# TECHNICAL REPORT AND
# MINERAL RESOURCE AUDIT
# ON THE

# EAGLE MOUNTAIN GOLD PROJECT
# GUYANA

**for**

STRONGHOLD METALS INC.

**Report No. 942**

A.C.A. Howe International Limited
Toronto, Ontario, Canada

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Effective Date: November 17, 2010

**A.C.A. HOWE INTERNATIONAL LIMITED**
Mining and Geological Consultants

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# 1 SUMMARY

This technical report ("the Report") has been prepared by A. C. A. Howe International Limited ("Howe") at the request of Mr. Michael Byron, Vice President Exploration, Stronghold Metals Inc. ("Stronghold" or "the Company"). This report is specific to the standards dictated by National Instrument 43-101 and Form 43-101F1 (Standards of Disclosure for Mineral Projects) in respect to the Eagle Mountain Gold Property ("Property") and focuses on Howe's independent audit of IAMGOLD Corporation, Guyana Exploration and Technical Services Groups' October 2009 Eagle Mountain mineral resource estimate. The Report also updates exploration work conducted within the Property area during 2009 and 2010 after the October 2009 mineral resource inventory.

The Property is situated five kilometres south of Mahdia Township in west-central Guyana, South America approximately 200 kilometres south-southwest of Guyana's capital, Georgetown. The property can be accessed by road from Georgetown in five to six hours (part asphalt, part laterite), or by air to the Mahdia airstrip.

Omai Gold Mines Ltd. (Omai), a 95% owned subsidiary of IAMGOLD Corporation, holds the Property under the Eagle Mountain Prospecting License. The remaining 5% of Omai Gold Mines Ltd is owned by the Government of Guyana. On September 30, 2010 Stronghold announced that it had entered into a definitive Earn-In and Joint Venture Agreement (the "Agreement") dated September 29, 2010 with Omai Gold Mines Ltd., under which the Company has been granted the right to acquire, in stages, up to 50% interest in the Property through the completion of exploration work on the property. Additionally, the Company has the option to acquire the remaining 50% of the Property from Omai.

A number of third party small-scale permits are excluded from the central part of the Eagle Mountain Prospecting License and several more may be valid in the southwest of the area. IAMGOLD/ Omai Gold Mines Ltd. is seeking clarification from the Guyana Geology and Mines Commission on this issue.

The Eagle Mountain area occurs within Palaeoproterozoic greenstones of the Guiana Shield. A composite granodiorite pluton intruding the greenstone rocks hosts most of the known gold mineralisation on the property. Barren post-mineralisation dolerite dykes and sills dated at 1.6-1.8 Ga are believed to be the youngest rocks in the area (Gibbs & Barron 1993), although a suite of undated post-mineralisation porphyry dykes have also been recognized locally.

Alluvial gold has been exploited in the Eagle Mountain area since at least 1884, with commercial exploration starting in the period 1947-1948 (Anaconda British Guiana Mines Ltd). The Geological Survey of Guyana, which eventually became the Guyana Geology and Mines Commission, carried out a number of subsequent exploration phases until modern systematic exploration commenced in 1988 (Golden Star Resources Ltd). Omai Gold Mines Ltd acquired ownership of the property in late 1998.

The bulk of the gold resource is contained within four shallow dipping mineralized shear zones: the Saddle, Zion, Kilroy and Millionaire zones. Gold mineralisation is associated with a distinctive chlorite – silica – actinolite – epidote – sulphide (mainly pyrite) ± biotite alteration assemblage and minor quartz veining. Individual zones vary in thickness up to twenty-five metres, and are separated from each other by one to forty metres of barren rock that can be distinguished based on minor variations in trace element chemistry; for example, the Zion zone is relatively enriched in copper while Kilroy and Millionaire zones contain elevated arsenic. This style of mineralisation has been delineated over an area of approximately two square kilometres.

Sporadic gold and molybdenum occurrences have been identified west of the north-east trending Minnehaha Fault and potentially represent a separate mineralisation phase. Economically significant concentrations of this mineralisation style have not yet been identified and these occurrences are not included in the current resource estimate.

Both gold and molybdenum mineralisation are interpreted to be related to a multi-phase granitoid intrusion. The Au-Mo-W association, together with the presence of chlorite ± potassic alteration along fractures is consistent with a magmatic origin for mineralisation. Reduced Intrusion Related Gold Systems such as Fort Knox in Alaska share some similarities to the Eagle Mountain deposit. The host granodiorite has some of the required characteristics, including a variety of compositional phases, from tonalite to granodiorite to alkali granite, an absence of gold where primary magnetite occurs, a generally low sulphide content and pyrrhotite in association with gold. The main difference at Eagle Mountain is that gold distribution is primarily related to low-angle shear zones, which may be partly syn-intrusion.

In October 2009, IAMGOLD Technical Services and Exploration Guyana Group ("ITS") prepared an internal technical report that included a mineral resource estimation. Though the report was prepared following NI 43-101 Form F1, it was not independent.

Howe has reviewed the Eagle Mountain project information and data provided by Stronghold and IAMGOLD, including the drill hole database, has visited the site and has reviewed sampling procedures and security. Howe believes that the data presented by the companies are generally an accurate and reasonable representation of the Eagle Mountain mineralisation. A systematic QA/QC protocol was introduced at the commencement of the 2007 drilling campaign to monitor the accuracy and precision of analytical results. The majority of the older drilling data on which the mineral resource estimate is based has little or no documented QA/QC protocol. QA/QC results to date indicate that there are no major problems with the accuracy of the analyses. The current sampling and analytical protocols are considered by Howe to be appropriate. Howe concludes that the database for the Eagle Mountain project is of sufficient quality to permit the completion a NI 43-101 compliant Mineral Resource Estimate and provide the basis for the conclusions and recommendations reached in this Report.

During November 2010, Douglas Roy, M.A.Sc. (Mining Engineering), P.Eng., an independent Associate Mining Engineer from ACA Howe International Limited thoroughly reviewed the mineral resource estimation section of ITS's report. Mr. Roy ("the Reviewing Author") is a

"Qualified Person" with respect to estimating mineral resources and reserves for precious metals deposits.

The resource estimate was prepared in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves[1]. Mineral resource classification, or assigning a level of confidence to Mineral Resources, was undertaken in strict adherence to those standards. Only mineral resources were identified in this report. No mineral reserves were identified.

ITS supplied the data in digital format for the resource audit. ITS reported that the data was the same data that was used for their work, current as of October 2009. The drilling data included holes up to, and including EMD09-43.

The database consists of 29,096 samples assays, including diamond drill samples, auger samples, underground channel samples, trench channel samples, grab samples and "trado" auger samples. The 1,838 diamond drill samples were used to estimate the present resource calculation while the other sample types were used to help guide the modeling process.

ITS updated the wireframe "solids" and two additional mineralized zones were modeled to include several significant intercepts located at depth beneath the central part of Millionaire zone. These zones were named New Zone 2 and 3. A significant fault named the "Thrust Fault" was added. This fault delineates the northeast end of the Kilroy and Millionaire Zones and separates those zones from the Zion and Saddle Zones.

Mineralised zones were outlined based on grade using a 0.5 g/tonne gold cut-off. The minimum zone thickness was three metres. Some narrower or weaker intercepts were included for sake of model continuity. Six mineralised zones were outlined. The zones are more-or-less planar in shape with an average dip of 10-15 ° southwest. The zones are thin compared to their lateral extent. The Millionaire Zone is the largest and contains the most ounces. However, the Zion Zone appears to be more consistent, continuous and higher grade.

The Reviewing Author reviewed ITS's zone interpretations and, with very few exceptions agreed with their interpretations.

ITS created a standard-type block model with a block size of 10x10x5 metres (East x North x Elevation). No sub-blocks were used, which the Reviewing Author feels is a shortfall of the ITS block model. The relatively large blocks do not adequately represent narrower and/or steeper parts of the zones, leaving some "holes" or gaps in the block model where none should exist.

Mineralised zone codes were assigned to the block model and blocks that were located above the modelled saprolite base were identified. Samples were regularised over 2 metre intervals – the most common sample length.

[1] CIM Definition Standards for Mineral Resources and Mineral Reserves, adopted December 11, 2005

Assay values for gold were subjected to a probability grade test (log scale) and to deciles analysis to determine the appropriate capping level for each of the mineralized zones. Millionaire and Kilroy samples were capped at 10 g/tonne while Zion, NZ-2 and NZ-3 were capped at 15 g/tonne. Capping was not necessary for Saddle assays.

Variography was carried out to establish interpolation ranges. The maximum range values were 120x100x40 metres in the northeast, southeast and elevation directions, respectively.

The Reviewing Author cross-checked the variography by constructing directional semi-variograms for the Millionaire Zone using the same search directions that ITS used. The Reviewing Author found that within the plane of the deposit, the experimental semi-variogram data was very regular. Spherical models could readily be fit to the data. The Reviewing Author estimated the range values to be approximately fifty metres longer (within the Millionaire Zone's plane of mineralisation) than ITS's values. Despite the shorter range values, the Reviewing Author believes that ITS's variography work is reasonably accurate and the results are acceptable for the purpose of estimating mineral resources.

Block grade estimation was carried out using inverse distance weighting with a power of two. The estimation profiles were based on the orientation of the main geological units and the ranges suggested by variography. The process was carried out in three "runs," increasing in range each time to the maximum range that was suggested by variography.

Mineral resources at the Eagle Mountain project are in the Inferred category only. Mineral resources were defined using a block cut-off grade of 0.5 g/tonne gold. The volume of non-mineralised dike rocks has not been deleted from the mineral resource volume. Utilizing IAMGOLD's block model, the Reviewing Author re-tabulated the non-diluted inferred mineral resource estimate (hosted by saprolite (oxide) and "fresh" (non-oxidised) rock) as 17.95 million tonnes with an average gold grade of 1.26 g/tonne gold for 729,000 ounces of gold.

Howe's re-tabulation compares very well with IAMGOLD's October 2009 non-diluted inferred mineral resource estimate of 17.96 million tonnes with an average gold grade of 1.27 g/tonne gold for 733,500 ounces of gold. The difference between Howe's re-tabulation and IAMGOLD's estimate is insignificant at less than 1% and is attributed to differences in rounding of values. **The Reviewing Author finds IAMGOLD's October 2009 Eagle Mountain mineral resource estimate reasonably accurate and NI 43-101 compliant.**

**IAMGOLD Eagle Mountain Inferred Mineral Resource (Oct. 2009)**

| DDH only | Tonnes (000's) | AU-cap g/tonne | AU-cap oz contained |
|---|---|---|---|
| **Saprolite** ***(oxide)*** | **6,248** | **1.34** | **268,300** |
| **Fresh Rock** ***(non-oxidised)*** | **11,711** | **1.24** | **465,100** |
| **Saprolite & Fresh Rock** ***(oxide & non-oxidised)*** | **17,959** | **1.27** | **733,500** |

Notes for Mineral Resource Estimate:

1. Cut-off grade for mineralised zone interpretation was 0.5 g/tonne.
2. Block cut-off grade for mineral resources was 0.5 g/tonne.
3. Zones extended up to 100 metres along strike from last intercept.
4. Minimum zone thickness was 3 metres.
5. Non-diluted.
6. Resource estimate prepared by Iamgold Technical Services
7. A specific gravity (bulk density) value of 1.6 was used for saprolite (oxidised) rock and 2.7 was used for fresh (non-oxidised) rock.
8. Top-cut values, ranging from 10-15 g/tonne depending on the zone, were determined using decile analysis.

Other than a group of third party small scale mining permits of questionable validity overlying a portion of the mineral resource area, Howe is unaware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues that may materially affect the mineral resource estimate. IAMGOLD/OMG is seeking clarification from the Guyana Geology and Mines Commission on the validity of the small scale mining permits.

The Reviewing Author cross-checked ITS's results by re-modeling (re-wireframing) the Millionaire Zone. A new block model was created and grades were estimated using the same parameters that ITS used. The main difference between ITS's model and the cross-check model was the latter made use of sub-blocks (two in each dimension) to more accurately represent the modeled zone.

The results of the block model cross-check were:

| | Cut-off Grade (g/tonne) | Tonnes | Average Grade (g/tonne) | Ounces |
|---|---|---|---|---|
| Iamgold's Estimate* | 0.5 | 7,800,000 | 1.15 | 288,000 |
| ACA Howe's Cross-Check* | 0.5 | 7,800,000 | 1.27 | 319,000 |
| **Difference** | | **0%** | **+10%** | **+11%** |

* A specific gravity value of 1.6 was used for Saprolite and 2.7 for Non-Oxidised rock.

The cross-check block model contained a similar mass (tonnes) at a slightly higher grade. This resulted in an 11 % increase in metal content (ounces). The Reviewing Author considers the cross-check results to be positive. Though the cross-check results did not exactly equal ITS's results, the Reviewing Author believes that they are close enough to conclude that ITS's results are reasonably accurate.

Howe concludes that the Eagle Mountain project is a property of merit as defined in NI 43-101 and warrants additional expenditures.

Howe recommends that:

1. A systematic QA/QC protocol should be continued with the insertion of standards, blanks and duplicates into the sample stream at a frequency to adequately monitor the accuracy and precision of analytical results.
2. Check samples should be submitted with inserted standards to a second laboratory as part of the Company's sampling QA/QC program. Pulps should be re-homogenised and riffle split at the check lab prior to analysis and comparable analytical methods be used at both primary and check laboratories.
3. Given the lack of QA/QC information and documentation of sampling and assaying methodologies for the historic drill core, Stronghold should conduct a check sampling program using available archived drill core.
4. Additional diamond drilling should be completed on the Eagle Mountain resource estimate area to (a) expand Inferred mineral resources along strike and (b) upgrade Inferred resources to Indicated resources.
5. Additional detailed topographic surveying of the mineral resource area be conducted to correctly assess areas where the resource is incised by erosion and determine how much pre-stripping will be required to expose the mineralisation where it is not at surface.
6. Additional specific gravity measurements should be conducted on representative Eagle Mountain samples, particularly the mineralized zones.
7. Additional metallurgical work, consisting of gravity, cyanide and flotation test work should be carried out on representative samples. This laboratory-scale work would take 1-2 months. The goal of this work would be to develop a preliminary mineral processing flowsheet that could be used during potential future preliminary economic analyses.
8. Environmental baseline studies be initiated.
9. An update of the Eagle Mountain resource estimate be completed. New block models should be created using sub-blocking to more accurately represent the outlined mineralised zones. Block grades should be re-estimated using the same grade estimation parameters. Revised specific gravity values, surveyed drill hole coordinates and topographic surfaces should be incorporated into the estimate. Known occurrences of volumetrically significant non-mineralised dike rocks should be wireframed for inclusion in the model.
10. Stronghold work with IAMGOLD to determine the validity of the small scale mining permits within the Eagle Mountain PL, particularly the set of permits that overly a southwest portion of the mineral resource area.

The estimated cost of the recommended work is as follows:

| | |
|---|---|
| Step-out and in-fill diamond drilling (15,000m - $275/m all inclusive) | $ 4,125,000 |
| Check assaying of archived core | $ 25,000 |
| Topographic surveying | $ 100,000 |
| Specific gravity measurements | $ 10,000 |
| Mineral processing testwork | $ 100,000 |
| Environmental baseline studies | $ 100,000 |
| Mineral Resource Estimate update | $ 50,000 |
| **Total** | **$ 4,510,000** |

# 2 INTRODUCTION

This technical report ("the Report") has been prepared by A. C. A. Howe International Limited ("Howe") at the request of Mr. Michael Byron, Vice President Exploration, Stronghold Metals Inc. ("Stronghold" or "the Company"). This report is specific to the standards dictated by National Instrument 43-101 and Form 43-101F1 (Standards of Disclosure for Mineral Projects) in respect to the Eagle Mountain Gold Property ("Property") and focuses on Howe's independent audit of IAMGOLD Corporation, Guyana Exploration and Technical Services Groups' October 2009 Eagle Mountain mineral resource inventory. The report also updates exploration work conducted within the Property area during 2009 and 2010 after the October 2009 mineral resource inventory. The Property is situated in west-central Guyana, approximately 200 kilometres south-southwest of Georgetown, the capital of Guyana, South America.

Omai Gold Mines Ltd. (Omai), a 95% owned subsidiary of IAMGOLD Corporation, holds the Property under the Eagle Mountain Prospecting License. The remaining 5% of Omai Gold Mines Ltd is owned by the Government of Guyana. Omai operated the Omai gold mine, located approximately 45km to the northeast of Eagle Mountain from 1993 to its closure in 2008, and is actively exploring for gold in Guyana. On September 30, 2010 Stronghold announced that it had entered into a definitive Earn-In and Joint Venture Agreement (the "Agreement") dated September 29, 2010 with Omai Gold Mines Ltd., under which the Company has been granted the right to acquire, in stages, up to 50% interest in the Property through the completion of exploration work on the property. Additionally, the Company has the option to acquire the remaining 50% of the Property from Omai.

Stronghold is a junior resource company listed on the TSX Venture Exchange under the symbol "Z". The corporate head office is located at Suite 206, 595 Howe Street, Vancouver, B.C., V6C 2T5. The Company's current focus is the Tucuma Cu-Au Property, Brazil and the Eagle Mountain Gold Property, Guyana.

Howe is an international mining and geological consulting firm that has been serving the international mining community for over 30 years. Howe is well recognized by the major Canadian Stock Exchanges and provincial regulatory bodies and its personnel have worked on projects involving a wide variety of commodities and deposit types throughout the world. The firm's services are provided through offices in Toronto and Halifax, Canada; and London, England.

Neither Howe nor any of the authors of the opinions expressed in this Report (nor family members nor associates) have business relationships with the Company or any associated company, nor with any other company mentioned in this Report which is likely to materially influence their impartiality or create the perception that the credibility of this Report could be compromised or biased in any way. The views expressed herein are genuinely held and deemed independent of the Companies.

Moreover, neither the authors of this Report nor Howe (nor their family members nor associates) have any financial interest in the outcome of any transaction involving the property considered in this Report, other than the payment of normal professional fees for the work undertaken in its preparation (which are based upon hourly charge-out rates and reimbursement of expenses). The payment of such fees is not dependent upon the content or conclusions of either this Report, nor any consequences of any proposed transaction.

## 2.1 SCOPE AND CONDUCT

The purpose of the Report is to complete an audit of IAMGOLD's October 2009 mineral resource estimate for the Eagle Mountain Gold Property with the aim of independently verifying it as a National Instrument 43-101 compliant mineral resource.

The property has been a focus for small-scale gold mining for more than a hundred years and there are presently a number of minor active operations, both legitimate and illegal inside and around the Prospecting License perimeter. These are not considered by IAMGOLD and Stronghold to constitute a major risk to the future development of the project.

The mineral resource audit was prepared by Doug Roy, M.A.Sc., P.Eng., Associate Mining Engineer with Howe. Geological review and site visit was completed by Ian Trinder, M.Sc., P.Geo., Senior Geologist with Howe. Mr. Roy is a mining engineer with over ten years experience in the mining industry. He has participated in numerous projects and resource estimates for precious metals and base metals projects and has authored or co-authored numerous OSC-2A and NI 43-101 resource reports. Mr. Trinder has over 20 years experience in the mining industry with a background in international precious and base metals mineral exploration including project evaluation and management. Howe's mineral resource audit was prepared in accordance with CIM Standards on Mineral Resources and Reserves. It is the authors' opinion that the IAMGOLD October 2009 mineral resource estimate was also prepared in accordance with CIM Standards on Mineral Resources and Reserves. Only Mineral Resources were estimated – no Mineral Reserves were defined.

Mr. Trinder visited the Property site from mid-day October 9$^{th}$, 2010 to mid-day October 12$^{th}$, 2010 as part of due diligence in the preparation of this technical report. IAMGOLD's Georgetown, Guyana office was also visited on the afternoon of October 12$^{th}$, 2010. During the property visit, Mr. Trinder, along with Stronghold personnel: Mr. Ioannis (Yannis) Tsitos, President, CEO and Director, Mr. Michael Byron, Vice President Exploration and Mr. Art Freeze, Director, met with IAMGOLD's Guyana Exploration Manager, Linda Heesterman, Senior Geologist Anne Casselman and Exploration Geologist Kevin Pickett to examine the Property area and discuss the IAMGOLD's exploration activities, methodologies, findings and interpretations. Mr. Trinder acquired and completed a thorough review of a digital database including historic and current drilling on the Property. Digital copies of historic reports for the Property were obtained and reviewed. In addition, Mr. Trinder completed a field and desktop review of drilling and sampling methodology, quality assurance and quality control procedures, security, etc.

The Report is based on information known to Howe as of October 26, 2010 and includes assay data from historic Golden Star drilling through to Omai's 2009 diamond drill holes. Only the mineral resource area and associated drill intersections between 264000 - 267000 N and 577500 – 574500 N (UTM Zone 21N, PSAD56) are discussed in any detail in this report. Howe reserves the right, but will not be obligated to revise this Report and conclusions if additional information becomes known to Howe subsequent to the date of this Report.

Stronghold reviewed draft copies of this Report for factual errors. Any changes made as a result of these reviews did not include alterations to the conclusions made. Therefore the statement and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Report.

Stronghold has accepted that the qualifications, expertise, experience, competence and professional reputation of Howe's Principals and Associate Geologists and Engineers are appropriate and relevant for the preparation of this Report. The Company has also accepted that Howe's Principals and Associates are members of professional bodies that are appropriate and relevant for the preparation of this Report.

Stronghold has warranted that full disclosure of all material information in its possession or control at the time of writing has been made to Howe, and that it is complete, accurate, true and not misleading. The Company has also provided Howe with an indemnity in relation to the information provided by it, since Howe has relied on Stronghold's and IAMGOLD's information while preparing this Report. The Company has agreed that neither it nor its associates or affiliates will make any claim against Howe to recover any loss or damage suffered as a result of Howe's reliance upon that information in the preparation of this Report. Stronghold has also indemnified Howe against any claim arising out of the assignment to prepare this Report, except where the claim arises out of any proven willful misconduct or negligence on the part of Howe. This indemnity is also applied to any consequential extension of work through queries, questions, public hearings or additional work required arising out of the engagement.

## 2.2 SOURCES OF INFORMATION

In preparing the mineral resource audit, Howe utilised a digital database provided by IAMGOLD. Howe has also reviewed geological reports, maps, miscellaneous technical papers, company letters and memoranda, and other public and private information as listed in Section 21 of this Report, "Sources of Information / References". While the information and technical documents are assumed to be accurate and complete in all material aspects, Howe carefully reviewed the information and has conducted a spot check comparison of approximately 10 percent of the drill hole database assays against digital scans/PDF files of original lab certificates to verify the database's accuracy and completeness. No errors were detected.

Howe imported the IAMGOLD Gemcom database, wireframe "solid" models and block model into Micromine 2010 software and the database files were reviewed and "verified" for errors such as missing data and overlapping intervals. No significant errors were detected. Howe reviewed cross-sections showing the diamond drill hole traces, assay intervals, lithological intervals, mineralised zone intervals, zone wirefame “solid” outlines, surface trace, saprolite/non-oxidised rock surface trace, fault traces and block model slices. Howe also carried out a crosscheck of IAMGOLD’s variography and a cross-check of block modelling and grade estimation results for the Millionaire Zone. All were found to be acceptable.

The existence of reported work sites was confirmed by Howe representative and co-author Mr. I. Trinder during his visit to the Property from mid-day October 9th, 2010 to mid-day October 12th, 2010. Mr. Trinder completed an inspection of isolated surface outcrops, historic trenches and adits, and selected drill hole collars. The field camp, core logging and core sampling facilities were inspected. The condition of Company’s onsite core storage racks was checked and core from several holes was examined. All of the work sites and technical observations were as reported by the Company.

In addition, Mr. Trinder completed a field and desktop review of drilling and sampling methodology, quality assurance and quality control procedures, security, etc. Logging, sampling and core handling procedures were found to be compliant with NI 43-101 standards.

