 5.7%     |
| Major imports:                  | Consumer goods, machinery and transportation     |
| Imports of goods and services:  | \$5.545 billion                                  |
| Major import trading partners:* | China 13.7%, India 13.4%, South Africa 7.4%, UAE |
| Debt:                           | \$7.07 billion                                   |

### **Tanga Region**

The Tanga region (the “Region”) is one of the 20 regions in the Tanzanian mainland. The Region lies between latitude 4° and 6° to the south of the equator, and longitude 37° and 39°10" east. The Region itself is relatively small, occupying only 3 % (27,348 km<sup>2</sup>) of the total landmass of Tanzania. It is bordered by five other regions: Morogoro and Pwani to the south; Kilimanjaro to the west; and Arusha to the north and west. Kenya is located to the north of Tanga.

The main ethnic groups in the region in terms of numbers are Sambaa, Zigua, Bondei, and Digo. The economy of the Region is dominated by agriculture, fishing along the coastal regions and allied activities. Beekeeping is also prevalent in the Handeni area. Some mining is carried out at Magambazi village and alluvial areas to the west and north.



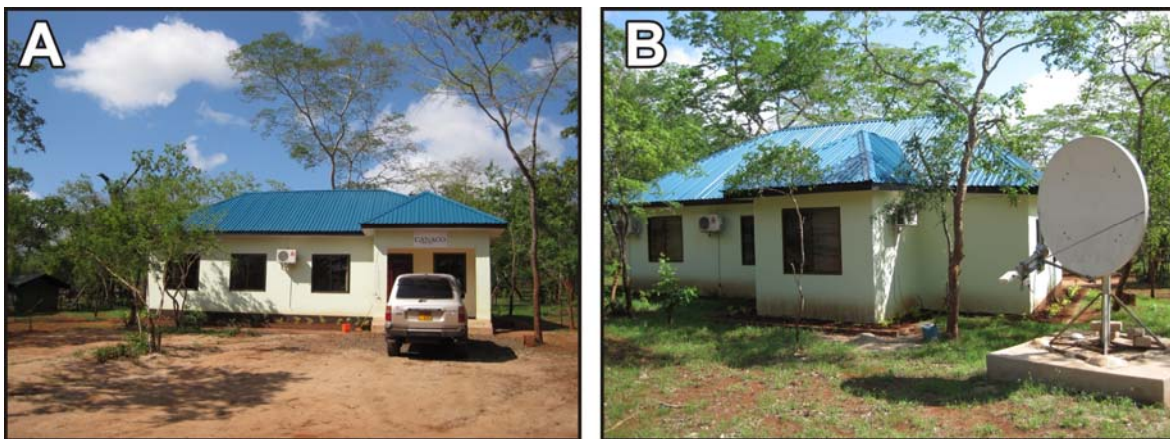
The region has minor production of three types of minerals: gemstones (including turquoise, kornurupine, ruby and tourmaline), construction minerals (such as sand, gravel and stones), and industrial minerals (including limestone, bauxite, zircon, garnet).

A total road network of 3,907 km is present in the Tanga Region. Paved all weather roads account for 352 km, whereas regional and district gravel roads total 939 km, and 2,716 km are feeder roads. The Handeni region is served by two airstrips: one in the city of Tanga (commercial flights daily; paved 1268 m) and one in Mombo (unpaved, 1280 m). The Mombo strip is capable of supporting small planes only.

The Tanga region is relatively well supplied with water resources and is a source of hydro-electric power for the national grid system. A total of 97 MW are provided by the Pangani Falls and Hale Hydroelectric Power Station.

### **Infrastructure**

A map identifying major infrastructure is located in Figure 5. In terms of transportation, Tanzania is covered by a system of generally poorly maintained paved roads (6808 km), dirt roads (72,083 km), and a widely spaced rail system, both wide and narrow gauge (3689 km). It sustains three major ports on the Indian Ocean at Dar es Salaam, Mtwara, and Tanga. There are nine airports with paved runways in the country, and 116 with unpaved runways. Tanzania has only 254 km of gas pipeline, and 888 km of oil pipeline (as of 2009). There are no navigable rivers for large-scale transport of goods. The country produces more electricity than it uses, but still does rely on some import power. The property area has high voltage lines that follow the Ausha/Moshi highway access road although only step-down lines continue in towards the property area from Mkata.



**Plate 1.** A. Canaco field office. B. Communications are provided by satellite-based internet.

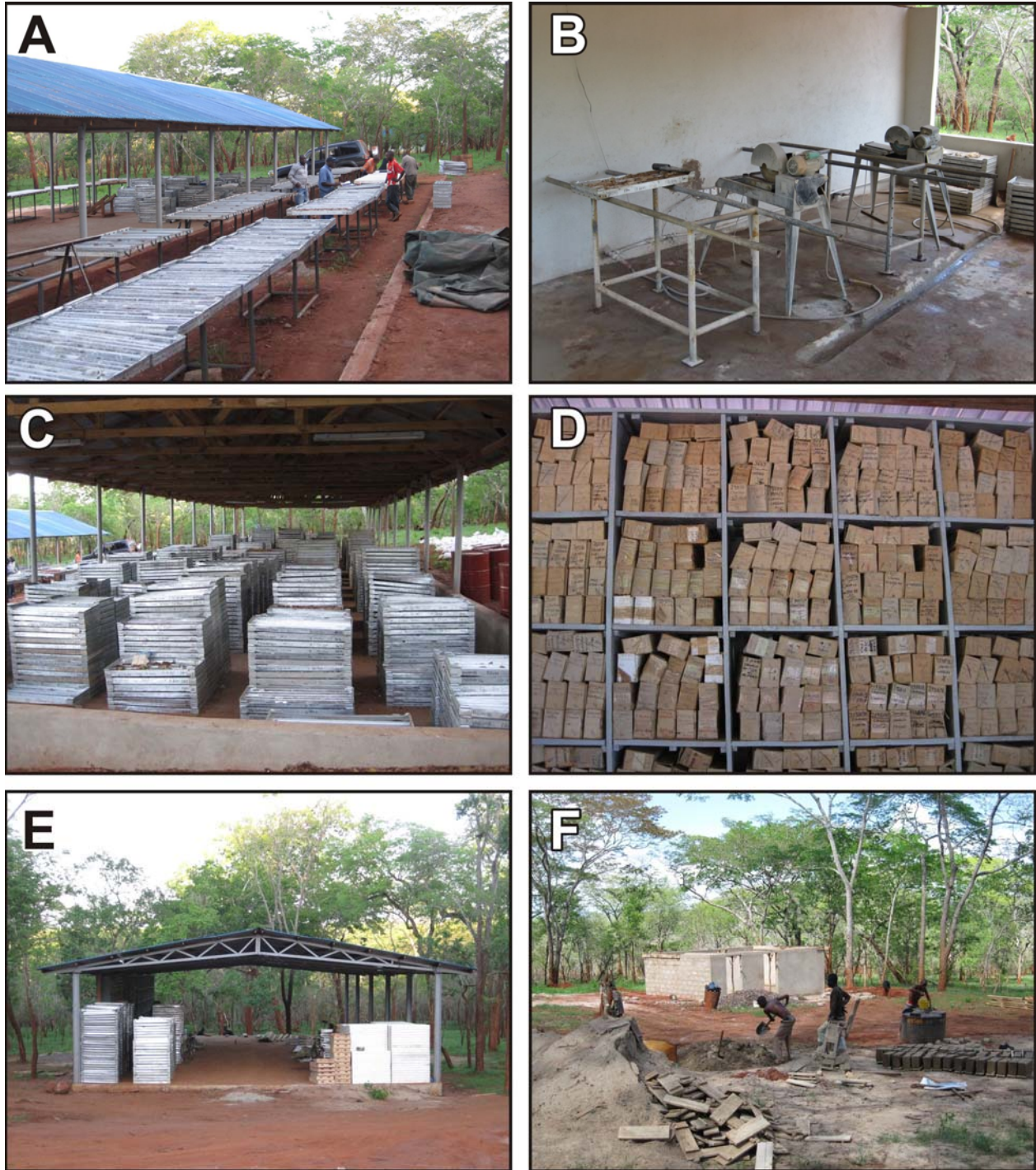


**Figure 5. Tanzania infrastructure (UN, 2005)**

Domestic and international telephone and facsimile services are provided by the Tanzania Telecommunications Company Limited (TTCL). A competitive cell phone network environment (over ten licensed providers) has been established in the country, and primarily connects major populations and main road transportation routes.

The CAN field camp consists of tented accommodation for the workers, a fully equipped field office (Plate 1) and canteen constructed from brick, and several open sided sheds to store core, pulps and process the exploration (Plate 2) material (e.g., core sawing). Power to the camp is provided by a diesel generator and communications are serviced by mobile phone coverage and a satellite-based broadband connection.





**Plate 2.** General pictures of the Handeni camp. A. Outdoor core logging area. B. Core sawing facilities. C. Core storage area. D. Pulp and soil storage area. E. General storage shed. F. Ongoing construction at the Handeni Camp.

Local labour is plentiful in the area. Most of the technically qualified staff are sourced from the universities of Dodoma, Dar es Salaam and Mwanza. Contract staff from North America, Europe, and Australia are frequently brought into the Project to provide further assistance.

If the Handeni Project proves to be economic there is sufficient space on the Handeni licence to cover tailings storage, waste storage and heap leach pads if required. As stated above, this is also adequate water and power in the local area to facilitate extraction and processing.

### **Physiography**

The Handeni region is slightly elevated and inland from the relatively flat topography of the coastal area. Topography is characterized by gently rolling plateaus, cut by minor seasonal dendritic drainages. Locally, steep knolls a few hundred metres high rise above the plateaus, and generally represent a more resistive underlying geological assemblage. The Magambazi artisanal workings surround such a knoll (Plate 3). Vegetation consists of moderate to loosely spaced indigenous tropical trees, with sufficient light penetration to provide for full grass cover. Saprolitic/lateritic soil cover is extensive, with cover described as well drained (de Pauw, 1983).



**Plate 3.** Magambazi Hill (looking southwest) rising above the surrounding low-lying plain. Magambazi North is present on the right, the central hill is Magambazi Central and the main Magambazi mineralized zone is present to the left (forming a flat top to the hill).

## 6. HISTORY

### Property History

Gold was discovered by locals in the Magambazi area in 2003, spurring a gold rush and intense alluvial and hard-rock mining. This activity remains on-going at the time of the property visit, and a number of areas have now been identified on the property as prospective for exploration, namely Magambazi, Semwaliko, and Majiri (Figures 6 and 7). A mining village is established at Magambazi, the present principal focus of the exploration effort on the Handeni Project. No production figures are available for this work. The main historical and present workings for the property at Magambazi and Semwaliko are exhibited in Figures 6 and 7.

Midland Minerals was granted a preliminary prospecting licence over the Handeni Project area on July 14, 2005. There is no statement in the public record by Midland Minerals carrying out exploration on



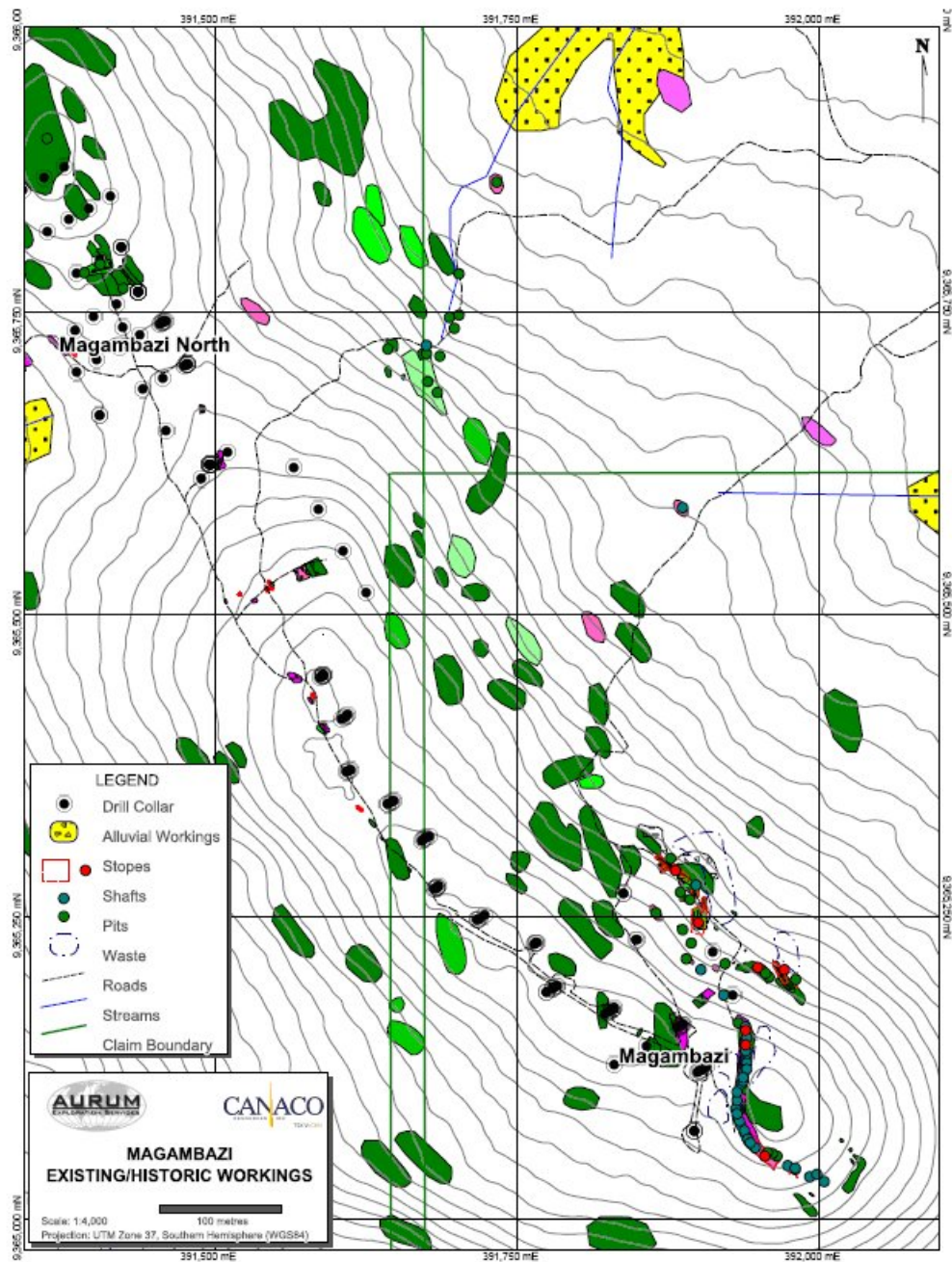
the ground prior to optioning the property to CAN in 2007. The author is unaware of any company owning the licence area between 2003 and 2005.

On March 15, 2007, CAN entered an option agreement to acquire a 60 % interest in the 2700 km<sup>2</sup> New Kilindi Prospecting Licence from Midland Minerals. To earn the interest, CAN was required to expend \$2.5M in work programs, including 5000 m of drilling over 60 months. A cash payment of \$100,000 over two years and an issuance of 200,000 common shares of CAN were also included in terms. An additional 15 % could be earned by bringing the project to a bankable feasibility stage.

On July 24, 2007 CAN acquired the adjacent 195 km<sup>2</sup> Negero prospecting Licence that hosts active alluvial mining operations, and also the 575 km<sup>2</sup> Kwadjava reconnaissance Licence which hosts both artisanal alluvial and hard rock operations established in 2005. For a 70 % interest in both properties, the option from Douglas Lake Minerals required \$1.25M in expenditures over 36 months, a cash payment of \$250,000 over the term of the option, and the issuance of 800,000 common shares of CAN to Douglas Lake over two years. The terms applied to each of the properties.

CAN entered into an option agreement to acquire a 100 % interest in the Magambazi property on July 26, 2007. Magambazi was adjacent to the eastern boundary of Kilindi. The agreement was signed with the local miners working the area. Magambazi hosts both active artisanal alluvial and hard rock deposits. Terms of the option required a cash payment of \$136,000 over two years for the right to explore. At any time prior to the second anniversary of the agreement, CAN had the right to purchase a 100 % interest in Magambazi for \$1.8(US) million, subject to a 2 % NSR. CAN has exercised this purchase right, and the funds are presently being held in trust pending the formal transfer of the tenure rights.

In December 2007, CAN announced that they had secured a 100 % interest in the core 200 km<sup>2</sup> Kilindi Prospecting Licence, immediately adjacent to Magambazi, in exchange for the relinquishment of interest in the non-core peripheral properties in the area. The Kilindi Prospecting Licence and Magambazi Primary Mining Licences together formed the core Property (Handeni Property) that is the subject of this report. Additionally, CAN highlighted the potential of this mineralization to represent a metamorphosed extension of the Archean terrane that hosts the Geita and Bulyanhulu deposits, and released horizontal channel sample results of vein and alteration material in the area of the existing workings, including 7 m at 5.6 g/t Au, including 3 m at 10.15 g/t Au (true width 2.7 m).



**Figure 6.** Map showing artisanal working in the Magambazi area (the large polygons represent outcrop/subcrop: greens are amphibole gneisses and pinks are feldspathic gneisses)

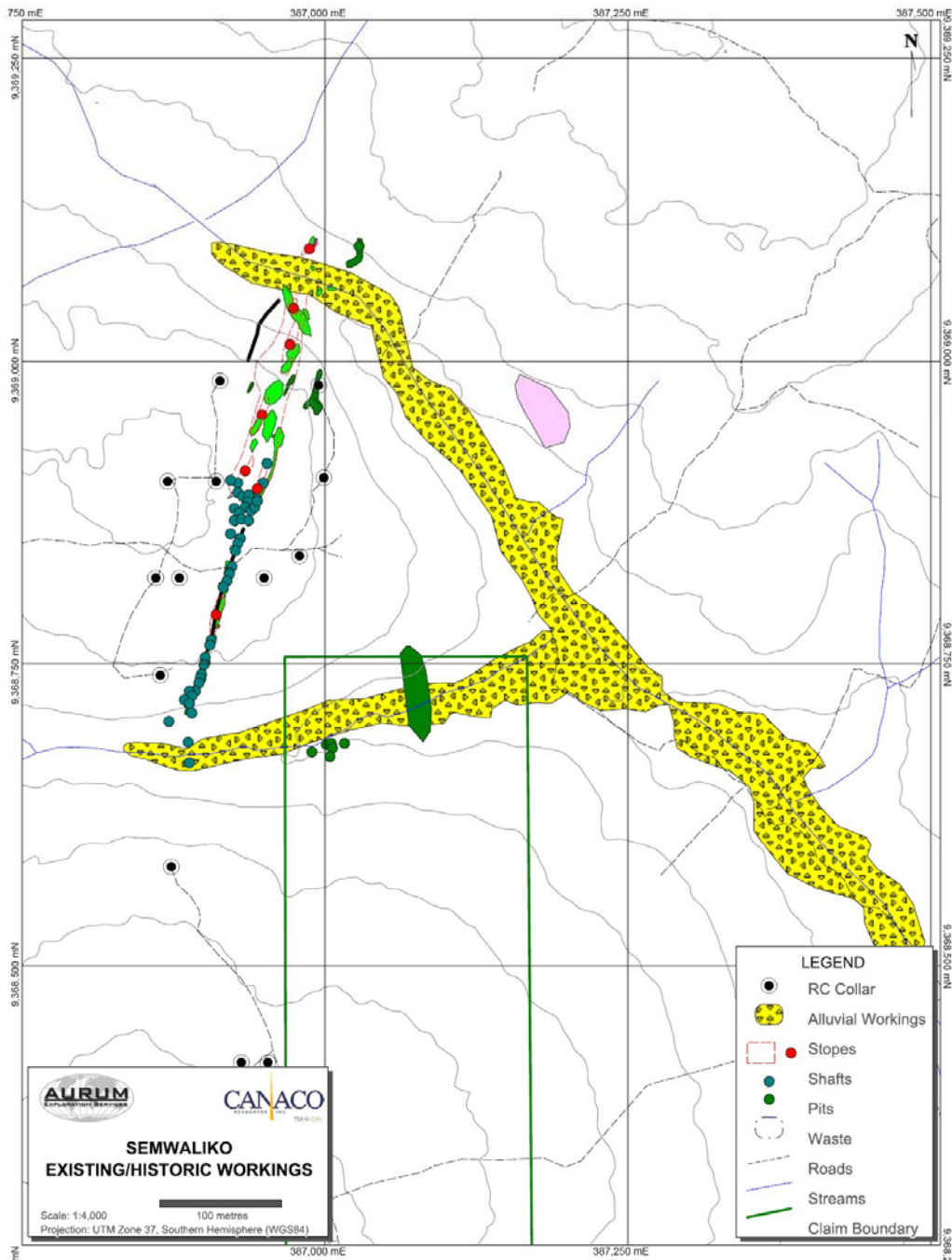


Figure 7. Map of the Semwaliko area showing artisanal workings



## 7. GEOLOGICAL SETTING

### Regional Geology

The Handeni Property is located in what has traditionally been classified as part of the Proterozoic Usugaran-Ubendian System (Pinna et al., 2004). This assemblage occurs south and east of the Lake Victoria Archean craton, host of World class orogenic gold deposits such as Geita and Bulyanhulu (Figure 8). The Usugaran system is north-south trending, and the geology of this region represents a non-traditional exploration environment dominated by high-grade metamorphic (granulite to amphibolite facies) rocks. Granulites and biotite gneisses of pelitic to volcanoclastic origin make up a larger portion of the Usugaran System, with lesser volumes of amphibolite, metamorphosed mafic volcanics, gabbro and dolerite and minor ultramafic rocks. Metamorphic grades are typically upper amphibolite with lesser granulite. Major structural trends are dominantly southwest. Traditionally, rocks of granulite facies in the Usugaran System are rich in a variety of coloured gemstones, and these have been mined for decades.

Recent academic studies (age dating by Kabete, 2008) highlighted the area as prospective for traditional (but metamorphosed) Archean orogenic gold deposits within the Sukumaland Corridor, the host to major deposits (i.e., Bulyanhulu, 16.46 Moz; Geita, 17.0 Moz; Golden Pride: all data is taken from annual company reports for combined resource and reserves as of December 31, 2009) in the Lake Victoria Goldfields. The Handeni Property lies in this newly proposed prospective area, albeit approximately 500 km along strike from the nearest major mine (Figure 8).

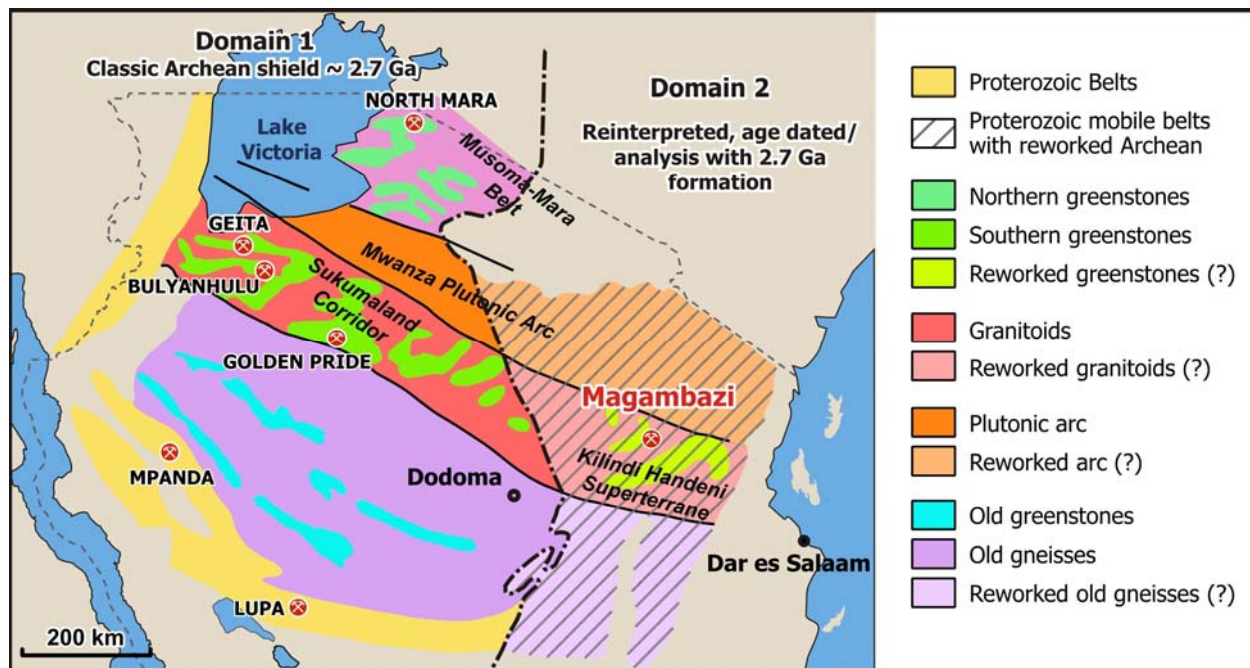
The following is an excerpt from an extended abstract discussing new ideas on the provenance of the Handeni area and implications for gold mineralization (Groves et al., 2008).

“Traditionally, exploration for Precambrian orogenic gold deposits (Groves et al., 1998) has been concentrated towards the centre of cratons away from cratonic margins in sub-greenschist to greenschist-amphibolite transition domains (Goldfarb et al., 2005) where most giant gold deposits have been found; for example Timmins in Canada, Kalgoorlie in Western Australia, Geita in Tanzania, and Ashanti in Ghana. However, recent exploration has increasingly uncovered orogenic-style gold deposits in amphibolite to lower-granulite facies terranes external to accepted craton margins. An important example is the World-class Plutonic deposit (>10 Moz Au) of Western Australia in Archean rocks

reworked in the Paleoproterozoic by tectonism related to the Capricorn Orogeny, but on strike to the north of the major gold producing Eastern Goldfields Province. A more recent discovery is the Tropicana prospect (>4 Moz Au) to the south of the Eastern Goldfields in Archean rocks tectonically reworked in the Neoproterozoic Albany-Fraser Mobile Belt. It is debated whether these are Archean gold deposits overprinted by Proterozoic orogeny (e.g. Vielreicher et al., 2002) or Proterozoic gold deposits, because deposit-scale evidence is often equivocal. However, it is noticeable that these examples, as well as several in Proterozoic mobile belts of Africa, are sited almost exclusively in domains adjacent to well-endowed Archean cratons. These regional relationships strongly suggest that the deposits are metamorphosed or reworked Archean orogenic gold deposits rather than epigenetic deposits of Proterozoic age formed in largely reworked continental crust.

Recent studies in the Archean Tanzania Craton by Kabete (2008) and Kabete et al. (2008) reinterpret its tectonic framework in terms of eight superterrane.

In the north, the generally low metamorphic-grade granitoid-greenstone belts are divided into three superterrane of which the southernmost, Lake Nyanza Superterrane, contains most of the World-class orogenic gold deposits including Geita, Bulyanhulu and Golden Pride. Geochronological studies (Kabete et al., 2008) strongly suggest that the higher metamorphic-grade Kilindi-Handeni Superterrane on strike to the ESE represents Archean belts overprinted by Neoproterozoic orogeny related to the East African Orogen further east, forming what is informally referred to here as the “Sukumaland Corridor”. This is confirmed from available regional aeromagnetic data that show curvilinear magnetic signatures in the Kilindi-Handeni Superterrane more similar to the Archean terranes than to Proterozoic mobile belts. Interestingly, a number of newly recognised gold prospects, exploited on a small scale by artisanal miners, are sited at several locations in the overprinted south-southeastern extent of the Sukumaland Corridor. Although poorly exposed, the terrane comprises curvilinear metamorphosed supracrustal sequences, including amphibolites, within granitic gneisses which are transected by broadly ENE-trending shear zones, very similar geological settings to those of the world-class gold deposits in the lower metamorphic-grade terranes to the west-northwest. The gold mineralisation of the Handeni Project, including Magambazi, thus demonstrates the potential for discovery of World-class, overprinted, Archean orogenic gold deposits in non-traditional exploration terranes in Tanzania, just as has occurred in recent years in Western Australia.”

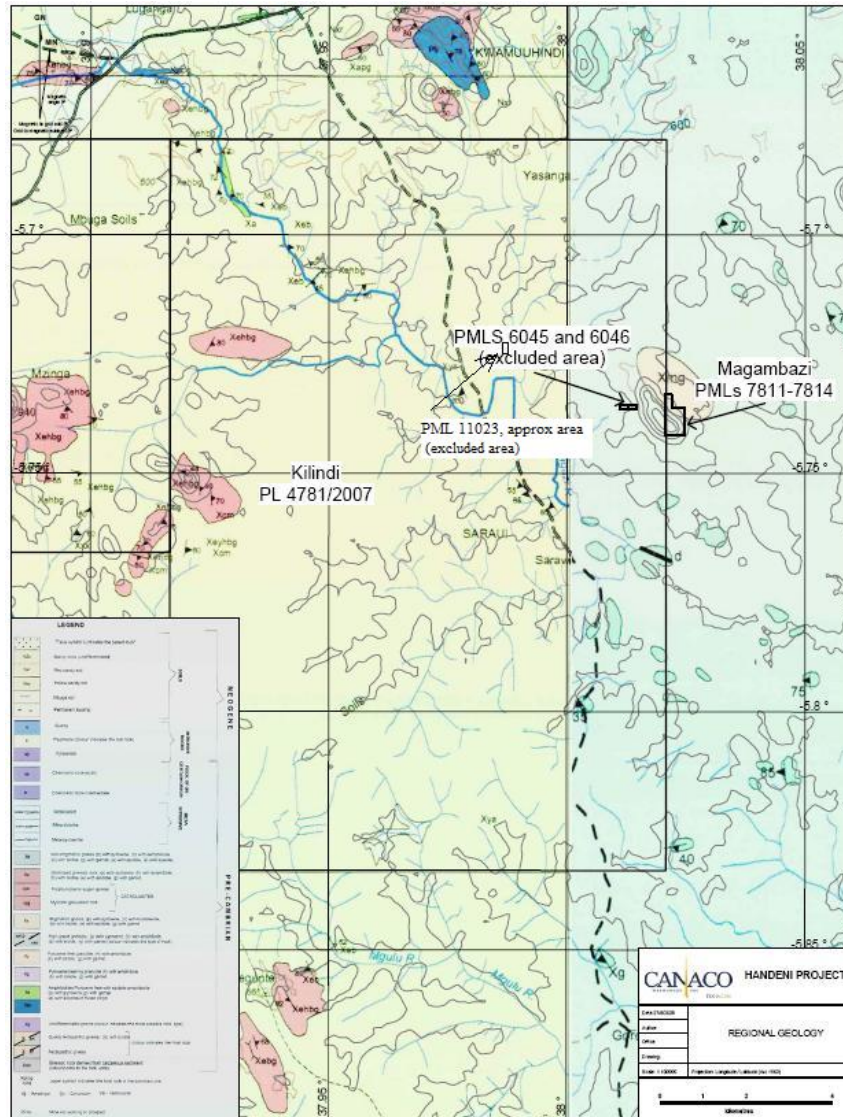


**Figure 8.** Schematic map of Tanzanian craton (D. Groves 2010)

The Handeni region, now and over the last few years, is only beginning to receive the attention of mineral exploration companies and very little is known of the local geology as it specifically relates to the potential to host mineralization. The geology and location of known gold discoveries, occurring in both alluvial and in bedrock settings, does suggest the primary mineralization is controlled by regional structures in dominantly mafic host rocks.