Howe has only reviewed the land tenure in a preliminary fashion, and has not independently verified the legal status or ownership of the property or the underlying agreements. Other than a group of third party small scale mining permits of questionable validity overlying a portion of the mineral resource area, Howe is unaware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues that may materially affect the mineral resource estimate. IAMGOLD/OMG is seeking clarification from the Guyana Geology and Mines Commission on the validity of the small scale mining permits.

Historical mineral resource figures contained in the Report, including any underlying assumptions, parameters and classifications, are quoted “as is” from the source. Howe confirms the audited resource is in compliance with National Instrument 43-101 and Form 43-101F (Standards of Disclosure for Mineral Projects) and the definitions and guidelines of the CIM Standards on Mineral Resources and Reserves.

In addition, Howe carried out discussions with the Stronghold’s Mr. Ioannis (Yannis) Tsitos, President, CEO and Director, Mr. Michael Byron, Vice President Exploration and Mr. Art Freeze, Director, as well as IAMGOLD’s Guyana Exploration Manager, Linda Heesterman, Senior Geologist Anne Casselman and Exploration Geologist Kevin Pickett. Howe’s extensive experience in lode gold deposits was also drawn upon.

The authors believe that information presented to Howe by Stronghold and data received from IAMGOLD are a reasonable and accurate representation of the Eagle Mountain Gold Project. Howe is of the opinion that the drill hole and assay database for the Eagle Mountain Project is of sufficient quality to permit the completion a NI 43-101 compliant Mineral Resource Estimate and provide the basis for the conclusions and recommendations reached in this Report.

## 2.3 UNITS AND CURRENCY

All units of measurement used in this report are metric unless otherwise stated. Historical tonnage figures are reported as originally published in "tons" (short tons). Base metal values are reported in percent (%) or parts per million (ppm). Historical gold and silver grades are reported in their original unit of oz Au/ton or oz Ag/ton (ounces per short ton), although metric equivalents are also given for clarity. Recent analyses are reported in g/t (grams per metric tonne), ppm or parts per billion (ppb). Distances are expressed as kilometres (km) and metres (m). The U.S. dollar is used throughout this Report unless otherwise stated.

Location coordinates are expressed in Universal Transverse Mercator (UTM) grid coordinates, Zone 21S, using the Provisional South American Datum 1956, (PSAD 56).

# 3 RELIANCE ON OTHER EXPERTS

Howe has relied upon IAMGOLD reports and Stronghold, its management and legal counsel for information on the Eagle Mountain Prospecting License location and status, underlying contracts and agreements pertaining to the acquisition of the Prospecting License and their status. The Property description presented in this report is not intended to represent a legal, or any other opinion as to title.

Howe's mineral resource audit and this Report utilizes information and data from IAMGOLD's October 2009 NI 43-101 compliant technical report authored by IAMGOLD's Qualified Person, Francis Clouston (Clouston, 2009). Howe's report has extracted sections of Clouston's report which are so noted in the respective sections. Additional information on the Property presented in this Report is based on data derived from current and historic reports written by geologists and/or engineers, whose professional status may or may not be known in relation to the NI 43-101 definition of a Qualified Person. Howe has made every attempt to accurately convey the content of the reports and files, but cannot guarantee either the accuracy or validity of the work contained. However, Howe believes that these reports were written with the objective of presenting the results of the work performed without any promotional or misleading intent. In this sense, the information presented should be considered reliable, unless otherwise stated, and may be used without any prejudice by Stronghold.

IAMGOLD used Anaconda British Guiana Ltd data dating from 1947-48 to confirm the locations and orientations of the modeled mineralized zones in some areas. A comparative study by IAMGOLD at the Omai Mine where a geologically similar area had been drilled by Anaconda and later mined indicated that Anaconda's work was generally of a high quality.

An aeromagnetic and radiometric survey was flown over the western part of the property by Terraquest Ltd in 2006, with data later reprocessed by Four Winds Technology Pty Ltd. The latter company was also responsible for a 3D IP survey completed in late 2007.

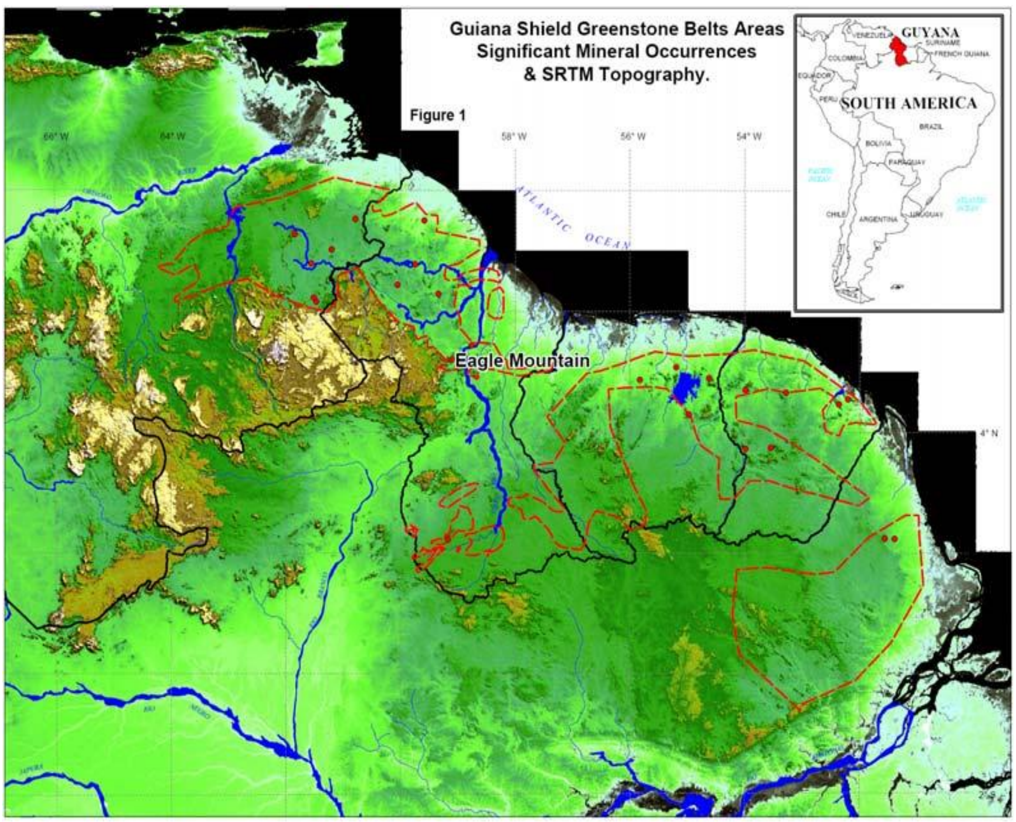
Golden Star Resources and Cambior staff collected large amounts of auger and drilling data from 1988 up to 1999. IAMGOLD staff acquired all pre 2005 data, developed a revised geological interpretation and produced the October 2009 resource model. While Clouston (2009) and his co-workers did not supervise any drilling and assaying prior to 2005, they examined the reports and supporting data, and in some cases re-sampled material.

Recent petrological work was carried out by CLM Petrograpia Ltda of Rio de Janeiro, and by Dr. A.W. Kemp, consulting geologist attached to the Guyana Geology and Mines Commission. Some petrological and specific gravity data from Anaconda drill core was obtained from historical government reports.

# 4 PROPERTY DESCRIPTION AND LOCATION

## 4.1 Location

The Eagle Mountain Prospecting License is located approximately 200 kilometres south-southwest of Georgetown, the capital of Guyana, South America (Figure 4-1and Figure 4-2). The license is located in the watershed between the Potaro and Konawaruk Rivers in Guyana’s Administrative District VIII-2 (Potaro-Siparuni) and in Mining District 2 (Potaro). It lies within the Kaieteur Sheet 43SE & 43NE 1:50,000 scale topographic maps and is bounded by latitudes $5^{o}$ 11’ N and $5^{o}$ 15’ N and longitudes $59^{o}$ 4’ W and $59^{o}$ 9’ W.




Areas of greenstone are outlined by dashed red polygons. Significant mineral occurrences are highlighted by filled red circles.

**Figure 4-1: Location Map of the Guiana Shield Greenstone areas**

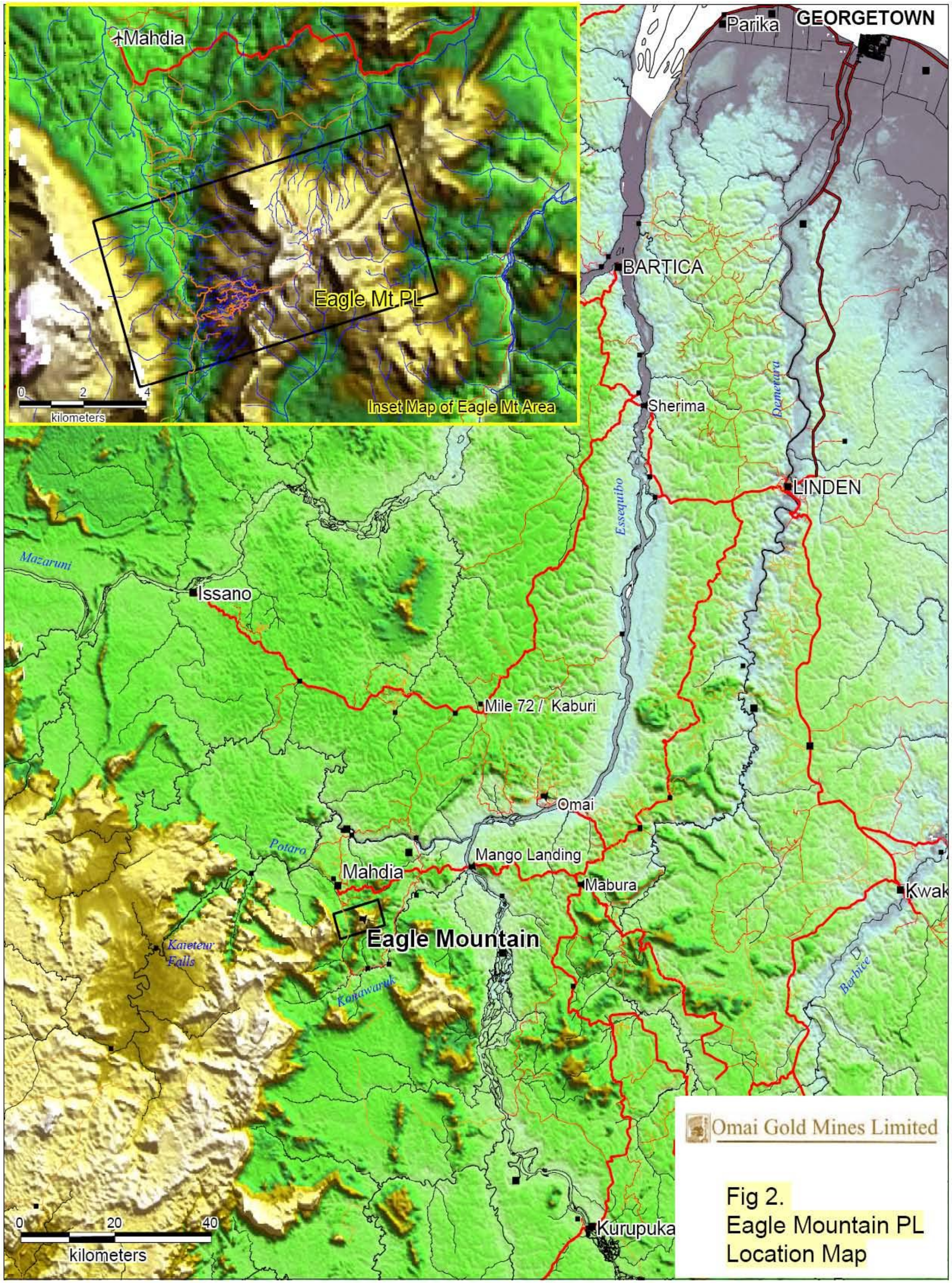



**Figure 4-2: Location Map of the Eagle Mountain Prospecting License.**

## 4.2 The Mining Regulations of Guyana

All mineral resources in Guyana are the property of the State. The state body responsible for the management of these resources is the Guyana Geology and Mines Commission (GGMC). The Mining Act of 1989 and extensive Mining Regulations provide the framework for the mineral tenure system. Tenure is categorized as small-, medium- and large-scale and GGMC officials exercise discretionary powers. Local legal advice is paramount to determine and clarify the legal status of any mineral tenure, royalties or participatory rights.

The Mining Act, 1989 allows for four scales of operation:

1. A Small Scale Permit has dimensions of 1,500 ft x 800 ft (457 m by 244 m) whilst a river permit consists of one mile (1,609 m) of a navigable river.
2. Prospect Permit Medium Scale (PPMSs) permits cover between 150 and 1,200 acres (60.7 to 486 ha).
3. Prospecting Licences (PLs) are issued for areas between 500 and 12,800 acres (202 to 5,180 ha).
4. Permission for Geological and Geophysical Surveys is granted for reconnaissance surveys over large acreages, with the objective of applying for Prospecting Licences over favourable ground selected on the basis of results obtained from the reconnaissance aerial and field surveys.

The permits and licences are located and identified by orthogonal co-ordinates indicating the corners of the permits/licences.

Only citizens of Guyana or legal Guyanese entities may hold a Small Scale Permit and PPMS permit however, foreigners may into joint-venture arrangements whereby the two parties jointly develop the property under a private contract. In order to maintain such a permit, there is no requirement to submit a work program or budget, provide reports of work or monument the permit corners. The area may enclose earlier holdings that retain preferential mineral rights. The initial term of a PPMS is one year with a rental fee of US$0.25 per acre ($0.10 per hectare). The rental fee increases US$0.10 per acre ($0.04 per ha) per year and the permit may be renewed indefinitely for one year periods.

A Mining Permit may evolve out of a Prospecting Permit at the permitee's option. There is no requirement for a feasibility study to accompany an application to convert a Prospecting Permit, Medium Scale (PPMS) to a Mining Permit, Medium Scale (MPMS). The MPMS is for an initial term of five years or the life of the deposit whichever is shorter. Rental rates on a MPMS is US$1.00 per acre ($0.40 per ha). The State is entitled to a 5% non-contributory interest or royalty on gross production from MPMS. In individual cases, it is possible to negotiate and enter into a Mineral Agreement with the GGMC. Such an agreement would include, but not be limited to, prospecting, exploration and mining/processing and taxation.

Foreign companies may apply for Prospecting Licences and Permission for reconnaissance surveys. The term for PLs is three years with two rights of renewal of one year each. The Mining

Act, 1989 stipulates that three months prior to each anniversary date of licence, a work program and budget for the following year must be presented for approval. Rental rates for PLs are USD$0.50 per acre for the first year; US$0.60 for the second year, and US$1.00 for the third year. An application fee of US$100.00 and a Work Performance Bond, equivalent to 10% of the approved budget for the respective year is also payable. The obligations of the licensee include quarterly technical reports on its activities and an audited financial statement to be submitted by June 30 for the previous year's expenditure. Should the licensee relinquish part or all of the Prospecting Licence area then he is required to submit an evaluation report on the work undertaken therein. Prospecting Licence properties are subject to ad hoc monitoring visits by technical staff of the GGMC.

At any time during the Prospecting Licence, and for any part or all of the Prospecting Licence area, the licensee may apply for a Mining Licence. This application will consist of a Positive Feasibility Study, Mine Plan, an Environmental Impact Statement and an Environmental Management Plan. Rental for a Mining Licence is currently fixed at US$5.00 per acre per year and the licence is usually granted for twenty years or the life of the deposit, whichever is shorter; renewals are possible.

## 4.3 Title

Section 4.3 has been extracted from Clouston (2009).

Eagle Mountain (then called Minnehaha) and adjacent Mahdia areas to the north were originally held by Golden Star Resources Ltd. ("GSR") as a five year Mineral Agreement with the Government of Guyana dated October 30, 1987. Work was suspended between 1992 and 1997 while the Guyana Government developed its current Prospecting License system, with various extensions of rights granted by Ministerial Decree. On October 14, 1998, a three year Prospecting License was granted to GSR, and then transferred to Omai Gold Mines Ltd. ("OGM") on December 23, 1998.

A new Prospecting License was issued to OGM in October 2000 for a three year period. In May 2002, a release and discharge agreement was signed between GSR and OGM, and since then OGM has been the sole owner of the property. The Prospecting License was renewed in its entirety for a two year period in October 2003, and again in 2005. A new Prospecting License was issued for a three year period under revised rules on October 14, 2007, whereby OGM held specific rights to gold and associated valuable minerals, and base metals including molybdenum.

***Howe notes that OGM filed application with the Guyana Geology Mines Commission ("GGMC") in the summer of 2010 for a renewal of the Prospecting Licence covering the Propertyarea for the one year period of October 2010 to October 2011. Stronghold reports that as of the week of November 1, 2010 GGMC has approved the renewal, and it currently waits signing by the Prime Minister of Guyana in his capacity as Minister of Mines.***

During the entire period from 1998 to present, the formal description of the Property has been as follows:

The Eagle Mountain Prospecting Licen*s*e is located in the Potaro Mining District No.2 on the Government 1:50,000 topographic sheets, Kaieteur 43 NE/SE. It is described as follows and takes for its reference, a point “RP”, being on the southern end of the Mahdia airstrip at true geographic coordinates of:

- Longitude 59$^{o}$ 08’ 37” E UTM Easting 262,406.00
- Latitude 05 $^{o}$ 16’ 06” N UTM Northing 582,740.00

1) Thence 4.43 kilometres (2.75 miles) at a true bearing of 199 $^{o}$ to the boundary commencement point “A” located with true geographic coordinates of:

- Longitude 59 $^{o}$ 09’ 24” E UTM Easting 260,965.17
- Latitude 05 $^{o}$ 13’ 51” N UTM Northing 578,555.53

2) Thence 5.23 kilometres (3.25 miles) at a true bearing of 163 $^{o}$ to the South Western corner of the P.L, at point “B”, located with true geographic coordinates of:

- Longitude 59 $^{o}$ 08’ 36” E UTM Easting 262,494.34
- Latitude 05 $^{o}$ 11’ 09” N UTM Northing 573,553.84

3) Thence 9.66 kilometres (6.00 miles) at a true bearing of 73 $^{o}$ to South Eastern corner of the P.L, at point “C”, located with true geographic coordinates of:

- Longitude 59 $^{o}$ 03’ 33” E UTM Easting 271,728.23
- Latitude 05 $^{o}$ 12’ 42” N UTM Northing 576,376.92

4) Thence 5.23 kilometres (3.25 miles) at a true bearing of 343 $^{o}$ to the North Eastern corner of the P.L, at the point “D”, located with true geographic coordinates of:

- Longitude 59 $^{o}$ 04’ 22” E UTM Easting 270,199.06
- Latitude 05 $^{o}$ 15’ 27” N UTM Northing 581,378.62

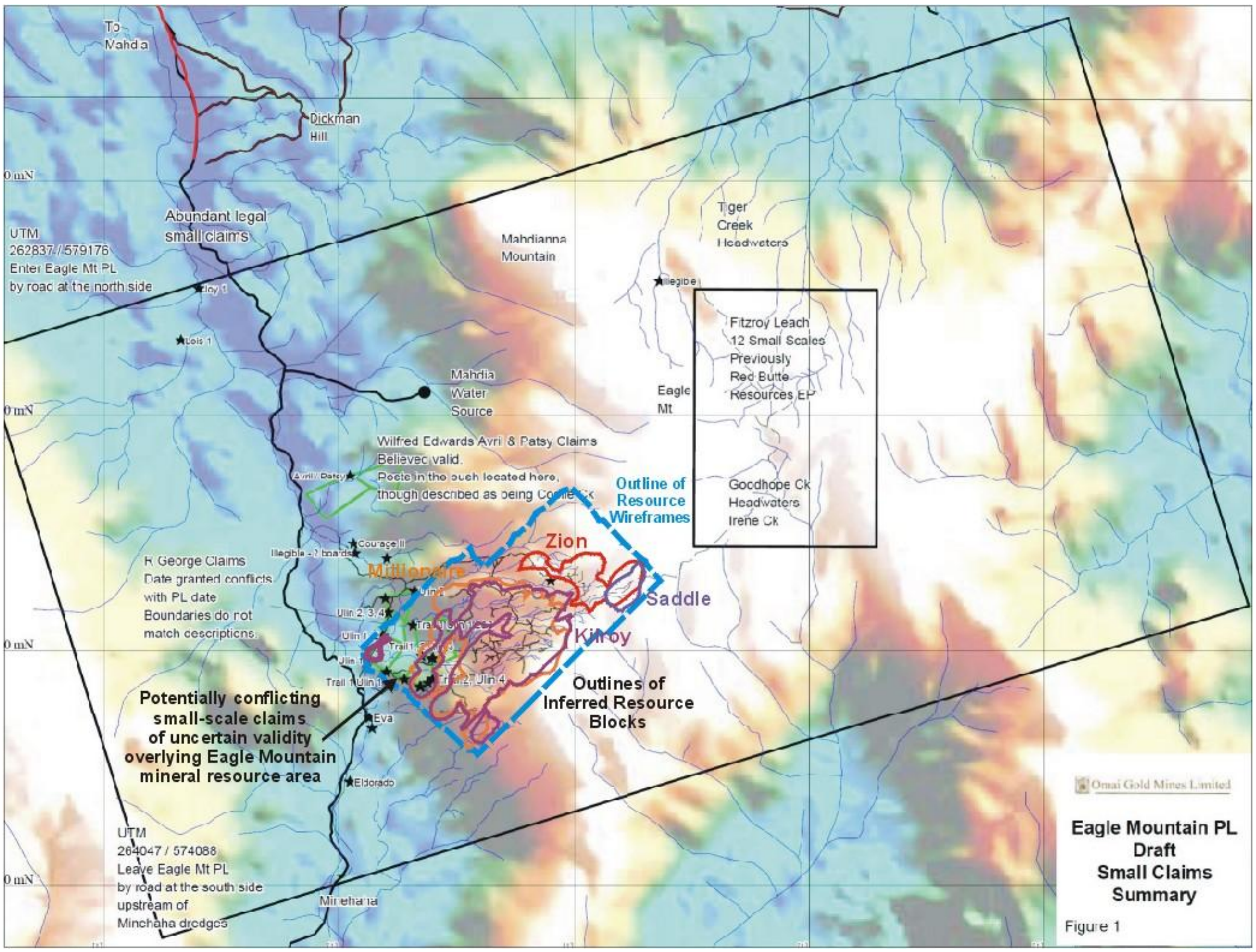
5) Thence 9.66 kilometres (6.00 miles) at a true bearing of 253 $^{o}$ to the North Western corner or commencement point “A” of the P.L.

The Eagle Mountain Prospecting License (“EMPL”) encloses an area of approximately 50.50 $km^2$ (5050ha) or 19.50 sq miles (12,480 acres), with the exception of all third party lands legally held or occupied therein.

A number of small-scale permits are excluded from the central part of the EMPL and a few more may be valid in the southwest of the area (Figure 4-3). In particular, Howe notes the group of small scale mining permits overlying a portion of the mineral resource area. IAMGOLD/OGM is seeking clarification from GGMC on validity of these claims. In addition, numerous illegal dredges have periodically been operated on the property.

During the life of the EMPL, quarterly and annual reports are submitted to the GGMC, along with work programs and proposed budgets. GGMC is paid an annual fee of US$3 and US$1.5 per acre for the respective rights to the two mineral groups. A performance bond representing 10% of the approved budget is also lodged.

Surface mineral rights are 100% held by OGM. A very small area with a farm grant and a north-south historic public road (now a track) occur within the EMPL. In the northern part of the EMPL, creek water is funneled into a six inch PVC pipe to supply potable water to Mahdia Township.