### **Property Geology**

The property geology is a good representation of the local geology in the Kilindi District, which has been mapped at a lower resolution. A thin veneer of lateritic/saprolitic covers much of the property, a testament to the climatic cycling of this tropical region and the lack of past glaciation. Property bedrock geology as identified by the Geological Survey of Tanzania defines this lack of outcrop (Figure 9). Foliations mapped across the property are quite varied, typical of highly deformed gneissic terrains and indicative of assemblages that are highly folded/faulted.



**Figure 9.** Property regional geology (Geological Survey of Tanzania)

The majority of property geological information was compiled from the Magambazi area of exploration, where topographic relief and existing workings (Plate 3) have allowed for more detailed examination (Figure 10). This area is structurally complex, and comprises a sequence of garnetiferous amphibolite and variably characterised gneiss, including localized quartz-biotite-kyanite gneiss (pelite), K-feldspar-quartz gneiss, biotite-quartz migmatite and granite gneiss (Plate 4). Areas of altered amphibolite are notably less foliated, and exhibit less pronounced compositional banding compared to adjacent gneisses. This character variation between the gneisses and altered amphibolite suggests a



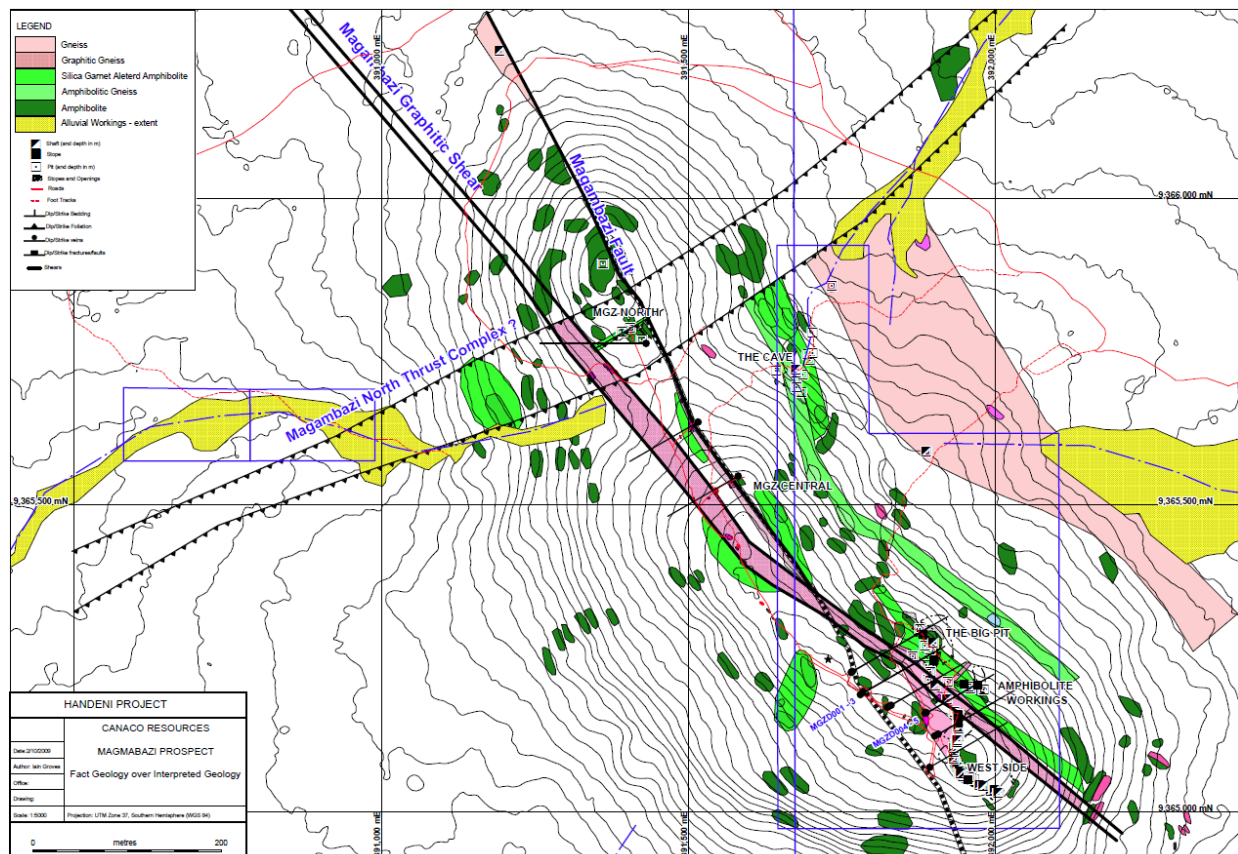
fundamental difference in the origin and/or history of the parent rocks. The mineralized zone textures may relate either a later alteration overprint that has obscured original banding through intense silicification and garnetization, or it may represent an annealing alteration process that has created a more competent unit that is less altered by metamorphism. Pegmatites are common, and several generations of quartz veins are present, ranging from early ptigmatic to sheet-like veins associated with distinctly banded silica garnet alteration halos. The rocks are metamorphosed to upper amphibolite facies and are interpreted to represent an original sequence of mafic and felsic volcanoclastic rocks and sediments. Limited petrographic work on mineralized samples describes a pyroxene-plagioclase-garnet skarn, possibly reflecting a rock that was initially altered, and then further metamorphosed/metasomatized during the Proterozoic. The petrographic samples confirmed the presence of pyrrhotite, ilmenite, chalcopyrite, and arsenopyrite.



**Plate 3.** Artisanal workings at Magambazi's "Big Pit". Note person for scale (circled).

The recent discoveries of gold at Kilindi and Magambazi are indicative of a new and emerging exploration environment which appears capable of hosting primary gold mineralization. Recent graduate level research conducted by Kabete (2008) suggests that the highly-endowed Sukumaland Superterrane, the geological host to Tanzania's most significant gold deposits, has been overprinted on its interpreted east-southeastern extension by Proterozoic orogeny. Other newly-recognized gold prospects, exploited on a small scale by artisanal miners, are sited at several locations in this overprinted Archean terrane. Of current interest on the property is the well-exposed Magambazi

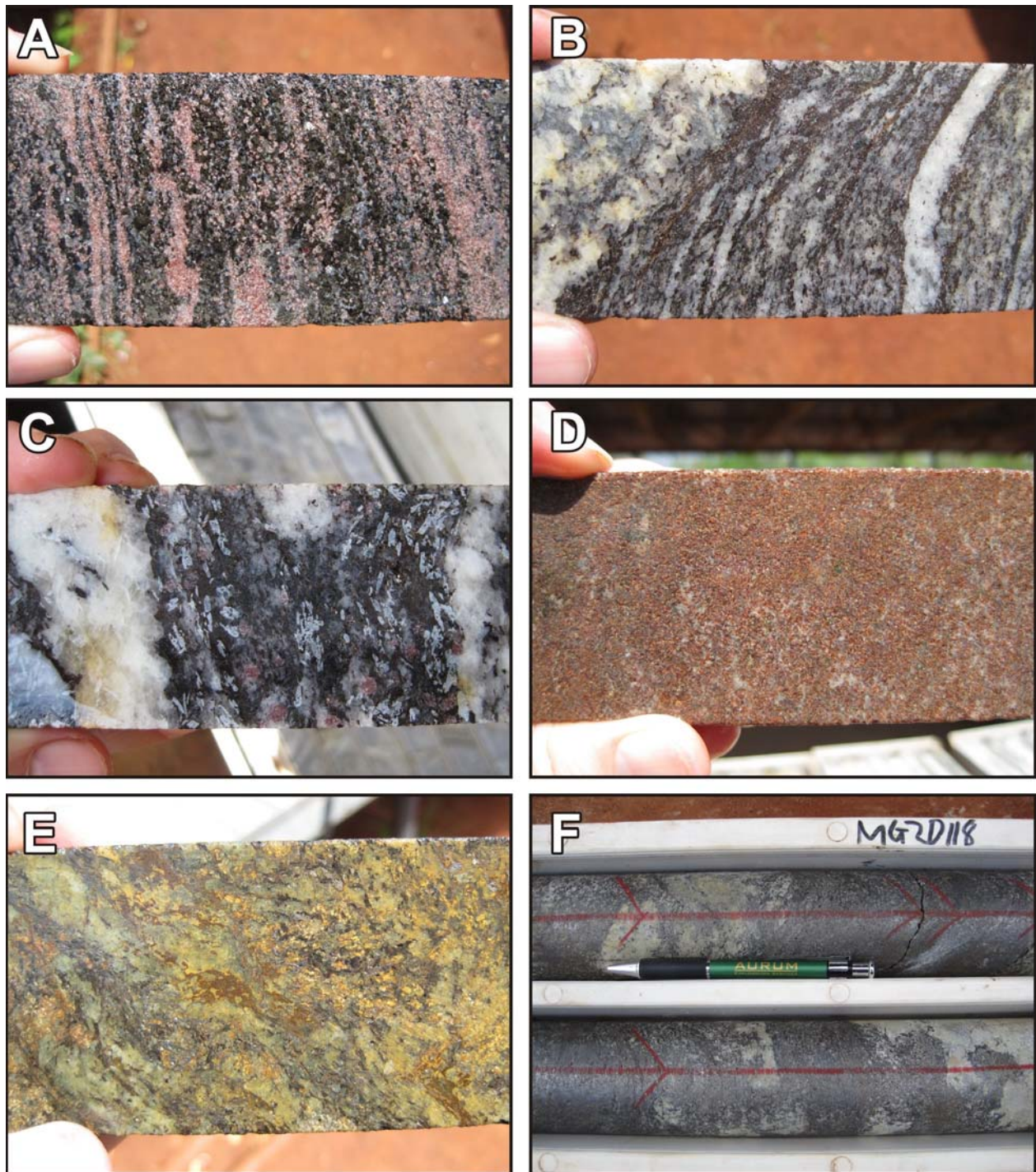
prospect. Here, high gold-grade Sulfide-bearing quartz veins are enclosed in up to 80 m thick alteration zones with lower-grade, Sulfide-associated gold mineralization over an exposed strike of several hundred metres. The host rocks and alteration zones are high metamorphic grade gneisses and unaltered amphibolite.



**Figure 10.** Surface geology of the Magambazi hill with geological interpretation by I. Groves (2009)

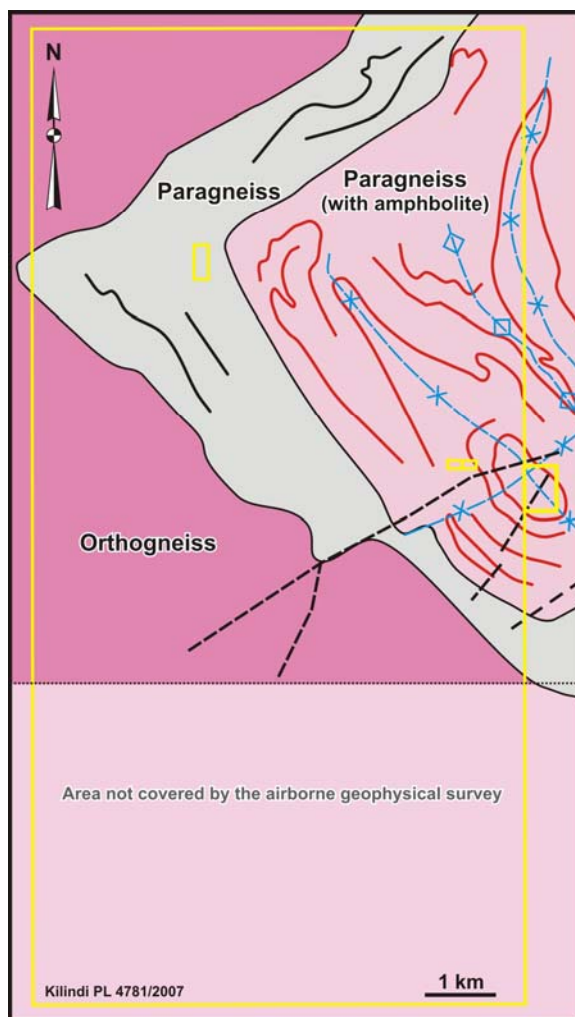
In the northern part of the Property, large hills (monoliths) of granite gneiss trend in an east-northeast direction and are interpreted to be located north of a major regional east-northeast trending structure (Majiri Fault). To the south of this structure, the stratigraphy generally strikes northwest with moderate dips east although dip reversals are common, indicating tight to isoclinal folding along a northwest trending axis. In the Majiri area, south of but proximal to the Majiri Fault, the stratigraphy trends east-northeast and dips moderately south.





**Plate 4.** Typical lithologies from the Handeni Property. A. Garnet-bearing amphibolite, B. Feldspathic gneiss, C. Kyanite-bearing feldspathic gneiss, D. Garnet-silica rock (GASIL), E. weathered Sulfide zone containing graphite, F. Massive graphite with feldspathic gneiss.

The structure of the area is poorly defined by outcrop mapping and drilling programmes. The regional magnetic dataset provide comparative analogies to magnetic patterns noted in the greenstone terranes of the Lake Victoria area. However, recent airborne geophysics (magnetic and radiometric) over the northern part of the Handeni Property has helped to define the local geological structure (Figure 11). The dominant structure in the Magambazi area is a doubly plunging synclinorium with a primary northwest-long axis. A series of isoclinal anticlines and synclines follow similar north- or northwest-trends to the Magambazi structure. East-trending, low angle, south dipping thrust faults have been interpreted at Majiri, and from drilling at Magambazi North. North-northwest trending graphitic shears and east-northeast trending graphitic faults have also been mapped in the Magambazi area.



**Figure 11.** Simplified geology map of the Handeni Property interpreted from airborne magnetic data. Linear magnetic anomalies illustrated by red and blue lines.



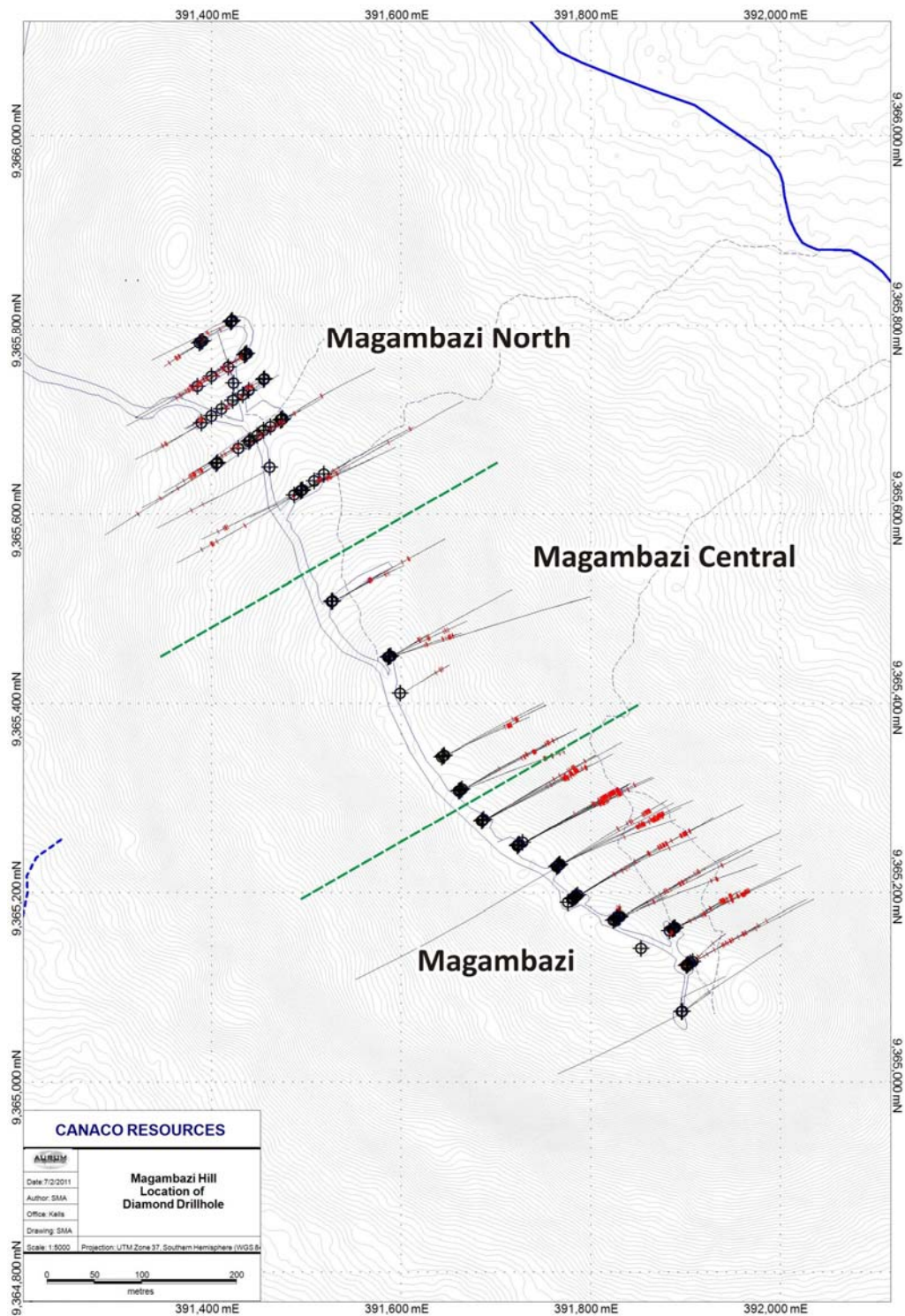
## 8. DEPOSIT TYPES

Gold deposits in the Handeni Property consist of both artisanal placer deposits, and orogenic vein related mineralization in altered amphibolite gneiss. The host assemblage is interpreted to represent an original metamorphosed Archean lode-gold terrane (predominately mafic volcanic and mafic volcanoclastic rocks) that has been entrained within the Proterozoic Usugaran belt, and undergone further alteration/metamorphism during the Proterozoic. A prominent east-northeast trending thrust cuts across the northern portion of the property. Thrusts of this nature are identified as a locus of major mineralization in the Lake Victoria greenstones (Groves, 2010). Additionally, mineralization in Lake Victoria is also concentrated along NW-trending faults. Both these features are present in the Magambazi area. Many of the significant gold deposits of the Lake Victoria area are spatially associated with iron formation; however, this relationship has not currently been noted in the Handeni area.

At Handeni, artisanal alluvial placer deposits are located at Magambazi, Magambazi North, Semwaliko, Semwaliko North, and Majiri Bomba. At Magambazi, Magambazi North, and Semwaliko North, artisanal workings occur in quartz-vein-related gold, with mineralization located within silica and garnet altered amphibolite gneiss. Garnet in these altered sections is generally fine grained (<2 mm) and the altered zones typically display only a vague banding texture as compared to associated gneisses. The depth extent to these mineralized systems has been confirmed by the recent diamond drilling.

Diamond drilling in the Magambazi area has revealed the character of a gold mineralized system to extend well over 400 m laterally, displaying both continuity and predictability. This character is illustrated in the area drillhole plan that displays the surface projection of the gold mineralized system (Figure 12). As could also be anticipated in a highly metamorphosed system, the continuous mineralized trend has a tendency to pinch and swell along the presently observed extent, and late structures appear to have caused small scale displacement (Figures 13, 14 and 15). Although still in the early stages of discovery, the consistency seen in style and character of mineralization across the Magambazi areas of interest suggests the Property area is host to a significant sized initial mineralizing and structural system, and therefore adds potential to further discoveries in the area.

The exploration model applied to the Handeni Property is orogenic lode-gold (Hagemann and Cassidy, 2000), albeit subsequently structurally deformed and metamorphosed



**Figure 12.** Location of diamond drillholes at Magambazi. Gold intercepts > 2 g/t are illustrated by red lines on the drillhole trace. Dashed green lines represent the boundaries between the three drilling areas at Magambazi.

Other districts of gold mineralization in Tanzania hold potential for comparative analysis with the Handeni area, but only on a large scale basis. The Lupa and Mwanda districts both contain host artisanal placer and lode-gold deposits, hosted in metamorphosed Proterozoic terranes. Both also exhibit a significant amount of vein lode-gold as free gold. Comparatively, when looked at more closely however, both Lupa and Mwanda mineralization is hosted in defined late shear zones (unlike Handeni). Also compared to Handeni, Mwanda mineralization display highly variable and dissimilar host alteration (siderite, barite, calcite, sericite, and hematite) and mineralization assemblages (highly variable, including lead, copper, silver and tungsten). More recent age-dating work suggests a mineralization that is Neoproterozoic and contemporaneous with carbonatite and alkaline granite intrusives (~720 Ma), Stendal (2004). Mineralization at Lupa is characterized as associated with pyrite and molybdenite.

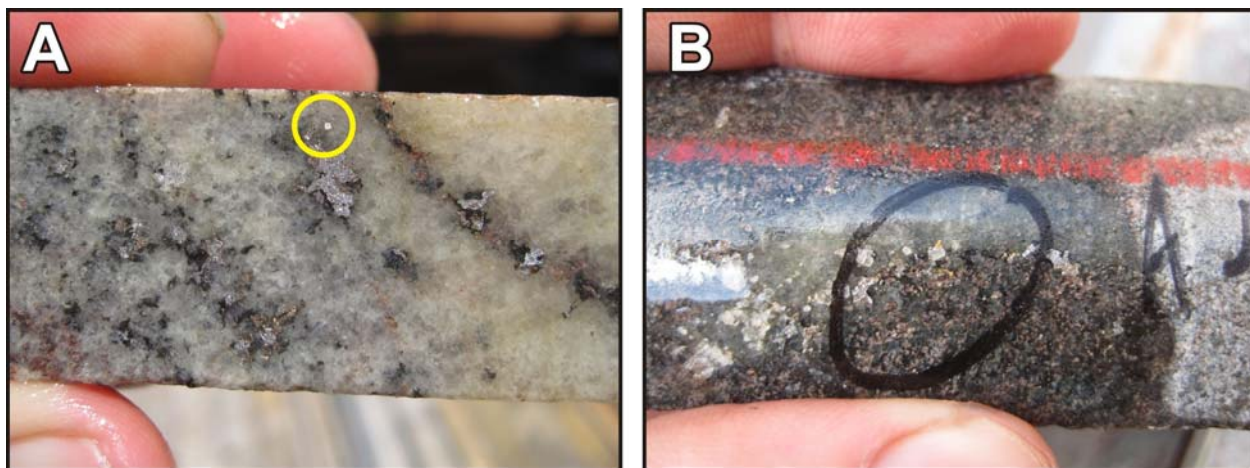
## 9. MINERALIZATION

The gold mineralization exposed at Magambazi, through mapping and drilling, has significance with respect to establishing a deposit model that can be applied to exploration in the region and potentially as a deposit with extensions that may project onto the Kilindi property. Field observations indicate the Magambazi prospect contains numerous significant bedrock artisanal workings that are located on the western flank of an 11 kilometre geochemical anomaly. Local miners are exploiting gold mineralization within steeply dipping, north-north-westerly-trending occurrences of Sulfide and quartz veins.

From surface, mineralized occurrences are being mined over widths up to 10 m and define a north-north-westerly trend with a total strike length of 350 m as observed to date. Drilling has confirmed that this mineralization continues at depth, and is traceable laterally beyond the known surface extents of mineralized showings. Mineralization is characterized as vein-related structurally-controlled orogenic gold associated with pyrrhotite, arsenopyrite, and locally graphite (Plate 5). The immediate host rocks are garnet-silica altered amphibolite, enclosed within a sequence of interbedded gneiss (of sedimentary and possibly volcanic origin) and amphibolite. A typical biotite-kyanite-quartz-feldspar gneiss is shown in Plate 5B. Multiple horizons are being traced, and two main zones have evolved from diamond drilling at Magambazi. What is apparent from sectional review is that significant gold is present outside of acknowledged 'main zones' of mineralization, or key intercepts as documented, and the mineralization system is in areas, seemingly pervasive. While separate internal gold intercepts exist that would be

considered high-grade in terms of underground mining assessment, the overall type of mineralization can be difficult to quantify, and requires assessment as a potential pitable target.

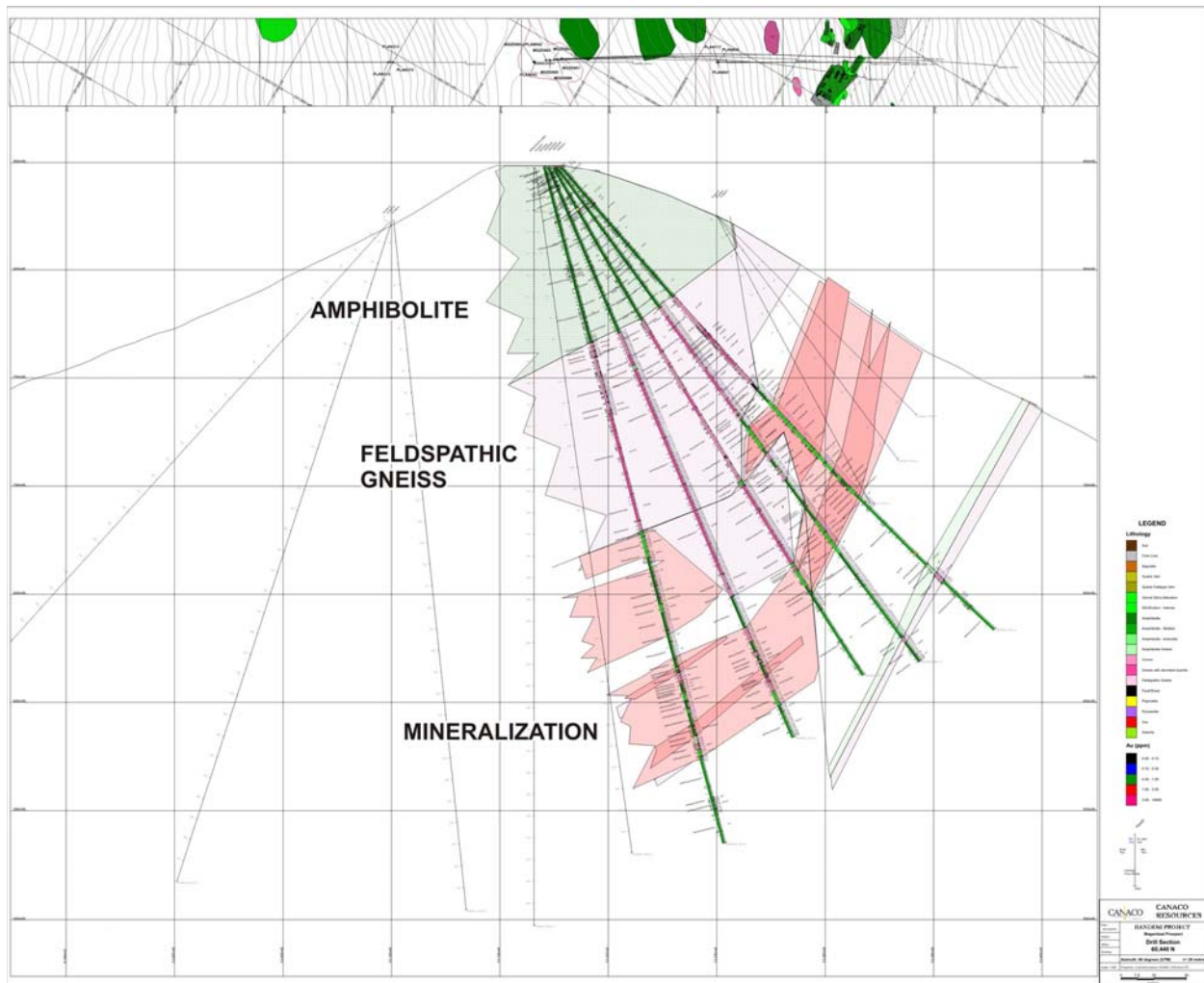
Structurally, there are major steep faults that trend along the orientation of the mineralized system, although the nature of the rock in the main mineralized zones is competent. The alteration and later metamorphism appear to have annealed the areas of significant mineralization. This, and the decrease in pronounced compositional banding, suggests a high-grade metamorphic overprint of an originally lower metamorphic-grade orogenic gold deposit.



**Plate 5.** A. Siliceous high-grade gold ore displaying free gold (circled in yellow) and associated with arsenopyrite. B. Quartz vein cutting garnet-rich amphibolite with free gold and arsenopyrite at the margins. Both veins are from MGBZD001.

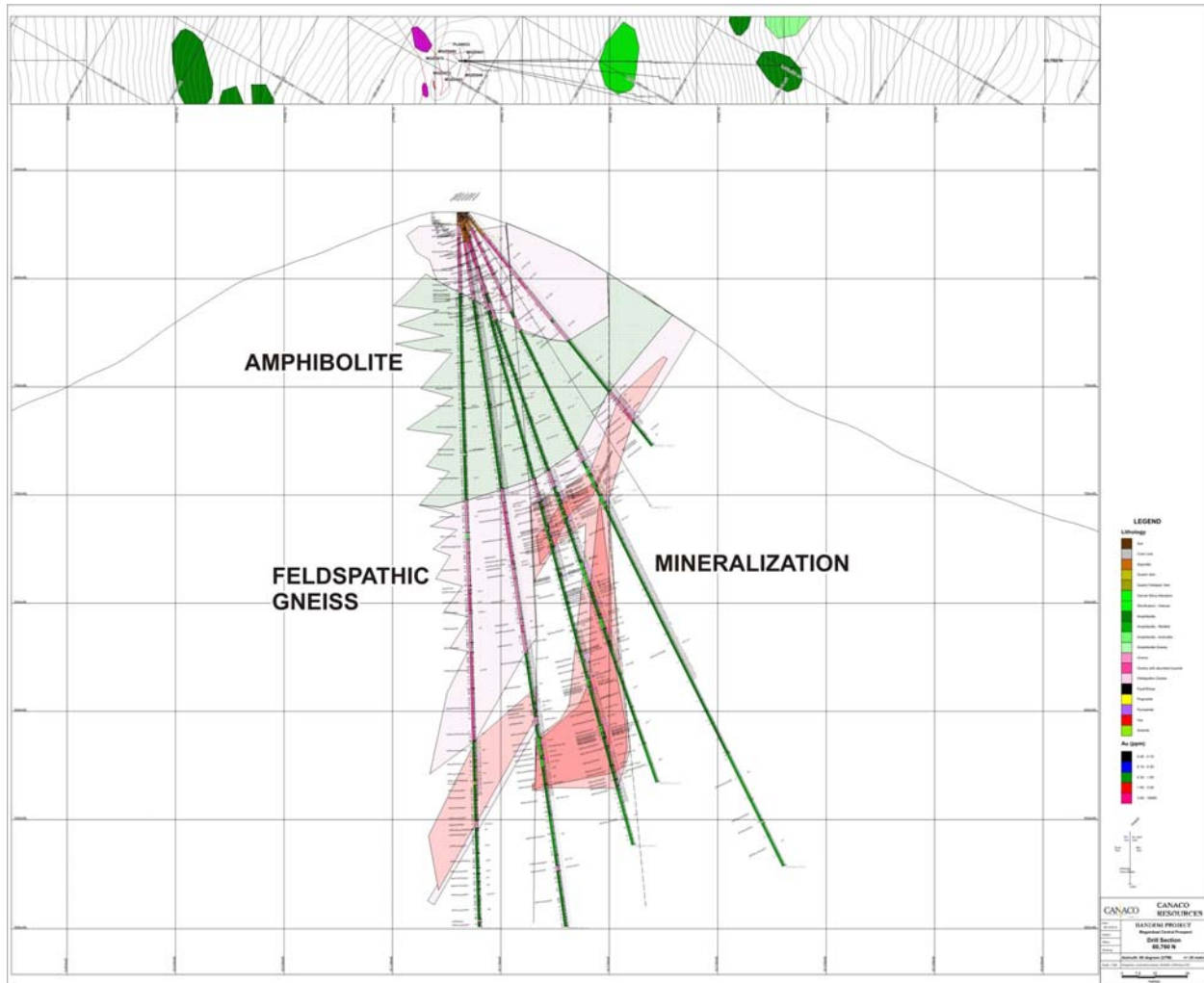
At depth, mineralization trends at Magambazi and Magambazi North are similar in NW trend, but vary in dip and plunge direction. At Magambazi, mineralization dips steeply to moderately west, and plunges NW (Figure 13). In contrast, mineralization at Magambazi North dips moderately to gently east, and plunges SE (Figure 15). The fact that the Magambazi North mineralized zone dips in a direction opposite to that of the interpreted main foliation, but also parallels the trend, suggests the presence of an initial mineralizing system that likely predated the last major compressive tectonic event.





**Figure 13.** Drill section 60,440N through Magambazi. The synformal nature of the ore body is evident, as to are the thickness of the ore intercepts. Each grid square is 50 x 50 m. Planned holes are illustrated as traces (I. Groves, 2010).





**Figure 14.** Drill section 60,760N through Magambazi Central. Mineralization is steeper than sections in Magambazi North and the main Magambazi zone to the south (I. Groves, 2010).



identified mineralized system has increased size potential, and also indicates a heightened prospectivity of the region as a whole.

## **10. EXPLORATION**

All exploration to date has been conducted by CAN, and CAN contract personnel, save for the Reverse Circulation and Diamond Drilling conducted by Stanley, the Niton soil analyses by Cris Carman of CEC Geology LLC, petrographic work conducted by J. McLeod of Global Discovery Labs, and airborne geophysics by New Resolution Geophysics.

### **Historical**

In 2007 and 2008, CAN conducted initial reconnaissance geological assessment and rock sampling in the areas on known artisanal mining, and encountered encouraging results. These areas include Magambazi, Semwaliko, and Majiri Bomba. Aeromagnetic data and Landsat IKONOS satellite data were assessed to establish a general structural/geological interpretation of the property. A key major ENE-trending linear was established across the Majiri Bomba area, and key major NW linears were also identified, associated with the well exposed topographic high area of Magambazi Hill. Systematic soil sampling was conducted across the key regions of interest, and infilled as appropriate where deemed necessary for improved anomaly definition. A pronounced eleven kilometre soil anomaly was defined by this programme, and is seen to generally connect the known areas of artisanal working between Magambazi, Semwaliko, and Majiri Bomba (Figure 16). Further assessment was conducted on the soils to determine whether additional trace elements could be detected that were directly related to gold mineralization. A Niton X-ray diffraction unit was used on a select set of grid soil pulps in the Magambazi area, and a correlative arsenic-gold anomaly was discovered in addition to a potential flanking Cu anomaly. This information could work in assisting to identify additional anomalies in future soil sampling. Channel/chip/trench sampling was conducted at Magambazi, Semwaliko, and Majiri Bomba, in areas interpreted to host potential near surface mineralization. The most significant intercepts were identified at Magambazi (Table 10).

In August 2008, a program of Reverse Circulation drilling was conducted to test the potential down dip extension of mineralization mined at the artisanal rock workings at Semwaliko. A system of fence holes were drilled to test for this projected mineralization, but failed to provide much encouragement in

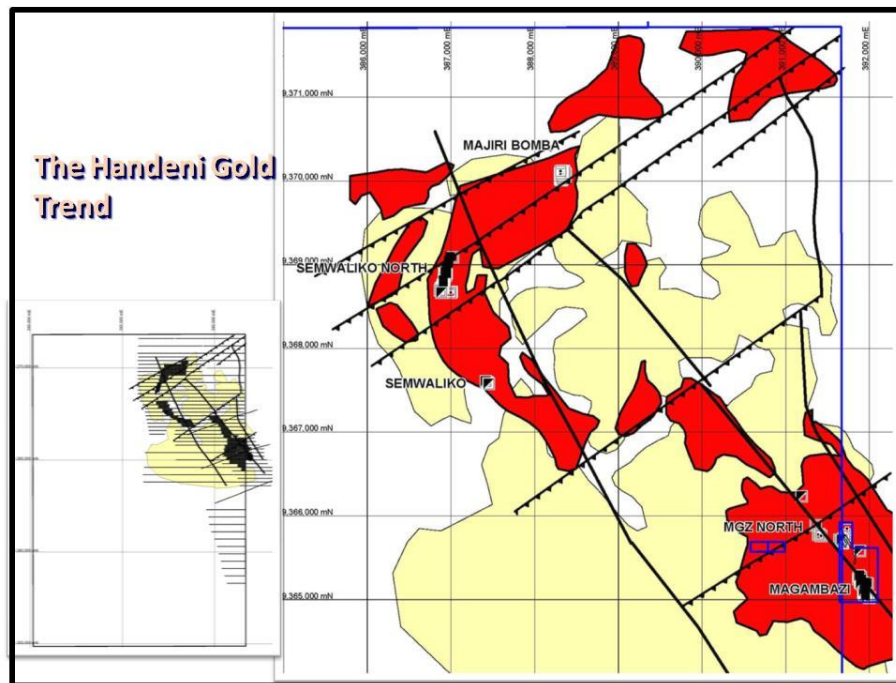
terms of alteration or mineralization (Figure 17). The best intersection was 12 metres grading 1.04 g/t Au

In September of 2008, CAN indicated that a new strong soil anomaly at the Majiri Bomba area of the property had been defined, follow-up mapping identified a gentle dipping shear system containing sheeted quartz veins. Trenching and chip sampling were also conducted.

In late 2009, a program of diamond drilling was commenced in the Magambazi area and this program is on-going at the time of the writing of this report. A total of 101 diamond drill holes were completed as of December 1, 2010, and three significant NNW-trending gold mineralized systems termed Magambazi, Magambazi Central and Magambazi North have been identified. The three Magambazi zones are relatively shallow (<100 m vertical depth), and locally contain decametric intercepts of >5 g/t. The zones remain open at depth and along strike and are presently being further drill tested by infill and extension drilling.

### **Soil Sampling**

A total of 8148 soil samples were collected on the property and analyzed for gold. Initial sampling concentrated on systematic 800 m spaced lines covering and running perpendicular to identified areas and trends of interest from CAN compilation on the property. Infill line sampling, up to 40 m spacing, was conducted in areas of prospective interest. From this work, an 11 km long gold anomaly in soil was identified, covering the Magambazi area in the southeast and connecting to the Semwaliko area in the northwest, and further following northward to the Majiri area (Figure 16). Anomaly highs range up to 6836 ppb Au.

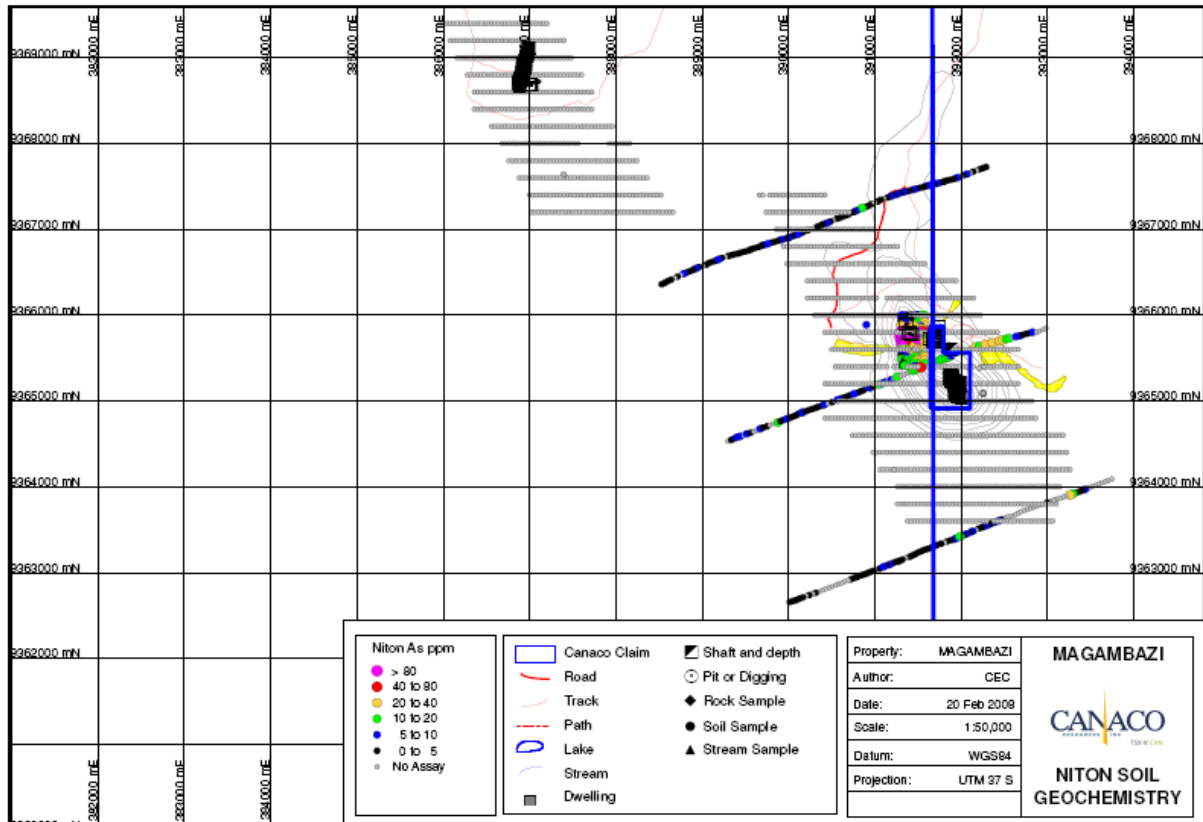


**Figure 16.** Gold anomalies and trends (red) in soil at Handeni, as Interpreted by I. Groves (2010).

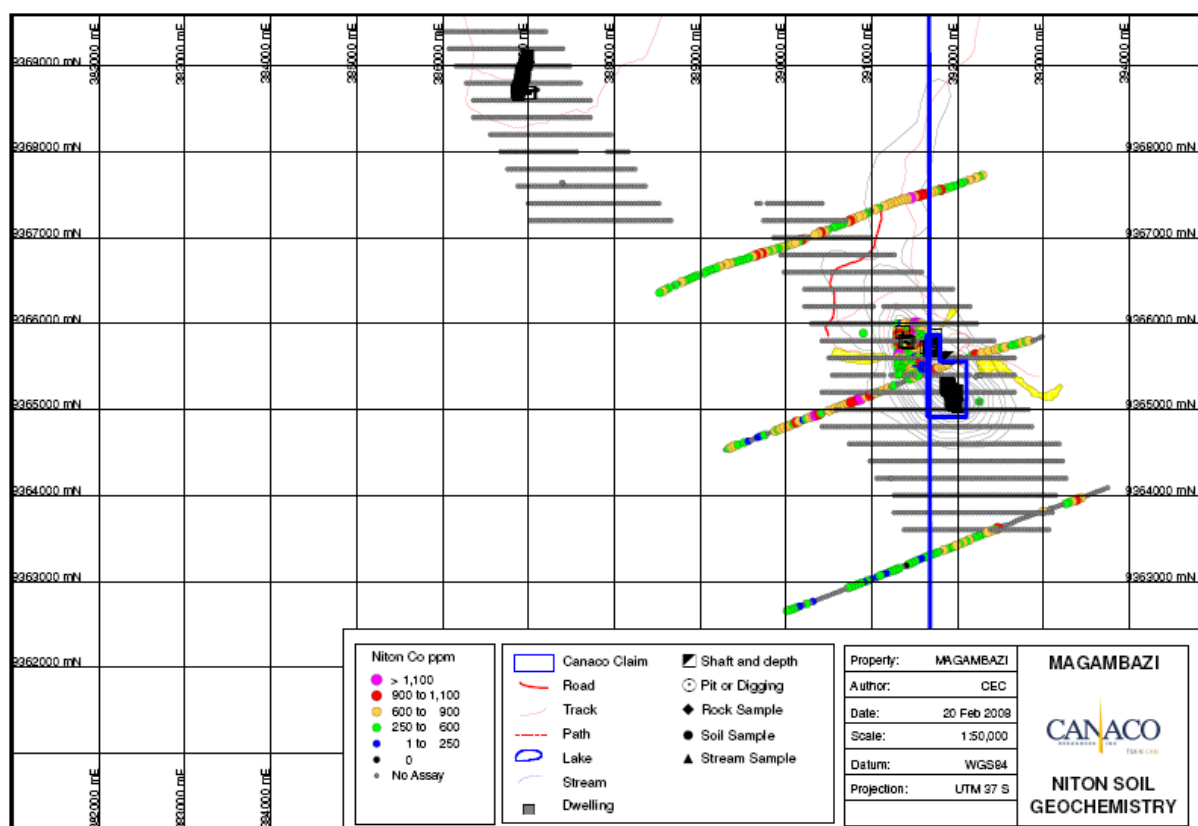
#### **Niton Work on Soils**

In 2008, an initial Niton survey of 338 soil samples was initiated. Samples previously sent to the laboratory for assay were subjected to Niton XRF analysis for detection of a suite of potential gold-related trace elements. The survey examined three wide spaced lines covering the central, southeastern, and northwestern portion of Magambazi Hill, in addition to a central 40 m x 40 m grid situated near known mineralization in the central Magambazi Hill area. From the suite of elements analysed (including As, Co, Cu, Fe, Hg, Mn, Mo, Ni, Pb, Rb, Se, Sr, Th, U, W, Zn and Zr), two elements (As and Co) define distinctive trends related to known gold mineralization (Figures 17 and 18). Silver content is directly related to gold content, and Cu content increases in areas immediately peripheral to known gold mineralization.





**Figure 17.** Plot of arsenic concentrations in Magambazi soils using XRF (Carmen, 2008)



**Figure 18.** Plot of cobalt concentrations in Magambazi soils using XRF (Carmen, 2008)

A second phase of Niton analyses for the entire property was undertaken subsequent to the initial test survey. A total of 6359 pulp samples and 83 check samples were tested. Similar element trends were identified on other project prospects, and are summarized in Table 4.

**Table 4.** Summary of Niton soil analyses

| Anomaly          | Enriched                   | Halo           | Depleted   |
|------------------|----------------------------|----------------|------------|
| Majiri-Bomba     | As, Zn, Fe, Mn, Co, Cu     | Cu, Pb, Rb     | Sr, Th, Zr |
| Semwalinko North | As, Co, Cu, Fe, Zn, Mn     | Ni, Pb, Rb     | Sr, Th, Zr |
| Semwalinko       | As, Co, Cu, Mn, Fe, Ni, Zn | Cu, Ni, Pb, Rb | Sr, Th, Zr |
| Magambazi        | As, Fe, Zn, Mn, Co         | Cu, Mn, Ni     | Ni, Th, Zr |

### **Chip Sampling**

At Magambazi and Magambazi Central, a total of 126 channel samples were taken. The most significant result was seven metres of 5.6 grams per tonne gold, including three metres of 10.15 grams per tonne gold in a 10-metre-wide working at Magambazi (the Big Pit-true thickness 6.5 m minimum, Groves, I., Personal communication) (Plate 3).

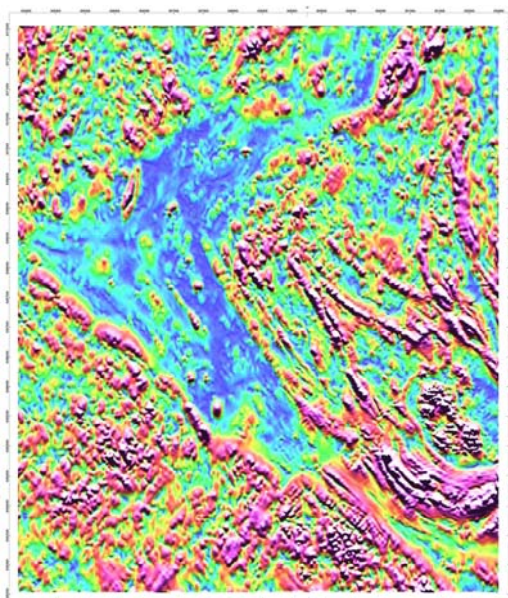
At Semwaliko North a total of 10 channel samples were collected. The most significant result was 10 metres of 2.54 grams per tonne gold (0.4 gram per tonne gold cut-off) and two metres of 14.3 grams per tonne gold from shallow workings (true thickness unknown).

Recently at Majiri, a total of 185 samples were taken, and this program continues. A single trench hosted two 1 metre samples, four metres apart, assaying 3.29 and 3.30 g/t, respectively. Of particular note, three standards inserted into the sample batch covering this Majiri channel sampling systematically assayed half the value of all inserted standards, and requires further investigation.

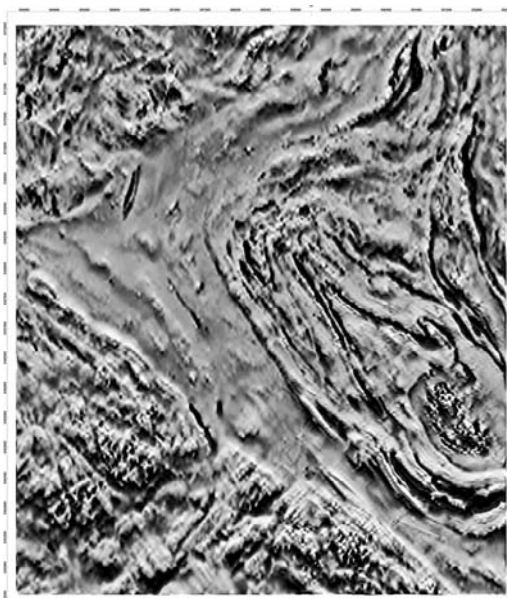
### **Airborne Geophysics**

A high-resolution XPlorer magnetic and radiometric airborne survey was carried out over part of the Handeni Property from September 1st to September 2nd by New Resolution Geophysics (NRG), Pretoria, South Africa. Using a Eurocopter AS350B2 helicopter a total of 935 line kilometres were surveyed. The survey was flown at an elevation of 25 m with a 90° (east-west) orientation, and a line spacing of 100 m. The spacing was reduced to 50 m over the Magambazi hill to provide extra detail on the current resource definition area. Measurements collected were total magnetic field, potassium-, uranium- and thorium-gamma ray counts, and radar altimetry data (Figures 19, 20, 21, 22).

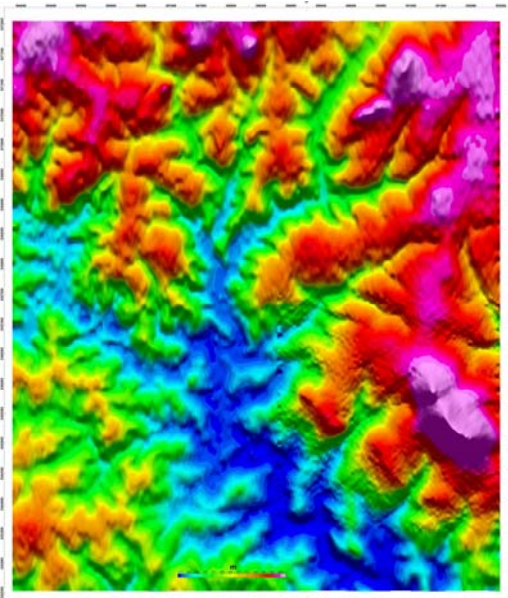
The data was processed by a NRG and the following products were delivered to CAN: total magnetic intensity, reduced to magnetic pole, first vertical derivative, analytic signal, digital terrain model (DTM), total count radiometrics, and ternary radiometrics. As far as the author is aware this data has not been interpreted in detail, although some interpretation has been carried out (Figure 11). When the data is integrated with the results of soil sampling, RAB and RC drilling, it is expected that other exploration targets will be identified.



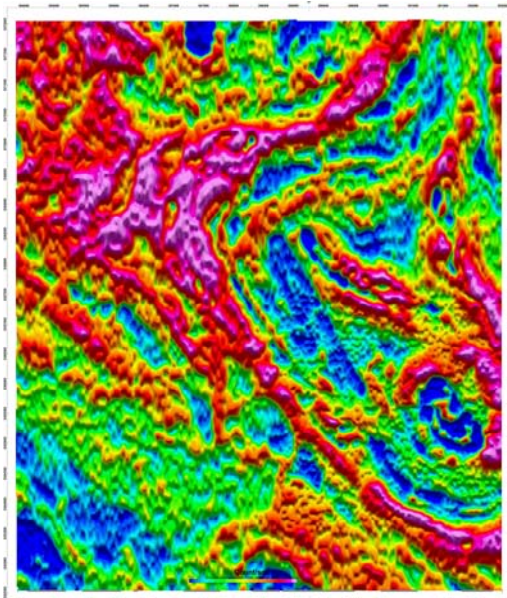
**Figure 19.** Magnetic analytical signal



**Figure 20.** First vertical derivative



**Figure 21.** Digital terrain model



**Figure 22.** Total radiometrics



## 11. DRILLING

### Reverse Circulation Drilling

A total of 4971 m of reverse circulation (“RC”) drilling was conducted in 36 holes between March 24 and August 19, 2010 by truck mounted RC rig (Plate 7). The first ten hole drill programme between March 24, 2008 and May 31<sup>st</sup> 2008 was drilled to test the depth extension to known artisanal placer and hard rock mine workings at Semwaliko North and a further five tested a gold soil anomaly (Figure 23). The most significant gold mineralized intercepts include a 12.0 m section grading of 1.04 g/t Au, located in altered amphibolite gneiss. An additional nine hole programme, totalling 1301 m, drilled between July 25, 2010 and August 7 2010 targeted the southern extension of soil anomalism and artisanal workings at Semwaliko. The highest gold assay from this programme was a 12 m interval grading 1.11 g/t Au, including a 1 m section grading 8.44 g/t Au (MGZC040)

The results are tabulated in Table 5. Niton analysis was also conducted on all samples.

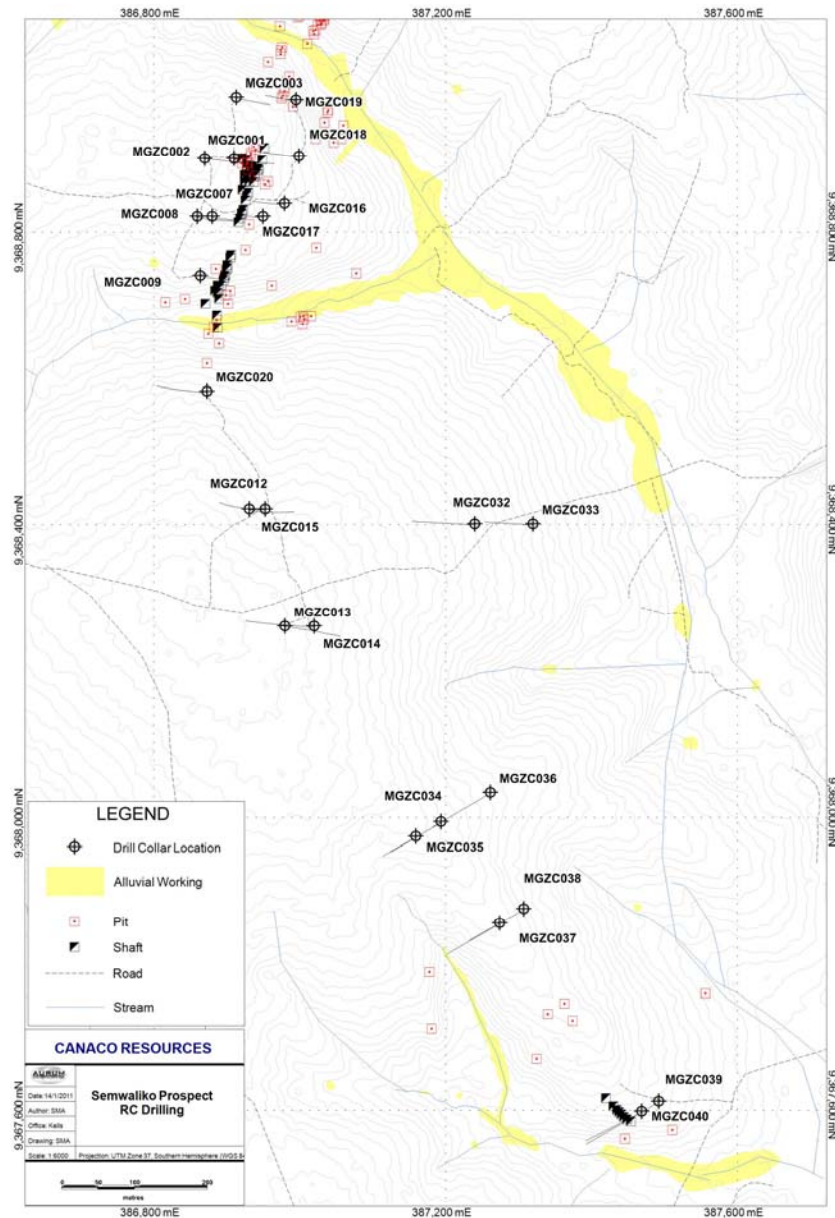


**Plate 7.** Reverse circulation drilling, Semwaliko area (archival photo)

In general, results were disappointing, and key areas targeted did not intersect favourable assemblages expected. It is now believed that the mineralization occurs in steep dipping vein arrays within flatter



dipping stratigraphy and may be undercut by a shallow fault feature (I. Groves, personal communication). The area should undergo additional compilation to assess further potential.



**Figure 23.** Semwaliko reverse circulation drill plan showing the location of artisanal alluvial, pit and shaft workings.

**Table 5.** Reverse circulation drillhole locations, Semwaliko

| Drillhole | East   | North   | Azimuth (°) | Dip (°) | Max Au (ppm) | Depth (m) |
|-----------|--------|---------|-------------|---------|--------------|-----------|
| MGZC001   | 386910 | 9368900 | 99          | -55     | 6.47         | 110       |
| MGZC002   | 386870 | 9368900 | 90          | -55     | 0.07         | 162       |
| MGZC003   | 386913 | 9368984 | 102         | -55     | 0.47         | 91        |
| MGZC007   | 386880 | 9368820 | 100         | -55     | 2.81         | 90        |
| MGZC008   | 386860 | 9368820 | 100         | -55     | 0.02         | 120       |
| MGZC009   | 386864 | 9368740 | 100         | -55     | 4.08         | 84        |
| MGZC012   | 386931 | 9368420 | 100         | -55     | 2.11         | 126       |
| MGZC013   | 386980 | 9368260 | 95          | -55     | 0.37         | 186       |
| MGZC014   | 387020 | 9368260 | 270         | -55     | 0.18         | 186       |
| MGZC015   | 386953 | 9368420 | 270         | -55     | 0.87         | 132       |
| MGZC016   | 386950 | 9368820 | 270         | -55     | 0.77         | 80        |
| MGZC017   | 386979 | 9368838 | 270         | -55     | 0.30         | 84        |
| MGZC018   | 386999 | 9368903 | 277         | -55     | 0.88         | 126       |
| MGZC019   | 386995 | 9368980 | 280         | -55     | 0.47         | 80        |
| MGZC020   | 386873 | 9368581 | 270         | -55     | 0.11         | 150       |
| MGZC032   | 387240 | 9368400 | 270         | -55     | 0.33         | 150       |
| MGZC033   | 387320 | 9368400 | 270         | -55     | 0.08         | 115       |
| MGZC034   | 387194 | 9367993 | 237         | -55     | 0.13         | 140       |
| MGZC035   | 387159 | 9367974 | 237         | -55     | 0.10         | 91        |
| MGZC036   | 387261 | 9368033 | 237         | -55     | 0.15         | 160       |
| MGZC037   | 387274 | 9367855 | 237         | -55     | 0.47         | 145       |
| MGZC038   | 387307 | 9367875 | 237         | -55     | 0.51         | 150       |
| MGZC039   | 387469 | 9367597 | 240         | -55     | 1.46         | 150       |
| MGZC040   | 387492 | 9367611 | 237         | -55     | 8.44         | 200       |

**RAB Drilling**

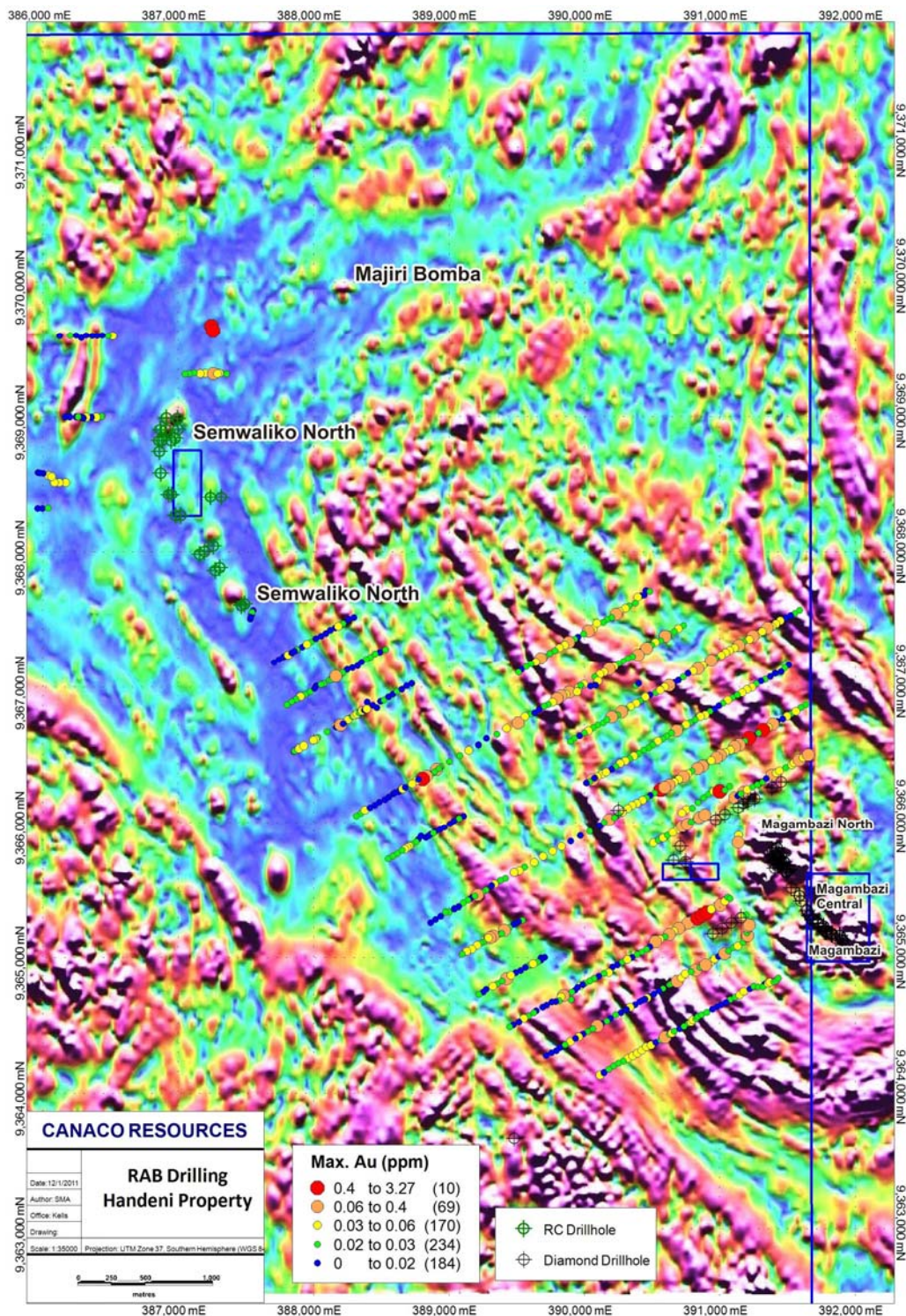
In order to quickly assess the regional potential of bedrock mineralization a 10,402 m Rotary Air Blast (RAB) drilling programme was undertaken by Stanley Mining Services Tanzania between July 29 and September 10, 2010. RAB is a quick and effective way to core poorly consolidated material and collect a sample at relatively shallow depths (typically less than 50 m). A total of 668 1.5" diameter, predominantly vertical holes were drilled to depths not exceeding 48 m and 3457 samples were collected. These samples were typically taken as splits at 4 m intervals, however some samples were less if the hole was terminated prior to completing a whole drill rod.