Stars are claim boards, although most are not related to legal claims.

**Figure 4-3: Land status**

## 4.4 Stronghold – OGM Joint Venture

Stronghold and OGM entered into an Earn-In and Joint Venture Agreement dated September 29, 2010 whereby Stronghold may earn increasing interests in the Property based on a combination of cash payments, share issuances and work expenditures more particularly described below:

**Table 4-1: Summary of earn-in and JV terms (all money figures in US$ Dollars).**

<table>
<tr><td>Significant Milestone Date</td><td>Minimum Exploration Expenditure</td><td>Cash Payments to OGM</td><td>Issuing of Stronghold Common Shares to OGM</td><td>Vesting Interest for Stronghold</td><td>Nature of Commitment</td></tr>
<tr><td>On Transaction Closing</td><td>$400,000</td><td>$250,000</td><td>2,000,000 shares</td><td rowspan="4">25%</td><td rowspan="4">Firm</td></tr>
<tr><td>December 2010</td><td></td><td>$250,000</td><td></td></tr>
<tr><td>October 2011</td><td>$1,100,000</td><td>$1,000,000</td><td>2,000,000 shares</td></tr>
<tr><td>SUBTOTAL As of Oct 2011</td><td>$1,500,000</td><td>$1,500,000</td><td>4,000,000 shares</td></tr>
<tr><td>October 2012</td><td>$2,000,000</td><td>$1,000,000</td><td>2,000,000 shares</td><td rowspan="2">50%</td><td rowspan="4">Optional</td></tr>
<tr><td>SUBTOTAL As of Oct 2012</td><td>$3,500,000</td><td>$2,500,000</td><td>6,000,000 shares</td></tr>
<tr><td>Within 6 Months from Oct 2012</td><td></td><td>$1,000,000</td><td></td><td>100%</td></tr>
<tr><td>On Granting of a Mining License</td><td></td><td>$7,500,000</td><td></td><td></td></tr>
<tr><td>GRAND TOTAL</td><td>$3,500,000</td><td>$11,000,000</td><td>6,000,000 shares</td><td>100%</td><td></td></tr>
</table>

Stronghold has a firm commitment to pay US $250,000, issue 2,000,000 common shares in the capital of Stronghold to OGM and incur exploration expenditures of not less than US$400,000 on the Eagle Mountain Gold Property by December 31, 2010.

Furthermore Stronghold has agreed to pay OGM US$250,000 on the earlier of: (i) December 1, 2010; or (ii) 5 days from the date on which the Government of Guyana grants OGM an extension notice for the concessions that cover the Property for the period October 2010 to October 2011.

Provided the Extension Notice has been granted, Stronghold shall fund an additional US$1,100,000 of Expenditures (firm commitment), issue an additional 2,000,000 common shares and pay an additional US$1,000,000 to OGM by October 31, 2011.

Once Stronghold has satisfied the above requirements and therefore has funded an aggregate of US$1,500,000 of Expenditures, issued an aggregate of 4,000,000 common shares and paid US$1,500,000 to OGM it will have earned a 25% equity interest in the Property.

Stronghold then has the option to fund an additional US$2,000,000 (for a total of US$3,500,000) in Expenditures, issue an additional 2,000,000 common shares (for a total of 6,000,000 common shares) and pay an additional US$1,000,000 (for a total of US$2,500,000) to OGM (or as OGM may direct), all by October 31, 2012 to earn a 50% equity interest in the Property.

After earning a 50% interest in the Property, Stronghold has the right to acquire the remaining 50% interest within six months by paying OGM an additional US$1,000,000. OGM has 90 days from the date Stronghold earns a 50% interest to require Stronghold to acquire the remaining 50% interest in the Property for a payment of US$1,000,000.

Provided that Stronghold becomes the registered and beneficial owner of at least a 50% interest in the Property, upon the grant by the Government of Guyana of a mining or exploitation licence in relation to the Eagle Mountain , Stronghold will pay OGM an additional US$7,500,000.

Assuming all expenditures and milestones are made, IAMGOLD will become a significant shareholder of Stronghold.

## 4.5 Mineralisation Location

The mineral resource and drill intersections discussed in this document occur between 264,000E – 267,000E and 577,500N – 574,500N (UTM Zone 21N, PSAD56).

## 4.6 Environmental Issues

There are no known environmental liabilities, although some areas have been deforested and disturbed by small-scale illegal mining. Should the identified resource be mined, reclamation will constitute part of the formal closure plan.

## 4.7 Permits Required

No additional permits other than maintaining the Prospecting License are required to conduct exploration. All current statutory requirements concerning the license have been fulfilled.

OGM may apply for all or part of the Prospecting License to be converted to a Mining License at any time. A Positive Feasibility Study, Mine Plan, an Environmental Impact Statement and an Environmental Management Plan are submitted to the GGMC and Guyana Environmental Protection Agency as part of the Mining License application process. A Mining License is usually granted for twenty years or for the life of the deposit, whichever is shorter, and renewals are possible. All gold production in Guyana is subject to a 5% Net Smelter Royalty.

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

Section 5 has been extracted from Clouston (2009) with only minor edits. Howe concurs with the observations and statements made by Clouston (2009).

The northern margin of the EMPL is located approximately five kilometres south of Mahdia Township (approximately 800 people; Figure 4-2), and four kilometres south of the Mahdia airstrip. Mahdia can be accessed by road from Georgetown in five to six hours. The road is paved from Georgetown to Linden. Access between Linden and Mabura is via a wide laterite road historically built by OGM and Demerara Timbers Ltd. An unpaved road from Mabura to Mahdia is narrow and locally steep. A large motorized pontoon is used to cross the Essequibo River at Mango Landing. The Mahdia airstrip was hard-surfaced in the spring of 2010 and is suitable for small commercial and charter twin-engine passenger aircraft.

From Mahdia, the old Potaro-Konawaruk Road provides truck access to the western portion of the EMPL at Mile 118, a distance of eight kilometres. From there, the old Millionaire Hill and Porphyry Hill roads allow easterly access into the main mineralized areas. These roads are steep and currently only traversable by pick-up in the dry season.

The climate is tropical, with the main May-June rainy season and “Christmas” rains separated by a short March-April dry season and a more consistent dry season from August to October. The abrupt topographic break in the area results in high rainfall, with a monthly average of just over 40cm and a recorded maximum of nearly 70cm for the month of June.

Eagle Mountain is the highest peak in the area at 724.8 metres above mean sea level and was one of the primary triangulation points used to establish the original survey grid over Guyana. Dolerite sills and dykes near the summit form steep cliffs of up to 150m vertical relief.

The surface expression of the mineralized zones currently being investigated lies mainly between the elevations of 160 metres and 500 metres above mean sea level on the southwest flank of Eagle Mountain, extending over a horizontal distance of 1.8 kilometres. Topography in the mineralized areas is characterized by steep sections separating less steep “benches’. Dolerite boulders up to fifteen metres in diameter derived from weathering of the dolerite sill are frequent on the western flank of Eagle Mountain. The area is covered by thick tropical jungle, which has re-grown since the last period of historical mining in the 1940’s.

Small creeks that drain either to the Mahdia River and then to the Potaro River, or to the Minnehaha River and then to the Konawaruk River form deeply incised valleys in the area, which widen quickly near the EMPL boundaries to form alluvial flats up to two kilometres wide. The alluvial deposits within both watersheds have been historically worked by artisanal miners, and are still worked today outside the property area.

Exploration activities are currently supported by a small exploration camp on site. Supplies are partly sourced from Georgetown, and partly from Mahdia. The camp has limited cell-phone coverage, although an established satellite link provides Internet access.

There is no electric power available locally. An abandoned hydropower station is located at Tumatumari, approximately twenty-one kilometres northeast of the resource area. This was constructed in 1957 by the British Goldfields Limited and operated until 1959 when mining operations ceased. The Government of Guyana re-commissioned the station in 1969 to serve local communities. This development included an embankment dam, a concrete overflow dam, and a 2-unit powerhouse with an installed capacity of 1500kW. Several organizations have signed MOUs within the last ten years to investigate the viability of refurbishing Tumatumari, but all are now believed to have expired. The Amalia Falls area located approximately fifty kilometres west-northwest of the EMPL is currently being assessed for potential large-scale hydroelectric power generation.

Potable water is available from multiple small creeks and a few small rivers within the EMPL. Alluvial flats in the northwest and southwest areas of the EMPL are potentially suitable sites for infrastructure and tailings facilities.

# 6 HISTORY

Section 6 has been extracted from Clouston (2009) with only minor edits. Howe concurs with the observations and statements made by Clouston (2009).

Alluvial gold has been exploited in the Eagle Mountain area since at least 1884. Dredging operations were carried out by the Minnehaha Development Company and the British Guiana Consolidated Gold Company in the Mahdia and Minnehaha Rivers up to 1948 (MacDonald, 1968). Total production from the general area is estimated at over 1Moz of gold from alluvial and eluvial sources.

During World War II, several small stamp mills processing vein material from small tunnels and shafts were in operation in the Eagle Mountain area. The largest included No.1 Hill, which reportedly produced 1000oz of gold from 1000 tons of material in the period 1912-14. The mine was revived in 1921, although production statistics were not recorded. In 1946, a small-scale miner named Larken drilled near the Powder Tunnel and also at Dickman's Hill north of the EMPL boundary.

Anaconda British Guiana Mines Ltd ("Anaconda") explored the Eagle Mountain area in 1947 and 1948. Most quarterly and annual reports are still available and include maps. Anaconda's activities included geological mapping, diamond drilling (57 holes), tunneling and shaft sinking. This work outlined a series of shallow dipping (20-50$^{o}$), gold-bearing mylonite zones of variable width (1.8 –10.7 metres), occurrences of auriferous sub-vertical quartz veining and molybdenite mineralisation within quartz-feldspar porphyry to the west of Minnehaha Creek (Waterman, 1948). A summary report by Bracewell (1948) includes additional information such as petrology and specific gravity data from drill core.

In 1964-65, a soil sampling program completed by the Guyana Geological Survey outlined several significant molybdenum geochemical anomalies, one with a cumulative strike of two kilometres within the EMPL area (Bateson, 1965). In 1966-67, Amax Exploration Inc drilled nine vertical holes into the Dickman's Hill anomaly located to the north of the EMPL boundary, but intersected only low-grade molybdenum mineralisation (Banerjee, 1970). Data from this drilling program has not been located.

During 1970–1973, the Geological Survey of Guyana conducted follow-up work on the Eagle Mountain molybdenum anomaly, included pitting and fifteen diamond (AX) drill holes. An additional five holes were drilled at Dickman's Hill (Banerjee, 1972). Some of this core still exists, although a portion was submitted to a commercial laboratory by GSR for re-assay. During the same period, drainage and soil sampling was carried out to screen the Baboon Creek area for tungsten mineralisation. This work revealed widespread scheelite mineralisation, but not in high concentrations. Several reports on investigations into the molybdenum and tungsten mineralisation at Eagle Mountain are summarized in a M.Sc. thesis by Inasi (1975).

Subsequent work by the GGMC, including eight vertical diamond (AX) drill holes, was performed specifically to investigate the gold potential of the area (Livan, 1981). Check assays completed at the GGMC and at various external institutions indicate that original gold assays are unreliable due to poor sample preparation techniques. Consequently, this data has not been included in the current mineral resource model.

GSR carried out mapping, soil sampling, auger sampling and surface geophysics between 1988 and 1990, and from 1997, completed deep augering, trenching, diamond drilling (1285 metres in 21 holes) and a preliminary 3D model. Exploration results are documented in quarterly and annual reports held at the GGMC, and much of their database was later transferred to OGM.

Growler Mine Joint Venture partners obtained an Exclusive Exploration Permission ("EEP") covering the Irene-Good Hope Creek headwaters in 1988. This area was briefly explored by Red Butte Resources and IMPACT Minerals. Several Small Scale Permits held by a local owner occupy a portion of the original EEP area and are excluded from the EMPL (Figure 4.3).

In 1998, Cambior Inc. entered into a Joint Venture agreement with GSR and the EMPL was transferred to OGM in the latter part of the year. GSR sold its interest in OGM to Cambior in 2002. OGM and Cambior became part of IAMGOLD Corporation in 2006, when exploration work resumed in full.

## 6.1 Omai Gold Mines Ltd / Cambior 1998-2004

OGM/Cambior exploration activities between 1998 and 2004 included diamond drilling (70 holes for 5,936m), auger sampling and surveying. A computerized 3D model and preliminary *in situ* geological resource estimate totaling 317,419 ounces of gold at an average grade of 1.33g/t Au was completed in mid 1999. A revised resource estimate of 6.4 Mt @ 1.2g/t Au for 245,475 oz was produced in 2003/2004 (Clouston, 2004). These historical mineral resource estimates were based on a significantly different geological interpretation than the current resource, particularly with respect to the orientations of modeled mineralisation zones. ***These historical resources have not been reviewed by Howe, and are not in compliance with NI43-101 "Standards of Disclosures for Mineral Deposits". Data and the basis for the calculation of these resources are not known to Howe and as such these resources should not be relied upon***.

## 6.2 Omai Gold Mines Ltd / IAMGOLD 2006-2009

A decision was made in late 2005 to re-examine the gold potential of the EMPL. Initial work included compilation of a digital GIS database incorporating all available historical data. A significant spatial offset between the Anaconda and GSR/OGM datasets as well as the topography in some areas was detected and subsequently corrected through this work.

Fieldwork resumed in early 2006 with a regional multi-element drainage sampling program (84 sites). Results revealed no significant gold anomalies in the southeastern part of the EMPL and confirmed the historically identified areas of molybdenum mineralisation. Several new tin-tungsten anomalies were also revealed. A number of areas were examined by auger sampling and geological mapping, including an area of granitoid northeast of Zion, north of the Bishop-Growler excluded area and at the headwaters of Tiger Creek. Results were generally erratic. In addition, Terraquest Ltd was contracted to cover the western part of the EMPL with a fixed-wing airborne radiometric and magnetometer survey.

In late 2006, auger and outcrop sampling in the Zion-Bacchus area, together with rock and channel sampling in the Bottle Bank, Dead Stop and VG Pit areas confirmed significant gold anomalies. These areas were later covered with an IP and ground magnetometer survey. Subsequent work programs included detailed auger sampling, principally over the Zion, Coolie and Kilroy-Bottle Bank areas, with a few lines in the Baboon area (6,255 samples from 1,985 holes). Several areas were trenched and a number of historic adits located and channel sampled. A total of 334 channel samples covering 306.3 metres were collected, as well as 385 rock samples. Some petrological work was also completed.

OGM completed a total of 46 diamond drill holes for 8,059 metres during this period. Drilling programs were designed to expand and further delineate the known gold resources, investigate the molybdenum potential of the Dispute Pit area and to test satellite structural, geochemical and/or geophysical targets. Results gained from this work led to significant advances in the understanding of the mineralisation styles at Eagle Mountain.

# 7 GEOLOGICAL SETTING

Section 7 has been extracted from Clouston (2009) with only minor edits. Howe concurs with the observations and statements made by Clouston (2009).

## 7.1 Regional Geology

The Eagle Mountain area occurs within Palaeoproterozoic greenstones of the Guiana Shield (see Figure 4-1). The oldest rocks in this general area belong to the Mazaruni Group, and consist of volcanic and sedimentary rocks that are folded and metamorphosed to a lower greenschist chlorite-albite-epidote grade. According to Gibbs and Barron (1993), the mafic meta-volcanics are generally older than the intermediate to acidic meta-volcanics and meta-sediments.

The Younger Granite Group, which intrudes the Mazaruni Group, is characterized by synkinematic multi-phase plutons, often with foliated margins. Intrusions vary in size from batholithic to satellite discordant stocks. Documented ages range from 1.9 to 2.2 Ga, consistent with emplacement during the pervasive Trans-Amazonian tectonic event. Granodiorite compositions predominate, with lesser amounts of granite, diorite and late-stage quartz and feldspar porphyry.

Greenstones and granites are unconformably overlain by the Middle Proterozoic Uatuma SuperGroup, which includes folded sandstones and siltstones of the Moruwa Formation and locally tilted acid volcanics of the overlying Iwokrama Formation. These are overlain by a thick succession of flat-lying cross-bedded sandstones, arkoses, quartzite and conglomerates of the Roraima Formation that together with younger basic sills and dykes form the bulk of the Pakaraima Mountains immediately west of Eagle Mountain.

Un-metamorphosed basic intrusions are widespread throughout Guyana and have a wide age range. Large sills and dykes of the Younger Basic Intrusive Suite include the sill at Eagle Mountain and the Tumatumari Dyke (Figure 4-2), which were dated at 1.67Ga (K-Ar ages; Snelling and McConnell, 1969). The Omai Sill is also included in this suite but yielded a U-Pb age of 1.794Ga (Voicu *et al*., 2001). It is unclear whether this difference is due to analytical error. The northeast trending Tumatumari Dyke, which extends from Eagle Mountain to beyond the Omai area, is considered to be the feeder structure to Eagle Mountain Sill as well as three regional scale sills in the Pakaraima Mountains to the southwest. These intrusions are interpreted to have continental tholeiitic affinities (Gibbs and Barron, 1993), and vary from gabbroic to noritic in composition. A suite of smaller basic dykes (Apatoe Dykes) ranging in age up to Cretaceous typically has northeasterly strikes, while most of the older dykes (but not the Tumatumari Dyke) trend NNE-SSW.

The Central Guiana Shear Zone located in northern Guyana comprises a series of major northwest-southeast striking shear zones contained within a 75-100 kilometre wide belt (Voicu *et* *al.*, 2001). These structures are spatially associated with many of the known mineral deposits in Guyana. The northwest-southeast lineament bounding the northern part of the Pakaramima Mountains to the west of Eagle Mountain is interpreted to be one of the more southerly strands of the Central Guiana Shear Zone (Figure 4-2). Several other regional scale lineaments intersect in the Eagle Mountain region where they are visible as topographic breaks (Figure 4-1 and Figure 4-2). Based on the distribution and preserved thickness of the Roraima Formation, regional scale uplift is interpreted to have occurred between a north-northeast trending lineament that partly controls the shape of the Mahdia Valley and a parallel structure that bounds the western margin of the Cannister Outlier located over 90 kilometres to the southeast (Figure 4-2) northeast-southwest and north-south oriented regional lineaments also intersect at Eagle Mountain. There is currently insufficient evidence to postulate a direct link between any of these structures and gold mineralisation.

## 7.2 Local and Property Geology

The oldest rocks identified on the property belong to a meta-volcanic and meta-sedimentary package (Figure 7-1). Meta-volcanics are typically fine-grained, dark coloured, contain minor disseminated pyrite and have a general N030$^{o}$E cleavage. Meta-sediments include sericitised fine-grained arkose and manganiferous siltstones, and can be locally interbedded with the mafic meta-volcanics. Occurrences of gondite (manganiferous meta-sediments with Mn-garnets) have been documented on historical maps. Andesitic, dacitic and rhyolitic meta-volcanics have also been recognized, and locally polymict volcaniclastic rocks are interbedded with mafic meta-volcanics and fine-grained sediments. All such rocks have been intruded by older mafic intrusions that have also undergone greenschist facies metamorphism and now contain large porphyroblasts of actinolitic hornblende. In some areas, amphibolitic rocks are believed to have formed as a result of contact metamorphism.

Quartz diorite/dacite porphyry intrudes or is interbedded with the meta-volcanics (Figure 7-1). The relationship between the quartz-feldspar porphyry and Eagle Mountain granodiorite is not clear. Porphyries appear to interfinger with the granodiorite in the area around the Minnehaha Fault. However, the granodiorite is generally considered to be younger. The growth of quartz phenocrysts in a variety of lithologies is interpreted as an alteration product associated with molybdenum mineralisation. Resultant rock textures are difficult to distinguish from true quartz porphyry material (Figure 7-2).

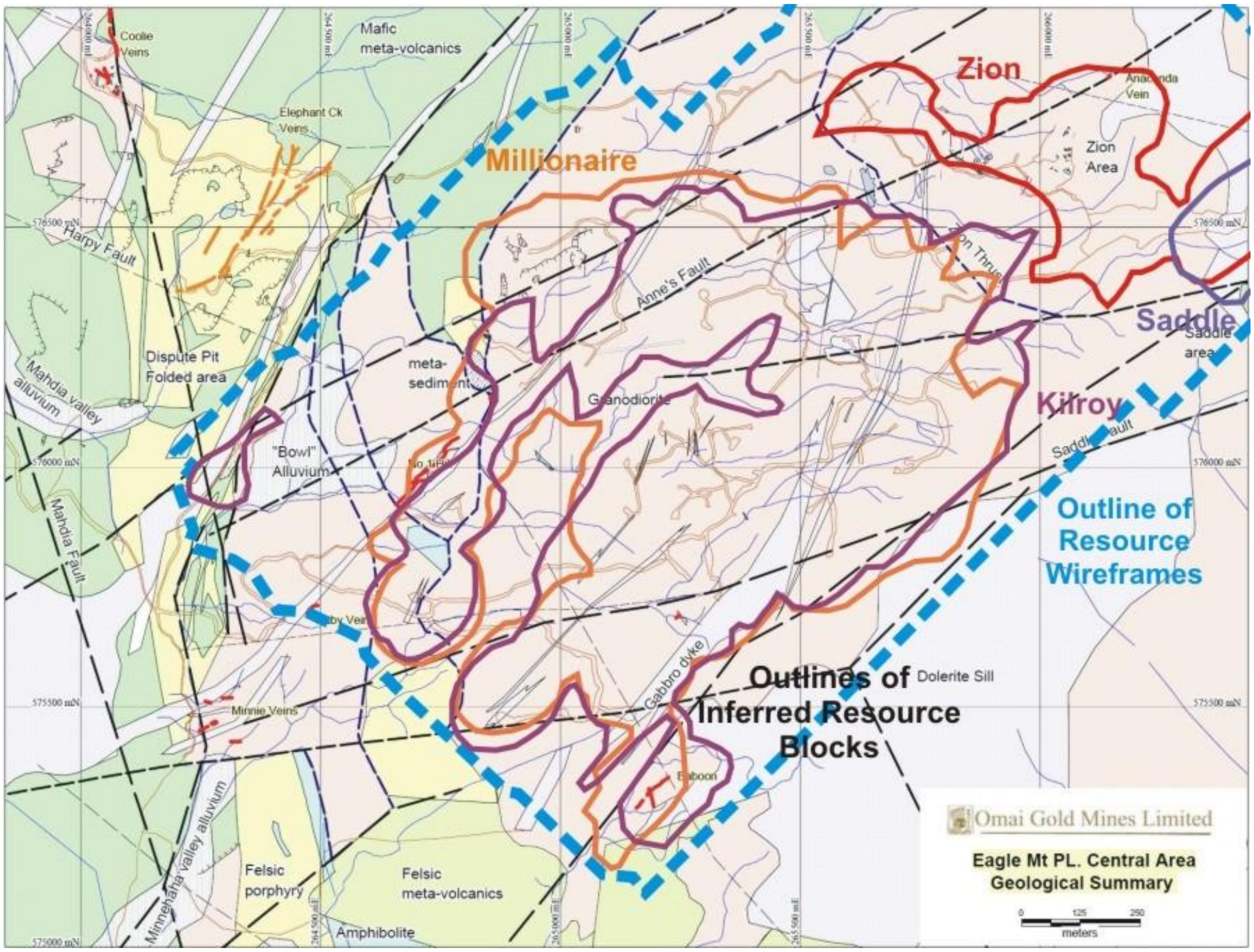



**Figure 7-1: Geological map of the Eagle Mountain area**

**Figure 7-2: Host rock and alteration associated with molybdenum mineralisation**

Left to right: quartz-feldspar porphyry host rock, mafic volcanics with epidote-sericite alteration and quartz-phenocrysts, granitoid with epidote-sericite alteration.