Samples were analysed by Fire Assay for gold at SGS in Mwanza and a portable Niton XRF unit was used to determine semi-quantitative concentrations of a variety of elements (As, Bi, Ca, Co, Cr, Cu, Fe, Hg, K, Mn, Mo, Ni, Pb, Rb, S, Se, Sr, Th, Ti, V, W, Zn, Zr). The results have not been fully studied by CAN owing to the priority of the diamond drilling programme at Magambazi.

Preliminary results from the RAB drilling programme (Figure 24) when first plotted seemed to be quite disappointing, since they appeared to show isolated gold samples with only ten samples displaying gold concentrations from 0.4 to 3.27 g/t (typically over 4 m). However, when the RAB drilling locations are plotted with the maximum gold concentrations on the recently flown airborne magnetic data it is apparent that the anomalous gold samples are associated with magnetic highs (iron formation), faults cross-cutting the regional foliation, or close to minor fold hinges. It is also interesting to note that some of the tight fold closures which might be prospective for saddle reef gold have not been drilled.

RAB is a good first pass drilling technique, but the holes typically sampled rock from depths less than 20 m which is barely through the lateritic weathering horizon. The complete RAB drilling programme geochemistry should be reviewed and integrated with the airborne magnetic study to identify exploration targets present between Magambazi and Majiri Bomba. These targets should be tested by RC or diamond drilling.





**Figure 24.** Handeni Property Rotary Air Blast (RAB) drill plan showing the maximum gold intercepts recorded over 4 m intervals. The background image is the magnetic analytical signal. The location of RC and diamond drillholes is also plotted.

### **Diamond Drilling**

Diamond drilling at the Property was conducted by Stanley Mining Services of Tanzania from September 7, 2009 and December 1, 2010, and a total of 25,834 m of NQ and HQ diamond drill core was recovered. Stanley Mining Services Tanzania (now known as Layne Drilling Tanzania) based at Plot No. 109, Bin Haki Street, Paiansi, Mwanza, Tanzania. The drill used was initially truck-mounted and more recently track mounted, and travels between sites via cleared dirt roads (Plate 8). The holes were targeted to test both the Magambazi, Magambazi Central, and Magambazi North mineralized zones. Drill holes are predicated on geologically interpreted targets, and are largely based on targeting the interpreted depth extension to known surficial *in situ* gold mineralization, followed by systematic step out drilling to test along strike and at depth of known mineralization (Table 6). Drill holes are spotted by GPS, with 2 m stated accuracy. Azimuth and dip information is collected downhole using a Reflex EZ-Shot orientation instrument at roughly 30 m intervals. Core orientation information is taken at roughly 30 m intervals, but down to 6 m intervals in areas of mineralization.



**Plate 8.** Drilling of a shallow inclined diamond hole, Magambazi North



### **Magambazi**

At Magambazi, nineteen (19) fences of holes have systematically tested the initial discovery hole (MGZD001 - termed Hole 1 during this section for brevity) assemblage of horizons at roughly 40 m fence centres. A plan of the drillholes is displayed in Figures 25 and 26, and displays the vertical projection of key intercepts, as identified by CAN, that range above 2.0 g/t Au. This provides a diagrammatic depiction of the continuity of a core section of the main mineralized trend being tested. It should be noted that a significant amount of additional intervals have not been plotted on this map. A typical section is displayed in Figure 11, and illustrates the Magambazi section as currently interpreted. The drilling was initially targeted at the depth extension of existing workings, where channel sampling encountered encouraging gold grades.

Hole 1 (60,440 N) was drilled immediately below known surface workings, and intersected two wide zones of mineralization. DDH 2, 3, 85 and 86 were drilled on section to test the depth extent of mineralization, although only minor intersections were encountered, and a fault displacement is inferred through section interpretation.

Holes 10, 39, 40, 41, 87, 89 and 101 (60,400 N) were drilled at the adjoining southerly fence, testing lateral continuity and depth extent. The mineralized system continues in this direction but the tenor of mineralization is lower. The continuity is manifest through the lower fault-bounded western section of the system, traced by the later holes.

Holes 4, 5, 7, 15, 16, 40 (60,360 N) tested the next southerly fence and encountered very favourable intersections in DDH 4, 5, 7, 40 and 78. The best intercepts lie below identified surface workings. Continuity of mineralization, within section, on both sides of the fault is evident, and horizon dips become gentler on the west side of the fault.

Holes 8, 9, 14, 17 and 83 (60,320 N) tested the next southerly fence and encountered numerous thin gold mineralized horizons down hole, but continuity between holes at depth is not consistent.

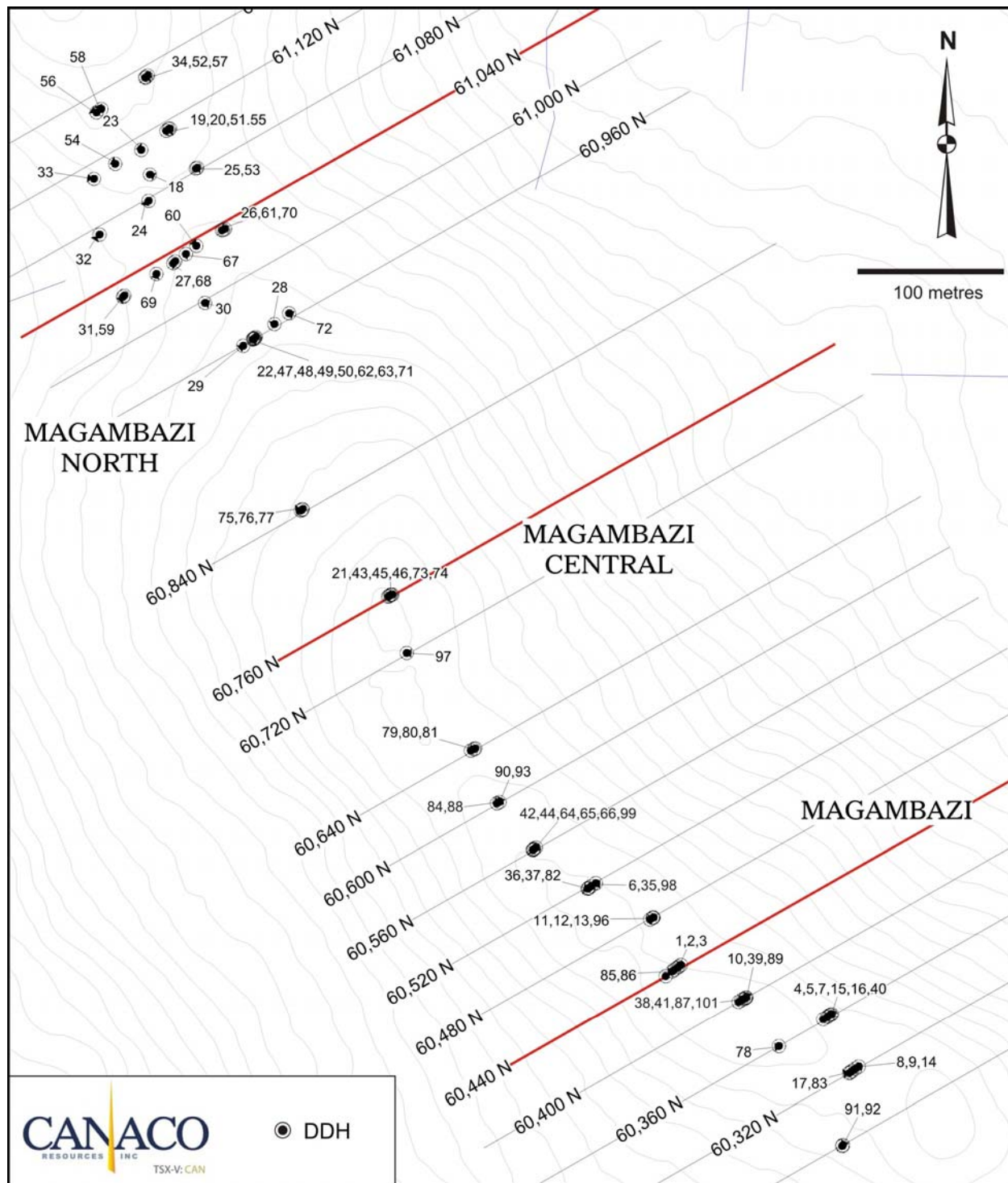
Holes 91, 92, 94 and 100 (60,280 N) tested the next, and most southerly, fence and encountered numerous thin gold mineralized horizons down hole, but continuity between holes at depth is not consistent.

**Table 6.** Magambazi diamond drill holes

| DD Drillhole | East      | North     | Dip (°) | Azimuth (°) | Max Au (ppm) | Depth (m) |
|--------------|-----------|-----------|---------|-------------|--------------|-----------|
| MGZD001      | 391786.13 | 9365196.2 | -50     | 58          | 107.0        | 293.6     |
| MGZD002      | 391780.37 | 9365191.9 | -75.5   | 58          | 3.5          | 323.9     |
| MGZD002a     | 391775.87 | 9365188.5 | -90     | 0           | -            | 20        |
| MGZD003      | 391783.4  | 9365194.3 | -60.5   | 57          | 4.8          | 275.9     |
| MGZD004      | 391889.2  | 9365162.4 | -50     | 63          | 16.7         | 224.45    |
| MGZD005      | 391888.48 | 9365161.9 | -60     | 64          | 38.1         | 245.7     |
| MGZD006      | 391728.19 | 9365252.3 | -50     | 60          | 3.7          | 231       |
| MGZD007      | 391887.86 | 9365161.7 | -69     | 60          | 31.6         | 224.6     |
| MGZD008      | 391907.54 | 9365126.4 | -49.3   | 60          | 15.6         | 208.2     |
| MGZD009      | 391903.21 | 9365123.6 | -73     | 58          | 22.4         | 276.48    |
| MGZD010      | 391830.91 | 9365174.1 | -50     | 59          | 2.8          | 278.59    |
| MGZD011      | 391767.54 | 9365228.9 | -48     | 61          | 20.6         | 229.6     |
| MGZD012      | 391766.76 | 9365228.4 | -59     | 62          | 56.8         | 263.82    |
| MGZD013      | 391765.2  | 9365227.3 | -65     | 62          | 2.2          | 302.8     |
| MGZD014      | 391905.25 | 9365125   | -61.5   | 60          | 7.6          | 293.85    |
| MGZD015      | 391886.91 | 9365161.1 | -73     | 61          | 5.6          | 243.7     |
| MGZD016      | 391885.95 | 9365160.5 | -81.5   | 63          | 26.4         | 257.8     |
| MGZD017      | 391901.87 | 9365122.8 | -81     | 52          | 5.0          | 320.47    |
| MGZD018      | 391423.4  | 9365737   | -50     | 344         | 3.3          | 89.7      |
| MGZD019      | 391434.71 | 9365766.7 | -50     | 239         | 27.0         | 203.54    |
| MGZD020      | 391437.2  | 9365768.3 | -90     | 360         | 4.0          | 131.78    |
| MGZD021      | 391589.13 | 9365449.6 | -50.5   | 73          | 1.3          | 344.6     |
| MGZD022      | 391495.88 | 9365625.3 | -49     | 61          | 2.5          | 287.72    |
| MGZD023      | 391417.67 | 9365753.8 | -54     | 240         | 38.5         | 101.7     |
| MGZD024      | 391422.56 | 9365718.7 | -55     | 241         | 13.0         | 101.96    |
| MGZD025      | 391454.9  | 9365740.9 | -55     | 230         | 12.3         | 109.96    |
| MGZD026      | 391472.66 | 9365698.5 | -55     | 236         | 5.5          | 192       |
| MGZD027      | 391439.5  | 9365676.1 | -55     | 241         | 12.2         | 179.1     |
| MGZD028      | 391508.47 | 9365634.4 | -55     | 240         | 13.7         | 234       |
| MGZD029      | 391487.16 | 9365619.6 | -55     | 238         | 12.1         | 255.1     |
| MGZD030      | 391461.16 | 9365648.8 | -55     | 240         | 2.6          | 233.8     |
| MGZD031      | 391406.11 | 9365653.8 | -54     | 236         | 31.5         | 155.7     |
| MGZD032      | 391389.11 | 9365695.7 | -55     | 239         | 4.7          | 137.6     |
| MGZD033      | 391385.28 | 9365733.8 | -55     | 242         | 3.8          | 149.12    |
| MGZD034      | 391420.31 | 9365802.8 | -54     | 246         | 14.8         | 156.12    |
| MGZD035      | 391724.88 | 9365250   | -55.6   | 62.5        | 39.6         | 279.25    |
| MGZD036      | 391723.23 | 9365248.9 | -63     | 60          | 20.8         | 302.78    |
| MGZD037      | 391722.51 | 9365248.4 | -71.5   | 62          | 1.0          | 348       |
| MGZD038      | 391828.87 | 9365172.9 | -65     | 60          | 10.1         | 341.85    |
| MGZD039      | 391827.3  | 9365172   | -71     | 60          | 9.2          | 314.4     |
| MGZD040      | 391883.31 | 9365159   | -90     | 360         | 75.5         | 321.32    |
| MGZD041      | 391825.61 | 9365170.8 | -78.5   | 65          | 28.6         | 312.5     |
| MGZD042      | 391685.98 | 9365275.5 | -58     | 62          | 33.0         | 287.1     |
| MGZD043      | 391587.89 | 9365449.1 | -75     | 71          | 25.5         | 302.8     |
| MGZD044      | 391685.14 | 9365275   | -68     | 62          | 22.5         | 314.1     |
| MGZD045      | 391587.08 | 9365448.5 | -81.5   | 60          | 83.3         | 333.08    |
| MGZD046      | 391588.37 | 9365449.5 | -64.5   | 60          | 1.9          | 335.58    |
| MGZD047      | 391495.27 | 9365624.8 | -62.4   | 65          | 0.8          | 233.35    |
| MGZD048      | 391494.71 | 9365624.5 | -74     | 63          | 12.3         | 215.3     |
| MGZD049      | 391494.71 | 9365624.5 | -85     | 64          | 2.1          | 227.6     |
| MGZD050      | 391494.71 | 9365624.5 | -75     | 240         | 0.5          | 245.7     |
| MGZD051      | 391436.34 | 9365768   | -73     | 243         | 4.9          | 140.8     |
| MGZD052      | 391421.03 | 9365803.3 | -69.5   | 237         | 18.9         | 107.8     |
| MGZD053      | 391455.83 | 9365741.5 | -74.5   | 245         | 30.2         | 164.8     |
| MGZD054      | 391399.84 | 9365744.2 | -57     | 242         | 8.8          | 89.09     |

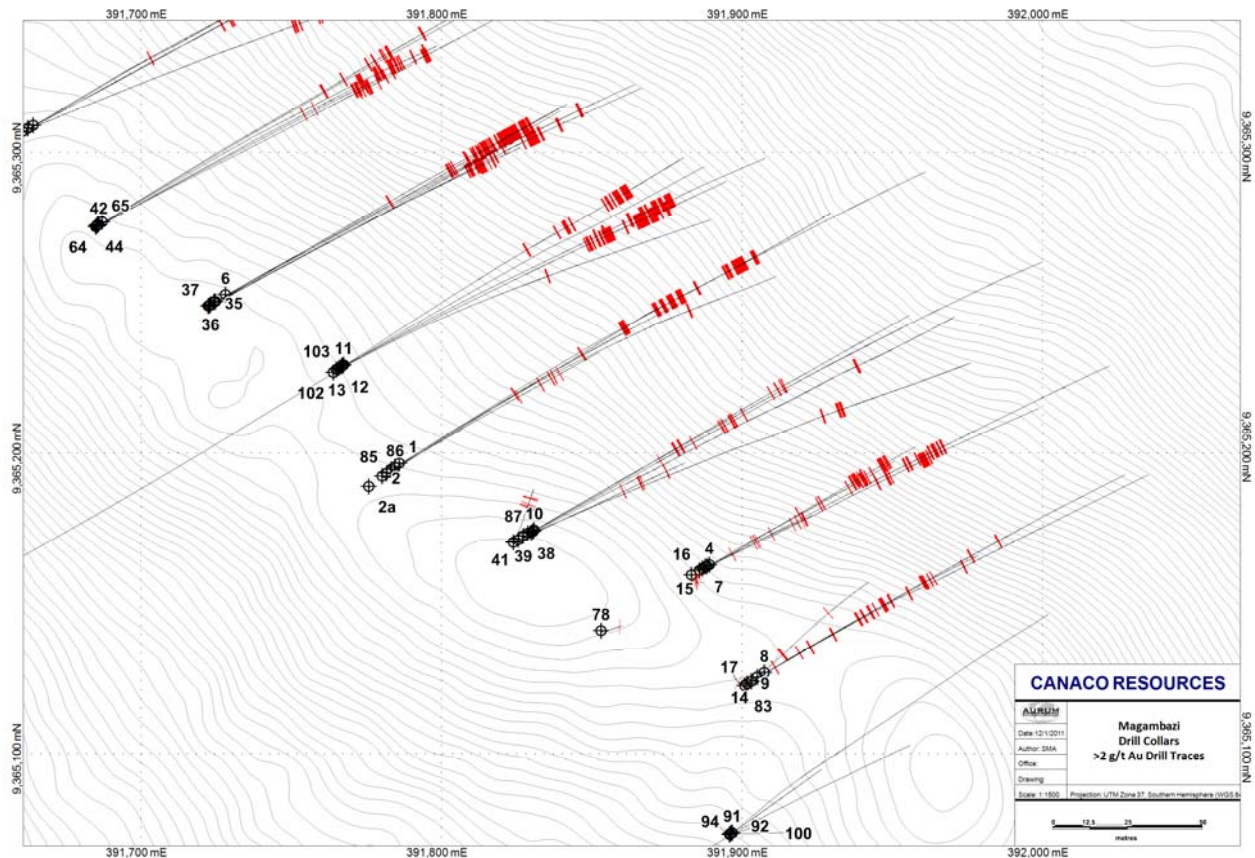
Table 6 (cont). Magambazi diamond drill holes

| DD Drillhole | East      | North     | Dip (°) | Azimuth (°) | Max Au (ppm) | Depth (m) |
|--------------|-----------|-----------|---------|-------------|--------------|-----------|
| MGZD055      | 391434.87 | 9365766.8 | -62     | 241         | 12.5         | 119.6     |
| MGZD056      | 391387.3  | 9365779.4 | -55     | 239         | 9.1          | 77.3      |
| MGZD057      | 391422.09 | 9365804.3 | -85     | 245         | 0.2          | 95.8      |
| MGZD058      | 391390.55 | 9365781.6 | -89     | 330         | 4.7          | 59.2      |
| MGZD059      | 391405.16 | 9365652.9 | -41     | 238         | 26.0         | 183.7     |
| MGZD060      | 391455.17 | 9365687.9 | -55     | 240         | 12.7         | 161.26    |
| MGZD061      | 391473.69 | 9365699   | -74.6   | 63          | 3.0          | 182.9     |
| MGZD062      | 391494.41 | 9365624.2 | -67.5   | 58          | 11.9         | 173.5     |
| MGZD063      | 391493.9  | 9365624.1 | -79.5   | 59          | 11.7         | 188.83    |
| MGZD064      | 391685    | 9365274.8 | -72.8   | 61          | 3.7          | 320.7     |
| MGZD065      | 391687.2  | 9365276.5 | -48.5   | 60          | 0.8          | 249.28    |
| MGZD066      | 391685.58 | 9365275.4 | -64.5   | 60          | 300.0        | 296.3     |
| MGZD067      | 391448.22 | 9365682.4 | -74.2   | 60          | 15.3         | 152.8     |
| MGZD068      | 391440.82 | 9365677.2 | -80.5   | 61          | 21.8         | 380.8     |
| MGZD069      | 391428.12 | 9365668.8 | -80     | 64.5        | 4.9          | 164.8     |
| MGZD070      | 391474.9  | 9365699.7 | -49.5   | 58          | 8.8          | 170.3     |
| MGZD071      | 391494.51 | 9365624.4 | -85.5   | 232         | 9.2          | 213.8     |
| MGZD072      | 391518.54 | 9365641.8 | -44.5   | 61          | 2.2          | 149.3     |
| MGZD073      | 391586.24 | 9365448.1 | -71     | 63          | 190.0        | 278.6     |
| MGZD074      | 391586.24 | 9365448.1 | -89     | 79          | 1.0          | 329.8     |
| MGZD075      | 391527.87 | 9365507.8 | -63     | 60          | 7.8          | 305.4     |
| MGZD076      | 391527.55 | 9365507.4 | -73     | 60          | 41.7         | 287.8     |
| MGZD077      | 391526.69 | 9365506.9 | -78     | 59          | 14.4         | 287.7     |
| MGZD078      | 391853.17 | 9365140.4 | -89     | 87          | 2.0          | 308.36    |
| MGZD079      | 391642.82 | 9365342.7 | -73     | 62          | 32.3         | 314.21    |
| MGZD080      | 391644.83 | 9365343.8 | -66     | 62          | 4.9          | 287       |
| MGZD081      | 391645.67 | 9365344.3 | -57.5   | 60          | 2.1          | 218.12    |
| MGZD082      | 391722.88 | 9365248.6 | -67     | 61          | 69.1         | 296.4     |
| MGZD083      | 391901.12 | 9365122.1 | -89     | 300         | 2.0          | 308.4     |
| MGZD084      | 391662.45 | 9365307.7 | -66     | 68          | 173.0        | 285.24    |
| MGZD085      | 391781.84 | 9365192.9 | -67     | 57          | 2.1          | 287.27    |
| MGZD086      | 391784.56 | 9365195   | -53.5   | 59          | 20.4         | 284.1     |
| MGZD087      | 391829.97 | 9365173.2 | -58.5   | 66.5        | 10.0         | 295.88    |
| MGZD088      | 391660.65 | 9365306.7 | -70.5   | 62          | 29.3         | 314.15    |
| MGZD089      | 391830.6  | 9365173.6 | -54.5   | 62          | 14.6         | 272.04    |
| MGZD090      | 391660.65 | 9365306.7 | -72     | 60          | 22.0         | 305.4     |
| MGZD091      | 391896.77 | 9365073.5 | -45     | 60          | 0.3          | 51.72     |
| MGZD092      | 391896.26 | 9365073.1 | -67     | 60          | 0.7          | 290.87    |
| MGZD093      | 391662.45 | 9365307.7 | -60.5   | 59          | 13.8         | 280.9     |
| MGZD094      | 391896.01 | 9365073   | -78     | 62          | -            | 254.59    |
| MGZD095      | 391664.19 | 9365308.7 | -56.5   | 62          | -            | 245.1     |
| MGZD097      | 391599.07 | 9365409.6 | -78     | 58.5        | 840.0        | 299.4     |
| MGZD096      | 391767.22 | 9365228.6 | -54     | 57          | 4.9          | 224.29    |
| MGZD098      | 391724.34 | 9365249.9 | -61.5   | 60.5        | 280.0        | 281.25    |
| MGZD099      | 391685.44 | 9365275.3 | -61     | 58          | 82.5         | 290.17    |
| MGZD100      | 391896.87 | 9365073.5 | -61     | 238.5       | -            | 291.9     |
| MGZD101      | 391824.02 | 9365169.8 | -87     | 21          | 32.3         | 350.73    |
| MGZD102      | 391764.13 | 9365226.4 | -47.5   | 239.5       | -            | 343.75    |
| MGZD103      | 391766.06 | 9365227.8 | -61.5   | 59.5        | -            | 287.4     |
| MGZD104      | 391462.1  | 9365691.6 | -75     | 58          | -            | 131.68    |
| MGZD105      | 391410.54 | 9365710   | -72     | 60          | -            | 95.5      |
| MGZD106      | 391432.81 | 9365724.7 | -65     | 60          | -            | 104.3     |
| MGZD107      | 391724.45 | 9365249.8 | -61     | 60          | -            | 269.1     |
| MGZD108      | 391439.24 | 9365729.2 | -55     | 238.5       | -            | 134.2     |
| MGZD109      | 391399.99 | 9365702.6 | -57     | 239         | -            | 128.7     |
| MGZD110      | 391388.84 | 9365780.6 | -69     | 241.5       | -            | 77.27     |



**Figure 25.** Magambazi drill hole plan showing the collar locations, section numbers and zone names. The red section lines are cross sections illustrated in Figures 23, 24 and 25.

Holes 11, 12, 13, 96, 102, and 103 (60,480 N) tested the northerly fences located adjacent to discovery Hole 1. The intersects confirmed north-westward continuity to the significant intersections encountered in the Hole 1, e.g., Hole 12 intersected 56.2 m of 6.39 g/t Au mineralization (from 170.8 m).



**Figure 26.** Magambazi drill hole plan (>2.0 g/t Au vertical projections). Drilltraces plotting off the diagram (un-numbered) were either unmineralized or either did not contain assay data at the time of writing (Hole 100).

Holes 6, 35, 36, 37, 82, 98 and 107 (60,520 N) tested the next northerly fence to that mentioned immediately above. Gold mineralized horizons were again encountered, although the width and grade of intersections were generally not of the tenor seen in the above fence, except Hole 98. The lack of significant intersections in steeply dipping Hole 37, the most westerly drilled hole at depth, appears to demarcate the faulted western boundary to the mineralization at roughly 250 m below surface. However, Hole 98 intersected 53.2 m of mineralized core containing 9.51 g/t Au (from 203.2 m), including a 23.8 m interval with 15.08 g/t Au, indicating that east of the fault mineralization is present.



Holes 42, 44, 64, 65, 66, and 99 (60,560 N) tested the most northerly extent of the Magambazi mineralized zone and indicate a continuation of the mineralized horizons northwestward. The best mineralization was noted in Hole 66 where a 37 m interval contained 12.45 g/t from a depth of 230 m.

### **Magambazi North**

At Magambazi North, six fences of holes, totalling 7289 m, have systematically tested the horizon at roughly 40 m centres (Figure 27). The drilling was initially targeted at two potential mineralizing trend possibilities (NW, ENE) established from the compilation of mapping and existing drill data.

The most southerly fence of holes, Holes 22, 28, 29, 47, 48, 49, 50, 62, 63, 71 and 72 (60,960 N,) have tested the most southern extent of Magambazi North mineralization, and have identified a relatively flat lying assemblage, and altered horizon from a fence of holes. Holes 22 and 72 were drilled in a northeasterly direction and defined a major step-out in the mineralized system in that direction. An altered horizon is present in Hole 22 with contains 1.1 g/t over 8 m at a depth from 150 m. The best intersection on this section was Hole 48 that intersected 65 m at 1.55 g/t Au from 105 m. The southwestward drilled holes (Holes 28, 29 and 50) have defined a mineralized system that trends roughly north-northwest and dips moderately southwest in the north to gently SW in the south. The mineralization trend appears to plunge gently to the southeast.

Hole 30 (61,000 N) is an isolated 233.8 m deep hole drilled towards the southwest, and was drilled 40 m northwest from the previous fence. The hole failed to intersect significant mineralization, but it did encounter several zones of elevated gold concentrations, e.g., 10 m at 0.35 g/t Au at 113 m and 4.3 m at 0.61 g/t Au from 163.7 m. Further drilling is planned for this section.

Holes 26, 27, 31, 59, 61, 67, 68, 69 and 70 (61, 040 N) were drilled on the successive northwest fence, and have further defined the mineralization trends. Holes 26, 27, 31, 59 and 60 were drilled in a southwest direction and intersected a faulted western limb of an east dipping syncline. Hole 27 contained the best mineralized intersection were a 50 m interval contained 1.33 g/t Au at a depth of 96 m. The other drillholes were drilled in a northeast direction and defined the synclinal axis and eastern extent of the mineralization. Hole 67 was drilled close to the inferred fold axis and intersected two zones of mineralization separated by an 8 m barren zone: 35.3 m at 1.73 g/t Au (from 54.7 m) and 25 m at 2.74 g/t Au (from 98 m).

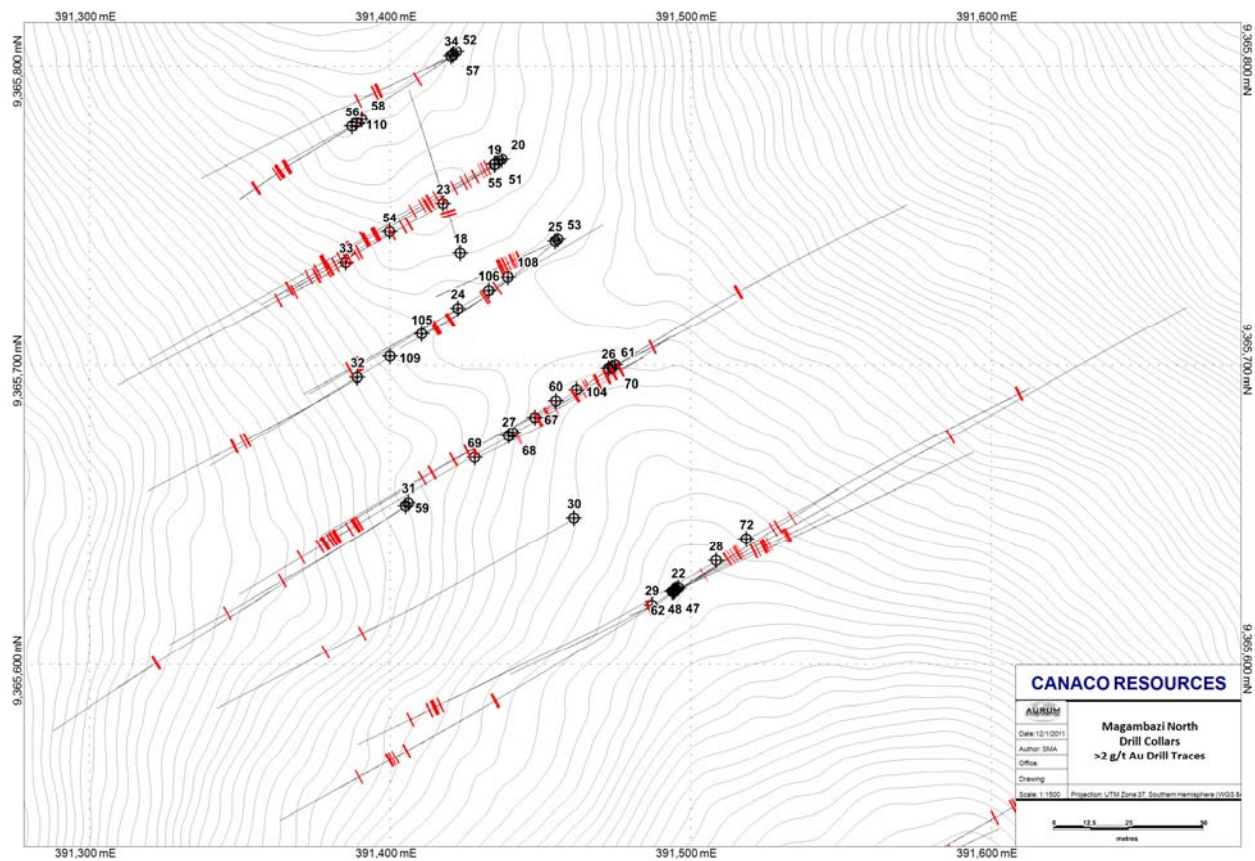
Holes 24, 25, 32, 53, 105, 106, 108 and 109 (61,080 N) define the next section to the northwest. Holes 105 and 106 were drilled to the northeast, with the remainder drilled to the southwest. The overall pattern is similar to that interpreted on section 91,040 N with the holes identifying three lenses of mineralization to the west and two thicker mineralized intercepts noted near the synformal axis in holes 53 and 105. The best intercept was from Hole 53 where 33 m at 3.90 g/t Au (including 4.9 m at 9.63 g/t Au) from 52 m was recorded. Future drilling will target mineralization that is open to the east.

Hole 18 (drilled between sections 61,080 N and 61,120 N) was the initial hole drilled at Magambazi North, and was targeted towards the east-northeast trend identified, near the convergence point of two interpreted northwest trending faults. This hole intersected only minor gold mineralization (6.7 m at 1.46 g/t Au from 21 m), and is interpreted to indicate that the main mineralized horizon is truncated by a southwest -northeast trending fault.

Holes 19, 20, 23, 33, 51, 54 and 55 were all drilled to the southwest on section 61,120 N, although Hole 18 did intersect the section. A compilation of key intersections is provided in Table 10. Like the others sections to the south drilling has identified a broad synclinal structure with three, or possibly four mineralized horizons. The location of this structure is further to the west than the previous sections and the area to the east of Hole 20 remains open. Hole 19 intersected four zones of mineralization: down dip along the eastern limb (23.5 m at 0.46 g/t Au from 17.6 m)), and intersecting three reasonably well mineralized zones in the western limb (9 m at 5.10 g/t Au, 5 m at 2.51 g/t Au, and 3 m at 3.04 g/t Au) between 70 and 103 m from the surface. Figure 27 illustrates a plan trace of drillholes, highlighting the vertical projection of key mineralized intercepts. Figure 15 provides a section view of the interpreted zone.

Holes 34, 52, 56, 57, 58, and 110 (61,160 N) are the most northerly drillholes drilled thus far at Magambazi North with a total length of 573.49 m. All the holes were drilling towards the southwest, with the exception of Hole 58 which was vertical. Holes 56, 58 and 110 intersected two upper mineralized horizons near the ground surface which indicate fold closure, whereas the deeper parts of these holes and 34, 52 and 57 appear to define flat lying mineralization at depth. The widest intersect (corresponding to true thickness) encountered was 18 m at 0.74 g/t Au from 33 m in Hole 56. The best grade intersected in the section was from the most westerly hole where 34.6 m at 1.08 g/t Au from 42 m

was noted. This intersection included an upper 11.1 m interval with an average grade of 2.29 g/t from 42 m depth.



**Figure 27.** Magambazi North drill hole plan (>2.0 g/t Au vertical projections)

### **Magambazi Central**

Drilling in the region between Magambazi North and Magambazi was not tested early in exploration due to the need of first establishing a plunge on the mineralized trend for effective targeting. Drilling at Magambazi Central revealed encouraging results, but during the time of the property visit drilling had been suspending as a result of legal issues over tenure (subsequently resolved). A plan of the intersection area is depicted in Figure 28, and defines a new area of mineralization that potentially requires further step out and infill drilling between sections 60,600 N and 60,880 N, a distance of 350 m.

Holes 84, 88, 90, 93 and 95 define the most southern section (60,600 N) in the Magambazi Central zone. All of the holes were drilled to the northeast and all the holes intersected mineralized zones greater

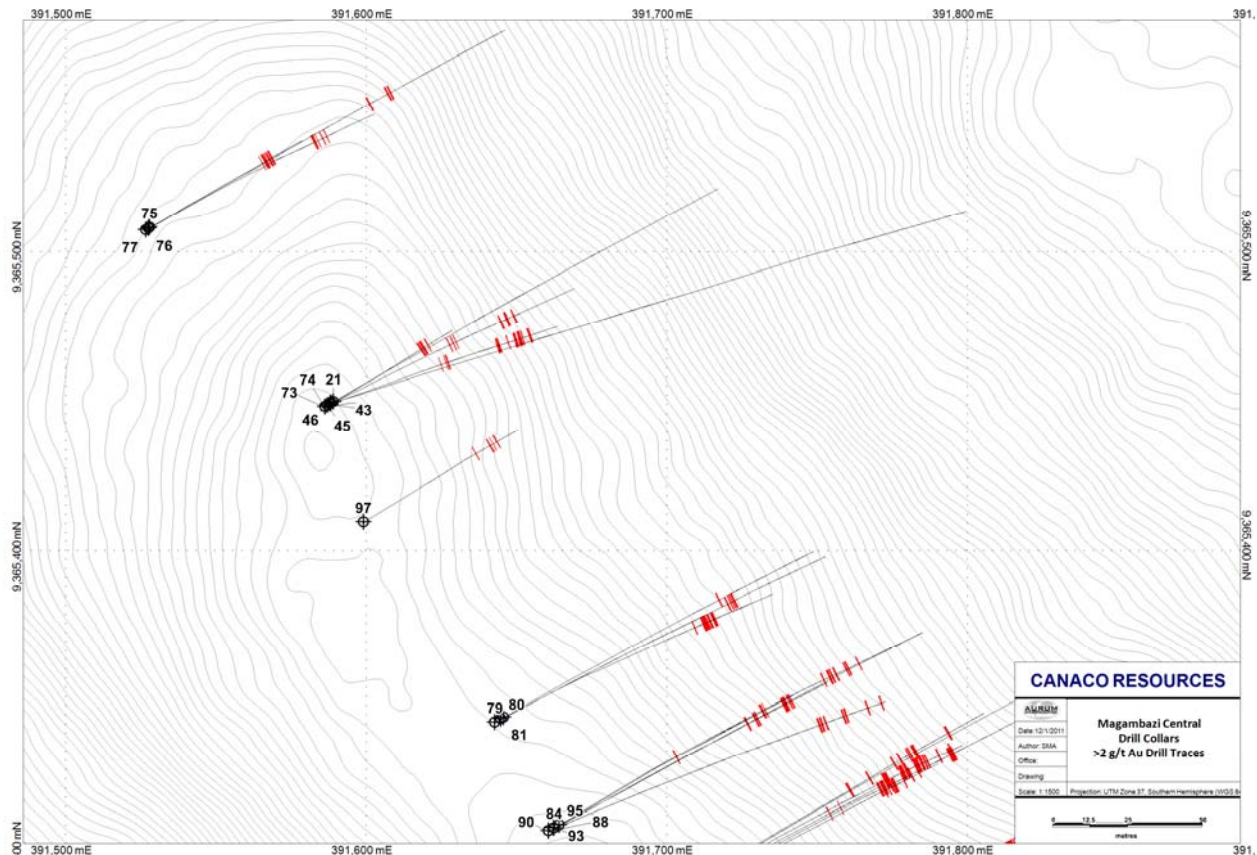
than 10 m drill thickness. Hole 88 contains some of the greatest thickness and highest grades of mineralization present within two zones: 15 m @ 4.19 g/t (from 222 m) and 19 m at 2.49 g/t from 263 m. An isolated one metre section of core from Hole 84 contained 173 g/t Au at a depth of 270 m.

Forty metres to the northwest Holes 79, 80 and 81 were drilled on section 60,640 N and identified three, and possibly four, zones of steeply dipping gold mineralization to the southwest. The widest and highest grade intervals were recorded from Hole 79 (14 m at 6.21 g/t Au from 239 m) and Hole 80 (10 m at 1.63 g/t from 202 m). The down-dip and up-dip potential still remains to be proven.

Hole 97 is an isolated 299.4 m hole that was drilled at 78° to the northeast on section 60,720 N. Mineralization was generally sparse except for 19 m interval which contained 1.32 g/t Au from a depth of 244 m. Hole 21 drilled southwards from section 60,760 N also intersects this section, but no significant mineralized intervals were identified.

The most extensive drilling at Magambazi Central is on section 60, 760 N where Holes 21, 43, 45, 46, 73 and 74 were drilled in a northeastern direction at angles varying from 50 to 89°. Two mineralized zones were encountered at depth and appear to represent an antiformal structure refolded to form a synform. Holes 74 and 45 are generally barren due to the presence of a high-angle normal fault although low-grade mineralization is present at the bottom of Hole 74. The lower part of Hole 45 passes through the fault and intersects the ore horizon that contains 22 m at 6.12 g/t from 245 m, but also includes a 1 m interval containing 83.3 g/t Au. Hole 43 intersected two mineralized zones; an upper one with 10.2 m at 2.87 g/t Au from 149.7 m, and lower zone containing two subsection that totalled 48 m with an average grade of 2.53 g/t from 221 m. The final mineralized hole in the section was Hole 73 with a 32 m interval averaging 9.27 g/t from 182 m. This last hole contained one 1.4 m interval with an average grade of 186 g/t.

The most northerly zone drilled thus far at Magambazi Central is section 60,840 N that contains Holes 75, 76 and 77. These holes were drilled to the northeast at angles varying between 63 and 78° for a total depth of 923 m. Like other holes in the Magambazi Central and Northern zones the mineral horizon forms a general synclinal structure. The best intercepts were from Holes 77 (18.4 m at 3.01 g/t from 214.6 m) and 76 (21 m at 2.99 g/t from 213). Both these widths are close to true thicknesses owing to the local flat lying nature of the synform.



**Figure 28.** Magambazi Central drill hole plan (>2.0 g/t Au vertical projections)

## 12. SAMPLING METHOD AND APPROACH

CAN employs a systematic approach to sampling, data collection and storage. Data and dataflow is managed by Iain Groves, Project Manager. All exploration data is collected in Microsoft Excel spreadsheets, and is transposed and maintained in a Microsoft Access database at the CAN Head Office in Vancouver. Data collection has been optimized to fit into a database system. The author considers the data collected as extensive, and of a professional quality.

### Soil Sampling

A total of 8148 soil samples were collected as part of the soil grid program, targeted at the northeast quadrant of the Kilindi Licence area of the Property. This localized targeting was predicated on the



knowledge derived from existing areas of artisanal mining, and interpreted mineralization trends. Sampling was conducted on a predetermined E-W grid, spaced at 800 m, with definition infill lines spaced at 400 m and 200 m as required. During sampling, CAN personnel systematically sampled pits roughly 0.5 m deep, and collected a representative 2.0 to 3.0 kg sample, together with a detailed description of the sample. Sample targeting would attempt to obtain a representative B-type horizon sample, and where applicable, any Mbuga cover or non-representative overburden were penetrated prior to sampling. Samples were located by handheld GPS stating a  $\pm 10.0$  m accuracy rating. Samples were collected in polyethylene bags, double tagged, and sealed with metal staples. Roughly ten samples sets would be placed in labelled polyweave bags for shipping to the SGS laboratory in Mwanza. An area of 61 square kilometres was assessed during the soil survey.

Soil sampling tests residual and potentially hydromorphically dispersed element concentrations in surficial soil materials which overly rocks of interest. Samples do not always provide a snapshot of underlying bedrock, as different soil horizons have differing ability to present element anomalies, and impermeable surficial layers may prevent element transport. Not all areas are necessarily covered by a representative soil horizon.

Individual sample analyses represent a localized view of an often widely spaced array of samples and therefore cannot be expected to be fully representative of the area of interest. The follow-up tighter interval soil sample lines provide further validation and greater potential definition of an identified anomaly. A suite of soil-related descriptive data is collected and retained in a master database.

### **Rock Sampling**

Rock samples (grab, chip) are collected along areas of exposed potential gold mineralized horizons, and where possible, across stratigraphy to obtain a representative true width sample. Grab samples are a locally representative sample of rock mineralization, and cannot be representatively tied to a dimension or thickness interval. Channel rock chip samples were collected to represent continuous samples across outcrops or mining faces. Samples were measured using a standard tape measure, marked on the rock face using spray marker paint, and collected using the pick of the hammer or chisel where required in order to obtain as representative a sample as possible over 1 m or less. This form of sampling is potentially subject to significant bias in terms of visual true width estimation, oxidation, contamination from surrounding samples, and sampler bias. As such, results should be viewed as a generalized

indication of mineralization. Samples are collected in polyethylene plastic bags, and sealed with staples. Locations are taken by GPS stating  $\pm 10.0$  m accuracy. An example of chip sample information is given in Table 7.

**Table 7.** Chip sampling key intervals

| Property | Location        | Grade (g/t) | Length(m) | True Thickness | Material Notes               |
|----------|-----------------|-------------|-----------|----------------|------------------------------|
| Handeni  | Magambazi       | 5.6         | 7.0       | Not known      |                              |
|          | Magambazi North | 2.99        | 9.0       | Not known      |                              |
|          | (including)     | 4.92        | 5.0       | Not known      |                              |
|          | Semwaliko North | 0.30        | 1.0       | Not known      |                              |
|          | Majiri Bomba    | 3.3         | 1.0       | Not known      | Should conduct further QA/QC |

### **Reverse Circulation Drill Sampling**

RC sampling captures a fairly representative sample of fresh rock at depth. The core material is pulverized into chips and delivered to surface using compressed air through the inner tube of the rod string, providing a 30-40 kg sample per metre. Much of the geotechnical and structural information derived from core drilling is not available through this method. Samples are collected in meter sized intervals. At Handeni, RC drill samples were split through a three tier riffle split on the cyclone of the Stanley RC drill rig, bagged into polyethylene sample bags, double tagged and stapled closed. The larger sample fraction not sent to the laboratory was collected into a large polyethylene plastic bag and stored at the project base camp for future reference. The RC core delivery process may introduce a minor potential sample bias, but this can be qualified through effective recovery documentation and comparative twin diamond drill work. An example of RC drilling results showing the best intercepts is presented in Table 8.

**Table 8.** Reverse circulation drill hole key intercepts

| RC Hole # | From | To | Interval* | Grade (g/t) |
|-----------|------|----|-----------|-------------|
| MGZC001   | 25   | 37 | 12        | 1.04        |
| including | 25   | 26 | 1         | 6.47        |
| MGZC007   | 86   | 90 | 4         | 0.86        |
| including | 89   | 90 | 1         | 2.81        |
| MGZC009   | 0    | 13 | 13        | 0.49        |
| including | 12   | 13 | 1         | 4.08        |
| MGZC012   | 66   | 69 | 3         | 0.90        |

\*not true thickness

**Rotary Air Blast Drill Sampling**

RAB sampling recovers a reasonably representative sample of overburden/saprolite and hopefully fresh rock from depths typically less than 100 m (depending of competency of the rock). Samples are collected at the exit of the drill cyclone with plastic buckets resulting in up to 50 kg of material being recovered. The cyclone is blown clean by the drill operator between samples. Each sample is split with a high capacity splitter until an average of a few kilograms of sample for assay is obtained. The excess material is poured as heaps of cuttings on the ground in a systematic down-hole line for logging by a geologist. The samples were bagged into polyethylene sample bags, double tagged and stapled closed. Gold assaying was performed at SGS's laboratory at Mwanza, and Niton portable XRF analysis was carried out back at the main camp.

**Diamond Drill Sampling**

Diamond drill samples, in competent rock, provide a good representative sample of intact fresh rock material. Drilling at Handeni was conducted by Stanley Drilling of Tanzania and NQ- sized core was recovered. Drilling was targeted, within logistical reason, at such an inclination and declination to maximize the potential for representative core width intersections. Core was removed by drill crews, marked in terms of depth, and washed prior to delivery to CAN personnel. CAN supplied a core preparation area at the immediate drill site, such that core taken from the drillers was immediately assessed, corrected geotechnically, and oriented and marked for logging in camp. Geotechnical work involves core interval vetting, drill core orientation, core sample orientation, core photography, and the

collection of RQD, density and recovery information. The core is transported to the camp by CAN personnel. At camp, core is stacked in neat piles (Plate 2C), and logged in open light (Plate 2A). For security purposes CAN maintain two armed guards at the camp at all times. Sample intervals were predicated firstly upon amount of Sulfide mineralization and boundaries between significant variations, and secondly upon notable geological boundaries. Sample sizes generally ranged between 0.5 m and 1.5 m. Core was systematically sampled for 5 m beyond the extent of visible mineralization of interest. Core logging information was collected on data entry sheets and optimized for spreadsheet/database utilization. The information was then transcribed into spreadsheet format. Logging information collected includes geological, mineralogical, alteration descriptions, and includes structural descriptions and measurements as related to oriented core. Drill core recovery for the project is good, and the samples present a good representative sample of mineralization. True widths of mineralization are estimates based on interpretation of geology and structure. Determining the exact true thickness from individual drillholes is difficult since the foliation present within the core does not necessarily correlate with the orientation of the veins. This is because there appear to be at least two phases of deformation that have affected the veins subsequent to emplacement. Thickness are best calculated by drawing grade envelope sections and estimating the true thickness from interpreted sections (and correlating between sections).

Sampler bias is significantly reduced due to the collection of oriented core and a systematic sampling methodology. All property sampling is conducted by contract CAN employees. Results of diamond drilling results showing significant intercepts at Magambazi, Magambazi Central and Magambazi North are presented in Tables 9, 10, and 11, respectively.

**Table 9.** Magambazi diamond drill hole significant intercepts

| Hole ID |                        | From (m) | To (m) | Interval (m) | Au (g/t) | Local Azimuth | Dip   |
|---------|------------------------|----------|--------|--------------|----------|---------------|-------|
| MGZD001 |                        | 148.0    | 207.0  | 59.0         | 4.28     | 90.0          | -50.0 |
|         | Including              | 154.0    | 166.0  | 12.0         | 4.18     |               |       |
|         | Including              | 189.0    | 206.0  | 17.0         | 10.39    |               |       |
| MGZD002 |                        | 239.0    | 242.0  | 3.0          | 1.53     | 90.0          | -75.0 |
|         |                        | 255.0    | 272.6  | 17.6         | 0.93     |               |       |
| MGZD003 |                        | 218.2    | 219.2  | 1.0          | 4.80     | 90.0          | -61.0 |
| MGZD004 |                        | 110.0    | 137.0  | 27.0         | 2.82     | 90.0          | -50.0 |
|         | Including              | 113.0    | 120.5  | 7.5          | 2.85     |               |       |
|         | Including              | 127.0    | 137.0  | 10.0         | 5.15     |               |       |
| MGZD005 |                        | 128.0    | 169.0  | 41.0         | 3.32     | 90.0          | -65.0 |
|         | Including              | 128.0    | 144.0  | 16.0         | 3.34     |               |       |
|         | Including              | 161.0    | 169.0  | 8.0          | 9.95     |               |       |
| MGZD006 |                        | 200.7    | 202.0  | 1.3          | 3.02     | 90.0          | -50.0 |
| MGZD007 |                        | 156.6    | 196.2  | 39.6         | 3.56     | 90.0          | -79.0 |
|         | Including              | 156.6    | 170.1  | 13.5         | 4.01     |               |       |
|         | Including              | 184.0    | 196.2  | 12.2         | 6.99     |               |       |
| MGZD008 | No significant results |          |        |              |          | 90.0          | -50.0 |
| MGZD009 |                        | 175.0    | 177.7  | 2.7          | 10.95    | 90.0          | -73.0 |
| MGZD010 |                        | 81.0     | 90.0   | 9.0          | 1.13     | 89.0          | -50.0 |
| MGZD011 |                        | 139.0    | 181.1  | 42.1         | 2.42     | 90.0          | -48.0 |
|         | Including              | 139.0    | 146.0  | 7.0          | 1.37     |               |       |
|         | Including              | 157.3    | 181.1  | 23.8         | 3.86     |               |       |
| MGZD012 |                        | 170.8    | 227.0  | 56.2         | 6.39     | 90.0          | -59.0 |
|         | Including              | 170.8    | 189.0  | 18.2         | 7.98     |               |       |
|         | Including              | 196.0    | 226.0  | 30.0         | 7.02     |               |       |
| MGZD013 | No significant results |          |        |              |          | 92.0          | -65.0 |
| MGZD014 |                        | 41.0     | 46.0   | 5.0          | 1.53     | 87.0          | -61.5 |
|         |                        | 160.0    | 161.0  | 1.0          | 7.55     |               |       |
| MGZD015 |                        | 149.0    | 154.0  | 5.0          | 2.10     | 87.0          | -73.0 |
|         | And                    | 200.0    | 210.0  | 10.0         | 2.76     |               |       |
| MGZD016 |                        | 135.0    | 140.0  | 5.0          | 5.17     | 87.0          | -81.0 |
|         | And                    | 240.7    | 246.0  | 5.3          | 5.86     |               |       |
|         | Including              | 240.7    | 244.2  | 3.5          | 8.30     |               |       |
| MGZD017 |                        | 94.0     | 99.0   | 5.0          | 3.07     | 87.0          | -81.0 |
| MGZD035 |                        | 166.0    | 176.5  | 10.5         | 2.40     | 90.0          | -55.6 |
|         | Including              | 168.1    | 174.4  | 6.3          | 3.12     |               |       |
|         |                        | 201.0    | 217.0  | 16.0         | 5.46     |               |       |
|         | Including              | 206.7    | 216.1  | 9.4          | 8.59     |               |       |
| MGZD036 |                        | 202.0    | 207.4  | 5.4          | 5.10     | 90.0          | -63.0 |
|         |                        | 219.0    | 267.0  | 48.0         | 2.67     |               |       |
|         | Including              | 224.0    | 231.0  | 7.0          | 6.21     |               |       |
|         | And                    | 240.4    | 254.0  | 13.6         | 4.54     |               |       |



Table 9 (cont)

| Hole ID |                        | From (m) | To (m) | Interval (m) | Au (g/t) | Local Azimuth | Dip   |
|---------|------------------------|----------|--------|--------------|----------|---------------|-------|
| MGZD037 | No significant results |          |        |              |          | 90.0          | -72.0 |
| MGZD038 |                        | 219.7    | 235.0  | 15.3         | 1.87     | 90.0          | -65.0 |
|         | Including              | 219.7    | 226.4  | 6.7          | 2.64     |               |       |
|         | And Including          | 229.9    | 232.0  | 2.1          | 4.07     |               |       |
| MGZD039 |                        | 199.0    | 202.5  | 3.5          | 1.69     | 90.0          | -71.0 |
|         | And                    | 233.3    | 249.2  | 15.9         | 2.00     |               |       |
|         | Including              | 233.3    | 238.0  | 4.7          | 3.47     |               |       |
|         | And Including          | 245.0    | 249.2  | 4.2          | 3.11     |               |       |
| MGZD040 |                        | 102.0    | 136.6  | 34.6         | 1.36     | 90.0          | -90.0 |
|         |                        | 106.0    | 109.5  | 3.5          | 7.71     |               |       |
|         | Including              | 103.0    | 115.0  | 12.0         | 2.83     |               |       |
|         | And                    | 211.0    | 214.8  | 3.8          | 19.83    |               |       |
| MGZD041 |                        | 228.4    | 233.7  | 5.3          | 1.74     | 98.0          | -79.0 |
|         | And                    | 278.0    | 280.1  | 2.1          | 2.85     |               |       |
| MGZD042 |                        | 178.7    | 186.7  | 8.0          | 3.80     | 90.0          | -58.0 |
|         | And                    | 198.0    | 205.7  | 7.7          | 5.42     |               |       |
|         | And                    | 226.0    | 242.4  | 16.4         | 2.03     |               |       |
|         | Including              | 226.0    | 230.2  | 4.2          | 5.87     |               |       |
| MGZD044 |                        | 261.4    | 281.0  | 19.6         | 2.32     | 90.0          | -68.0 |
|         | Including              | 261.4    | 272.9  | 11.5         | 3.16     |               |       |
| MGZD064 |                        | 269.0    | 271.0  | 2.4          | 1.36     | 91.0          | -72.8 |
|         |                        | 257.0    | 259.1  | 2.1          | 1.60     |               |       |
| MGZD065 | No significant results |          |        |              |          | 90.0          | -48.5 |
| MGZD066 |                        | 230.0    | 267.0  | 37.0         | 12.45    | 90.0          | -64.5 |
|         |                        | 244.0    | 267.0  | 23.0         | 19.14    |               |       |
|         |                        | 276.0    | 278.0  | 2.0          | 7.89     |               |       |
| MGZD078 |                        | 274.40   | 276.00 | 1.60         | 1.08     | 117.0         | -89.0 |
| MGZD082 |                        | 256.7    | 272.3  | 15.6         | 6.60     | 91.0          | -67.0 |
|         | Including              | 261.0    | 271.6  | 10.6         | 8.39     |               |       |
| MGZD083 | No significant results |          |        |              |          | 330.0         | -89.0 |
| MGZD085 |                        | 128.0    | 129.0  | 1.0          | 2.09     | 90.0          | -68.0 |
| MGZD086 |                        | 150.0    | 155.0  | 5.0          | 5.38     | 89.0          | -53.5 |
| MGZD087 |                        | 197.0    | 226.0  | 29.0         | 1.18     | 96.5          | -58.5 |
|         | Including              | 197.0    | 212.0  | 15.0         | 2.06     |               |       |
| MGZD089 |                        | 208.0    | 211.5  | 3.5          | 4.84     | 92.0          | -54.5 |
| MGZD091 | No significant results |          |        |              |          | 90.0          | -45.0 |
| MGZD092 | No significant results |          |        |              |          | 90.0          | -67.0 |

**Table 9 (cont)**

| Hole ID |           | From (m) | To (m) | Interval (m) | Au (g/t) | Local Azimuth | Dip   |
|---------|-----------|----------|--------|--------------|----------|---------------|-------|
| MGZD096 |           | 141.0    | 189.6  | 48.6         | 14.81    | 87.0          | -54.0 |
|         | Including | 141.0    | 153.0  | 12.0         | 1.55     |               |       |
|         | Including | 172.8    | 189.6  | 16.8         | 41.51    |               |       |
|         | And       | 180.5    | 188.9  | 8.4          | 80.90    |               |       |
| MGZD098 |           | 203.2    | 256.4  | 53.2         | 9.51     | 90.5          | -61.5 |
|         | Including | 231.2    | 255.0  | 23.8         | 15.08    |               |       |
| MGZD099 |           | 180.0    | 184.5  | 4.5          | 2.46     | 88.0          | -61.0 |
|         |           | 224.0    | 241.4  | 17.4         | 6.10     |               |       |
|         | including | 230.7    | 237.0  | 6.3          | 14.35    |               |       |
| MGZD101 |           | 239.7    | 245.3  | 5.6          | 1.86     | 51.0          | -87.0 |
|         |           | 294.0    | 301.0  | 7.0          | 5.81     |               |       |

\*Drill intercept lengths reflect downhole apparent widths, with an estimate herein provided based on author's assessment of drill sections and interpretation, and not direct core assessment.

Analyses do not use a cut grade, but locally have been calculated using a 0.3 g/t Au cut-off grade.

**Table 10.** Magambazi Central diamond drill hole significant intercepts

| Hole ID |           | From (m) | To (m) | Interval (m) | Au (g/t) | Local Azimuth | Dip   |
|---------|-----------|----------|--------|--------------|----------|---------------|-------|
| MGZD021 |           | 158.0    | 166.1  | 8.1          | 0.53     | 103.0         | -51.0 |
| MGZD043 |           | 149.7    | 159.9  | 10.2         | 2.87     | 101.0         | -75.0 |
|         | And       | 224.0    | 227.8  | 3.8          | 3.36     |               |       |
|         | And       | 247.0    | 268.2  | 21.2         | 4.80     |               |       |
|         | Including | 247.0    | 258.0  | 11.0         | 7.90     |               |       |
| MGZD045 |           | 246.0    | 267.7  | 21.7         | 6.79     | 90.0          | -81.5 |
|         | Including | 246.0    | 255.5  | 9.5          | 12.75    |               |       |
| MGZD046 |           | 138.7    | 144.7  | 6.0          | 0.68     | 90.0          | -64.5 |
| MGZD073 |           | 138.4    | 148.9  | 10.5         | 1.22     | 93.0          | -71.0 |
|         | Including | 140.5    | 148.2  | 7.7          | 1.55     |               |       |
|         |           | 182.0    | 214.0  | 32.0         | 9.27     |               |       |
|         | Including | 196.0    | 212.4  | 16.4         | 17.56    |               |       |
| MGZD074 |           | 267.0    | 268.0  | 1.0          | 1.0      | 90.0          | -89.0 |
| MGZD075 |           | 188.0    | 207.0  | 19.0         | 1.03     | 90.0          | -63.0 |
|         | Including | 204.0    | 207.0  | 3.0          | 3.12     |               |       |
| MGZD076 |           | 213.0    | 237.0  | 18.0         | 3.40     | 90.0          | -73.0 |
|         | Including | 223.7    | 231.0  | 7.3          | 5.70     |               |       |
| MGZD077 |           | 208.0    | 244.0  | 36.0         | 1.65     | 89.0          | -78.0 |
|         | Including | 214.6    | 233.0  | 18.4         | 3.01     |               |       |
|         | Including | 218.8    | 223.7  | 4.9          | 6.45     |               |       |
| MGZD079 |           | 226.0    | 253.0  | 27.0         | 4.29     | 92.0          | -73.0 |
|         | Including | 239.0    | 253.0  | 14.0         | 6.21     |               |       |
| MGZD080 |           | 202.0    | 212.0  | 10.0         | 1.66     | 92.0          | -66.0 |
| MGZD081 |           | 146.7    | 152.7  | 6.0          | 0.93     | 90.0          | -57.5 |
|         |           | 269.0    | 282.4  | 13.4         | 13.54    | 90.0          | -65.0 |
| MGZD084 | Including | 269.0    | 275.0  | 6.0          | 29.40    |               |       |
| MGZD088 |           | 222.0    | 237.0  | 15.0         | 4.19     | 92.0          | -70.5 |
|         |           | 264.0    | 275.2  | 11.2         | 4.03     |               |       |
| MGZD090 |           | 264.3    | 269.9  | 5.6          | 5.22     | 90.0          | -72.0 |
| MGZD093 |           | 205.9    | 236.0  | 30.1         | 1.63     | 89.0          | -60.5 |
| MGZD097 |           | 244.0    | 261.1  | 17.1         | 1.44     | 88.5          | -78.0 |

\*Drill intercept lengths reflect downhole apparent widths, with an estimate herein provided based on author's assessment of drill sections and interpretation, and not direct core assessment.