A composite granodiorite pluton intrudes all older rocks and hosts most of the known gold mineralisation on the property. The pluton has been mapped throughout the western flank of Eagle Mountain (Figure 7-1), and occurs in scattered outcrops and old workings to near the eastern and southern limits of the EMPL. Various attempts have been made to divide this composite intrusion into separate compositional units, such as granodiorite, alkali granite and quartz diorite. However, these studies did not account for compositional modifications associated with hydrothermal alteration.

The Roraima Formation occurs as a thick flat lying sequence of sandstones, arkoses and quartzite along the extreme western side of the property where large boulders and flat-lying outcrops are exposed. The Roraima Formation does not occur within the mineralized area and is not recognized east of the Mahdia valley.

A large diabase to gabbro-norite sill (Younger Basic Group) intrudes the granodiorite pluton and metavolcanic-sedimentary sequence. The sill is 25-40 metres thick in the Saddle area but appears to thicken to the north and south. It partly forms the ridge and cliffs at the top of Eagle Mountain. Northwards, the sill merges with the Tumatumari Dyke, which extends northeast to the Omai area where it intersects the Omai Sill. The basic sill is interpreted to be generally flat-lying, although locally it dips shallowly to the southwest, paralleling some of the mineralized shear zones. Additional examples of younger basic intrusions include at least two major (up to 60 metres thick), $030^{o}$ to $040^{o}$ striking and steeply dipping dykes that extend up to 0.8 kilometres in strike, plus a number of several smaller sills and dykes up to 15 metres in thickness.

Rare basic porphyry intrusions with feldspar crystals several centimetres in size and locally containing abundant rounded small xenoliths are interpreted to be lamprophyres. They occur as $120^{o}$ oriented dykes, are probably less than 10m thick and post-date the granodiorite pluton that hosts the bulk of the gold mineralisation.

Tertiary shallow marine/fluviatile sands are preserved as a thin cap below 60 metres elevation outside of the EMPL. A number of Tertiary paleo-channels occur within the area and contain alluvial gold, including the Proto-Mahdia Channel and the Homestretch-Salbora area located east of the access road at the northern EMPL boundary. Modern alluvium and dredge tailings fill the Mahdia and Minnehaha valleys downhill of the resource area, obscuring bedrock geology. A bowl-like basin within the mineralized area is also filled with recent alluvium.

## 7.3 Property Structure

Two main styles of folding have been recognized in basement meta-volcanics and meta-sediments. The meta-volcanics and quartz-feldspar porphyry sills or flows occupy a broad syncline close to the Minnehaha Fault (Figure 7-1), while meta-sediments are locally deformed into series of tight chevron folds. Molybdenum mineralisation preferentially occurs within massive felsic porphyry as in the core of the regional scale fold. Sporadic gold mineralisation has also been identified in this area, mainly in association with “cloudy” quartz vein arrays. The local controls on gold mineralisation require further investigation. However, one possibility is that vein arrays are concentrated within low angle shear zones similar to those identified in the main resource area. Alternatively, vein development may be related to folding during deformation between the north-east trending Minnehaha Fault and parallel structures to the north, and concentrated in the fold axial area in the form of saddle reefs.

Direct observation of fault zones can be made in creek outcrops, adits and unoriented drill core. All other faults have been interpreted from topographic, aeromagnetic, radiometric or IP data (Figure 7-1). Emplacement of the post-mineralisation NE-SW basic dykes is also likely to have been fault controlled, but for the sake of clarity these are not shown on Figure 7.1.

Immediately east of the Minnehaha Fault, wedges of granite and meta-volcanics / meta-sediment / felsic porphyry are interpreted as a series of discrete, 50-100 metre thick thrust slices dipping

40-50$^{o}$ westwards (Figure 7-3). Within the Eagle Mountain granitoid, similarly oriented structures juxtapose domains of epidote-sericite and chlorite alteration (Figure 7-3). The Wedge Thrust is associated with sporadic gold mineralisation in the form of „cloudy' vein arrays, particularly along its northern segment.

Most of the gold mineralisation at Eagle Mountain is related to low-angle (20-40$^{o}$), southwest dipping shear zones hosted in granodiorite. Four main mineralized shear zones have been identified: the Saddle, Zion, Kilroy and Millionaire zones. The general structural style of the low-angle mineralized zones is illustrated on Figure 7-4 and Figure 7-5. These structures are interpreted to cross-cut the aforementioned west-dipping thrust faults that bound the epidote-sericite and chlorite altered granitoid domains.

A series of late ENE-striking cross-faults offset the low-angle mineralized zones, but with negligible impact on interpreted mineralisation. There is a possibility that mineralisation decreases in intensity outside the two late faults that bound the Zion-Saddle area (Anne's and Saddle Faults; Figure 7-1). These structures are separated by approximately 800m.

Vertical and steeply dipping quartz veins arrays are recognized throughout the Eagle Mountain property. The dominant orientation of the larger vein sets is NE-SW, with vertical or steep southeasterly dips (Figure 7-1). A minor population of larger veins is oriented E-W, and are either vertical or dip steeply to the south. The larger vein sets can carry significant gold grades, however their distribution is erratic.

Figure 7.3 Schematic section illustrating thrust bound lithological and alteration domains.

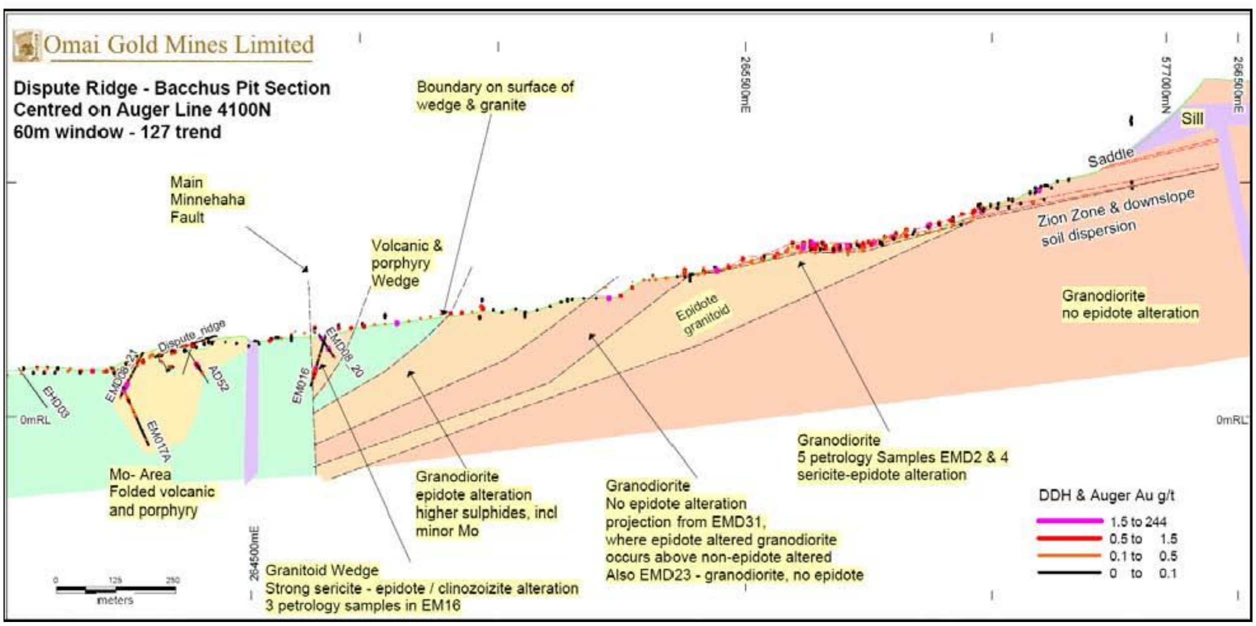
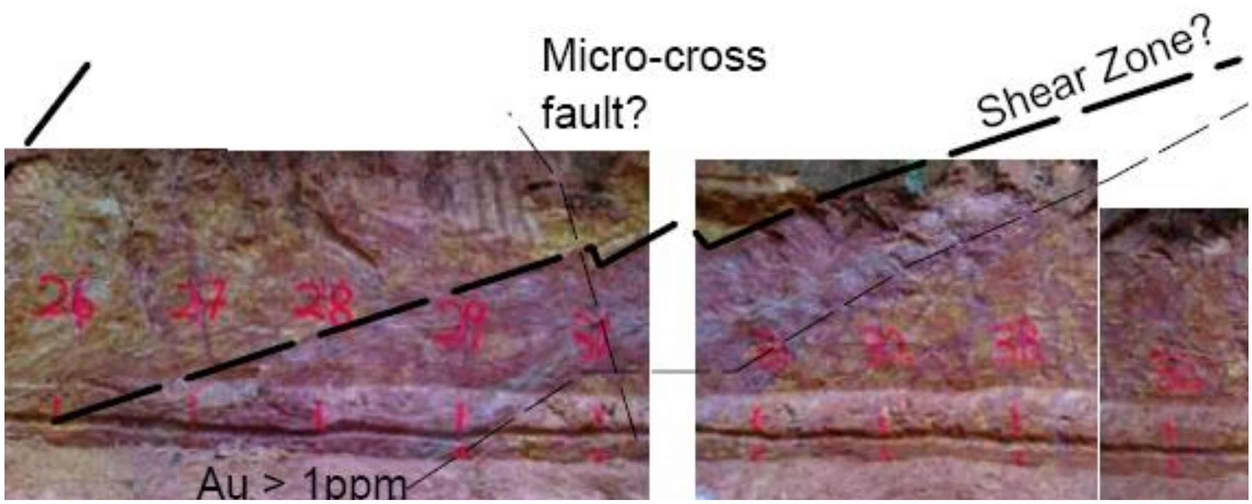



**Figure 7-3: Schematic section illustrating thrust bound lithological and alteration domains.**

**Figure 7-4: Exposure of a low-angle shear zone in the LL 166/Friendly Road cut**




Red numbers refer to 1m samples

**Figure 7-5: Example of a small zone of low angle shear controlled mineralisation**

# 8 DEPOSIT TYPES

Section 8 has been extracted from Clouston (2009) with only minor edits. Howe concurs with the observations and statements made by Clouston (2009).

The most significant style of gold mineralisation on the property is related to a series of tabular, shallow southwest-dipping, brittle-ductile composite shear zones within the granodiorite intrusion. Very fine-grained gold is associated with chloritic ± pyritic micro-fractures and in some cases within or adjacent to discrete chlorite – pyrite ± potassic altered mylonitic shear zones. Alteration and sulphide mineralisation within the mylonitic structures is interpreted to be syn-deformational and partly deuteric.

Molybdenum mineralisation occurs within the folded stratigraphy west of the Minnehaha fault. The felsic rocks within the fold package are the principal host, where mineralisation occurs in association with epidote-sericite alteration. Molybdenite occurs as disseminated grains within the rock matrix, in quartz veins, particularly at vein margins, and within fractures. Mineralized quartz vein stockworks are developed within the centre of strongly altered units. Minor molybdenite is also present throughout the meta-volcanic and meta-sediments, occurring within quartz veins or coating fractures. Molybdenum and gold have an inverse grade relationship, and are interpreted to have occurred as two spatially and/or temporally separate events.

In the Baboon area, an auriferous quartz vein array associated with scheelite mineralisation contains elevated concentrations of Ag, Bi, As and W. Regional drainage geochemistry results indicate that large areas of the granodiorite pluton are anomalous in these elements and also reveal an enrichment in tin.

The Au-Mo-W association, together with the presence of chlorite ± potassic alteration along fractures is consistent with a magmatic origin for mineralisation. Reduced Intrusion Related Gold Systems such as Fort Knox in Alaska share some similarities to the Eagle Mountain deposit. These are characteristically hosted or associated with multi-phase intrusions that have moderately low primary oxidation states. Hart (2007) suggests that the most prolific of these gold systems are related to metaluminous, moderately reduced, moderately fractionated, biotite>>hornblende>pyroxene quartz monzonites that have mixed with volatile-rich lamprophyric melts. At Eagle Mountain, the presence of post-mineral lamprophyric dykes raises the possibility that lamprophyric intrusion continued to occur after the granodiorite pluton solidified. The host granodiorite has some of the required characteristics, including a variety of compositional phases, from tonalite to granodiorite to alkali granite, an absence of gold where primary magnetite occurs, a generally low sulphide content and pyrrhotite in association with gold. The main difference at Eagle Mountain is that gold distribution is primarily related to low-angle shear zones, which may be partly syn-intrusion.

An alternative interpretation is that Eagle Mountain is an orogenic deposit based on the structural style and similarity to the Omai deposit (Fennell orebody) located 45kilometres to the northeast. At both deposits, stacked low-angle auriferous zones are hosted in granitoids, although the intrusion at Omai is much smaller (maximum 500m diameter) and gold mineralisation is primarily associated with quartz vein stockworks. At Eagle Mountain, auriferous quartz vein arrays constitute a volumetrically minor component of the resource, with most of the gold mineralisation hosted within low-angle shear zones.

# 9 MINERALISATION

Section 9 has been extracted from Clouston (2009) with only minor edits. Howe concurs with the observations and statements made by Clouston (2009).

Most known gold mineralisation is hosted within the granitoid in association with four low-angle shear zones named Saddle, Zion, Kilroy and Millionaire. These generally dip 20-40$^{o}$ to the southwest, and locally may bifurcate and merge. The four mineralized shear zones in addition to two related minor shear zones (NZ1 and NZ2) host the current mineral resource estimate. Each zone can be distinguished based on visual characteristics and average grade (Figure 9-1).

The Saddle and Millionaire zones are very similar and although spatially separated, it is possible that they are the same zone offset by strike-parallel thrusting (Figure 9-2). The Saddle zone is the topographically highest mineralized zone, day lighting on the steep west-facing slope below the saddle area between Eagle Mountain and Chalmers Cliff where it is capped by approximately 40 metres of dolerite. It remains open in all other directions, although there is a possibility that it has been partly stoped out by the basic sill towards the east. The Saddle zone has only been intersected in five drill holes and has an average grade and thickness of 1.2g/t Au over 10 metres.

With exception to the minor NZ-1 and NZ-2 zones defined in IAMGOLD's mineral resource estimate (Clouston, 2009), Millionaire is the topographically lowest known mineralized zone in the deposit (Figure 9-2). It appears to be the most erratic in terms of thickness and grade, and is locally discontinuous. It is usually 5-10 metres in thickness and has an average grade of 1.3g/t Au. Both Saddle and Millionaire are characterized by moderate to intense chlorite-altered fracture networks with elevated sulphides (2-4%), typically pyrite, in the more strongly altered domains (Figure 9-1). Either zone may be partially silicified and/or recrystallised, with visible gold occurring only rarely. Millionaire potentially extends laterally to the southeast beneath Chalmer's Cliff, is open down-dip towards the southwest but daylights toward the north.

The Zion zone occurs immediately below the Saddle zone and is very distinctive (Figure 9-1 and Figure 9-2). The zone averages 1.56 g/t Au over 15-20 m in thickness, although significantly higher grades have been intersected locally. The lower limit is defined by a basal mylonite that varies from less than a centimeter to several metres in thickness. Mineralisation rarely extends for more than 20cm below this structure. The mylonite itself is typically mineralized and can be brown, grey or green in colour. Thin mylonititic shear bands occur throughout the hangingwall. The Zion zone is characterized by intense and pervasive chlorite-potassic alteration. Sulphide concentrations can reach 4-5% of the rock mass. The principal sulphide species is pyrite, with subordinate arsenopyrite occurring as fine-grained disseminations and veinlets. Intense silicification and recrystallisation are ubiquitous, as is chloritic fracturing similar to that observed in other mineralized zones. Zion extends eastwards under the dolerite sill and may be partly stoped by it. The zone is open to the north and south and daylights to the west where it is exposed in outcrop, historical artisanal miner (pork-knocker) pits and two adits. Erosion of the intensely silicified zone results in the formation of residual boulders along the edge of exposure, some up to 15m in diameter. Quartz veining is abundant within the zone, with early NE-SW and NW-SE oriented veins overprinted by an E-W striking and south dipping vein set. All are disrupted by subsequent deformation. The older NE-SW vein set is characterized by a granular texture and diffuse margins. Individual veins are typically discontinuous and can contain visible gold. A sample of vein material from a creek outcrop called the "Anaconda Vein" graded 258g/t Au. The younger E-W striking vein set comprises sheeted veins that are generally thinner and more continuous. This vein type is also auriferous, but to date no visible gold has been observed.

The Kilroy zone is also distinguished by moderate to intense chloritic fracturing, but alteration tends to be greyer in colour (Figure 9-1). Silicification occurs in patchy domains of quartz saturation and minor grey coloured quartz veining. Thin, disrupted mylonitic shear zones and brecciation occur locally. The sulphide content is generally higher in comparison to the Saddle and Millionaire zones. The Kilroy zone extends under Chalmer's Cliff but daylights in all other directions or is terminated up-dip by a strike-parallel thrust fault (Figure 9-2). The zone averages 1.0g/t over 12-15 metres, although higher grade domains have been delineated, for example, 20.9m @ 5.8g/t Au from 11.1 metres in EM97-3 (approximate true thickness of 12 metres).

A second gold mineralisation style recognized on the property is characterized by irregular high-grade quartz vein arrays. At least two generations of quartz veining occur within, and partly extend beyond the auriferous shear zones. Steeply dipping E-W and NE-SW oriented veinlet zones have returned significant gold grades from a number of isolated locations elsewhere within the property, including 248g/t Au over 1 metre in the Coolie 271B Adit.

A few large auriferous quartz veins have been recognized in the No. 1 Hill and Baboon areas, also spatially associated with low-angle mineralized shear zones. Several sets of quartz veins are present in the Dispute Pit area, although only one seems to be auriferous. Barren extensional quartz veins at this location are thought to be associated with the folding event and coincident molybdenum mineralisation. Auriferous veins, often with visible gold, have a distinctive mottled or clouded color and occur in both the meta-volcano-sedimentary and epidote-altered granodiorite. Economically significant concentrations of this mineralisation style have not been identified.

**Figure 9-1: Characteristic mineralisation core photos: Saddle, Zion, Kilroy, Millionaire zones.**

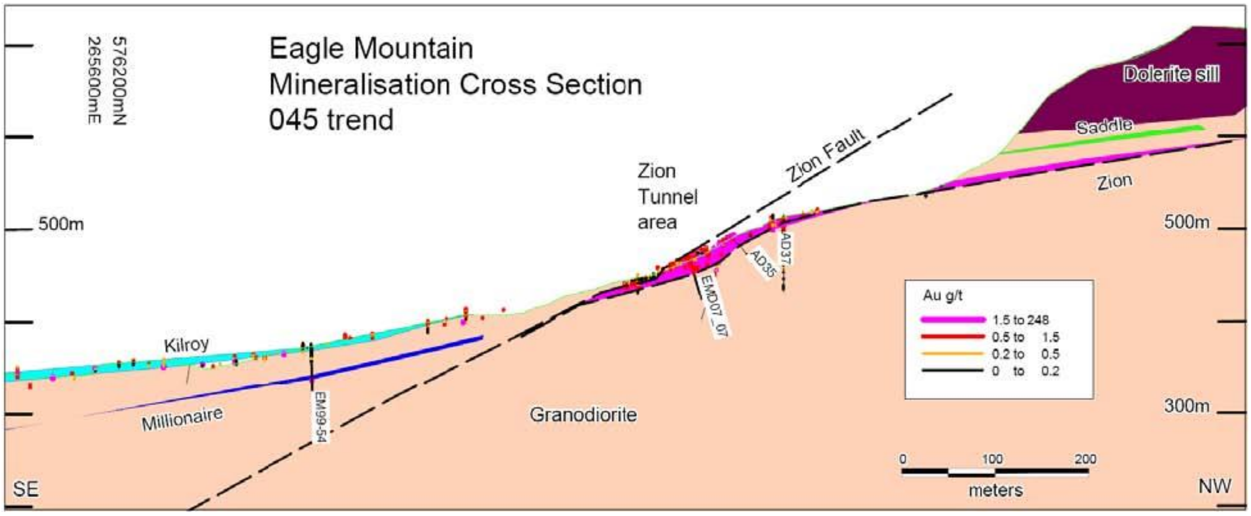



**Figure 9-2: Northeast (045) trending section illustrating gold mineralisation zones.**

# 10 EXPLORATION

Stronghold has conducted no exploration on the Property. Exploration activities described in this section incorporate historical and recent work carried out by Golden Star Resources and Omai Gold Mines Ltd. from 1988 to 2009.

Section 10 has been extracted from Clouston (2009) with only minor edits. Howe concurs with the observations and statements made by Clouston (2009).

## 10.1 Drainage Geochemistry

The regional prospectivity of the EMPL has been tested by detailed -80 mesh drainage sampling (87 samples) and multi-element analysis (Actlabs "Au plus 48" package using ICP/INAA) and also by panning. All sample sites were accurately located using GPS. This work allowed subsequent exploration to be focused on discrete areas of identified gold anomalies.

The delineation of anomalous tin, molybdenum and tungsten is one of the lines of evidence that is consistent with a Reduced Intrusion Related Gold System classification for the Eagle Mountain deposit (Hart, 2007). Stream sediment values of 61 and 97ppm Mo in the Dispute Pit area correlate with the area of known molybdenum mineralisation, and are the highest stream molybdenum values currently known in Guyana. Several other drainages have modest molybdenum anomalies (maximum of 16ppm Mo). The Kilroy and Bishop-Growler areas are anomalous in tungsten with a maximum of 56ppm W. In contrast, areas not drained by the Eagle Mountain Granitoid Complex generally have less than 4ppm W (56 samples). Drainages with elevated tin values are peripheral to the areas of molybdenum and tungsten anomalies (Figure 10-1).

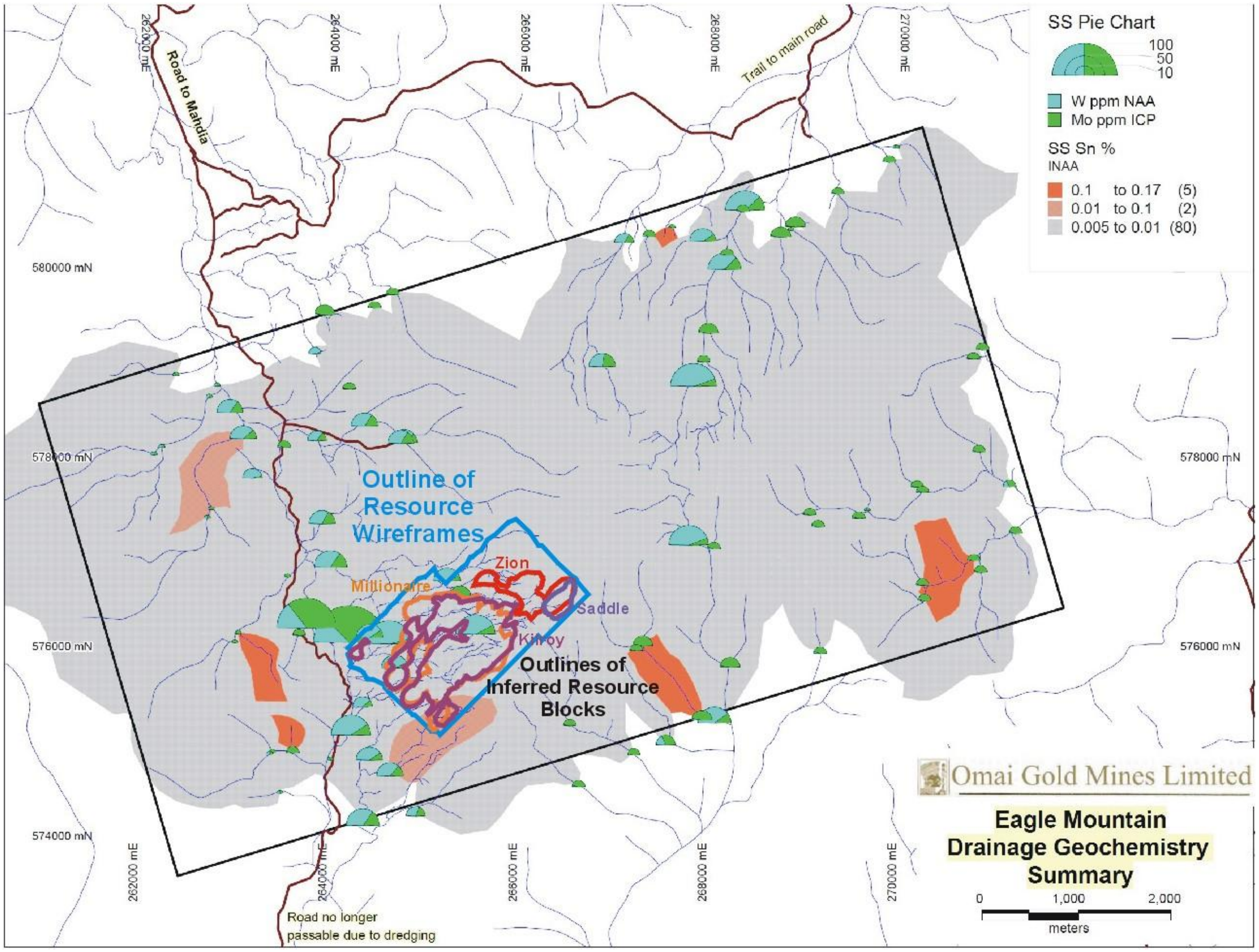



**Figure 10-1: PL Drainage Geochemistry Summary: Sn, Mo & W**

## 10.2 Line Cutting and Surveying

In the late 1940's, Anaconda utilized theodolite surveying to produce a detailed contour map of their work area. This base map has been updated for use in all subsequent work.

Auger samples and ground geophysical data has been collected on 073° oriented cut lines. Regional line spacing is typically 200 metres but reduced to 50 metres over the main mineralized area. Most of these lines were surveyed using a Brunton compass and clinometers. In 1988, theodolite surveying was carried out using a contactor from French Guiana. In 2007-2008, additional theodolite surveying of drill holes and geophysical survey lines was completed by a Guyanese contractor. In 2009, all drill holes and additional cut lines were surveyed, initially using differential GPS, and later by theodolite.

All survey data has been combined with Space Shuttle Topographic (SRTM) data and published 50,000scale topographic maps to produce a new topographic map for the mineralized areas at a 2.5 metre contour interval (Figure 10-2).

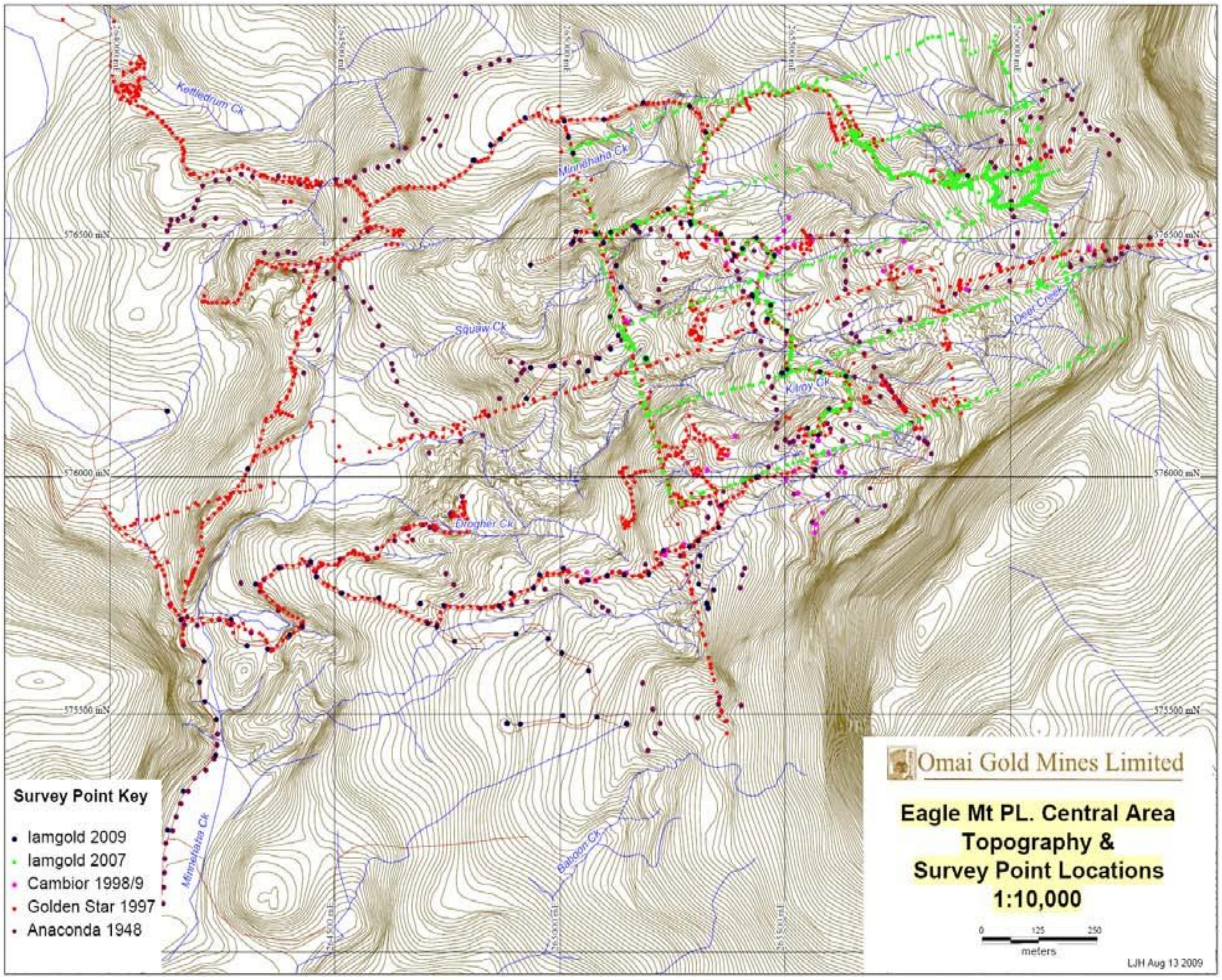



**Figure 10-2: Topographic Map and Survey Data Summary.**

Clouston (2009) considered the topography to be well defined over the main resource area, but noted that it relied on sparser information (i.e. survey points) in the fringe areas such as Baboon to the southwest and Dispute Pit to the northwest. Based on Clouston's recommendations additional theodolite survey points and traverses were collected after the October 2009 resource estimate. A total of 42 drill hole collars were surveyed and survey traverses were completed in the southwest (Figure 10-3). The drill hole collar coordinates and topographic survey traverses require updating in the resource database.

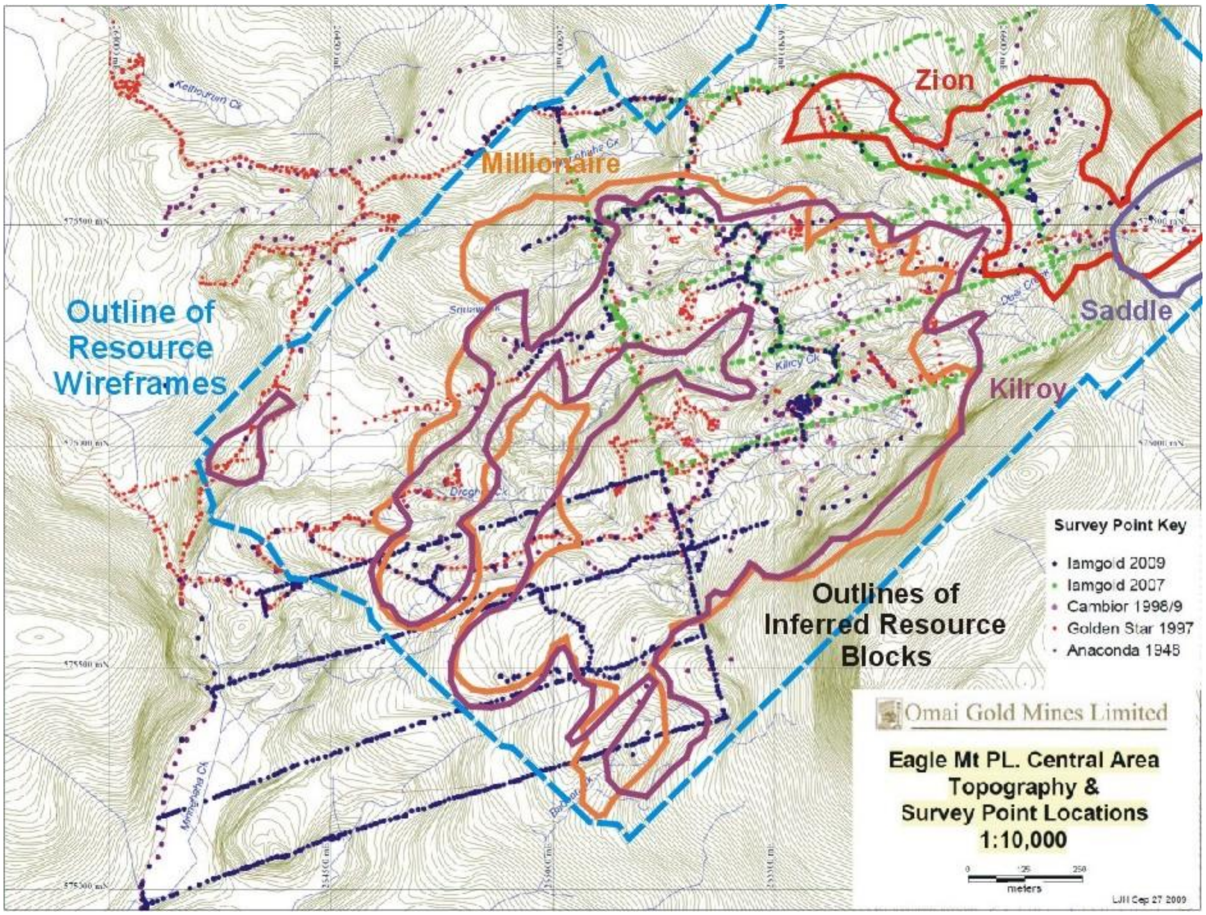



**Figure 10-3: Topographic Map and Survey Point Locations – Post Oct 2009 Resource Estimate**

## 10.3 Geophysics

There have been a number of different geophysical surveys completed within the EMPL. Various techniques have been utilized to identify structure and lithology, and to directly target silicified zones and sulphide-rich areas.

A ground magnetic and VLF survey was completed in 1988. The survey identified several distinct features that were interpreted as shear zones. Some of the known dykes could be identified by their strong magnetic signature. However, the large dolerite boulders, derived from weathering of the sill, create significant noise and render most of the ground magnetic data unusable (Jagodits, 1989). A similar conclusion was reached when a new and partly overlapping ground magnetic survey was completed in 2007/2008.

The western part of the EMPL has been covered by an aeromagnetic, radiometric and experimental VLF-EM survey flown in October 2007 by Terraquest Ltd. Aeromagnetic data was reprocessed by Four Winds Technology Pty Ltd in 2008. A northeast trending linear feature in the centre of the survey area is interpreted to be partly associated with the Minnehaha Fault and partly with a post-mineralisation dolerite dyke (Figure 10-4). Several parallel features further to the north are also considered to be major faults and/or dolerite dykes.

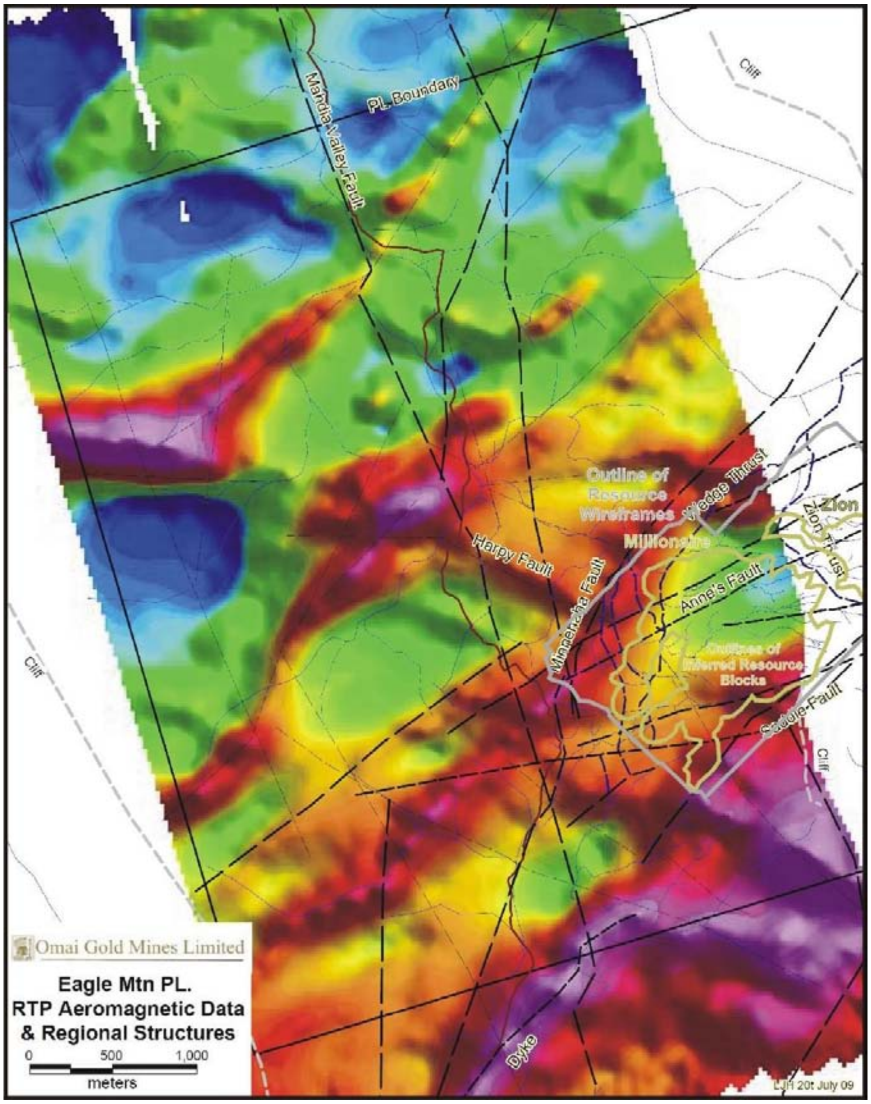



**Figure 10-4: Aeromagnetic (RTP) and Structural Summary map.**

Radiometric Total Count data (Figure 10-5) dramatically shows the regional scale Mahdia Valley Fault, though not all the radiometric highs are directly related to the presence of granite: tailings and bare ground are also anomalous. Areas of dark blue and green correspond to areas of mafic volcanics without interbedded / faulted porphyry.

Experimental Airborne VLF-EM results proved so ambiguous that they were not considered useful.

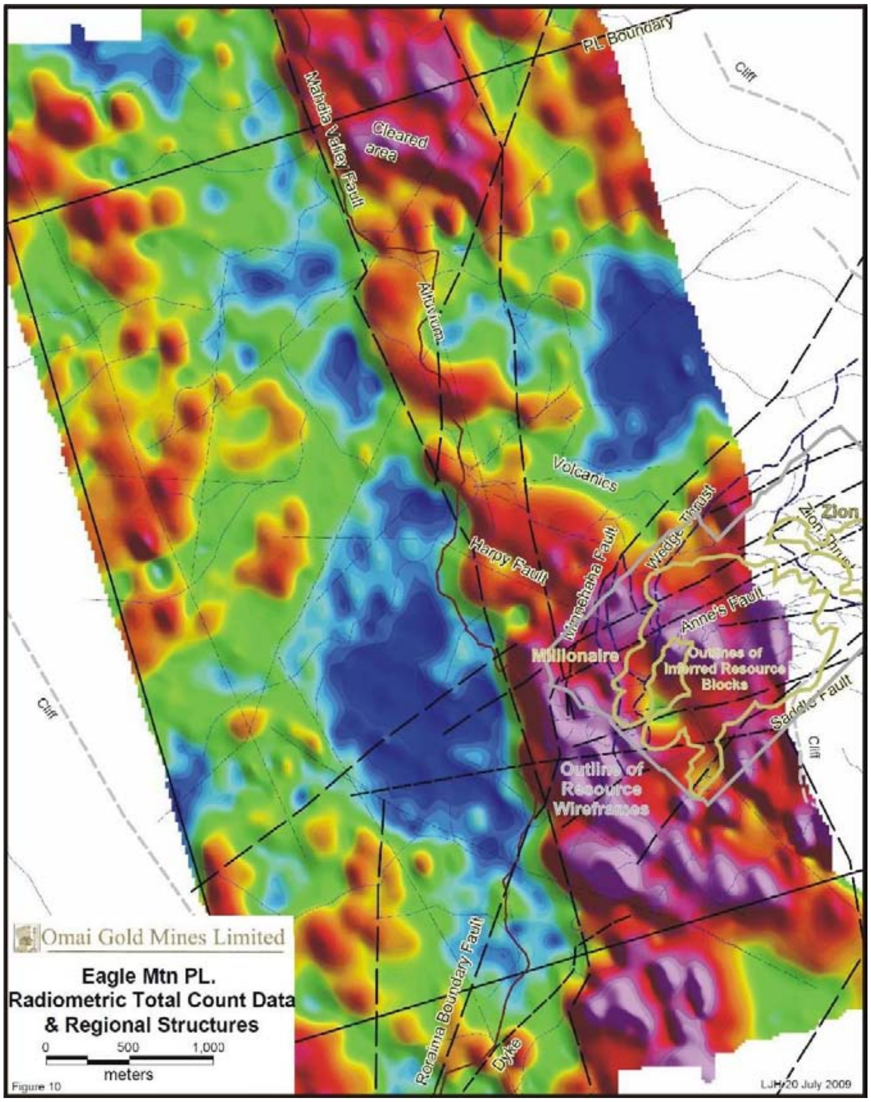



**Figure 10-5: Radiometric Total Count and Structural Summary map**

The main mineralized area was covered by a 3D IP and resistivity survey in 2008. Survey results enabled the identification of several major structures (Figure 10-6), and inversion 3D modeling confirmed the presence of low-angle structures bounding domains of differing geology (Hill, 2008).

In the north-central part of the survey area, strong chargeability anomalies at depth are interpreted to terminate at higher levels against a low-angle fault. These deep chargeability anomalies were initially interpreted as sulphide-rich intrusions bound above by a thrust and to the south by a late ENE-trending fault (Anne's Fault). However, drilling in 2008 revealed a thrust-bound wedge of mafic meta-volcanics.

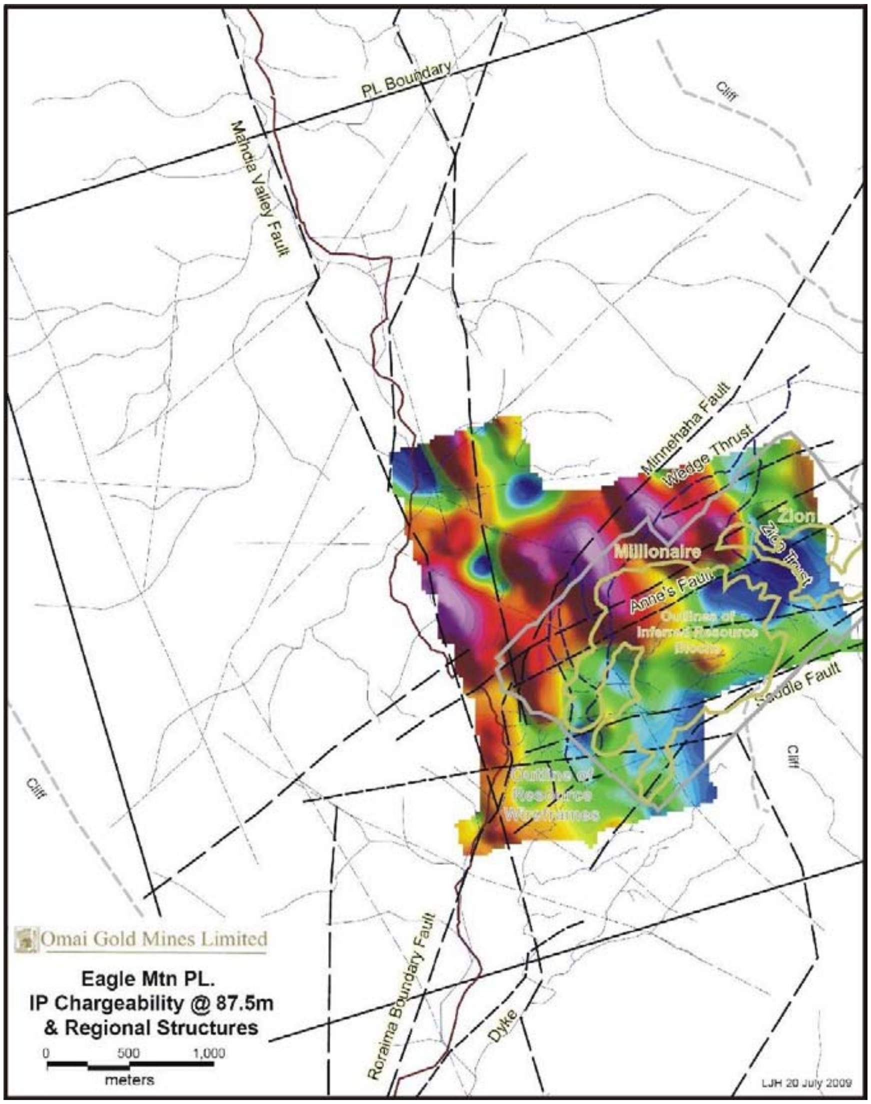



**Figure 10-6: IP Chargeability at -87.5m depth.**

The Zion zone at the eastern edge of the survey area is coincident with a shallow resistivity high (Figure 10-7), consistent with the intense silica alteration that is locally associated with gold mineralisation. Drill holes testing several other resistivity targets west of the Zion area also intersected gold mineralisation with associated silicification. Contrastingly, the source of the targeted resistivity anomaly was unclear in some drill holes.