Analyses do not use a cut grade, but locally have been calculated using a 0.3 g/t Au cut-off grade.

**Table 11.** Magambazi North diamond drill hole significant intercepts

| Hole ID |                        | From (m) | To (m) | Interval (m) | Au (g/t) | Local Azimuth | Dip   |
|---------|------------------------|----------|--------|--------------|----------|---------------|-------|
| MGZD018 |                        | 21.0     | 24.7   | 3.7          | 2.25     | 10.0          | -50.0 |
| MGZD019 |                        | 70.0     | 88.0   | 18.0         | 3.30     | 267.0         | -50.0 |
|         | Including              | 70.0     | 78.0   | 8.0          | 5.68     |               |       |
|         |                        | 100.0    | 103.0  | 3.0          | 3.04     |               |       |
| MGZD020 |                        | 63.0     | 63.7   | 0.7          | 4.00     | 30.0          | -90.0 |
| MGZD022 |                        | 150.0    | 158.0  | 8.0          | 1.10     | 92.0          | -65.0 |
| MGZD023 |                        | 22.0     | 27.4   | 5.4          | 1.44     | 267.0         | -55.0 |
|         |                        | 54.7     | 85.0   | 30.3         | 3.46     |               |       |
|         | Including              | 70.0     | 76.3   | 6.3          | 5.57     |               |       |
| MGZD024 |                        | 64.4     | 72.4   | 8.0          | 3.25     | 267.0         | -55.0 |
| MGZD025 |                        | 41.4     | 52.6   | 11.2         | 1.33     | 267.0         | -55.0 |
|         |                        | 75.0     | 87.0   | 12.0         | 2.65     |               |       |
| MGZD026 |                        | 87.7     | 95.7   | 8.0          | 1.73     | 267.0         | -55.0 |
| MGZD027 |                        | 99.0     | 126.7  | 27.7         | 2.18     | 267.0         | -55.0 |
| MGZD028 |                        | 180.0    | 191.0  | 11.0         | 2.03     | 275.0         | -55.0 |
|         |                        | 200.0    | 202.1  | 2.1          | 5.58     |               |       |
| MGZD029 |                        | 169.0    | 182.6  | 13.6         | 1.71     | 275.0         | -55.0 |
|         | Including              | 177.0    | 182.6  | 5.6          | 3.27     |               |       |
| MGZD030 | No significant results |          |        |              |          | 270.0         | -55.0 |
| MGZD031 |                        | 82.0     | 84.4   | 2.4          | 10.18    | 275.0         | -55.0 |
| MGZD032 |                        | 73.0     | 83.1   | 10.1         | 1.23     | 275.0         | -55.0 |
| MGZD033 |                        | 42.0     | 44.8   | 2.8          | 1.60     | 275.0         | -55.0 |
| MGZD034 |                        | 43.0     | 58.4   | 15.4         | 1.85     | 275.0         | -55.0 |
| MGZD047 | No significant results |          |        |              |          | 95.0          | -62.4 |
| MGZD048 |                        | 109.0    | 169.0  | 60.0         | 1.67     | 93.0          | -74.0 |
|         | Including              | 109.0    | 132.5  | 23.5         | 2.86     |               |       |
| MGZD049 |                        | 146.1    | 147.7  | 1.6          | 1.72     | 94.0          | -85.0 |
| MGZD050 | No significant results |          |        |              |          | 270.0         | -75.0 |
| MGZD051 |                        | 14.0     | 24.4   | 10.4         | 1.18     | 273.0         | -73.0 |
| MGZD052 |                        | 39.7     | 50.0   | 10.3         | 1.99     | 267.0         | -69.5 |
|         | Including              | 39.7     | 41.1   | 1.4          | 12.12    |               |       |
| MGZD053 |                        | 52.0     | 85.0   | 33.0         | 3.39     | 265.0         | -74.5 |
|         | Including              | 70.8     | 80.7   | 9.9          | 6.25     |               |       |
| MGZD054 |                        | 33.7     | 40.0   | 6.3          | 0.92     | 272.0         | -57.0 |
|         | And                    | 55.0     | 70.0   | 15.0         | 1.29     |               |       |
| MGZD055 |                        | 21.7     | 34.1   | 12.4         | 1.19     | 271.0         | -62.0 |
|         | And                    | 47.0     | 69.0   | 22.0         | 1.22     |               |       |
| MGZD056 |                        | 8.0      | 13.0   | 5.0          | 0.89     | 269.0         | -55.0 |
|         |                        | 42.0     | 66.4   | 24.4         | 1.38     |               |       |
|         | Including              | 42.0     | 53.1   | 11.1         | 2.29     |               |       |

**Table11 (cont)**

| Hole ID |                        | From (m) | To (m) | Interval (m) | Au (g/t) | Local Azimuth | Dip   |
|---------|------------------------|----------|--------|--------------|----------|---------------|-------|
| MGZD057 | No significant results |          |        |              |          | 275.0         | -85.0 |
| MGZD058 |                        | 33.0     | 50.0   | 17.0         | 0.76     | 360.0         | -89.0 |
|         | Including              | 45.4     | 50.0   | 4.6          | 1.56     |               |       |
| MGZD059 |                        | 129.0    | 132.0  | 3.0          | 9.44     | 268.0         | -41.0 |
| MGZD060 |                        | 82.0     | 89.4   | 7.4          | 2.32     | 270.0         | -55.0 |
| MGZD061 |                        | 54.0     | 59.0   | 5.0          | 1.40     | 93.0          | -74.6 |
| MGZD062 |                        | 100.0    | 122.4  | 22.4         | 0.99     | 88.0          | -67.5 |
| MGZD063 |                        | 119.0    | 149.2  | 30.2         | 1.64     | 89.0          | -79.5 |
| MGZD067 |                        | 54.7     | 123.0  | 68.3         | 1.90     | 90.0          | -74.2 |
|         | Including              | 99.7     | 113.0  | 13.3         | 4.35     |               |       |
| MGZD068 |                        | 55.7     | 89.0   | 33.3         | 2.46     | 91.0          | -80.5 |
|         | Including              | 56.7     | 61.7   | 5.0          | 8.04     |               |       |
|         | And                    | 78.0     | 84.7   | 6.7          | 5.41     |               |       |
| MGZD069 |                        | 85.0     | 91.0   | 6.0          | 1.36     | 94.5          | -80.0 |
| MGZD070 |                        | 66.0     | 75.1   | 9.1          | 1.55     | 88.0          | -49.5 |
|         | Including              | 73.0     | 75.1   | 2.1          | 6.04     |               |       |
| MGZD071 |                        | 122.4    | 134.3  | 11.9         | 2.44     | 262.0         | -85.5 |
|         | Including              | 128.7    | 133.6  | 4.9          | 3.33     |               |       |
| MGZD072 |                        | 131.0    | 144.0  | 13.0         | 0.47     | 91.0          | -44.5 |
|         | Including              | 142.0    | 144.0  | 2.0          | 1.42     |               |       |

\*Drill intercept lengths reflect downhole apparent widths, with an estimate herein provided based on author's assessment of drill sections and interpretation, and not direct core assessment.



### **13. SAMPLE PREPARATION AND ANALYSIS AND SECURITY**

#### **General**

All samples are collected by contract personnel of CAN. The primary facility used for both rock and soil preparation and analysis is the SGS Mineral Services Laboratory in Mwanza, Tanzania (Africa Assay Laboratories Tanzania Ltd.). The author has researched accreditations and is not aware of any certifications for this facility. Check sample analyses were sent to ALS Laboratory Group in Vancouver for pulp cross check analyses. ALS carries current ISO/IEC 17025:2005 accreditation for a variety of mineral analyses. Personal verification of soil and core samples were prepared and analyzed at Acme Analytical Laboratories Ltd in Vancouver, which possesses current ISO 9001:2008 accreditation, for provision of assays and geochemical analyses.

#### **Soil Samples**

Soil samples were collected in clear plastic bags and sample tags are inserted. The bags were then sealed and placed into larger polywoven plastic bags for shipment. These sealed samples were periodically transported by CAN contract personnel, in company vehicles, to the laboratory in Mwanza.

Sample standards and duplicate samples were inserted at 50 sample intervals. The vast majority of soil samples were analyzed using SGS Laboratories ARE145 analysis protocol.

The original roughly 3 kg samples were dried and sieved using a 2 mm screen. A 25 to 50 g sample was run through *aqua regia* digestion and DIBK extraction, with an AA finish for gold analysis. Detection limits were listed as 1-200 ppb.

In addition, a suite of existing soil pulp samples was analyzed via Niton XRF analysis. The Niton handheld XRF machine is a “state of the art” next-generation (XL3t) made by Thermo-Fisher Niton Corporation. It has 3 separate filters capable of analysing a series of elements as summarized in Table 12.

**Table 12.** Niton sampling specifications

| Element | Silicate matrix ppm | Clay matrix ppm | Filter | Element | Silicate matrix ppm | Clay matrix ppm | Filter |
|---------|---------------------|-----------------|--------|---------|---------------------|-----------------|--------|
| As      | 9                   | 11              | main   | Ca*     | 330                 | 500             | low    |
| Co      | 40                  | 260             | main   | Cr      | 65                  | 85              | low    |
| Cu      | 25                  | 35              | main   | K*      | n/a                 | n/a             | low    |
| Fe      | 75                  | 100             | main   | S*      | n/a                 | n/a             | low    |
| Hg      | 7                   | 10              | main   | Sc      | 90                  | 400             | low    |
| Mn      | 55                  | 85              | main   | Ti      | 100                 | 160             | low    |
| Mo      | 9                   | 15              | main   | V       | 200                 | 70              | low    |
| Ni      | 55                  | 65              | main   |         |                     |                 |        |
| Pb      | 8                   | 13              | main   | Ag      | 10                  | 10              | high   |
| Rb      | 4                   | 10              | main   | Ba      | 90                  | 100             | high   |
| Se      | 6                   | 20              | main   | Cd      | 10                  | 12              | high   |
| Sr      | 7                   | 11              | main   | Pd      | 10                  | 11              | high   |
| Th      | 8                   | 20              | main   | Sb      | 30                  | 30              | high   |
| U       | 8                   | 20              | main   | Sn      | 20                  | 30              | high   |
| W       | 45                  | n/a             | main   | Te      | 50                  | 70              | high   |
| Zn      | 15                  | 25              | main   |         |                     |                 |        |
| Zr      | 5                   | 15              | main   |         |                     |                 |        |

Level of detection reported by the manufacturer for 60-second filter readings

\*Detection limit for these elements are approximate only

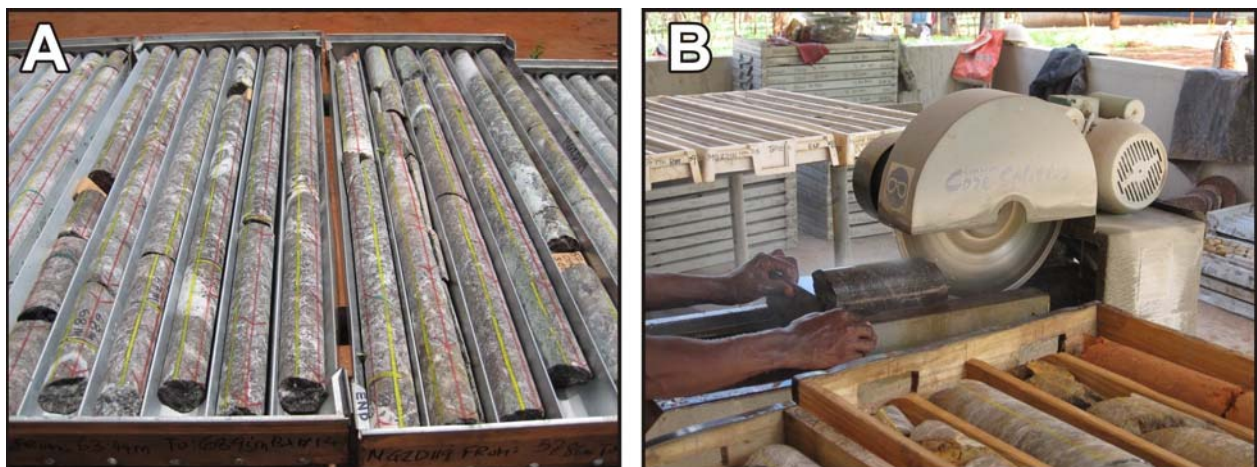
All samples were analysed using filter main with a sample time of 30 seconds. Samples were analysed through pulp packets (see Appendix 1) after being sorted and checked. A few rock chip samples from Morogoro and Magambazi, as well as regional rock samples were sampled for all elements using a reading time of 30 seconds per filter for main and high filters, and 40 seconds for low filter. The close spaced soil samples (127 samples) over Magambazi hill were sampled using both main and high filters. Three of these samples lines were chosen for replicates and were also assayed for the low filter elements.



**Plate 9.** Niton X-ray analyzing shallow soil samples.

#### **Rock Samples (Grab, Chip, Core)**

All grab, chip and samples are representatively bagged, labelled and sent to the SGS laboratory for preparatory crushing and pulverizing, prior to analysis. Sampled core is derived from oriented core thereby reducing sampler error bias. Core is split by table rock saw (Plate 10), washed and placed in clear poly bags that have sample tags inserted. The individual sealed sample bags are placed in polyweave plastic bags and sealed, in preparation for shipment to the analysis laboratory in Mwanza.



**Plate 10.** A. Core orientated and marked-up ready to be split in two. B. Splitting core at the camp.

All rock samples were analyzed using SGS Laboratories FAA505 analysis protocol, requiring a 25 gram sample subject to fire assay, and AA finish. Detection limits are listed as ranging from 0.01 ppm to 100 ppm.

### **QAQC**

CAN has used a variety of sample standards derived from Certified Laboratories in Australia and Canada. Certified laboratory standards were obtained from Gannet Holdings Pty, Ltd. Western Mineral Standards, Geostats, Oreas, and CDN Resource Laboratories Ltd., for incorporation into the sampling sequence. With respect to drill core assessment, CAN has utilized a well designed suite of standard samples, both in terms of gold tenor and representative sample geology.

### ***Soil Samples***

Sample standards and duplicate samples were inserted at 50 sample intervals.

### ***Niton Samples***

Three or four base metal standards were run every 50 samples and checked to ensure the results of the standards were consistent for a total of 812 standards.

### ***Channel/Chip Samples***

Sample standards were inserted at 50 sample intervals. Random original duplicates have also been completed.

### ***Diamond Drill Samples***

Sample standards were inserted at 25 sample intervals, and blanks were inserted at 25 sample intervals (previously 50). The standards employed were approximately <1, 2, 3, 7 and 12 g/t Au to cover the likely range on gold grades present in the drillcore.

The insertion of sample standards and blanks meets with the expectation of proper guidelines under 43-101. For better assessment of sampler and preparation bias, it is recommended that core and coarse reject duplicates also be periodically analyzed.

## **Assessment**

### ***Soil Sampling***

Characteristically, samples ranging beyond the detection of a given technique will yield inconsistent analysis results. The ARE145 analyses provided for the soil samples have a detection limit of 1 to 200 ppb. Sample assay sheets from the laboratory included sample headings indicating a 10,000 ppb upper detection limit. Numerous samples produced analyses above 200 ppb, and sample standards well above the 200 ppb (1000 ppb+) threshold systematically failed checks. Standard review reveals the vast majority of fails are low, and suggests that the initial anomalies illustrated in soils are real and likely understated in the highly anomalous samples.

QA/QC analyses were initially conducted using a 10-30% mean percentage difference. While an adequate method of qualifying preliminary exploration data, it is not industry standard in terms of drill core analysis assessment. Since April 6, 2010, CAN has utilized 2 and 3 Standard Deviation performance gates to assess the quality of core analyses for all core drilled on the property. Pulps for key mineralized intersections have been sent to a fully certified independent laboratory (Vancouver, Canada, ALS) for data verification and trace element determination.

### ***Diamond Drill Samples***

An analysis was conducted of laboratory results for the initial 36 holes in the drill program by Heidema (2010) and verified by the current author. A total of 213 core sample standards were inserted into sampling sequences as identified in Table 14, representing a 7.5 % standard insertion rate. Of the 213 core standards assessed using the above mentioned performance gates, 40 registered a fail or caution requiring review. Of this total, there were 24 samples cautioned or failed low, and 16 cautioned or failed high. When reviewed, 25 samples failed, indicating a 12 % failure rate. This failure rate is unacceptable, and CAN has conducted a re-run of all failed sample pulps by a fully independent certified Canadian laboratory (ALS Chemex, Vancouver Canada), including gravimetric analysis of high-grade gold pulp samples. Included also were ICP trace element analyses. In the opinion of the author, new gold results compare closely, and in a representative manner, with those of the initial analyses. Internal re-run repeatability is comparable in variability, suggesting a coarse free gold component to the pulp



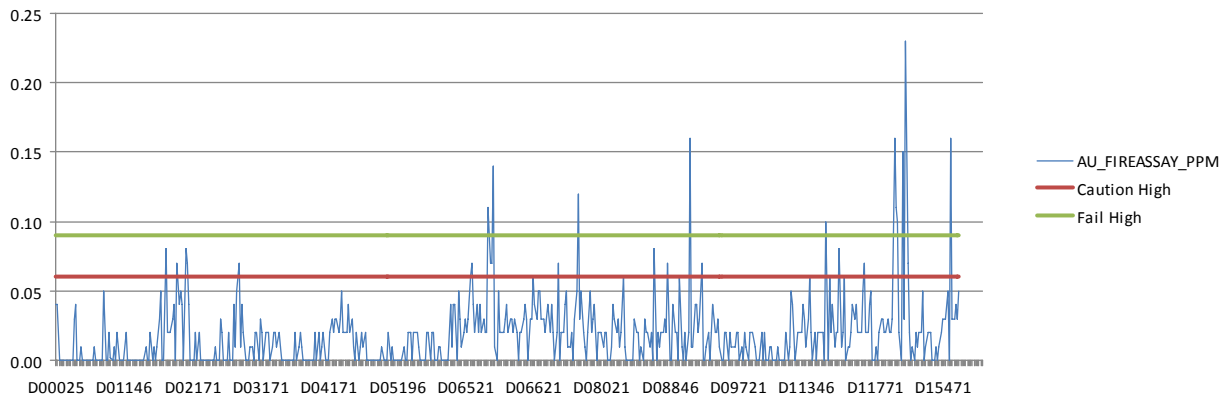
material. In contrast to the SGS work, all sample standards and blanks inserted into the check sequence passed, indicating a review should be conducted of sample standard preparation procedures at the property. At present, standards are acquired as separately wrapped envelopes, although this was not the case in the initial drilling programme (the first 36 holes).

The SGS Mwanza laboratory runs random internal duplicate samples. A total of 615 repeat analyses were run on the core samples, representing a repeat rate of 21.7 %. A graph representing the repeats is illustrated in Figure 28, and graphically represents the error of analyses. It has been stated that the SGS laboratory in Mwanza employs an internal QA/QC procedure that includes 8 blanks and 8 standards every 150 samples, or approximately one blank/standard after every 20 samples (D. Dillip, personal comm.).

At present, a coarse reject duplicate sampling program is not established for the project, although this is expected to begin in January 2011.

A total of 123 blanks were inserted throughout the same 36 hole core sample sequence as identified in Table 13, representing a 4.3 % insertion rate. No sample blanks failed in core samples submitted in the first 36 diamond drill holes (all <10x lower detection limit), with the first failure occurring in Hole 66. Blanks were obtained from barren quartz outcrop rock identified on the Property. This procedure assists in creating a less apparent test sample for purposes of assessing the quality of sample preparation. Ideally, if a core rock unit of consistent low gold tenor is identified, this should be used as a sample blank to provide an improved 'blind' blank to the laboratory.

Since September 2009 a total of 544 quartz vein blanks have been inserted into sampling intervals. The first failure was recorded in July 2010 after 261 previous blanks had been analysed. Subsequently a total of 11 blanks have failed, producing a failure rate of 2.0 %. These failures could be due to contamination in the lab, or possibly as a result of the source material containing low concentrations of gold. As previously stated this vein material is sourced from wide barren quartz veins well away from any known mineralization, but it does not preclude the presence of gold. As a precaution CAN are in the process of sourcing a new blank, and also sending some vein material to another lab for check analysis.



**Figure 28.** Graph showing the caution-failure for 544 blank samples assayed for Au (y-axis in ppm)

A review was conducted of the second batch of drill holes (37-45 inclusive) to assess results. Similar trends were identified. All blanks passed; however there again was an unacceptable failure rate (17 %) for the standards used. All failures were low failures.

CAN has ordered a new batch of separately bagged standards to address potential standard contamination from existing standard jars. Along with standard rechecks conducted on failed batches, CAN should assess the continued use of the laboratory in Mwanza for analyses, and continue umpire analyses.

A total of 46 standard samples were also repeated. An additional 16 attempts had insufficient pulp material for recheck.

All samples were collected and stored at the guarded property camp. Samples were taken by company personnel in vehicles to the SGS laboratory at Mwanza.

CAN has re-run all core samples that initially failed the more stringent QA/QC check parameters. The author believes the analytical results of the initial suite of core samples are representatively comparable to that of the recheck samples. All core analyses reflect variability inherent to samples containing coarse free gold. A question to the quality of initial sample standards handling has however been raised. Nonetheless, the assay results presently utilized for the initial 36 diamond drillholes on the property reflect values from the initial set of assay analyses. The 65 subsequent diamond drillholes appear to

follow international recognized protocols and the number of assay fails recorded at the SGS laboratory has been reduced significantly, although certain standards are still worrying.

The author is satisfied that CAN is following industry recognized sample preparation and security procedures. However, the results from the SGS laboratory at Mwanza require further vigilance.

**Table 13.** Diamond drilling inserted standards and blanks by hole (001 to 045)

| DDH     | Standards | Blanks | Total | Pulp Repeats | DDH     | Standards | Blanks | Total | Pulp Repeats |
|---------|-----------|--------|-------|--------------|---------|-----------|--------|-------|--------------|
| MGZD001 | 8         | 2      | 10    | 16           | MGZD024 | 4         | 3      | 7     | 12           |
| MGZD002 | 10        | 4      | 14    | 28           | MGZD025 | 5         | 3      | 8     | 14           |
| MGZD003 | 2         | 1      | 3     | 7            | MGZD026 | 6         | 3      | 9     | 13           |
| MGZD004 | 5         | 4      | 9     | 16           | MGZD027 | 5         | 4      | 9     | 17           |
| MGZDD05 | 6         | 3      | 9     | 20           | MGZD028 | 3         | 1      | 4     | 3            |
| MGZDD06 | 6         | 4      | 10    | 14           | MGZD029 | 6         | 4      | 10    | 8            |
| MGZDD07 | 7         | 4      | 11    | 18           | MGZD030 | 4         | 2      | 6     | 4            |
| MGZDD08 | 9         | 5      | 14    | 22           | MGZD031 | 4         | 3      | 7     | 8            |
| MGZDD09 | 8         | 5      | 13    | 18           | MGZD032 | 4         | 2      | 6     | 5            |
| MGZD010 | 6         | 3      | 9     | 6            | MGZD033 | 4         | 1      | 5     | 5            |
| MGZD011 | 5         | 3      | 8     | 21           | MGZD034 | 4         | 3      | 7     | 7            |
| MGZD012 | 9         | 5      | 14    | 31           | MGZD035 | 8         | 5      | 13    | 10           |
| MGZD013 | 5         | 4      | 9     | 15           | MGZD036 | 8         | 4      | 12    | 15           |
| MGZD014 | 6         | 4      | 10    | 14           | MGZD037 | 6         | 4      | 10    | 7            |
| MGZD015 | 6         | 3      | 9     | 18           | MGZD038 | 4         | 3      | 7     | 7            |
| MGZD016 | 6         | 4      | 10    | 20           | MGZD039 | 7         | 4      | 11    | 15           |
| MGZD017 | 7         | 4      | 11    | 16           | MGZD040 | 8         | 5      | 13    | 16           |
| MGZD018 | 5         | 3      | 8     | 8            | MGZD041 | 3         | 1      | 4     | 5            |
| MGZD019 | 7         | 4      | 11    | 21           | MGZD042 | 8         | 5      | 13    | 15           |
| MGZD020 | 4         | 3      | 7     | 8            | MGZD043 | 9         | 6      | 15    | 21           |
| MGZD021 | 6         | 3      | 9     | 13           | MGZD044 | 4         | 3      | 7     | 6            |
| MGZD022 | 8         | 5      | 13    | 20           | MGZD045 | 4         | 2      | 6     | 12           |
| MGZD023 | 6         | 3      | 9     | 20           |         |           |        |       |              |

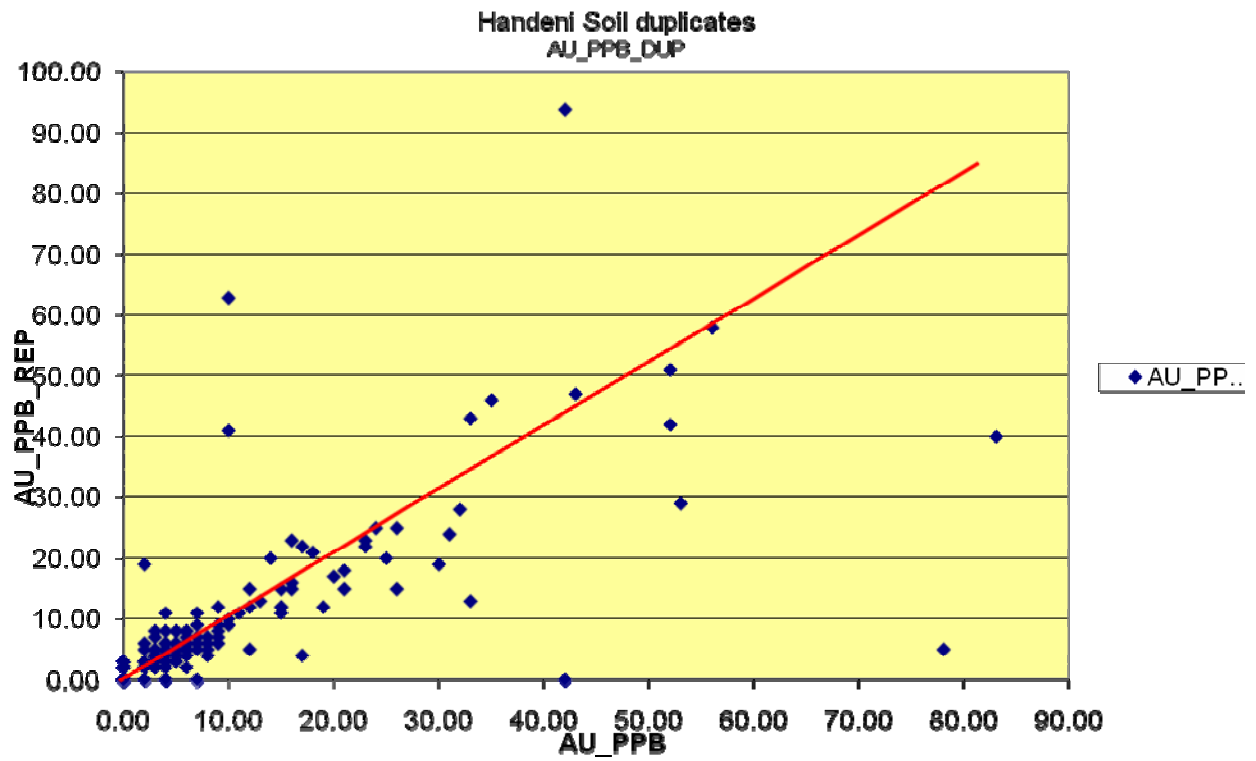
## 14. DATA VERIFICATION

For soil samples, CAN systematically place standard samples and ran duplicate samples at 50 sample intervals. For RC drilling CAN placed standards every 50 samples within the sample stream. For diamond drill sampling, CAN inserted standards at 15 sample intervals, and blanks at 25 metre intervals. All analyses were tabulated into a database, and QA/QC analyses were initially conducted using a 10-30% mean percentage difference factor applied as caution-fail criteria.

### Soil Surveying

The above fail-caution criterion is an adequate method of qualifying preliminary reconnaissance exploration data (soil data, grab samples). A review of standards used indicate that a number of the standards used in the upper range of values reflected in the soil were beyond the upper 200 ppb detection of the ARE145 analyses provided by SGS Laboratories (SGS -geochem\_services.pdf). As is often observed in samples analyzed that range above a technique's listed detection limit, the analyses are inaccurate. In this case, it appears they characteristically analyze low compared to the actual value. Table 14 is compiled from the soil sample database, and illustrates this effect quite well. In comparison, sample standards within the range of this detection limit were very accurate except for one group of standards that reported at 50% of stated values. By inference, soil sample values above 200 ppb will be subject to error, but this error is likely to understate the anomaly. Soil anomaly plans as displayed by CAN are interpreted as correct, but possibly understated for analyses above 200 ppb. For future sampling, a re-run system should be conducted to automatically analyze samples above 200 ppb with an alternate system with a higher detection limit.

Duplicate sampling of soils indicates a likely nugget effect in sampling, as there is a general scatter of results along the repeat trendline, increasing significantly with higher grade (Figure 29). This nugget effect is within the residual lateritic/saprolitic soil, and consequently reflects a gold component largely reflective of a residual derivation.