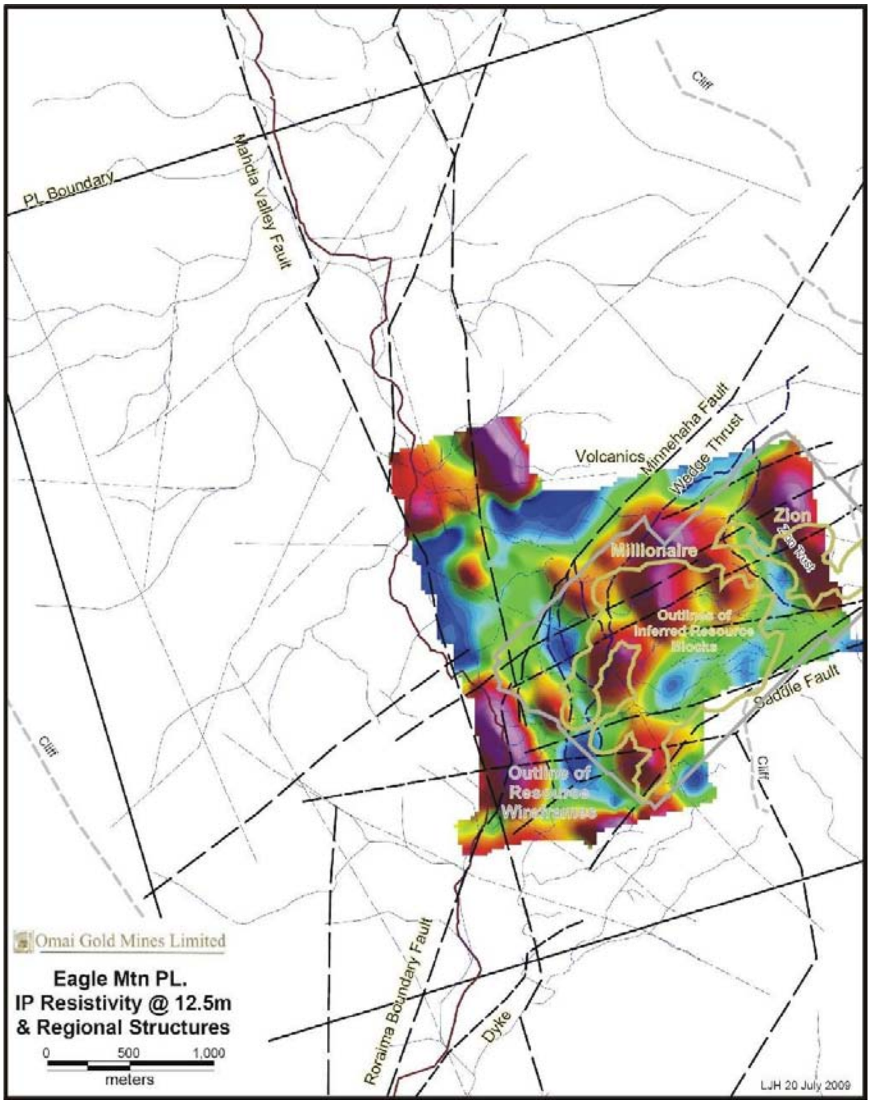



**Figure 10-7: IP Resistivity at -12.5m depth.**

## 10.4 Soil / Saprolite Augering

Anomalous areas identified by drainage sampling, as well as the historically known mineralized areas have been further examined using systematic auger sampling at ~25 metre spacing, initially to 1 metre depths (soil samples), followed by deep augering to 5-14 metre depths. Auger sampling results are used to guide further exploration, such as the sitting of drill holes and trenches.

Most auger samples were collected by hand, but for a brief period when a mechanized Trado auger was used. A total of 5271 one-metre auger samples and 14,286 samples from 4711 deep auger sites have been collected. In addition, 85 mostly one-metre samples were collected from 10 Trado auger holes. Grab samples were collected at 184 locations where soils were very thin or absent.

The Eagle Mountain gold deposit is delineated by a 0.8km$^2$ area of significant auger anomalies (Figure 10-8), where an anomalous result is defined as a minimum 3 metre thick interval averaging over 0.5g/t Au. The significant aerial extent of the auger anomaly is a consequence of the deposit geometry plus the fact that the soil profile is typically very thin in this area. The low-angle mineralized sheets are oriented approximately parallel to the topography in places so that the auger directly samples mineralized saprolitic material. In addition, large areas of gold-bearing colluvium have been deposited down slope from exposed mineralisation.

Another significant gold anomaly occurs northwest of the main mineralized area, over areas of alluvial flat (Figure 10-8 Inset). Systematic exploration to investigate potential alluvial resources has not been attempted, although small-scale miners have worked the Mahdia and Minnehaha valleys for at least 100 years.

A low-level gold anomaly to the northeast of the main mineralized area is potentially sourced from low-angle mineralized shear zones exposed on the other side of Eagle Mountain (Figure 10-8 Inset). Additional exploration is required to determine the tenor and thickness of mineralisation in this area.

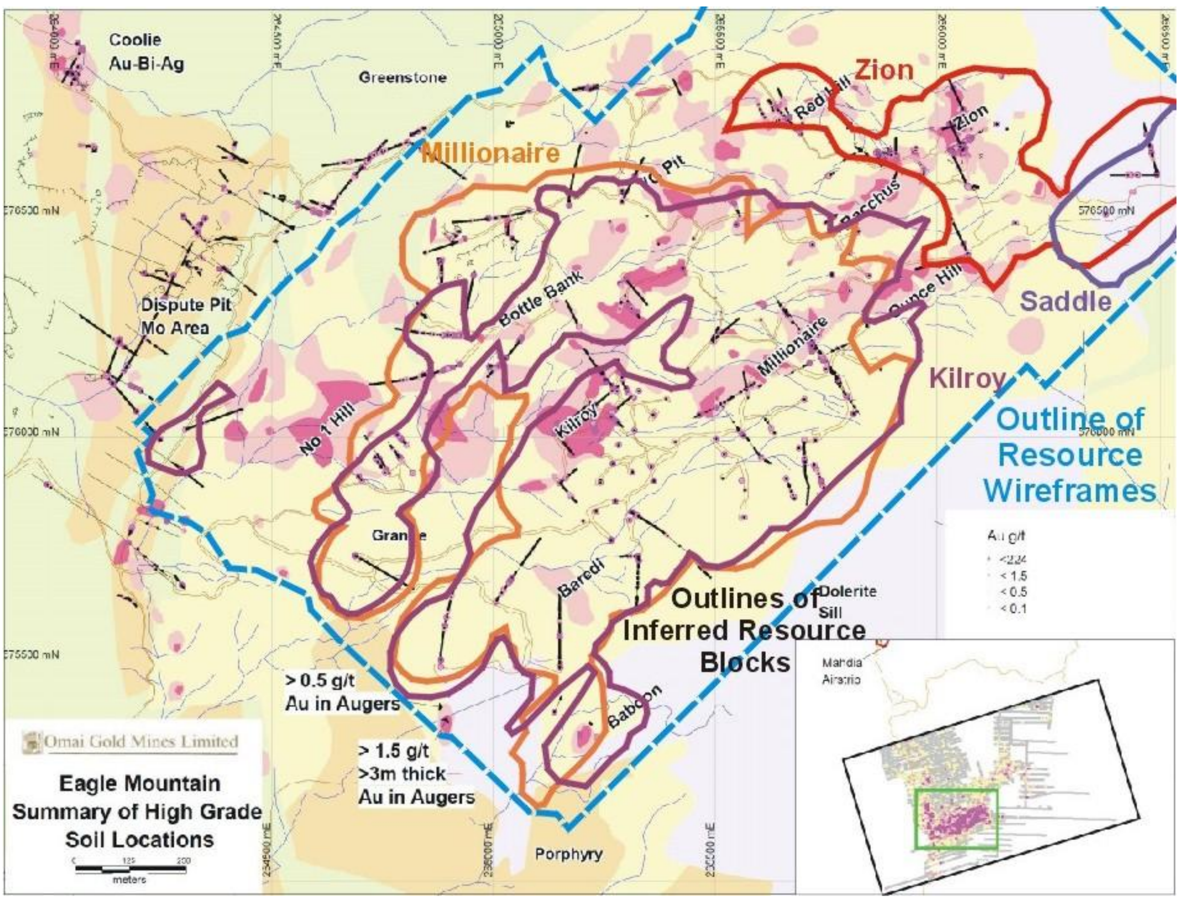



**Figure 10-8: Soil Auger Summary**

### 10.5 Adit Channel Sampling & Vein Locations

Nine historical adits have been located, mapped and sampled to help identify structural controls and characterize mineralisation styles (Figure 10-9). Most of the adits cut saprolite, although small patches of transitional rock material have been exposed locally. Electric lights are installed using a small portable generator and walls are cleaned using a bush knife. Pegs are inserted at one-metre intervals using a measuring tape, and channel samples equivalent to NQ-sized core are typically collected from one sidewall. Sections and plans are made to document sample locations, geological and structural information. This data is included in the database in the same format as drill holes. Some Anaconda sampling data from 1947 and 1948 has been validated for inclusion in the database. Anaconda's original sample grooves could be recognized in the Zion I Adit.

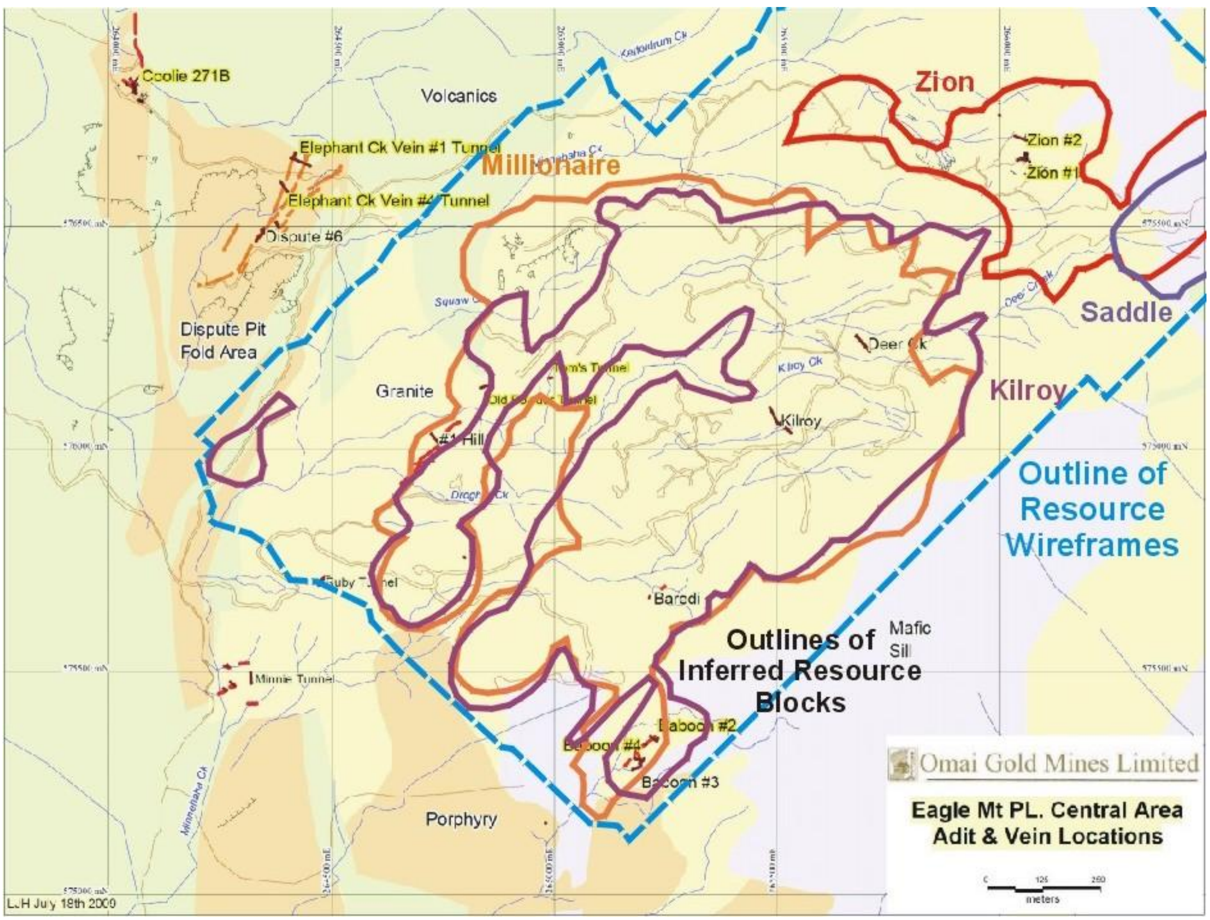



Figure 10-9: Summary map of adit and vein locations.

### 10.6 Trench & Outcrop Channel Sampling

In total, 2090 metre of surface channel sampling has been completed in 39 localities, from hand dug and mechanically excavated trenches, road cuts, creek exposures and small scale workings (Figure 10-10). At each site, a start point is designated, and from that point sample intervals are marked out using a tape measure, either at regular intervals or according to identified geological intervals. Samples equivalent to NQ-sized core are collected. Detailed plans and sections are created to illustrate logged geology, structure and assay results.

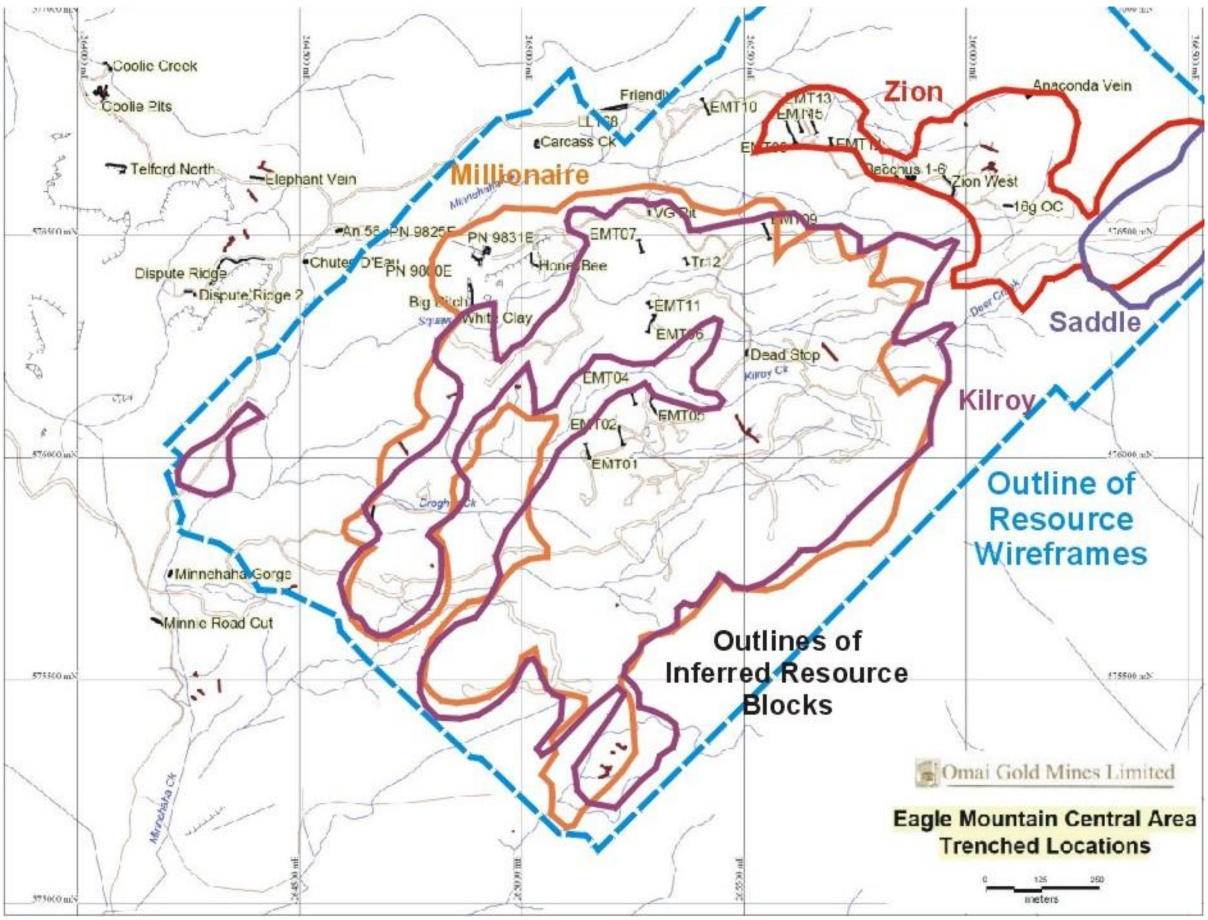



**Figure 10-10: Trench and Outcrop Channel Sample Location Map**

### 10.7 Rock Sampling and Petrology

Grab samples were collected from small outcrop locations where it was not possible to conduct systematic channel sampling. Sampling aimed to differentiate barren from auriferous vein types. In the Dispute Pit area, extensional quartz veins are generally barren and are interpreted to be associated with the molybdenum mineralisation phase, whereas cloudy to mottled quartz veins are typically gold-bearing and can contain coarse-grained visible gold. Auriferous vein sets in the main mineralized area are sub-vertical to steeply south-dipping, with principal populations oriented NW-SE, E-W and NE-SW. Maximum vein density and associated gold occurs within the low-angle auriferous zones. In the Zion mineralized zone, gold-bearing quartz veins have a distinctive granular texture or are sheeted.

A total of 64 petrological samples have been collected from outcrop and drill core to characterize host rock lithology and alteration (Figure 10-11). In addition, petrological data collected by Anaconda has been summarized in Waterman (1948), Bracewell (1948) and Inasi (1975).

The Eagle Mountain pluton can broadly be defined as a granodiorite but has a wide primary compositional range, varying from tonalite to quartz diorite, adamellite and alkali granite. In general, approximately equal amounts of medium-grained (2-6mm) plagioclase, orthoclase and quartz are present, with minor amounts of biotite and amphibole. Minor primary magnetite, accessory pyrrhotite and ilmenite have been recognized in some samples. The texture of unaltered granitoid is typically hypidiomorphic, with quartz and perthite interstitial to plagioclase and mafic minerals. Plagioclase, biotite and amphibole appear to have crystallized earlier than the orthoclase, with quartz last. Some microgranite also occurs locally, possibly as late stage dykes or at chilled margins.

The specific gravity of fresh unaltered granodiorite varies in accordance with the relative proportions of constituent minerals. Samples AD01 and AD52 contain approximately 50% quartz and have specific gravity values of 2.59-2.62, whereas a lower percentage of quartz in samples AD42 and AD51 results in slightly higher specific gravity values of 2.66-2.71. Sample AD05 contains negligible quartz and has a specific gravity of 2.77.

Two distinctive alteration assemblages can be recognized in granodiorite. The first is associated with gold mineralisation within the main resource area and comprises fibrous chlorite, actinolite and epidote/clinozoisite replacing ferro-magnesian minerals and occurring along anastomosing fractures with minor sericite. Primary magnetite has typically been destroyed. In extremely altered samples, secondary potassic minerals such as biotite occur with minor secondary magnetite. Alteration is generally localized to discrete deformation zones so that strongly altered material can occur a short distance from virtually unaltered granitoid. Microstructural textures vary from minor granulation associated with the initial development of shear structures to total mylonitization. In the Zion area, there is evidence that both alteration and deformation are deuteric (syn-intrusion), with un-altered but strongly deformed microcline occurring in highly altered mylonitic material, and late silicification represented by coarse strained quartz. In other cases, altered feldspar cores are overgrown by less altered feldspar. The introduction of gold is associated with silicification and recrystallisation, with the latter recognized as fine-grained aggregates of secondary minerals formed from primary interstitial mafic minerals to produce a granular fabric. The presence of elevated sulphides is generally indicative of gold mineralisation. In a mineralized sample collected from the Millionaire zone (EM97-02), 75% of the gold occurs as 10 to 50μm wide grains locked in pyrite, or as 2 to 25μm grains at the contacts of quartz and pyrite crystals (CLM, 1997; Figure 10-12 and Figure 10-13).

The second alteration style is characterized by a pervasive sericite-carbonate assemblage occurring as intergrowths with other alteration minerals and as veinlets. Epidote occurs in slightly higher amounts than the chloritic alteration style, is coarser grained and results in a more greenish alteration colour. This alteration style appears to be specifically associated with the presence of molybdenite in the western part of the prospect, but also occurs in specific thrust sheets further east (Figure 7-3). These fault sheets typically contain small slivers of meta-volcanics along their boundaries. Gold mineralisation only occurs in association with cloudy quartz veins in such areas.