**Figure 29.** Gold analyses for soil pulp duplicates



**Table 14.** High gold soil sample standard results

| Sample No. | STD                        | Batch No. | Assay Method | Lower Detection | Au ppb | Au ppb Standard | % Diff Error |
|------------|----------------------------|-----------|--------------|-----------------|--------|-----------------|--------------|
| MAGS0950   | AUOE-4(0.7079)             | 10        | ARE247       | 2 ppb           | 698    | 707.9           | -1.40        |
| MAGS0650   | AUOL-2(3.8546)             | 9         | ARE145       | 2 ppb           | 3270   | 3854.6          | -15.17       |
| MAGS6300   | AUOE - 2 AU VALUE 0.7079   | 35        | ARE145       | 2 ppb           | 673    | 707.9           | -4.93        |
| MAGS6050   | AUOE - 4 AU VALUE 0.7079   | 33        | ARE145       | 2 ppb           | 701    | 707.9           | -0.97        |
| MAGS6200   | AUOE - 4 AU VALUE 0.7079   | 34        | ARE145       | 2 ppb           | 657    | 707.9           | -7.19        |
| MAGS6350   | AUOE - 4 AU VALUE 0.7079   | 35        | ARE145       | 2 ppb           | 658    | 707.9           | -7.05        |
| MAGS6450   | AUOE - 4 AU VALUE 0.7079   | 35        | ARE145       | 2 ppb           | 620    | 707.9           | -12.42       |
| MAGS6550   | AUOE - 4 AU VALUE 0.7079   | 37        | ARE145       | 2 ppb           | 607    | 707.9           | -14.25       |
| MAGS6750   | AUOE - 4 AU VALUE 0.7079   | 37        | ARE145       | 2 ppb           | 633    | 707.9           | -10.58       |
| MAGS6850   | AUOE - 4 AU VALUE 0.7079   | 38        | ARE145       | 2 ppb           | 639    | 707.9           | -9.73        |
| MAGS6950   | AUOE - 4 AU VALUE 0.7079   | 38        | ARE145       | 2 ppb           | 59     | 707.9           | -91.67       |
| MAGS7050   | AUOE - 4 AU VALUE 0.7079   | 39        | ARE145       | 2 ppb           | 610    | 707.9           | -13.83       |
| MAGS7150   | AUOE - 4 AU VALUE 0.7079   | 39        | ARE145       | 2 ppb           | 626    | 707.9           | -11.57       |
| MAGS7200   | AUOE - 4 AU VALUE 0.7079   | 39        | ARE145       | 2 ppb           | 618    | 707.9           | -12.70       |
| MAGS7300   | AUOE - 4 AU VALUE 0.7079   | 40        | ARE145       | 2 ppb           | 642    | 707.9           | -9.31        |
| MAGS7400   | AUOE - 4 AU VALUE 0.7079   | 40        | ARE145       | 2 ppb           | 671    | 707.9           | -5.21        |
| MAGS1050   | AUOE-2(1.9904)             | 11        | ARE145       | 2 ppb           | 1952   | 1990.4          | -1.93        |
| MAGS7600   | AUOE-4 / VALUE 0.7079      | 41        | ARE145       | 2 ppb           | 256    | 707.9           | -63.84       |
| MAGS0150   | AUOE-4(0.7079)             | 1         | ARE145       | 2 ppb           | 590    | 707.9           | -16.65       |
| MAGS0600   | AUOE-4(0.7079)             | 8         | ARE145       | 2 ppb           | 669    | 707.9           | -5.50        |
| MAGS0700   | AUOE-4(0.7079)             | 9         | ARE145       | 2 ppb           | 652    | 707.9           | -7.90        |
| MAGS0850   | AUOE-4(0.7079)             | 10        | ARE147       | 2 ppb           | 694    | 707.9           | -1.96        |
| MAGS1200   | AUOE-4(0.7079)             | 11        | ARE145       | 2 ppb           | 709    | 707.7           | 0.18         |
| MAGS1350   | AUOE-4(0.7079)             | 13        | ARE173       | 2 ppb           | 102    | 707.9           | -85.59       |
| MAGS1500   | AUOE-4(0.7079)             | 13        | ARE323       | 2 ppb           | 618    | 707.9           | -12.70       |
| MAGS6400   | AUOI - 2 AU VALUE 1.9904   | 35        | ARE145       | 2 ppb           | 1901   | 1990.4          | -4.49        |
| MAGS6800   | AUOI - 2 AU VALUE - 1.9904 | 37        | ARE145       | 2 ppb           | 1696   | 1990.4          | -14.79       |
| MAGS6900   | AUOI - 2 AU VALUE - 1.9904 | 38        | ARE145       | 2 ppb           | 1770   | 1990.4          | -11.07       |
| MAGS7000   | AUOI - 2 AU VALUE - 1.9904 | 38        | ARE145       | 2 ppb           | 1664   | 1990.4          | -16.40       |
| MAGS7100   | AUOI - 2 AU VALUE - 1.9904 | 39        | ARE145       | 2 ppb           | 651    | 1990.4          | -67.29       |
| MAGS5050   | AUOI - 2 AU VALUE 1.9904   | 31        | ARE145       | 2 ppb           | 1698   | 1990.4          | -14.69       |
| MAGS6000   | AUOI - 2 AU VALUE 1.9904   | 33        | ARE145       | 2 ppb           | 1923   | 1990.4          | -3.39        |
| MAGS6100   | AUOI - 2 AU VALUE 1.9904   | 34        | ARE145       | 2 ppb           | 1674   | 1990.4          | -15.90       |
| MAGS6250   | AUOI - 2 AU VALUE 1.9904   | 34        | ARE145       | 2 ppb           | 1591   | 1990.4          | -20.07       |
| MAGS6500   | AUOI - 2 AU VALUE 1.9904   | 35        | ARE145       | 2 ppb           | 1642   | 1990.4          | -17.50       |
| MAGS6600   | AUOI - 2 AU VALUE 1.9904   | 37        | ARE145       | 2 ppb           | 1915   | 1990.4          | -3.79        |
| MAGS7350   | AUOI - 2 AU VALUE 1.9904   | 40        | ARE145       | 2 ppb           | 1280   | 1990.4          | -35.69       |
| MAGS7450   | AUOI - 2 AU VALUE 1.9904   | 40        | ARE145       | 2 ppb           | 1723   | 1990.4          | -13.43       |
| MAGS7250   | AUOI - 2 AU VALUE          | 40        | ARE145       | 2 ppb           | 659    | 1990.4          | -66.89       |
| MAGS0250   | AUOI-2(1.9904)             | 2         | ARE145       | 2 ppb           | 1951   | 1990.4          | -1.98        |
| MAGS0450   | AUOI-2(1.9904)             | 8         | ARE145       | 2 ppb           | 1580   | 1990.4          | -20.62       |
| MAGS1150   | AUOI-2(1.9904)             | 11        | ARE145       | 2 ppb           | 1981   | 1990.4          | -0.47        |
| MAGS0050   | AUOI-3(2.1281)             | 1         | ARE145       | 2 ppb           | 1952   | 2128.1          | -8.27        |
| MAGS0300   | AUOI-3(2.1281)             | 2         | ARE145       | 2 ppb           | 1851   | 2128.1          | -13.02       |
| MAGS0412   | AUOI-3(2.1281)             | 4         | ARE145       | 2 ppb           | 1905   | 2128.1          | -10.48       |
| MAGS0900   | AUOI-3(2.1281)             | 10        | ARE197       | 2 ppb           | 1950   | 2128.1          | -8.37        |
| MAGS0100   | AUOI-3(2.0707)             | 1         | ARE145       | 2 ppb           | 1828   | 2070.7          | -11.72       |
| MAGS0362   | AUOI-3(2.0707)             | 4         | ARE145       | 2 ppb           | 1977   | 2070.7          | -4.53        |
| MAGS0500   | AUOI-3(2.0707)             | 8         | ARE145       | 2 ppb           | 1844   | 2070.7          | -10.95       |

| Sample No. | STD            | Batch No. | Assay Method | Lower Detection | Au ppb | Au ppb Standard | % Diff Error |
|------------|----------------|-----------|--------------|-----------------|--------|-----------------|--------------|
| MAGS1250   | AUOJ-3(2.0707) | 12        | ARE146       | 2 ppb           | 1900   | 2070.7          | -8.24        |
| MAGS0200   | AUOL-2(3.8546) | 1         | ARE145       | 2 ppb           | 3854   | 3854.6          | -0.02        |
| MAGS0750   | AUOL-2(3.8546) | 9         | ARE145       | 2 ppb           | 2490   | 3854.6          | -35.40       |

### **Niton Sample Work**

A total of 8 % of the samples were covered standards. Samples whose values were above the detection level of the machine fell within an acceptable range of variation, typically < 20 MPD (mean percentage difference) for the most erratic elements at lower concentrations near the level of detection; <5-10 MPD for most elements; and <2 MPD for some elements. As a general rule the results were more consistent the higher the concentration of the element was above the level of detection. Additionally, pulps that were sent to the laboratory as standards were also monitored for consistency.

### **Grab/Channel/Chip Samples**

Systematic standard placement was included for channel/chip sampling only. Standards were placed at 50 sample intervals. One section of Majiri Bomba channel/chip sample standards consistently graded half the stated standard value, and may require review. Two > 3 g/t samples exist in this dataset.

### **Diamond Drilling**

The initial caution/fail criterion employed for drill core was at 10 and 30 %, and represents the Mean Percentage Difference ((repeat assay - original assay/original assay)\*100). For standards the original assay is the standard value (I. Groves, personal communication). While an adequate method of qualifying preliminary reconnaissance exploration data, it is not considered industry standard in terms of drill core analysis assessment under the guidelines of NI43-101.

As of April 6, 2010, CAN has ascribed to utilizing 2 and 3 Standard Deviation performance gates to assess core analyses for all core drilled on the property. Under this revised assessment, all failed pulps and key mineralized intersections from previous diamond drilling have been sent to a fully certified independent laboratory (Vancouver, Canada, ALS) for data verification, refinement (systematic high grade gravimetric analyses) and trace element determination.

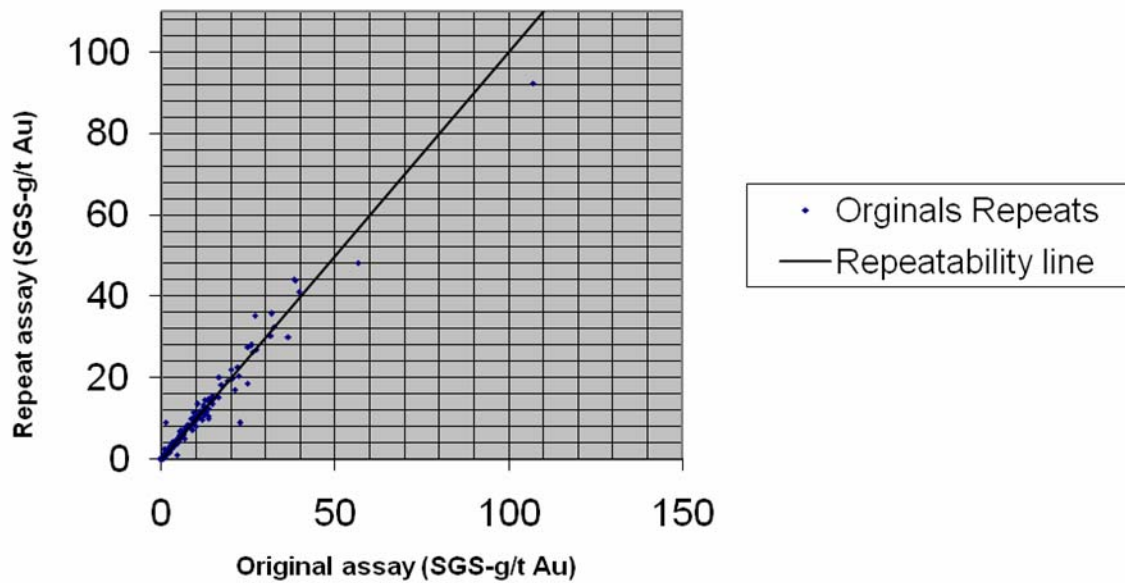
The author has reviewed the results of the ALS submission, and interprets them to be comparable and correlative with that of the initial SGS results, as can be observed from a comparative table of key composite intercepts (Table 15).

**Table 15.** Comparison of composite analyses, SGS and ALS

| Hole ID | From (m)    | To (m) | Width (m) | SGS Reported | Chemex AA25 | Chemex GRA21 |
|---------|-------------|--------|-----------|--------------|-------------|--------------|
| MGZD001 | 148         | 207    | 59        | 4.28         | 3.77        | 3.85         |
|         | Incl. 154.0 | 166    | 12        | 4.18         | 3.04        | 3.21         |
|         | Incl. 189.0 | 206    | 17        | 10.38        | 8.93        | 9.09         |
| MGZD004 | Incl. 127.0 | 137    | 10        | 5.15         | 5.67        | 7.12         |
| MGDZ007 | 156.6       | 196.2  | 39.6      | 3.56         | 3.84        | 3.78         |
|         | Incl. 156.6 | 170.1  | 13.5      | 4.01         | 5.64        | 4.96         |
|         | Incl. 184   | 196.2  | 12.2      | 6.99         | 6.13        | 6.7          |
| MGZD012 | 170.8       | 227    | 56.2      | 6.39         | 6.32        | 5.41         |
|         | 170.8       | 189    | 18.2      | 7.98         | 6.39        | 5.23         |
|         | 196         | 226    | 30        | 7.02         | 7.8         | 6.8          |
|         | 202         | 226    | 24        | 8.5          | 9.54        | 8.29         |
|         | 204         | 221    | 17        | 10.81        | 12.02       | 10.79        |
| MGZD019 | 70          | 88     | 18        | 3.3          | 2.74        | 2.64         |
|         | 70          | 78     | 8         | 5.68         | 4.79        | 4.58         |
|         | 100         | 103    | 3         | 3.04         | 1.79        | 1.79         |
| MGZD023 | 22          | 27.4   | 5.4       | 1.44         | 1.77        | 1.77         |
|         | 54.7        | 85     | 30.3      | 3.46         | 3.42        | 3.9          |
|         | 70          | 76.3   | 6.3       | 5.57         | 5.48        | 6.43         |
| MGZD027 | 99          | 126.7  | 27.7      | 2.18         | 2.42        | 1.96         |

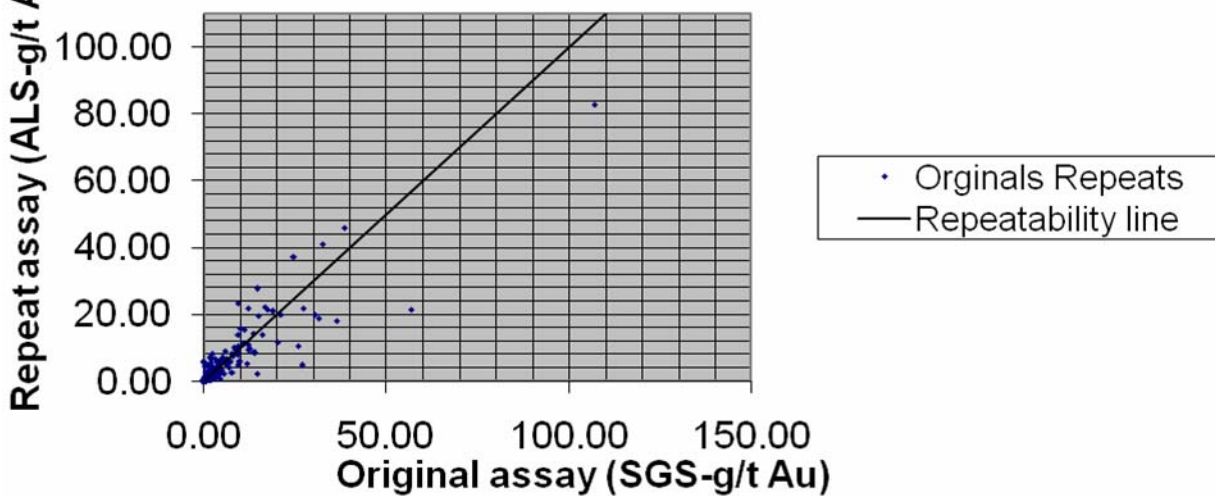
There is a high degree of variability noted within and between laboratories on individual pulp sample gold analyses. This can be assessed visibly in Figures 30 and 31, comparing rerun pulps within SGS, and between SGS and ALS. In both cases, analyses above 10-15 g/t were highly variable. The increased variability between SGS and ALS above this range may in part be reflecting variation in split sizes, but likely relates more significantly to the fact that this batch represented a predetermined selective sample set and not the overall dataset.

## SGS Au Fire Assay Pulp duplicates



**Figure 30.** SGS original core gold assay pulp duplicate comparison

## SGS vs ALS Au Fire Assay Pulp duplicates



**Figure 31.** ALS VS SGS core gold assay pulp duplicate comparison

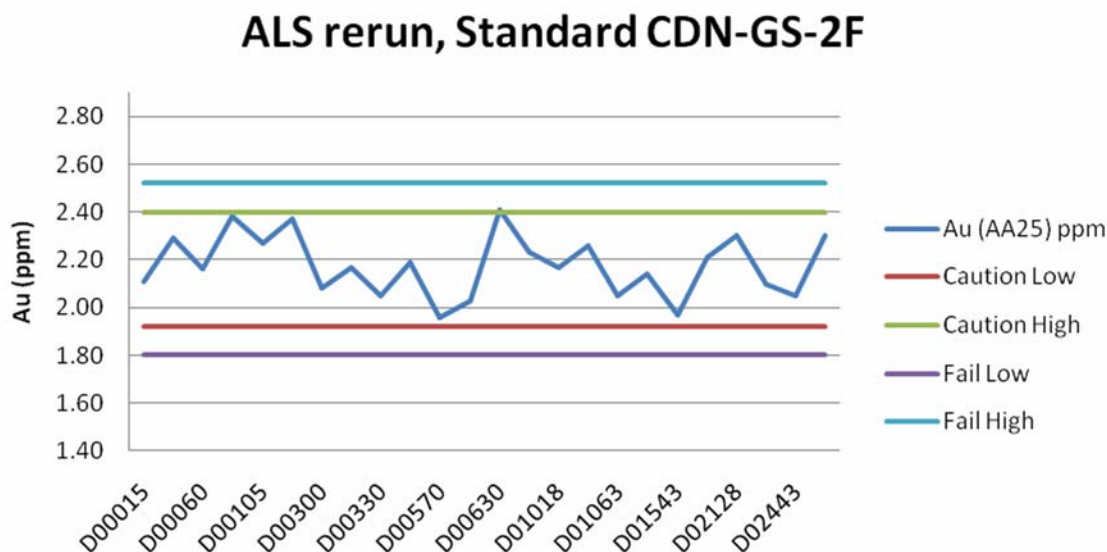
This variability is interpreted to be attributable to coarse free gold in the sample system, as evidenced from core observation (visible gold) and preliminary metallurgical work. Obtaining a larger diameter core sample (HQ) and a larger size of initial pulp may assist in collecting a more representative sample for analysis, and continued systematic gravimetric analyses will assist in obtaining more accurate gold determinations.

In contrast however, average assays of duplicate sample/grade subsets are statistically similar between datasets, given a sufficiently large dataset to allow for averaging of particulate gold content (Table 16). This suggests that SGS and ALS laboratory results are correlative in a broad sense.

**Table 16.** SGS VS ALS pulp rerun range comparison

| Lab | 0-2 g/t grade<br>average (n=485) | 1-2 g/t grade<br>average (n=52) | 2-5 g/t grade<br>average (n=58) | 5-10 g/t grade<br>average (n=24) | > 10 g/t grade<br>average (n=31) |
|-----|----------------------------------|---------------------------------|---------------------------------|----------------------------------|----------------------------------|
| SGS | 0.31                             | 1.5                             | 3.05                            | 7.49                             | 23.48                            |
| ALS | 0.37                             | 1.64                            | 3.07                            | 8.03                             | 20.72                            |

On average, new inserted standards for the rerun material at ALS fared significantly better than those of the submissions at Mwanza, as illustrated graphically in Figure 32.



**Figure 32.** ALS standard check analyses

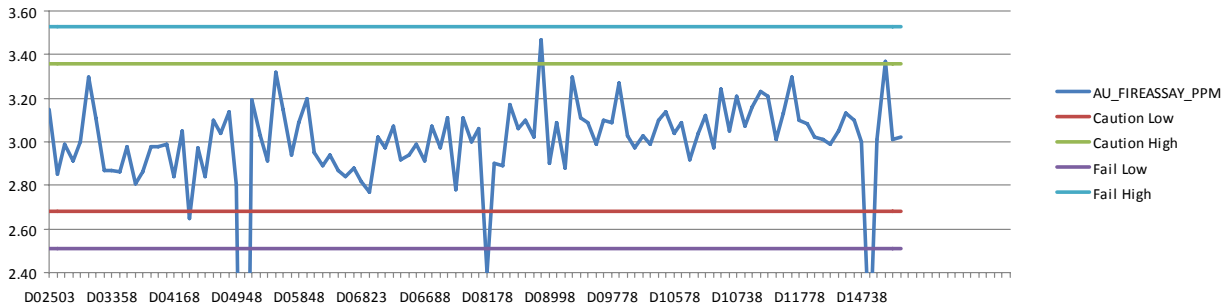


In order to determine the quality of the laboratory data 875 standards of varying gold concentrations have been shipped to the assay laboratory (SGS Mwanza) employed by CAN. Table 17 shows the standards (and grades) used, when they were first sent to the laboratory, the number of each standard submitted as well as the number of samples that were identified as “caution” (greater or less than two standard deviations from the recognized concentration) or “fail” (greater or less than 3 standard deviations from the mean). Generally the standards display failure rates less than 7 % and cautions less than 10 %. However, three standards show cause for concern: AUOI-3 (35.9 % failure), AUOL-2 (19.4 % failure), and AUOJ-3 (14.8 % failure). When a failure is noted within a batch the assay laboratory re-runs the entire batch for free, and CAN sometimes re-assay the pulps for a certain interval within the batches when a standard failure issue is noted (D. Dillip, Personal Communication). The lab has not given any explanation for the high failure rate of these three standards, which might be attributed to an analytical or processing problem. Conversely the most common standard employed is G999-4 (supplied by GeoStats, Australia) with a certified gold concentration of 3.0200 ppm. From a total of 110 analyses these standards fail only three times.

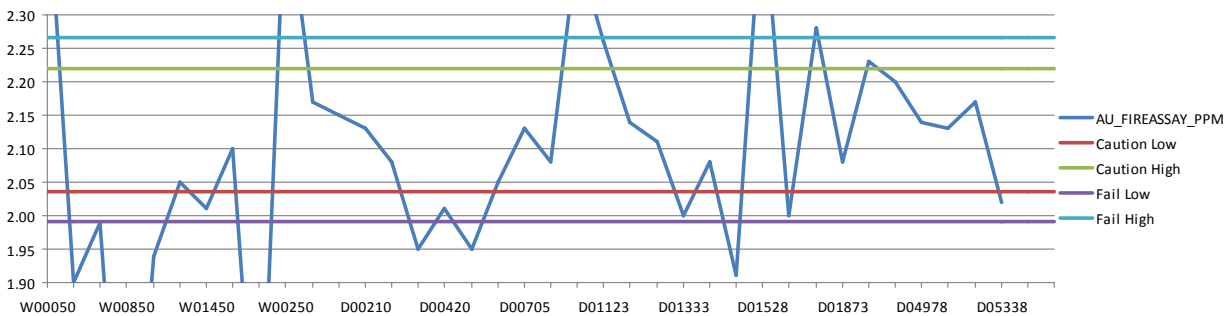
**Table 17.** Comparison between high/low – caution and failure rates of standards

| Standard  | Start  | Au (ppm) | n   | Caution | % Total Caution | Fail | % Total Fail |
|-----------|--------|----------|-----|---------|-----------------|------|--------------|
| G305-7    | Feb-10 | 8.7700   | 36  | 10      | 27.8            | 0    | 0.0          |
| G307-6    | May-10 | 1.0700   | 43  | 0       | 0.0             | 0    | 0.0          |
| G302-10   | Jun-10 | 0.1800   | 63  | 0       | 0.0             | 3    | 4.8          |
| G901-7    | Jun-10 | 1.5200   | 61  | 0       | 0.0             | 3    | 4.9          |
| G907-6    | Jun-10 | 7.2500   | 52  | 0       | 0.0             | 0    | 0.0          |
| G909-6    | Jun-10 | 0.5700   | 61  | 0       | 0.0             | 2    | 3.3          |
| G995-1    | Jun-10 | 2.7400   | 56  | 0       | 0.0             | 0    | 0.0          |
| G999-4    | Feb-10 | 3.0200   | 110 | 3       | 2.7             | 3    | 2.7          |
| G307-3    | Nov-10 | 0.2400   | 10  | 3       | 30.0            | 0    | 0.0          |
| G904-1    | Jun-10 | 12.6600  | 33  | 0       | 0.0             | 2    | 6.1          |
| G909-8    | Jun-10 | 34.1800  | 2   | 0       | 0.0             | 0    | 0.0          |
| AUOJ-3    | Sep-09 | 2.0707   | 81  | 8       | 9.9             | 12   | 14.8         |
| AUOI-2    | May-08 | 1.9904   | 82  | 8       | 9.8             | 6    | 7.3          |
| AUOI-3    | Mar-08 | 2.1281   | 39  | 7       | 17.9            | 14   | 35.9         |
| AUOE-4    | May-08 | 0.7079   | 63  | 20      | 31.7            | 0    | 0.0          |
| ST92_1364 | Sep-09 | 8.7700   | 18  | 0       | 0.0             | 0    | 0.0          |
| AUOE-3    | Sep-09 | 0.6525   | 29  | 0       | 0.0             | 2    | 6.9          |
| AUOL-2    | Mar-08 | 3.8546   | 36  | 6       | 16.7            | 7    | 19.4         |

Examples of the graphs showing the low failure rate of standard G999-4, and the high failure rate over time in AUOI-3 are presented in Figures 33 and 34, respectively.



**Figure 33.** Variation 110 gold assay analysis for standard G999-4 over ten months.



**Figure 34.** Variation 39 gold assay analysis for standard AUOI-3 over 32-months.

Since March 2008 the standards are stored in a secure location within the locked field office. The standards are now individually foil wrapped packages, whereas previously they were bulked packed. The individual packages help to minimize any cross contamination of standards, or settling in the container.

In terms of core sampling and preparation assessment, at present CAN does not take periodic splits of coarse duplicates to assess for errors related to sample preparation. However, at the time of writing CAN has received all diamond drilled coarse rejects from the Laboratory and the process to assess is

underway (D. Dillip, Personal Communication). Although CAN employs a system of obtaining oriented core to assist in structural interpretation and to decrease potential sampler bias, core duplicate sampling should nonetheless be done periodically to assess variability related to geology and any potential sampler bias.

### **Data Collection Verification**

The above sections have dealt with information regarding project data validation. The following sections deal with project data verification. A full set of original laboratory certificate and analyses is maintained at the CAN office location in Dar es Salaam, and these were reviewed by the author for all analyses received up to December 1, 2010. A digital version of this data is also distributed via email to CAN. A test set of samples were cross checked between datasheets and the database, and the analyses numerically matched. CAN maintains a master database in the Vancouver office, and this was used as the main data source location for an update.

Interestingly, soil results using the SGS ARE145 analysis technique illustrated a 10,000 ppb upper detection limit on analyses data sheet headers. Research on this technique identified that only a 100/200 ppb upper detection limit was available. More research is required on this technique.

In terms of internal data verification, CAN systematically entered data into spreadsheets and databases via cut and paste methodology. Through database and file sort functions, a number of minor typographic data labelling entry errors were noted in rock, soil and drill databases. These errors are minor, easily identifiable and not deemed material in nature.

It is the opinion of the author that the sample preparation, security, and analytical procedures now used by CAN are of a suitably high standard for this early stage of an exploration project.

### **Personal Data Verification**

Five diamond drill hole locations, and one soil sample pit location were crosschecked for verification by handheld GPS. Owing to the inability to get a Government Rock Export Permit during the site visit the author was unable to collect his own samples. However, an independent geologist Mr Jeffrey Heidema P.Geo. from New Horizons Geological Services (Canada) visited the site between March 20, 2010 and

March 22, 2010 and collected samples as part of an independent review of the property. Mr. Heidema collected two sections of quartered core from key gold mineralized intersections in DDH 12, and two separate soil samples from locations known to have varying high gold anomalous soil values. The author visibly inspected the core at the intervals sampled and checked the style of the mineralization in adjacent sections to convince himself of the suitability of the sample. These samples were shipped to Canada via DHS for analysis by Acme Laboratories of Vancouver. The results of analyses are presented in Table 18.

**Table 18.** Independent core and soil sampling analytical results

| Sample No. | Original sample | Sample Type  | Au (ppb)<br>recheck | Au (ppb)<br>original |
|------------|-----------------|--------------|---------------------|----------------------|
| JH-10-S1   | MAGS0431        | Red soil     | 138.3               | 83                   |
| JH-10-S2*  | MAGS0416        | Red soil     | 159.8               | 676                  |
| JH-10-C1   | D00995          | Quartered NQ | 2,817               | 2,010                |
| JH-10-C2   | D01035          | Quartered NQ | >10000/9410(grav.)  | 32,500               |

\*original pit not located due to recent roadwork

Considering the nugget effect identified in both soil and rock media, and the reduced sample size of the re-samples, these results compare favourably with the initial results. Both reflect a similar range of gold within the sample.

## 15. MINERAL RESOURCE AND MINERAL RESERVE ESTIMATION

No information available at this time.

## 16. MINERAL PROCESSING AND METALLURGICAL TESTING

Preliminary metallurgical testing was released by CAN on May 19, 2010, and highlights from the metallurgical test work include:

- Gold recovery of 94.14 % is obtained using a combination of gravity separation and cyanidation;
- The majority of gold is extracted using gravity separation with 72.59 % of the gold recoverable as free gold; and,

- No refractory issues with respect to the ore grade mineralization have been identified.

The preliminary diagnostic metallurgical test work was completed using a bulk sample of approximately 380 kg (including mineralized core samples from four diamond drill holes at Magambazi and samples taken from artisanal hard-rock mines on the Upper and Lower Magambazi Lodes). All samples were considered representative of the style of mineralization encountered at Magambazi. The sample underwent crushing to a nominal 74 µm (200 mesh) and gravity separation was conducted to yield 72.59 % recovery, followed by an 8 hour bottle roll leach to extract the majority of the residual gold, leading to a total recovery of 94.14 % (Canaco News Release, May 19, 2010).

## **17. ADJACENT PROPERTIES**

No information is readily available to the public regarding adjacent properties. The time lag between application and full recording of mineral tenures in Tanzania is lengthy, and potentially arduous. CAN has been in negotiations with parties claiming to hold mineral rights adjacent to Handeni (Smith, personal communication). In addition, artisanal miners claim to hold primary mining licence blocks in the immediate vicinity of Magambazi Hill, although the validity and placement of these Licences are presently being investigated by CAN. The author has not been able to verify whether these purported adjacent property holdings exist. The Kilima Mzinga, and Kwandege hard rock artisanal showings are located 5-10 km west of the Kilindi area workings (D. Groves, 2008). Ownership and public review information was not located.

## **18. OTHER RELEVANT DATA AND INFORMATION**

It is noted that the 196 km<sup>2</sup> Kilindi Prospecting Licence (4781/2007) expired on 21<sup>st</sup> November, 2010. CAN submitted a renewal application to the Ministry of Energy and Minerals on November 1, 2010, with the appropriate fee and a reduction of area to 97.38 km<sup>2</sup>. Copies of the renewal application document and proof of payment were viewed by the author. CAN are confident that the renewed exploration licence will be issued in March 2011 (Dilip, personal communication), after accepting the offer from the Ministry of Energy and Minerals. At the time of writing this letter of offer has not been received by CAN (Dilip, personal communication).