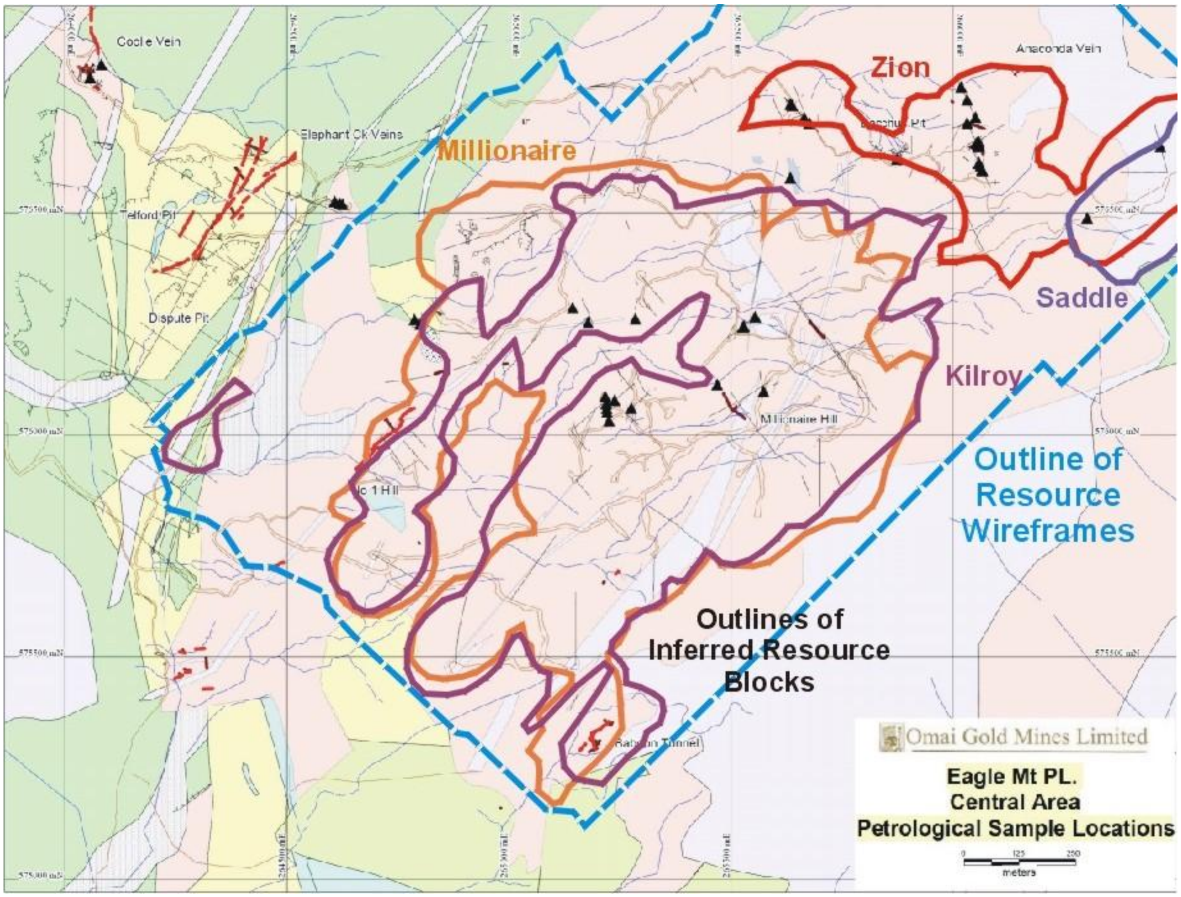



**Figure 10-11: Geology and Petrology Sample Locations**

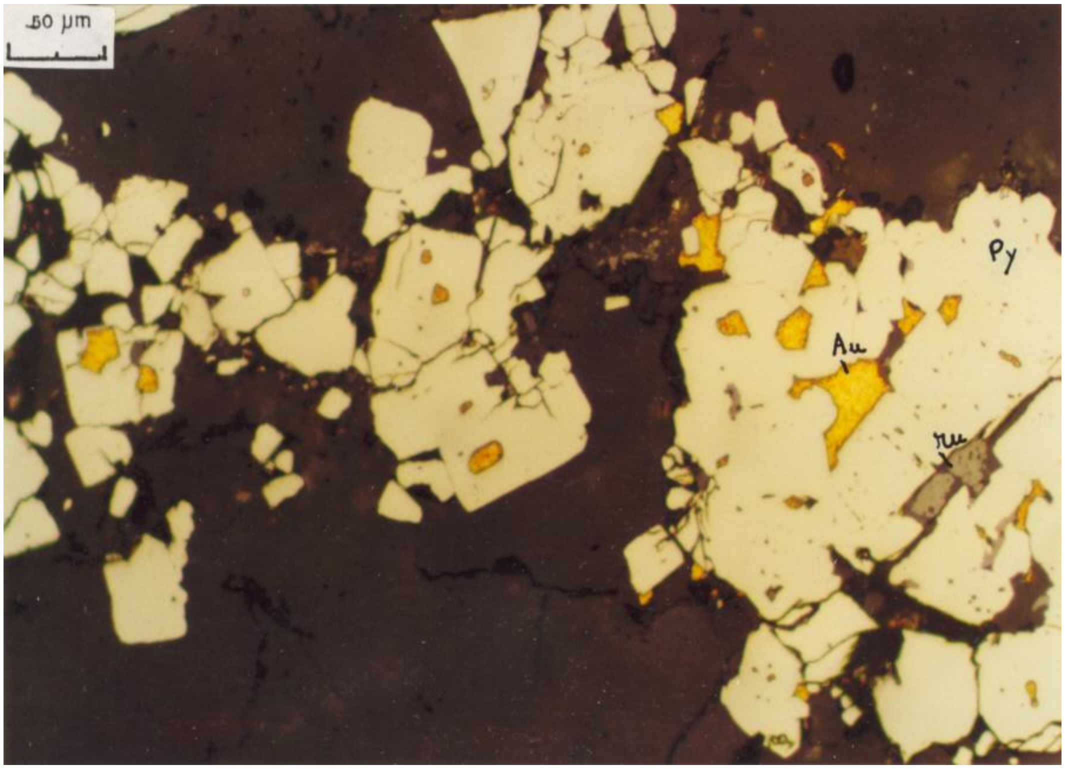



**Figure 10-12: Reflected light photomicrograph of EM97-02 @ 101.35m (200x).**

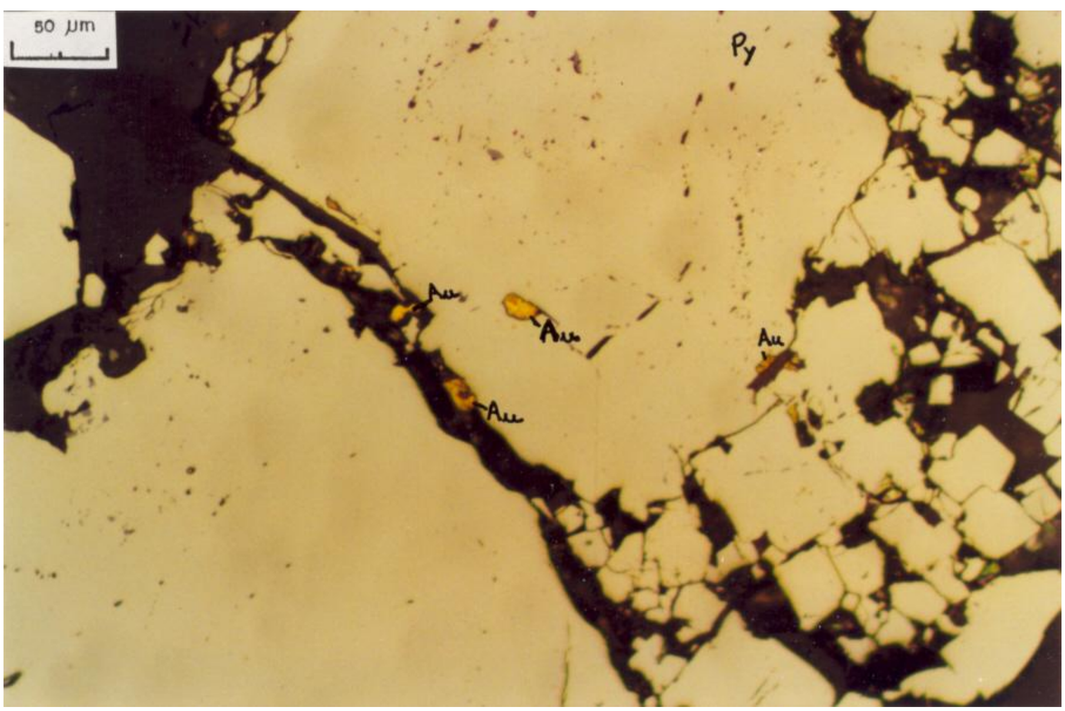



**Figure 10-13: Reflected light photomicrograph of EM97-02 @ 101.35m (200x).**

## 10.8 Specific Gravity Data

Bracewell (1948) collected 30 samples from Anaconda drill core and 15 outcrop samples for specific gravity determination and petrological study. An additional 40 specific gravity measurements were recorded by OGM in 1999. A summary of all specific gravity data for which exact locations are available is illustrated on Figure 10-14 and listed on Table 10-1.

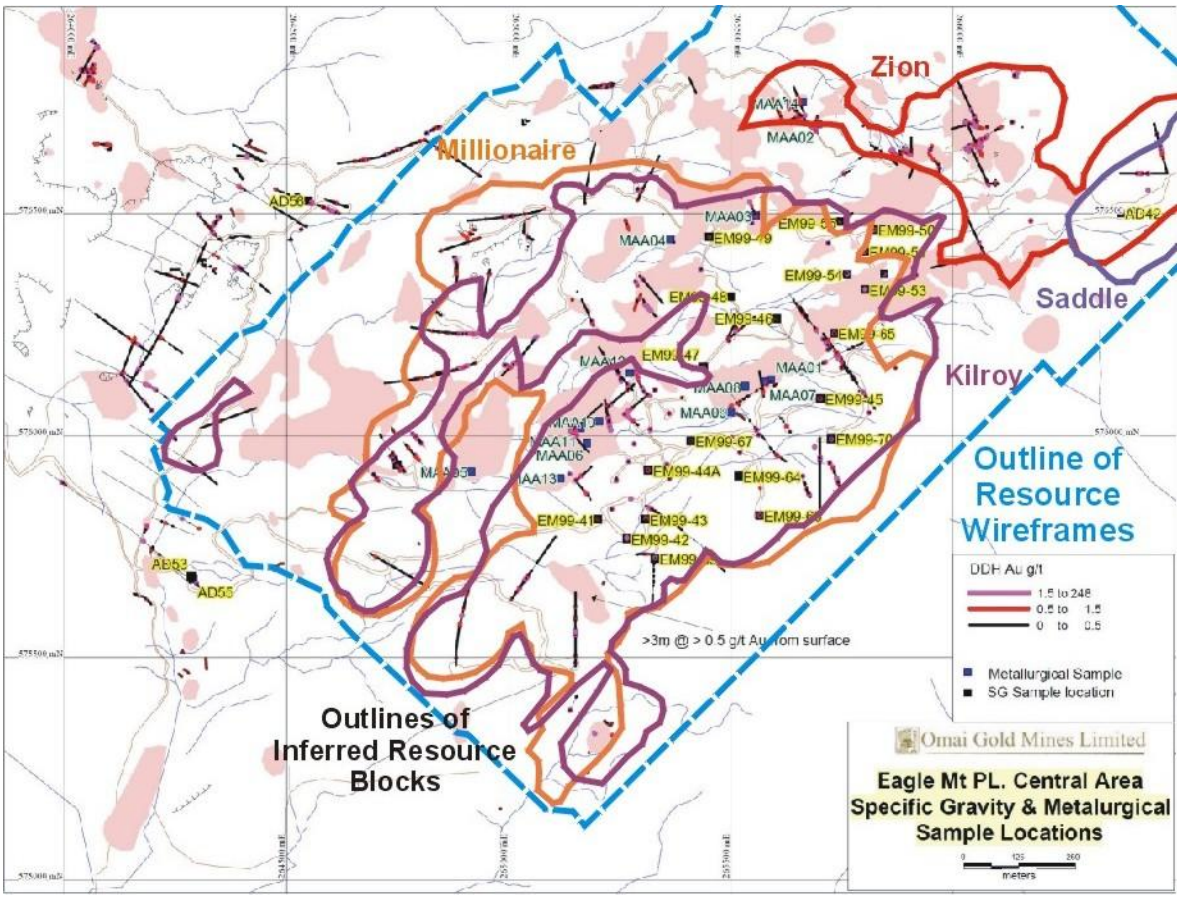



**Figure 10-14: Location of specific gravity and metallurgical samples**

**Table 10-1: Summary of specific gravity measurements.**

| Group | # Samples | SG Range | SG Average | Comment |
|---|---|---|---|---|
| Fresh Granodiorite | 16 | 2.59-2.71 | 2.70 | |
| Saprolitic Granodiorite | 10 | 1.42-1.92 | 1.62 | |
| Saddle Mineralisation | | | | awaited |
| Zion Mineralisation | | | | awaited |
| Kilroy Mineralisation | 3 | 2.65-2.69 | 2.67 | All „breccia' samples |
| Millionaire Mineralisation | | | | awaited |
| Granite Porphyry | 2 | 2.62-2.71 | 2.67 | Bracewell |
| Acid meta-volcanics | 1 | | 2.59 | Bracewell P13 |
| Aplite | 1 | | 2.66 | EM99-53 70.6 |
| Granophyre | 1 | | 2.77 | AD55/153.9m |
| Mafic meta-volcanics | 1 | | 2.70 | AD55/100.3m |
| Dolerite | 5 | 2.81-3.04 | 2.923 | |
| Gabbro-norite | 1 | | 2.95 | EM99-64 |
| Saprolitic Gabbro-norite | 2 | 1.47-2.85 | 2.16 | EM 99-55 & 65 |
| Basic Porphyry | 2 | 2.87-2.93 | 2.90 | Kilroy Adit |
| Meta-diorite | 1 | | 2.94 | Toucan camp |

## 10.9 2009-2010 Specific Gravity Data - Post Mineral Resource Estimate

After completion of the October 2009 IAMGOLD mineral resource estimate, IAMGOLD-OGM conducted specific gravity tests on a variety of fresh and saprolitic, mineralised and non-mineralised rock types as summarised in Table 10-2. The table also incorporates the earlier specific gravity data presented in Table 10-1.

The most significant observation is that the "Fresh" (un-oxidised) mineralised zones have a specific gravity of approximately 2.60 which is a 4% reduction from the value of 2.70 used for the October 2009 IAMGOLD mineral resource estimate. The saprolitic mineralised zones maintain a specific gravity of approximately 1.60.

**Table 10-2: Summary of specific gravity measurements – post resource estimate**

| Group | # Samples | SG Range | SG Average | Comment |
|---|---|---|---|---|
| Fresh Granodiorite | 103 | 2.23-3.43 | 2.66 | |
| Saprolitic Granodiorite | 40 | 1.30-2.13 | 1.69 | |
| Fresh Saddle Mineralisation | 11 | 2.49-2.74 | 2.60 | |
| Fresh Zion Mineralisation | 33 | 2.36-2.82 | 2.60 | |
| Fresh Kilroy Mineralisation | 10 | 2.39-2.74 | 2.60 | |
| Fresh Millionaire Mineralisation | 8 | 2.47-2.69 | 2.61 | |
| Saprolitic Saddle Mineralisation | 8 | 1.45-1.87 | 1.60 | |
| Saprolitic Zion Mineralisation | 6 | 1.40-1.88 | 1.59 | |
| Saprolitic Kilroy Mineralisation | 14 | 1.33-2.06 | 1.60 | |
| Saprolitic Millionaire Mineralisation | 5 | 1.46-1.79 | 1.57 | |
| Granite Porphyry | 2 | 2.62-2.71 | 2.67 | Bracewell |
| Acid meta-volcanics | 1 | | 2.59 | Bracewell P13 |
| Aplite | 1 | | 2.66 | EM99-53 70.6 |
| Granophyre | 1 | | 2.77 | AD55/153.9m |
| Mafic meta-volcanics | 13 | 2.62-2.95 | 2.78 | |
| Dolerite | 5 | 2.75-2.98 | 2.89 | |
| Saprolitic Dolerite | 6 | 1.32-1.79 | 1.51 | |
| Gabbro-norite | 1 | | 2.95 | EM99-64 |
| Saprolitic Gabbro-norite | 8 | 1.31-2.53 | 1.74 | |
| Basic Porphyry | 2 | 2.87-2.93 | 2.90 | Kilroy Adit |
| Meta-diorite | 1 | | 2.94 | Toucan camp |

# 11 DRILLING

Stronghold has conducted no drilling on the Property. Drilling described in this section incorporate historical and recent work carried out by Anaconda, Guyana Geological Survey (GGMC), Golden Star Resources (GSR) and Omai Gold Mines Ltd. (OMG) from 1947 to 2009.

Section 11 has been extracted from Clouston (2009) with only minor edits. Howe concurs with the observations and statements made by Clouston (2009).

Anaconda completed 57 AX-sized diamond drill holes for 5,832 metres in the period 1947-1948 (AD01 to AD57; Figure 11-1). Most holes are located within the known resource area, except for one hole collared in the south of the EMPL. Saprolitic material was not recovered, with sludge sampling employed to estimate grade. The assay data for fresh rock is also incomplete as only those intervals considered to be potentially mineralized were sampled. Drill hole collars were located by theodolite survey. However, down-hole survey data was not collected. Modern drill holes have been collared close to most of the original Anaconda drill sites. A few Anaconda drill holes have also been twinned.

The Guyana Geological Survey followed-up Anaconda's significant molybdenum results with soil sampling, pitting and 15 AX-sized diamond drill holes for 4,187 metres (EHD1-15; Figure 11-1). Tape and compass surveying was used to define collar locations. However, several collars have been located in the field and re-surveyed. Down-hole survey data measuring the dip of the hole, but not the azimuth was recorded. Core was transported to Georgetown (Guyana), split and assayed for molybdenum using a spectrographic method. Results were encouraging, but partial re-assaying and re-logging of EHD02, 03, 08-10, 14 & 15 by GSR indicated that GGMC assay results had overstated molybdenum grades and were erratic for gold. Only GSR assay data has been retained in the database.

GGMC completed 8 vertical AX-sized diamond drill holes for 620 metres in the 1970's to evaluate the gold potential of the property. Gold assay results are incomplete and not considered representative. Consequently, they have not been incorporated into the database. Some of the holes were re-logged by GSR in the 1980's, which is useful for locating barren post-mineral dykes.

In 1997, GSR completed 30 diamond drill holes for 2,423 metres using a bulldozer-supported Longyear 38 drill rig (EM001-021 and re-drills; Figure 11-1). HQ-sized core was drilled to the base of saprolite, reducing to NQ-sized core in hard rock. All hole collars have been located and systematically surveyed using a theodolite. Down-hole survey data was collected using a Tropari survey tool.

GSR drilled a further 20 diamond drill holes for 1,114 metres in late 1998, during the Joint Venture with OGM (EM22-40; Figure 11-1). Late in the following year, management of drilling shifted to OGM and 31 diamond drill holes for 2,399 metres were completed (EM41 to 70; Figure 11-1). Almost all holes drilled between 1998 and 1999 were vertical.

OGM resumed drilling in 2007, with 21 diamond drill holes for 2,209 metres (EMD001-019; Figure 11-1). An RB 37 man-portable hydraulic drill rig was used, enabling steep areas such as Zion to be accessed. HQ-sized core was drilled to the base of saprolite, reducing to NQ-sized core in fresh rock to a maximum depth of 192 metres. All hole locations were surveyed and marked with concrete monuments. Down-hole survey data was not collected.

In 2008-2009, 25 diamond drill holes for 5,850 metres were completed using a bulldozer-supported Longyear 38 drill rig (EMD08-20 to 09-43; Figure 11-1). Holes were predominantly aimed at geophysical targets. Down-hole survey data was collected for all holes except EMD09-32 to 09-37 using a Flexit survey instrument. Howe notes that all hole collars have been positioned using a theodolite surveying however survey data was not available at the time of the October 2009 resource estimate. The drill hole collar coordinates require updating in the resource database.

**Table 11-1: Summary of drilling completed on the Eagle Mountain property.**

| Period | Company | Hole Numbers | Metres | Comments |
|---|---|---|---|---|
| 1947-1948 | Anaconda British Guiana Ltd | AD01-AD57 | 5,832 | AX core |
| 1973 | Guyana Geological Survey | EHD01-EHD15 | 4,187 | AX core. Some holes re-assayed by Golden Star in Canada |
| 1970? | Guyana Geological Survey | G01-G08 | 620 | AX core. Only lithology data from a few holes available |
| 1997 | Golden Star Resources Ltd | EM001-021 | 2,423 | HQ/NQ core |
| 1998 | Golden Star / Omai Gold Mines Ltd | EM022-040 | 1,114 | HQ/NQ core – most holes vertical |
| 1999 | Omai Gold Mines Ltd / Cambior | EM99-41 to 70 | 2,399 | HQ/NQ core – most holes vertical |
| 2007-2008 | Omai Gold Mines Ltd / IAMGOLD | EMD07-01 to 08-19 | 2,209 | HQ/NQ man-portable rig. 2 drilling periods |
| 2008-2009 | Omai Gold Mines Ltd / IAMGOLD | EMD08-20 to 09-43 | 5,851 | HQ/NQ LY38 – 2 drilling periods |
| ***TOTAL*** | | ***197*** | ***24,635*** | Includes redrills |

## 11.1 Drill Results – Gold

Four, shallowly south-west dipping gold mineralisation zones have been identified and constitute the bulk of the estimated mineral resource: the Saddle, Zion, Kilroy and Millionaire zones. The geology, geometry and grade characteristics of each zone are described in Section 9 of this report. A significant proportion of pre-2005 drill holes were terminated above or immediately below the Millionaire zone. Based on the interpretation that the Millionaire and Saddle zones were originally a single entity, now segregated by strike-parallel thrusting, there may be areas of Zion type mineralisation under Millionaire in areas of insufficient drill coverage.

In the Dispute Pit area, follow-up drill targeting of scattered surficial gold anomalies has yielded several significant intersections, for example, 1.5g/t Au over 14 metres in EMD08-21 (Table

11-2). Gold mineralisation in this area is specifically associated with “cloudy” quartz vein arrays (see Section 9). Economically significant concentrations of this mineralisation style have not been identified. However, two exploration models are currently being considered. The first model is that quartz veining is related to low-angle structures similar to those identified in the resource area. Alternatively, quartz veining is associated with the folding, in the form of saddle reefs. In the Coolie 271B Adit, a thick, north-south striking quartz vein hosted in saprolitic granitoid is exposed in the adit walls, and averages 0.7g/t Au over 6 metres as well as 17.2 g/t Au over 19 metres (along the vein). In the creek to the north, channel sampling across quartz veining in meta-volcanics returned results of 9.4g/t Au over 3.5 metres, 3.3g/t Au over 3 metres and 9.8g/t Au over 1metre.

East of the Minnehaha Fault, a thrust-floored wedge of meta-volcanics was intersected in holes EMD0820, 022, 038 and 039. A wedge of granitoid occurs above the volcanics in EMD08-20, and the main granodiorite intrusion was intersected at depth. Auriferous mineralisation is associated with “cloudy” quartz veins immediately above the meta-volcanic / granitoid contact and with shear zones developed in granodiorite just below the volcanic wedge. Figure 7-1 and Figure 7-3 illustrate the geology in this area, while significant intersections are documented in Table 11-2.

## Table 11-2: Significant non-resource assay results.

| Hole | From | To | (m) | Au (g/t) | Comment | Area |
|---|---|---|---|---|---|---|
| EMD08_20 | 134.80 | 137.80 | 3.00 | 1.0 | "Cloudy" quartz veinlets in meta-volcanic | Volcanic Wedge |
| EMD08_20 | 189.15 | 193.00 | 3.85 | 1.9 | Siliceous meta-volcanics with abundant quartz & quartz-carb veining | Volcanic Wedge |
| EMD08_20 | 208.30 | 219.05 | 10.75 | 1.9 | Mafic meta-volcanics & sediments with quartz veinlets to 217.3, then granitoid after sheared contact. Disseminated sulphides in meta-volcanics may explain the IP chargeability anomaly | Volcanic Wedge |
| EMD08_20 | 217.3 | 219.1 | 1.8 | 4.2 | Straddles sheared contact meta-volcanics & granitoid | Volcanic Wedge |
| EMD08_20 | 242.3 | 247.8 | 5.5 | 1.6 | Granitoid with moderate Zion style alteration & minor veining w/ chalcopyrite | Volcanic Wedge |
| EMD08_20 | 259.00 | 263.35 | 4.35 | 0.6 | Granitoid, mod fractured with quartz-sulphide fill | Volcanic Wedge |
| EMD08_21 | 83.00 | 97.00 | 14.00 | 1.5 | Quartz-Feldspar Porphyry saprolite with quartz veinlets | Dispute Pit |
| EMD08_21 | 346.9 | 350.0 | 3.1 | 1.5 | QFPO with irregular quartz veinlets | Dispute Pit |
| EMD08_22 | 17.00 | 25.00 | 8.00 | 0.6 | Saprolitic granodiorite. 0-17m many 0.1-0.3g/t assays. Note 22a is a redrill after stuck rods | Volcanic Wedge |
| EMD08_22 | 30.85 | 37.00 | 6.15 | 0.5 | Saprolitic meta-volcanics, probably near contact w/ granitoid | Volcanic Wedge |
| EMD08_22a | 1.0 | 7.5 | 6.5 | 1.0 | Saprolitic mafic meta-volcanics. Note no anomalous auger data nearby | Volcanic Wedge |
| EMD08_22a | 12.00 | 19.50 | 7.50 | 0.6 | Saprolitic granodiorite. Note that like EMD22 intervening intervals are often 0.1-0.4 g/t | Volcanic Wedge |
| EMD08_22a | 27.00 | 31.50 | 4.50 | 1.1 | Saprolite, including some meta-sediment | Volcanic Wedge |
| EMD09_35 | 0.00 | 11.00 | 11.00 | 1.5 | 7m tailings at surface, & granitoid sap | Dispute Pit |
| EMD09_35 | 122.00 | 124.00 | 2.00 | 6.3 | Irregular quartz vein in QPO semi-parallel to core axis. Note veining below this is barren | Dispute Pit |
| EMD09_36 | 42.00 | 46.00 | 4.00 | 1.7 | Mafic volcanics & quartz veins. Poor recovery 43-46m | Dispute Pit |
| EMD09_36 | 258.00 | 262.00 | 4.00 | 12.7 | Incl 1m @ 40.1 g/t (confirmed by check assay). QPO w/ re-fractured quartz veins. | Dispute Pit |
| EMD09_37 | 73.70 | 77.50 | 3.80 | 0.7 | Max 1.7m @ 0.9 g/t assoc w/ chloritic fractures | Dispute Pit |
| EMD09_38 | 112.60 | 116.50 | 3.90 | 0.5 | Partly foliated metavolcanic w/ stwk carb vns. | Volcanic Wedge |
| EMD09_38 | 127.60 | 130.20 | 2.60 | 0.8 | Metavolcanic, porphyritic feldspar overprint, 1% diss py. Long intervals @ 0.1-0.3 around this | Volcanic Wedge |
| EMD09_38 | 149.30 | 155.50 | 6.20 | 0.9 | Partially silicified chloritic volcanic, irregular qvns low ACA. Long low grade intervals nearby | Volcanic Wedge |
| EMD09_38 | 256.20 | 260.00 | 3.80 | 0.1 | 0.15% Mo – visually area with highest Mo | Volcanic Wedge |
| EMD09_38 | 292.00 | 298.00 | 6.00 | 1.9 | Meta-volc w/ qvns | Volcanic Wedge |
| EMD09_39 | 56.50 | 59.50 | 3.00 | 1.7 | Long intervals @ 0.1-0.3 nearby. Several short intervals @ 1g/t. Qvn related. | Volcanic Wedge |
| | | | | | Geological survey core re-assayed at a commercial laboratory by Golden Star | |
| EHD02 | 67.00 | 79.00 | 12.00 | 2.1 | Saprolitic / weathered quartz porphyry | Volcanic Wedge |
| EHD03 | 205.80 | 213.80 | 8.00 | 1.1 | Quartz Porphyry w/ qvlts. Breccia zone 205-209 | Volcanic Wedge |
| EHD03 | 219.80 | 231.80 | 12.00 | 1.5 | Quartz Porphyry w/ qvlts. Includes 2m @ 6.1 g/t | Volcanic Wedge |

## 11.2 Drill Results – Molybdenum

Drilling in the Dispute Pit area was designed to test the anomalous molybdenum results identified in soil sampling, pitting and drilling programs conducted by the GGMC in the 1970's. Deep auger sampling was completed in this area on approximately 50 x 100 metre centers, with bottom-of-hole samples submitted for multi-element geochemistry. In addition, GSR re-assay data for selected GGMC holes also included multi-element geochemistry. OGM drill holes specifically targeting molybdenum mineralisation were analyzed for multi-element geochemistry at Activation Laboratories ("Actlabs") using the 1H "Au plus 48" package. All results confirmed widespread molybdenum anomalies. However, grades are in the 2600ppm Mo range, and an economic occurrence has not been identified. For example, EMD08-21 intersected an average of 0.03% Mo over 300 metres, including intervals of 0.04-0.06% Mo over 20-30 metres. Low-grade molybdenum mineralisation is concentrated in the core of the regional-scale fold, west of the Minnehaha Fault (Figure 11-2).