Immediately prior to the of property review, CAN was attempting to resolve an issue where it had been made aware of the presence of new Primary Mining Licences, granted over the existing Kilindi Prospecting Permit. The system of recording and updating of maps with mineral tenures in Tanzania appears to be inconsistent and problematic due to a number of interrelated factors. First, tenures can be applied for at both the regional and central office levels. This system, compounded by significant delays in tenure and map recording, gives rise to potential overlap of granted mineral rights. To this end, Canaco Tanzania Limited has conducted a mineral title search and review of the situation, and in rigorous defence of its legal title, has filed a legal complaint, through CRB Attorneys, with the Commissioner for Minerals, Ministry of Energy and Minerals.

On December 2, 2010, CAN announced a meeting with the Commissioner for Minerals of The United Republic of Tanzania. The Commissioner ordered, citing the interest of the orderly development of gold mining in the area, the immediate surrender for cancellation of the 0.07 square kilometre mining licence (ML 413/2010) (converted from PML 0010145) within CAN's 196 square kilometre Kilindi prospecting license (PL 4871/2007). Once ML 413/2010 is surrendered, the Commissioner has indicated that PML 010145 held by Abdallah Omary Kigoda will be reinstated for small-scale artisanal mining activities only. On February 14<sup>th</sup>, 2011, CAN announced that the Commissioner had cancelled ML 413/2010 owing to Abdallah Omary Kigoda failing to surrender the licence. However, the parties have entered into an agreement for compensation, comprised of a US\$2.0 million cash payment and a 2.0% net smelter royalty relating to minerals recovered from the 0.07 square kilometre area of the former PML 0010145.

## **19. INTERPRETATIONS AND CONCLUSIONS**

The initial identification of artisanal placer and surface mine workings in the Magambazi area, has led to the acquisition of the Kilindi Prospecting Licence and Magambazi Primary Licences by CAN. Successive programs of grid soil sampling, including infill, have identified a general NW-trending gold anomaly 11 kilometres long, stretching from the Magambazi area in the southeast to the Majiri Bomba area in the northwest. Niton X-ray diffraction analysis of the soils in the gold anomalous areas indicate a correlative trace anomaly of As associated with the gold soil anomaly, and an adjacent trace Cu anomaly is potentially present.

RC drilling at Semwaliko, targeted at both the gold anomaly in soils and existing workings, has identified a potential gold source to the soil anomalies, and although gold mineralization is considered weak, the style of mineralization is encouraging. It is unclear if it is the sole source of more widespread surficial gold soil anomalies, and potential remains to locate a more significant source to the gold workings through additional targeting and testing. Similarly, initial results from ongoing trenching in the area of artisanal alluvial workings and the gold soil anomaly at Majiri Bomba have only identified minor anomalous mineralization thus far. At both Semwaliko and Majiri Bomba, an opportunity remains to find an exploration technique that will more accurately identify targets for trench or drill testing.

Diamond drilling in the Magambazi area has defined two significant zones of gold mineralization, and a variety of more minor gold mineralized horizons. Property objectives should be to A) further extend and define major zones of mineralization at Magambazi and Magambazi North, and B) identify and test additional prospective areas on the property.

Mineralized zones at Magambazi and Magambazi North are distinctively mineralized with pyrrhotite and arsenopyrite, with graphite and chalcopyrite present locally. Additionally, graphite appears present in significant quantities related to major fault structures. The host rocks to the mineralization are generally devoid of disseminated pyrrhotite, arsenopyrite and graphite. This type of mineralization lends itself well to establishing a magnetic, IP and EM signature over the mineralized zones. A subsequent heliborne geophysical survey was flown over the property which helped to determine the structure, geology and consequently exploration targets on the property. With increased drilling, it is becoming evident that faults bounding both the east and west side of the key mineralized zones may displace interpreted early mineralization. A structural study may assist in better understanding on how to trace additional mineralization both inside and outside the bounding blocks now evident.

The extent and grade of mineralization intersected to date (up to decametric intervals, >5 g/t Au) in these three closely situated mineralized zones is suggestive of the presence of a major mineralizing system in a region previously interpreted as having little merit in terms of gold exploration potential. The widths of this system make it a prime target to assess for bulk mining methods. Potential remains to extend presently identified zones of mineralization by further step out drilling and drilling to depth over this 1.4 km long mineralized zone.

## **20. RECOMMENDATIONS**

Property exploration objectives should be to A) further extend and define major zones of mineralization at Magambazi, Magambazi Central and Magambazi North, and B) identify and test additional prospective areas on the Property, e.g. Semwaliko and Majiri Bomba.

### **Regional**

The geophysical signature of the mineralization at Magambazi has been characterized by the airborne geophysical survey carried out by New Resolution Geophysics. The survey data has not been fully examined to date and this should be done as quickly as possible to determine if similar geophysical responses are present on the Handeni Property. This data can then be integrated with the regional soil sampling and the results of the RAB drilling programme carried out in 2010. Preliminary examination of the data suggests there is a correlation between magnetic highs and RAB drilling gold anomalies. Localized soil sampling with follow-up RAB or RC drilling is warranted at several locations, and should be carried out as a priority.

Site access is good, but improvements through road building and maintenance will increase road safety by reducing road grade and drain areas liable to flooding.

### **Semwaliko**

Based on soil sampling, RAB drilling and current RC drilling it is recommended that additional RC drilling is carried out at Semwaliko to delineate and characterize the mineralization identified to date.

### **Magambazi Area**

Continued drill testing at Magambazi is recommended, targeted at further extension and infill drilling.

### **Drill Testing**

Drill testing has moved quickly from the target testing phase to that of assessing resource definition. Inherent to that progression, a number of additions should be added to the present program. Due to the implied presence of coarse free gold, consideration should be given to increasing core size to HQ or greater, to acquire a more representative sample of rock, and to provide sufficient material for additional metallurgical testing. Present drilling indicates that structure in the mineralized area is complex. Compositional banding and foliations within core vary greatly, and interpretation is suggestive

of a brittle/ ductile/ late brittle structural history. A significant amount of structural information is being collected from the core, and a structural study is recommended for the drill area. Additional rigour in QA/QC work is part of this type of scope change, and should include the addition of a system of core and coarse reject duplicate sampling. Also, continued vigilance in assessing laboratory and sampling performance (including outside laboratory umpire work) is necessary, as first-pass sample standard failures remain close to acceptable limits. Positive results from the current phase of drilling are required prior to the initiation of resource definition drilling.

## 21. COST ESTIMATES

An estimate of the recommended exploration costs for the next twelve months is presented in Table 19.

**Table 19.** Recommended programme costs

| Work                         | Description  | Amount       | Rate         | Total               |
|------------------------------|--|--------------|--------------|---------------------|
| <b>Phase One</b>             |  |              |              |                     |
| Diamond Drilling             | Magambazi delineation (initial)                          | 20,000 m     | \$250/m      | \$ 5,000,000        |
| Reverse Circulation Drilling | Kwadijava, Kwadijava S. Majiri, and Majiri Bomba testing | 10,000 m     | \$65/m       | \$ 650,000          |
| RAB drilling                 | Regional testing   | 2000 m (min) | 25/m         | \$ 50,000           |
| Road construction/upgrade    | Repair roads for access                                  | 10-15 km     |              | \$ 100,000          |
|                              |  |              |              |                     |
| <b>Phase Two</b>             |  |              |              |                     |
| Diamond Drilling             | Contingent on RC targets                                 | 500 m (min)  | \$125/m      | \$ 62,500           |
|                              |  |              | <b>Total</b> | <b>\$ 5,862,500</b> |

## 22. REFERENCES

- Abzalov, M., 2008 Quality control of assay data: A review of procedures for measuring and monitoring precision and accuracy, *Exploration and Mining Geology*; 17; 3-4; 131-144.
- Barnard, F., 1995 Opportunities for mineral resource development: Tanzania. Ministry of Energy and Mines, Knudsen Printing, Denver Colorado, 108 pp.
- Carman, C. and Groves, I., 2008 Multi-element geochemical sampling Morogoro and Magambazi projects, Tanzania, 1-128.
- Deane, J.G., 2009 Report on 2001-2008 exploration programs, Kigosi project area.
- Farrell, S. et al. (Ngulama, A.T.-Rex Attorneys), 2009 Mining, the exploration of regulation and extraction in 32 jurisdictions worldwide, getting the deal through, 132.
- Finnish Consulting Group (FCN), 2009 NDF Ex-post evaluation of NDF-277: Mineral Sector Development Technical Assistance Project, Tanzania.
- Goldfarb, R.J., Baker, T., Dubé, B., Groves, D.I., Hart, C.J.R., and Gosselin, P., 2005 Distribution, character and genesis of gold deposits in metamorphic terranes: *Economic Geology 100th Anniversary Volume*, 1069-1096.
- Groves, D.I., Goldfarb, R.J., Gebre-Mariam, M., and Hagemann, S.G., 1998, Orogenic gold deposits: A proposed classification in the context of their crustal distribution and relationship to other gold deposit types: *Ore Geology Reviews*, 13. 7-27.
- Groves, D.I., Groves, I.M., Smith, A.L., Dillip, D., and Mnguto, C. Magambazi Gold: A potentially new orogenic gold deposit style in the Handeni District of Tanzania: Extended abstract volume, SEG-GSSA 2008, 241-242.
- Groves, D.I., 2010 Discovery of the Magambazi gold deposit in a previously unrecognized gold province in NE Tanzania, role of the UWA Economic Geology Centres, 1-15.
- Heidema, J., 2010 An independent report on preliminary exploration activity at the Handeni property, Tanzania. internal company report, 130 pp.
- Hagemann, S.G. and Cassidy, K.F., 2000 Archean orogenic lode gold deposits. *Reviews in Economic Geology*, 13, 9-68.
- Joachim, J. et al., 2004, Himalayan-type indenter-escape tectonics model for the southern part of the late Neoproterozoic–early Paleozoic East African– Antarctic orogen, *Geology*, 32, 721-724.
- Kabete, J.M., 2008 A terrane-based tectonic subdivision of the Archean craton and selected belts of Tanzania and their significance to gold metallogeny. Unpublished PhD Thesis, University of Dar es Salaam.
- Kabete, J.M., Groves, D.I., McNaughton, N.J., Mruma, A.M., and Maboko, M.A.H., 2008 A new tectonic subdivision of the Archean Tanzania craton and its significance to gold metallogeny: Extended Abstract Volume, SEG-GSSA 2008.
- Kröner, A., A.P. Willner, A.P., Hegner, E., Jaeckel, P., and A. Nemchin, 2001 Single zircon ages, PT evolution and Nd isotopic systematics of high-grade gneisses in southern Malawi and their bearing on the evolution of the Mozambique belt in southeastern Africa, *Precambrian Research*, 109, 257-291.
- McLeod, J. A., 2007 Microscopy report and Handini samples, MICROSCOPY-#55069-55070 / G.D.L. Job V06-1173R
- Maboko, M.A.H., , 2001 Dating post-metamorphic cooling of the Eastern Granulites in the Mozambique Belt of Northern Tanzania using the garnet Sm-Nd method. *Gondwana Research*, 4, 329-336.



- Maboko, M.A.H., and Nakamura, E., 2002 Isotopic dating of Neoproterozoic crustal growth in the Usambara Mountains of Northeastern Tanzania: evidence for coeval crust formation in the Mozambique Belt and the Arabian–Nubian Shield. *Precambrian Research*, 113, 227-242.
- Möller, A., Mezger K., and Schenk, V. 1998 Crustal age domains and the evolution of the continental crust in the Mozambique Belt of Tanzania: combined Sm-Nd, Rb-Sr, and Pb-Pb isotopic evidence. *Journal of Petrology*, 39, 749-783.
- Roberston, S.D., 1972 Carbon formation from methane pyrolysis over some transition metal surfaces—II. Manner of carbon and graphite formation. *Carbon*, 10, 221-229.
- Stendala, H., Freib, R., Muhongoc, S., Rasmussena, T.M., Mnalic, S., Petrod, F. and Temu, E. B., 2004, Gold potential of the Mpanda Mineral Field, SW Tanzania: evaluation based on geological, lead isotopic and aeromagnetic data. *Journal of African Earth Sciences*, 38, 437-447.
- Makwetta, J.M. Opportunities for mineral resource development, 1995, Ministry of Water Energy and Minerals, United Republic of Tanzania.
- Smee, B., 2007 Quality control in mineral exploration, controlling the quality of information from field to data base, exploration 2007. 5th Decennial International Conference on Mineral Exploration.
- Sommer, H., Kröner, A., Hauzenberger, C. and Muhongo, S., 2004 Reworking of Archean and Paleoproterozoic crust in the Mozambique belt of central Tanzania as documented by SHRIMP zircon geochronology, *Journal of African Earth Sciences*, 43, 447-463.
- Taylor, M.J., 2009 Report on the Ushirombo mineral exploration property, Tanzanian Royalty Exploration Corporation.
- Taylor, M. J., 2009 Report on the Kibara mineral exploration property-Tanzanian Royalty Exploration Corporation: source-<http://www.tanzanianroyaltyexploration.com/i/pdf/Kibara43-101.pdf>
- Vielreicher, N.J., Ridley, J.R., and Groves,D.I., 2002 Marymia: an Archean, amphibolite facies, orogenic, lode-gold deposit overprinted by the Paleoproterozoic Capricorn Orogeny, Western Australia: *Mineralium Deposita*, 37, 737-764.
- Vogta, M., Kröner, A., Pollerb, U., Sommer, H., Muhongoc, S. and Wingated, M.T.D., 2006 Archean and Paleoproterozoic gneisses reworked during a Neoproterozoic (Pan-African) high-grade event in the Mozambique belt of East Africa: Structural relationships and zircon ages from the Kidatu area, central Tanzania. *Journal of African Earth Sciences*, 45, 139-155.
- Yager, T.R., 2010 The Mineral Industry of Tanzania, USGS, 2008 Mineral Yearbook.

**INTERNET DIRECT**

Avert

<http://www.avert.org/africa-hiv-aids-statistics.htm>

Central Intelligence Agency World Fact Book

<https://www.cia.gov/library/publications/the-world-factbook/index.html>

De Pauw, E., 1983, FAO Project Crop Monitoring, Soil and Physiography Geographica.

<http://www.geographia.com/tanzania/>

iExplore

[http://www.iexplore.co.uk/travel\\_guides/Tanzania/History](http://www.iexplore.co.uk/travel_guides/Tanzania/History)

National Encyclopedia

<http://www.nationsencyclopedia.com/Africa/Tanzania-CLIMATE.html>

Obtala Resources

<http://www.obtalaresources.co.uk/content/tanzania/mining.asp>

Reuters

<http://www.reuters.com/article/idUSLDE63N04720100424?type=marketsNews>

Tanzanian Royalty Exploration

<http://www.tanzanianroyaltyexploration.com/i/pdf/Ushirombo-43-101.pdf>

The Heritage Foundation Website

<http://www.heritage.org/research/features/index/country.cfm?id=Tanzania>

The Guardian

<http://www.ippmedia.com/ipp/guardian/2005/12/31/56886.html>

USGS

<http://minerals.usgs.gov/minerals/pubs/country/2005/tzmyb05.pdf>

## 23. DATE AND SIGNATURE PAGE

The effective date of this Technical Report, addressed to Canaco Resources Incorporated, and entitled “NI 43-101 Technical Report on the Handeni Property centered at 39.97°E, 5.753°S, Tanga Province, Kilindi District” is March 1 2011.

On behalf of Aurum Exploration Services.



EurGeol Dr. Sandy M. Archibald, P.Geo.

Technical Director and Principal Geologist

Aurum Exploration Limited

Dated at Kells, Republic of Ireland, this 1<sup>st</sup> day of March, 2011

## 24. CERTIFICATE OF QUALIFICATIONS

I, Sandy M. Archibald, of 2 Tara Glen Road, Navan, Co. Meath, Republic of Ireland, hereby certify:

1. I graduated with a First-Class Honours Bachelor of Science degree in Geology from University of Glasgow, Scotland, UK in 1992, was awarded a Master of Science degree in Geology from Memorial University of Newfoundland, St. John's, Canada in 1995, and also awarded a Doctor of Philosophy in Geology/Geochemistry from McGill University, Montreal, Canada in 2002.
2. I am a Principal Consultant Geologist with Aurum Exploration Services.
3. I have been employed in my profession by Aurum Exploration Services since completing my final postgraduate degree since 2002.
4. I am a member of the European Federation of Geologists (Title No. 873), and I am a Professional Geologist (Title No. 193) associated with the Institute of Geologists of Ireland. I am also a Fellow of the Society of Economic Geologists and a Member of the Society for Geology Applied to Mineral Deposits.
5. I have read the definitions of "Qualified Person" set out in NI 43-101 and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for preparation of all sections of the report entitled "Technical Report on the Handeni Property" dated March 1, 2010.
7. I most recently visited the subject property on December 15, 2010.
8. I have had no direct involvement with the Canaco Resources Inc. Handeni property.
9. 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.
10. I am independent of Canaco Resources Inc. applying all the tests in Section 1.4 of NI 43-101.
11. I have read NI 43-101 and NI 43-101F1 and the technical report has been prepared in compliance with that instrument and form, and in conformity with generally accepted Canadian mining industry practice.



EurGeol Dr. Sandy M. Archibald, P.Geo.

DATED at Kells, Republic of Ireland, this 1<sup>st</sup> day of March, 2011.

## APPENDIX I

### **Mineral Titles In Tanzania And Mineral Rights Legislation Overview**

#### *Handeni Property Mineral Holdings*

| <b>Tenure number</b> | <b>Tenure type</b>     | <b>Area (Ha)</b> | <b>Expiry date</b> |
|----------------------|------------------------|------------------|--------------------|
| 4781/2007*           | Prospecting Licence    | 9,738            | November 21, 2013  |
| 7811                 | Primary Mining Licence | 10               | June 7, 2015       |
| 7812                 | Primary Mining Licence | 10               | June 7, 2015       |
| 7813                 | Primary Mining Licence | 4.861            | June 7, 2015       |
| 7814                 | Primary Mining Licence | 4.861            | June 7, 2015       |

\*excluding PMLs 6044, 6045, and 11023 (approx area 27.05 Ha). Currently under renewal.

Businesses operating under the mineral sector are governed by the Mineral Policy, 1997, Mining Act, 1998 and Mining Regulations, 1999.

#### ***Prospecting Licence***

The maximum area for a prospecting Licence with a preliminary reconnaissance period is 5,000 km<sup>2</sup>. Requirements include: -

- A plan of a Licence area drawn on a topographical map to a scale of 1:50,000;
- Evidence of the registration of a company;
- A statement giving financial and technical resources available; and
- Details of any Mineral Rights previously granted to the applicant

#### ***Special Mining Licence***

Every application for a special mining Licence shall be accompanied by:

- A statement of the area for which the Licence is sought;
- Information on the mineral deposits in the proposed area;



- Environmental management plan;
- Expected infrastructure requirements;
- Employment and training of Tanzania citizens;
- Any other information as may be required by the Minister.

A Special Mining Licence may be granted for a period not exceeding twenty-five years.

***Mining Licence***

The maximum area for all minerals other than building materials or gemstones is 10 sq.km. Every application for a mining Licence should be accompanied by:

- Relevant prospecting Licence;
- Description of the area and the mineral deposits in it;
- Feasibility study;
- State the duration not exceeding ten years;
- Environmental impact assessment;
- Any other information as may be required by the Minister.

***Retention Licence***

A retention Licence may be granted for a period not exceeding five years. An application fee of US\$ 1000 should be paid by the applicant. The holder of a prospecting Licence may apply for a retention Licence on the ground that.

- He has identified mineral deposits within the prospecting area;
- The mineral deposits cannot be developed immediately by reasons of technical constraints, adverse market conditions etc;
- He has demonstrated through studies and assessments by experts acceptable to the Minister on the extent, prospect for recovery and the commercial significance of the recovery.

Note: An application for a retention Licence shall be submitted to the Mining Advisory Committee for its advice.

### **Primary Licences**

#### **Primary Prospecting Licence**

Primary Prospecting Licences are retained exclusively for Tanzanian citizens. The maximum size of the demarcated area for a primary prospecting Licence for all minerals other than building materials shall be 10 hectares. The Licence shall be granted for a period of one year, renewable upon request.

#### **Primary Mining Licence**

Primary Mining Licences are retained exclusively for Tanzanian citizens covering a period of five years and subject to renewal. The maximum size for a primary mining Licence for all minerals other than building materials shall be 10 hectares. Requirements for a successful application include:

- Duly filled application form and payment of prescribed application fee above; and
- Description of the area over which the Licence is sought.

### **Licences and Fees**

| Type of Licence  | Annual rental fee per km <sup>2</sup> (US\$) | Preparation fee (US\$) | Renewal fee (US\$) |
|--|--|------------------------|--------------------|
| Reconnaissance   | 10   | 200                    |                    |
| Prospecting  | 20   | 200                    | 100                |
| Mining Licences for all minerals other than gemstones & building materials | 1,000  | 500                    | 100                |
| Special Mining   | 1,500  | 1,000                  | 500                |
| Gemstone Mining  | 1,000  | 500                    | 500                |
| Mining Licence for building materials                                      | 500  | 500                    | 500                |

### **Minerals Legislation Overview**

Administration of the Mining Act 1998 is by the Minister responsible for mineral affairs and Commissioner of Mineral Resources. Under the Act, Mineral Rights concern large scale and small-scale operations.

A Reconnaissance Licence is issued for one year and renewed for a period not exceeding a year. Licence preparation fee is \$250, annual rent is \$10/km<sup>2</sup> and renewal fee is \$200. The Licence may be either exclusive or non-exclusive. Applications should provide a work programme. Half yearly reports must be submitted and on expiry of the period, all data, maps and reports under Licence must be surrendered to Government. The Licence holder may apply for a prospecting Licence covering all or part of the area.

A Prospecting Licence is issued for a period of up to three years and renewable two times for a period up to two years each. At each renewal at least 50 % of the area is relinquished. Licence preparation fee is \$400, annual rental is \$30/km<sup>2</sup> and renewal fee is \$200. Applicants must submit particulars of financial and technical capabilities, work programme and budget, and proposals for employment and training Tanzanians. Licence holders must submit quarterly reports, including copies of all data, maps, logs, interpretations, etc.

A Mining Licence will only be granted to the holder of a Prospecting Licence over the area. The Licence is granted for a period of 25 years or the life of the mine. It is renewable for a period not exceeding 15 years. Licence preparation fee is \$600, annual rent is \$1500/km<sup>2</sup> and renewal fee is \$200. The applicant must submit a feasibility report including environmental and health safeguards, plans for local sourcing of goods and services and employment and training of Tanzanians. The Licence holder must submit regular reports according to regulations.

In addition, under section 15 of the Mining Act the Minister may enter into a mineral agreement (not inconsistent with the Act) for the purpose of granting a Prospecting or Mining Licence in order to define terms and conditions to be included in the Licence.

Agreement should be made with the lawful occupiers of land and their written consent obtained to carry out mining or prospecting operations. Compensation may be payable. The Minister may intervene if consent is withheld unreasonably.


There are prospecting rights and mining claims for small-scale operations by Tanzanian citizens, companies or cooperatives. These rights are available only in designated areas for prescribed minerals. Prospecting rights are granted for a period of 12 months and are renewable. The holder can peg a claim and register with the Commissioner. The claim holder can prospect and mine this claim. It is valid for one year and renewed as long as mining operations continue. Claim holders must pay royalties and submit returns. Non compliance leads to cancellation of rights. Claim preparation and annual fees are TSh5000 and TSh6000 per annum respectively.

There is no state obligation to participate in mining ventures nor a requirement for local equity.

A mineral right may be transferred upon application and approval by the Minister.

## APPENDIX II

Acme Soil and Core Independent Sample Certificates

|  |   |  |
|--|---|--|
|  <p><b>AcmeLabs</b><br/>1020 Cordova St. East Vancouver BC V6A 4A3 Canada<br/>Phone (604) 253-3155 Fax (604) 253-1716</p> | <p><b>Client:</b> New Horizons Geological Services<br/>64 - 11720 Cottonwood Drive<br/>Maple Ridge BC V2X 0G7 Canada</p> <p><b>Submitted By:</b> Jeff Hedema<br/><b>Receiving Lab:</b> Canada-Vancouver<br/><b>Received:</b> May 07, 2010<br/><b>Report Date:</b> June 10, 2010<br/><b>Page:</b> 1 of 2</p> <p><b>www.acmelab.com</b></p> | <p style="text-align: right;"><b>VAN10001912.1</b></p> |
|--|---|--|

| CERTIFICATE OF ANALYSIS                      |         |   |               |
|--|---------|---|---------------|
| SAMPLE PREPARATION AND ANALYTICAL PROCEDURES |         |   |               |
| Project:                                     | Handeni | Method Code:  | Lab           |
| Shipment ID:                                 | JH-1001 | Number of Samples:                                    | Report Status |
| P.O. Number:                                 | 2       | Method Code:  | Test          |
| Number of Samples:                           | 2       | R200-200  | Wgt (g)       |
|  |         | G001  | 30            |
|  |         | G6  | 30            |
|  |         | Crush split and pulverize 250g drill core to 200 mesh |               |
|  |         | Fire Assay fusion Au by ICP-ES                        |               |
|  |         | Lead collection fire assay fusion - Grav finish       |               |
|  |         | Completed   |               |
|  |         | Completed   |               |
| ADDITIONAL COMMENTS                          |         |   |               |

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

**CLIENT JOB INFORMATION**


Project: Handeni  
Shipment ID: JH-1001  
P.O. Number: 2  
Number of Samples: 2

**SAMPLE DISPOSAL**

RTRN-PLP Return  
RTRN-RJT Return

Invoice To: New Horizons Geological Services  
64 - 11720 Cottonwood Drive  
Maple Ridge BC V2X 0G7  
Canada

CC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date of this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. An asterisk (\*) indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.







1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
Phone (604) 253-3158 Fax (604) 253-1716

**Client:** New Horizons Geological Services  
64 - 11720 Cottonwood Drive  
Maple Ridge BC V2X 0G7 Canada

Project: Handeni  
Report Date: June 10, 2010

www.acmelab.com

Page: 1 of 1 Part 1

VAN10001912.1

# QUALITY CONTROL REPORT

| Method                | Analyte  | Unit | WGHT | G6    | G652   |
|-----------------------|----------|------|------|-------|--------|
|                       |          |      | Wgt  | Au    | Au     |
|                       |          |      | kg   | gm/mt | gm/mt  |
|                       |          | MDL  | 0.01 | 0.006 | 0.17   |
| Pulp Duplicates       |          |      |      |       |        |
| REP G1                | DC       |      |      |       | <0.005 |
| Reference Materials   |          |      |      |       |        |
| STD AGPROOF           | Standard |      |      |       | <0.17  |
| STD AGPROOF           | Standard |      |      |       | <0.17  |
| STD CON-ME-3          | Standard |      |      |       | 10.00  |
| STD CON-ME-3          | Standard |      |      |       | 9.93   |
| STD OXW69             | Standard |      |      |       | 3.956  |
| STD OXW69             | Standard |      |      |       | 3.643  |
| STD OXW69 Expected    |          |      |      |       | 3.593  |
| STD CON-ME-3 Expected |          |      |      |       | 9.97   |
| STD AGPROOF Expected  |          |      |      |       | 0      |
| BULK                  | Blank    |      |      |       | <0.005 |
| BULK                  | Blank    |      |      |       | <0.005 |
| BULK                  | Blank    |      |      |       | <0.17  |
| BULK                  | Blank    |      |      |       | <0.17  |
| BULK                  | Blank    |      |      |       | <0.17  |
| BULK                  | Blank    |      |      |       | <0.17  |
| Prep Wash             |          |      |      |       |        |
| Prep Blank            |          |      |      |       | <0.01  |
| G1                    |          |      |      |       | <0.005 |
| Prep Blank            |          |      |      |       | <0.005 |

The authors will provide preliminary and final reports on this manuscript, only in the case of the acceptance of the manuscript as a final second preliminary report and should be used for reference only.



**AcmeLabs**  
1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
Phone (604) 253-3158 Fax (604) 253-1716

Acme Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

Client: New Horizons Geological Services  
64 - 11720 Cottonwood Drive  
Maple Ridge BC V2X 0G7 Canada

Submitted By: Jeff Heideime  
Receiving Lab: Canada/Vancouver  
Received: May 07, 2010  
Report Date: May 17, 2010  
Page: 1 of 2

## CERTIFICATE OF ANALYSIS

VAN10001911.1

### CLIENT JOB INFORMATION

Project: Handeni  
Shipment ID: JH-10-01  
P.O. Number: 2  
Number of Samples: 2

### SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps  
PICKUP-RJT Client to Pickup Rejects

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: New Horizons Geological Services  
64 - 11720 Cottonwood Drive  
Maple Ridge BC V2X 0G7  
Canada

CC:

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

| Method Code | Number of Samples | Code Description                   | Test Wgt (g) | Report Status | Lab |
|-------------|-------------------|------------------------------------|--------------|---------------|-----|
| 5230        | 2                 | Sieve to 250 mesh                  |              |               | VAN |
| 3401        | 2                 | Acid digest, Au by ICP-MS analysis | 15           | Completed     | VAN |

### ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. No asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



**Acmelabs**  
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada  
 Phone (604) 253-3158 Fax (604) 253-1716

Acmel Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

**Client:** New Horizons Geological Services  
 64 - 11720 Cottonwood Drive  
 Maple Ridge BC V2X 0G7 Canada

**Project:** Handeni  
**Report Date:** May 17, 2010

**Page:** 2 of 2 **Part:** 1

**CERTIFICATE OF ANALYSIS**

**CERTIFICATE OF ANALYSIS**

| Method   | WGHT | 3A    |
|----------|------|-------|
| Analyte  | Wgt  | Au    |
| Unit     | kg   | ppb   |
| MDL      | 0.01 | 0.6   |
| JH-10-S1 | 0.28 | 138.3 |
| JH-10-S2 | 0.35 | 159.8 |

This report represents all previous preliminary and final reports with the same sample code prior to the date on this certificate. Signatures indicate final approval. Preliminary reports are unsigned and should be used for reference only.



**Client:** New Horizons Geological Services  
64 - 11720 Cottonwood Drive  
Maple Ridge BC V2X 0G7 Canada

**Project:** Handeni  
Report Date: May 17, 2010

www.acmelabs.com

Page 1 of 1 Part 1

## QUALITY CONTROL REPORT

VAN10001911.1

| Method                | Analyte  | WGHT |       | SA  |
|-----------------------|----------|------|-------|-----|
|                       |          | Unit | Wgt   | Alt |
|                       |          | kg   | ppm   |     |
|                       |          | MDL  | 0.01  | 0.5 |
| Pulp Duplicates       |          |      |       |     |
| JH-10-S2              | Soil     | 0.35 | 159.8 |     |
| REP JH-10-S2          | QC       |      | 276.0 |     |
| Reference Materials   |          |      |       |     |
| STD OREAS52P          | Standard |      | 179.2 |     |
| STD OREAS52P Expected |          |      | 167   |     |
| BLK                   | Blank    |      | <0.5  |     |
| BLK                   | Blank    |      | <0.5  |     |

The report supersedes all previous preliminary and final reports with this file number dated prior to the date on the certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.