## 11.3 Drill & Channel Sample Results – Multi-element geochemistry

The flat-lying gold mineralisation zones in the main resource area can be distinguished based on minor variations in trace element chemistry. For example, the Zion zone is relatively enriched in copper in comparison to the other zones (20-100ppm Cu), while Kilroy and Millionaire contain elevated arsenic (1639ppm As).

In the Dispute Pit area, a number of elements have elevated values and a strong spatial correlation with molybdenum, including silver, bismuth, cadmium and antimony. Elevated tungsten is also spatially associated with molybdenum (up to 1210ppm W), but is also anomalous within areas of gold mineralisation (10-70ppm W).

Arsenic and copper broadly correlate with the presence of sulphide-bearing mafic meta-volcanics. Manganese anomalies are also considered to be indicative of underlying bedrock lithology, with auger and drill hole assays of 300-9000ppm Mn related partly to manganiferous meta-siltstones interbedded with the mafic meta-volcanics, and partly to enrichment in the weathering environment.

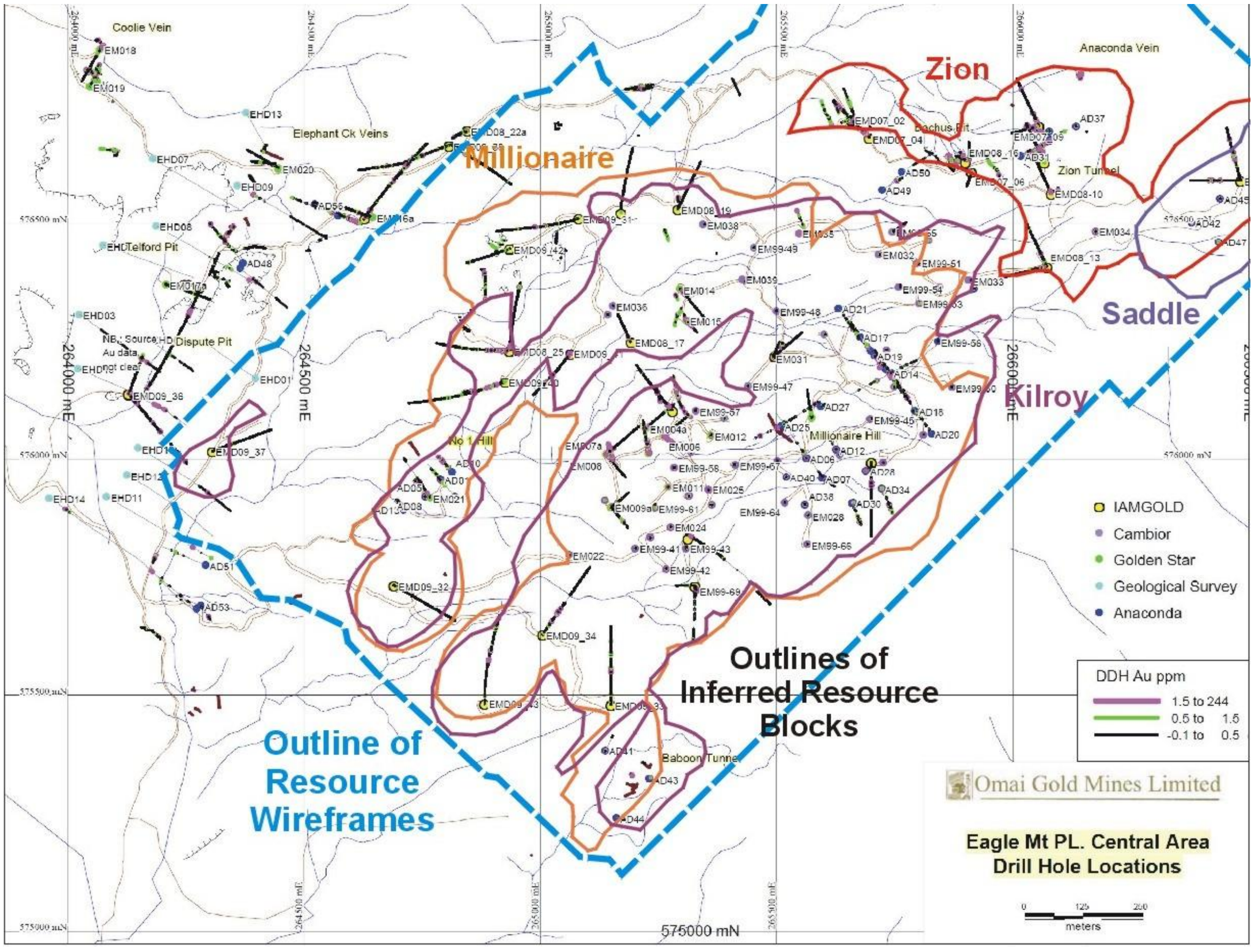



**Figure 11-1: Drill Hole Locations & drill hole Au summary**

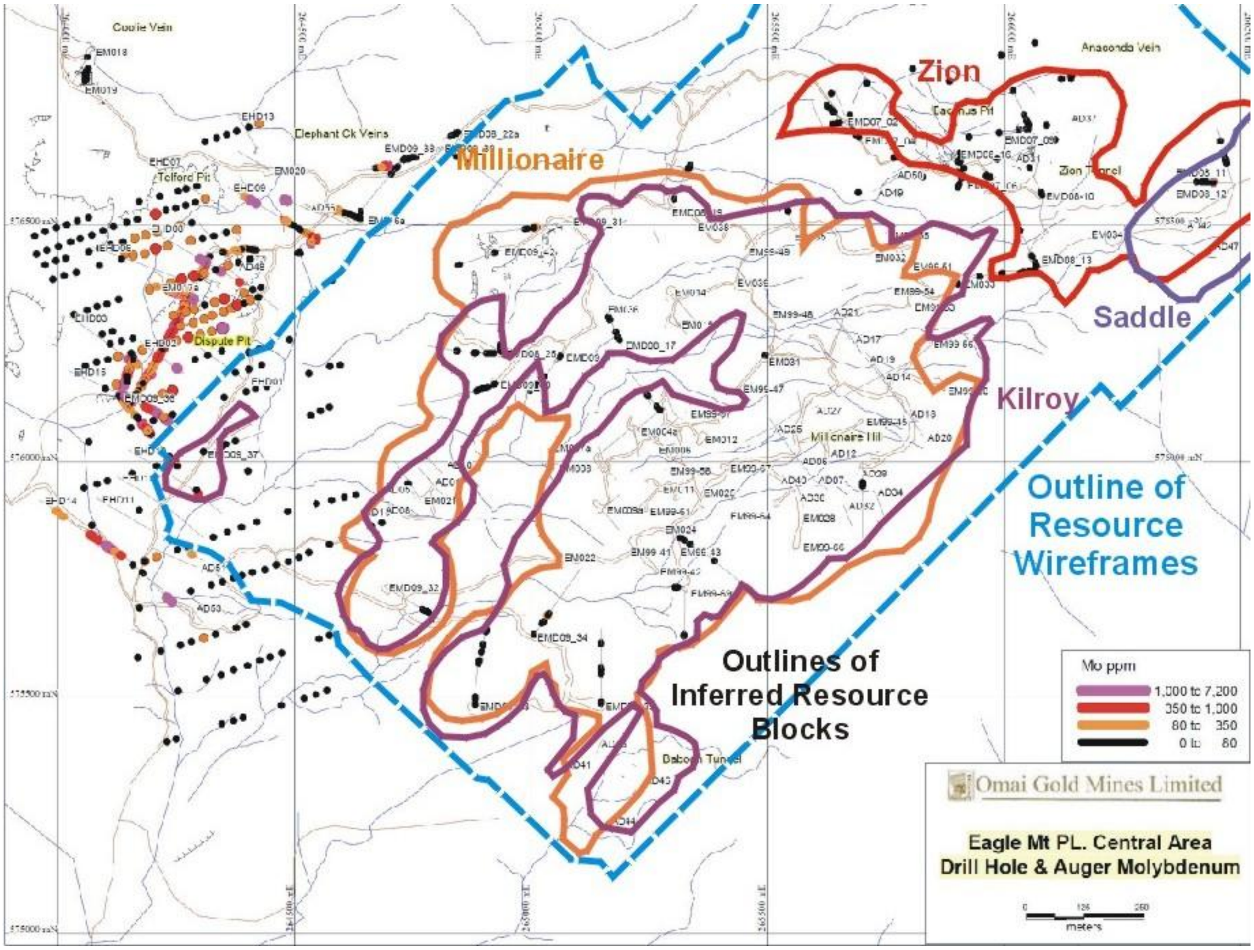



**Figure 11-2: Drill Hole Locations & Drill Hole Molybdenum Summary**

# 12 SAMPLING METHOD AND APPROACH

Stronghold has conducted no sampling on the Property. The sampling methodology described in this section relates specifically to post-2005 OGM diamond drilling campaigns. However, a similar procedure was followed for earlier GSR and OGM drill holes.

Section 12 has been extracted from Clouston (2009) with only minor edits. Howe concurs with the observations and statements made by Clouston (2009).

Diamond drill holes are photographed using a digital camera and geotechnical data (recovery and RQD) is recorded prior to geological logging. Historical core has also been systematically photographed where available. Recovery data was recorded for most historical holes, and RQD data was documented for EM99-41 onwards.

The holes are then logged and sample intervals are marked out by the supervising geologist. Samples are collected to a minimum length of 30 centimetres and a maximum of 1.5 metres in areas that are visually unmineralised. Thick dolerite and gabbro-norite dykes are not routinely sampled, except at contact zones. Most samples are cut with a diamond saw, with one half placed in a sample bag and the other half retained in the core box for reference. A hydraulic core splitter was used to halve samples from drill holes directly targeting molybdenum mineralisation and from all holes drilled prior to 2007.

Blanks and Rocklabs certified standards are randomly placed within the sample stream at a frequency of one blank and one standard per 50 samples. Blanks are inserted within zones that are considered to be mineralized or immediately after a sample containing visible gold. Blank material consisting of bauxite is inserted within saprolitic material, whereas Omai dolerite is used for fresh rock.

All exploration groups have used the same procedure for the collection of channel samples. At each location, a start point is designated, and from that point sample intervals are marked out using a tape measure, either at regular intervals, or according to identified geological contacts. Control samples (standards, blanks and duplicates) are inserted using the protocol as described for drill holes.

For auger sampling, material is collected in one meter intervals using a “Dutch” or Edelman auger and homogenized on a clean plastic sheet. A representative ~1kg sample is extracted by coning and quartering. The bottom sample from some of the auger holes in the Dispute pit area were analyzed using the Actlabs “Au plus 48” package (ICP and INAA). All other samples were analyzed for gold by fire assay. Lithology type, colour and the presence of sulphide, quartz veins or alluvial material is recorded upon sampling and subsequently cross checked by the supervising geologist. A blank control sample is inserted every 40-50 samples.

# 13 SAMPLE PREPARATION, ANALYSES AND SECURITY

Stronghold has conducted no sampling on the Property. The sampling methodology described in this section relates specifically to post-2005 OGM diamond drilling campaigns. However, a similar procedure was followed for earlier GSR and OGM drill holes.

Section 13 has been extracted from Clouston (2009) with only minor edits. Howe concurs with the observations and statements made by Clouston (2009).

Batches of individual samples are packed in sacks and sealed on site, and then transported by company vehicle to the appropriate sample preparation facility. Dispatch sheets accompany each shipment, with a copy retained on site.

A number of different laboratories have historically been used for analysis of Eagle Mountain geochemical samples. Prior to 1997, all sample preparation and assaying was completed at Loring Laboratories Ltd in Guyana. The Omai mine laboratory was used for sample preparation and analysis during the period 1998-1999, with Loring used for check assaying. Recent auger and grab samples were prepared and assayed at the Omai mine laboratory until the closure of the facility in May 2007. Recent stream sediment samples were sieved at the Omai lab, but analyzed by Activation Laboratories Canada (“Actlabs”) using the 1H package (Au plus 48). In early 2007, Acme Laboratories (“Acme”) opened a sample preparation facility in Guyana, and shipped pulps for gold analysis by fire assay to Chile, or for multi-element analysis to Vancouver. Acme was used for sample preparation and gold analysis from mid 2007 to late 2008, with pulps and some rejects shipped to Actlabs for multi-element analysis. In late 2008, Actlabs also opened a sample preparation facility in Guyana, and a few batches of drill samples were sent for processing and multi-element analysis. However, the majority of samples from this period continued to be prepared and assayed by Acme.

Pulps and rejects prepared in Georgetown are routinely returned to the OGM exploration office for storage. Pulps and rejects prepared by the Omai mine laboratory are stored in containers in Linden, Guyana.

## 13.1 QUALITY ASSURANCE AND QUALITY CONTROL

This section summarizes the systematic QA/QC protocol that was introduced at the commencement of the 2007 drilling campaign to monitor the accuracy and precision of analytical results. The various quality control methods used in prior sampling programs are also described.

### 13.1.1 Blanks

Drill core samples of Omai dolerite were used for blank material prior to 2005. Blank control samples are identified in historical databases by having no attributed sample interval. Blank material consisting of Linden bauxite and Omai dolerite core has been used for all post-2005 sampling programs. Bauxite blanks are inserted during sampling of saprolitic material in drill and auger holes, while Omai dolerite blanks are included with fresh rock drill samples. A total of 187 blank samples were assayed for gold by fire assay, with only four returning greater than 0.04 g/t Au (> 95% upper tail confidence interval; (Figure 13-1). All of these were inserted in auger sample batches and it is likely that they are tagging errors, where duplicate control samples were mistakenly labeled as blanks. The database currently contains 22 blank samples which were assayed by INAA / ICP at Actlabs (Canada). Six of these samples are bauxite and the rest are dolerite, with none assaying over 17ppb Au.

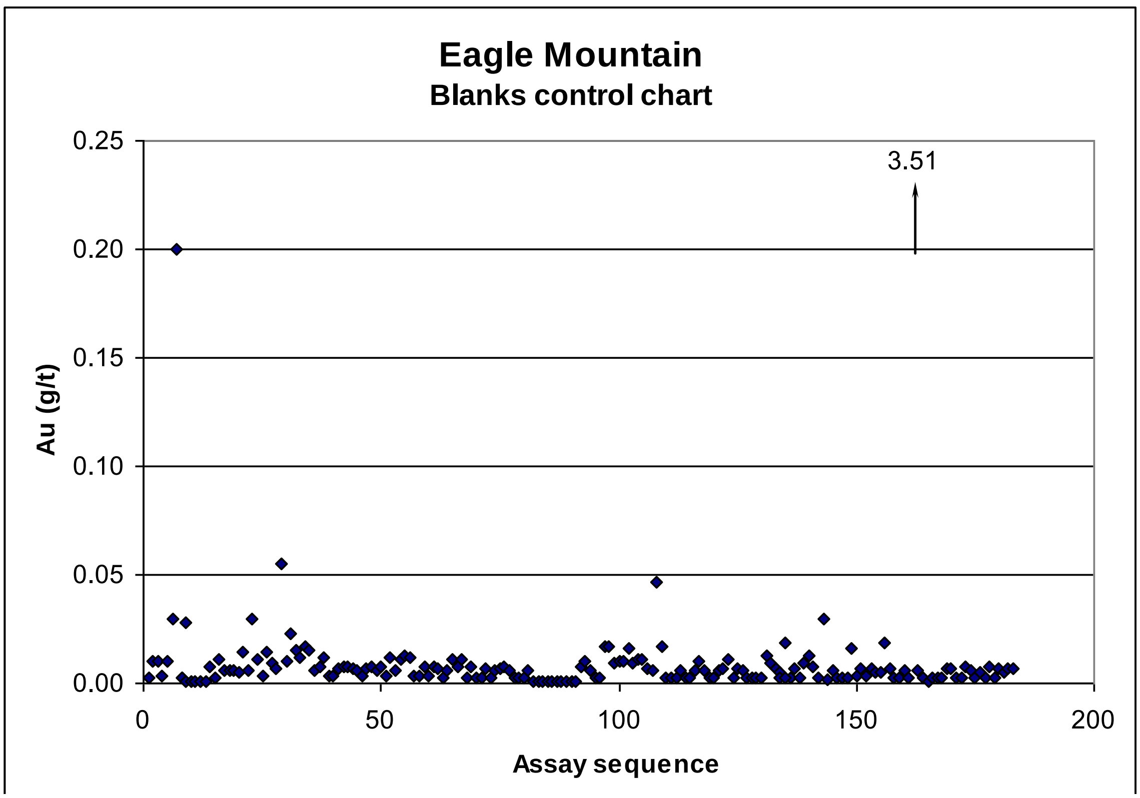



**Figure 13-1: Blanks Control Chart**

### 13.1.2 Standards

Commercial certified reference materials ("standards") were introduced in the sampling stream at the beginning of the 2007 drilling program (EMD07-07 onward). Previous drilling campaigns either did not have a QA/QC protocol that included standards or relied on the laboratory's own internal standards, a practice that is no longer acceptable. Six different Rocklabs oxide standards have been used at an average insertion frequency of one per fifty samples. The standards certified grade ranges from 0.0798 to 3.557 g/t Au and their respective control charts are provided on Figure 13-2 to Figure 13-7. A clear and consistent bias is noted in results returned from Actlabs over several types of standards. The origin of this bias should be investigated closely in conjunction with laboratory management.

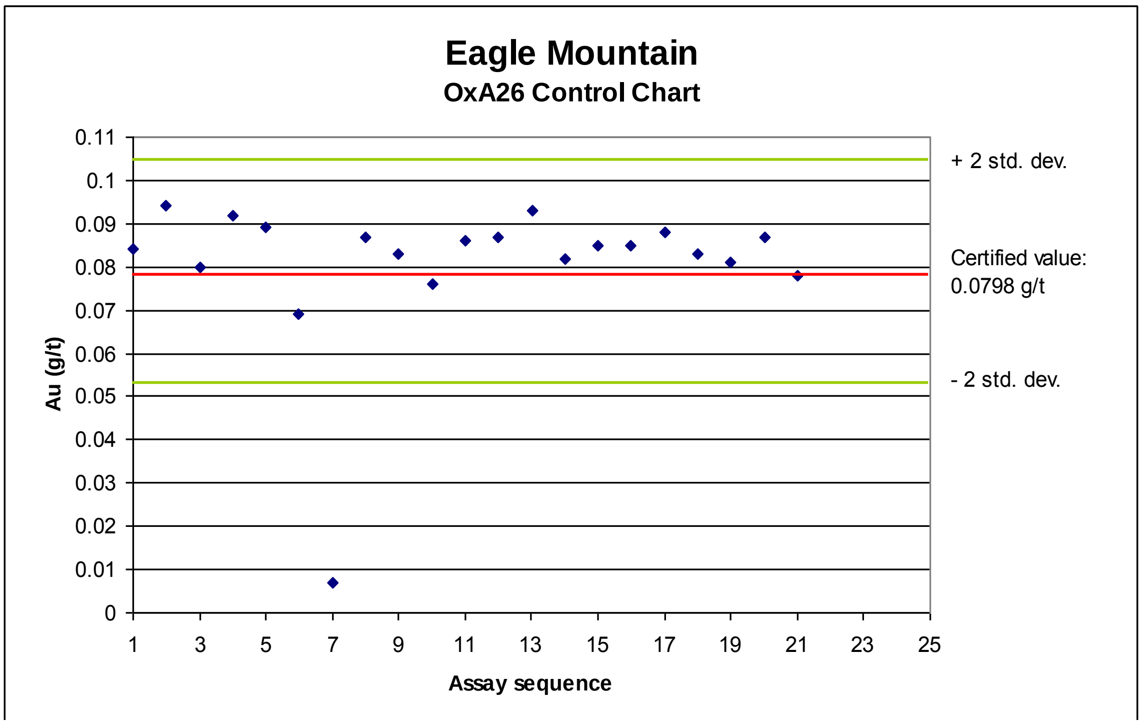



**Figure 13-2: Standard OxA26 Control Chart**

The only anomalous result from the submission of standard OxA26 is a very low value that may be the result of a tagging error where a blank may have been mistakenly labeled as standard.

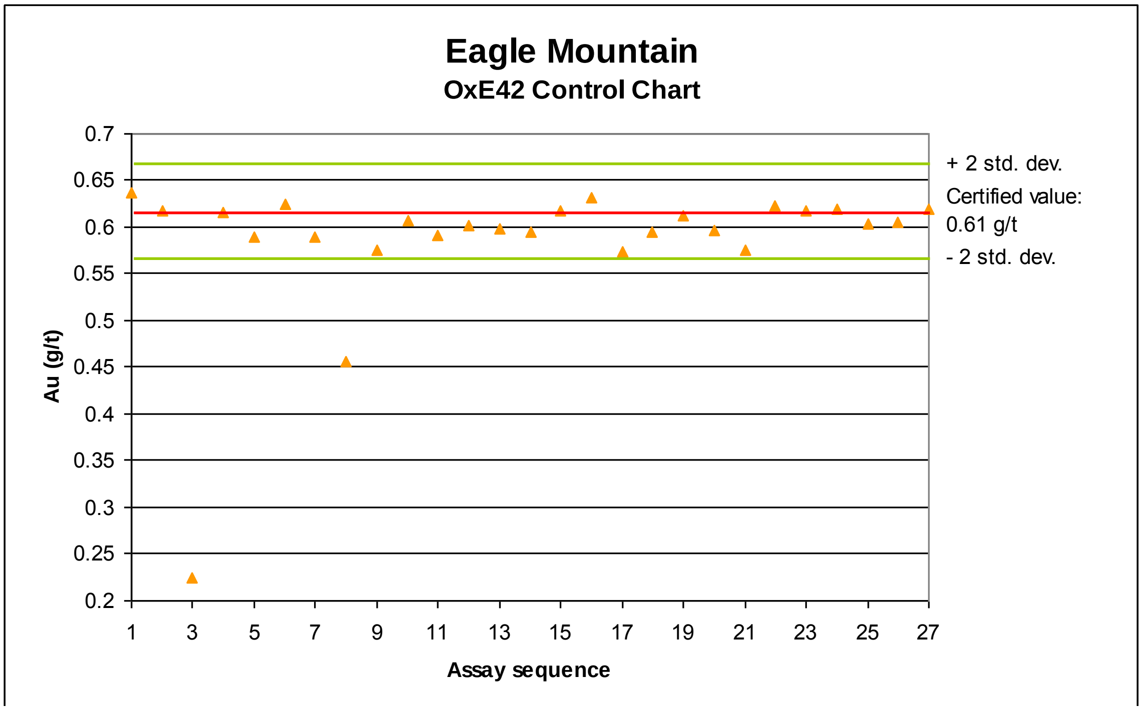



**Figure 13-3: Standard OxE42 Control Chart**

Two results came back anomalously low in the early submittals of standard OxE42. They may be the result of sample swaps. It is uncertain if corrective measures were taken.

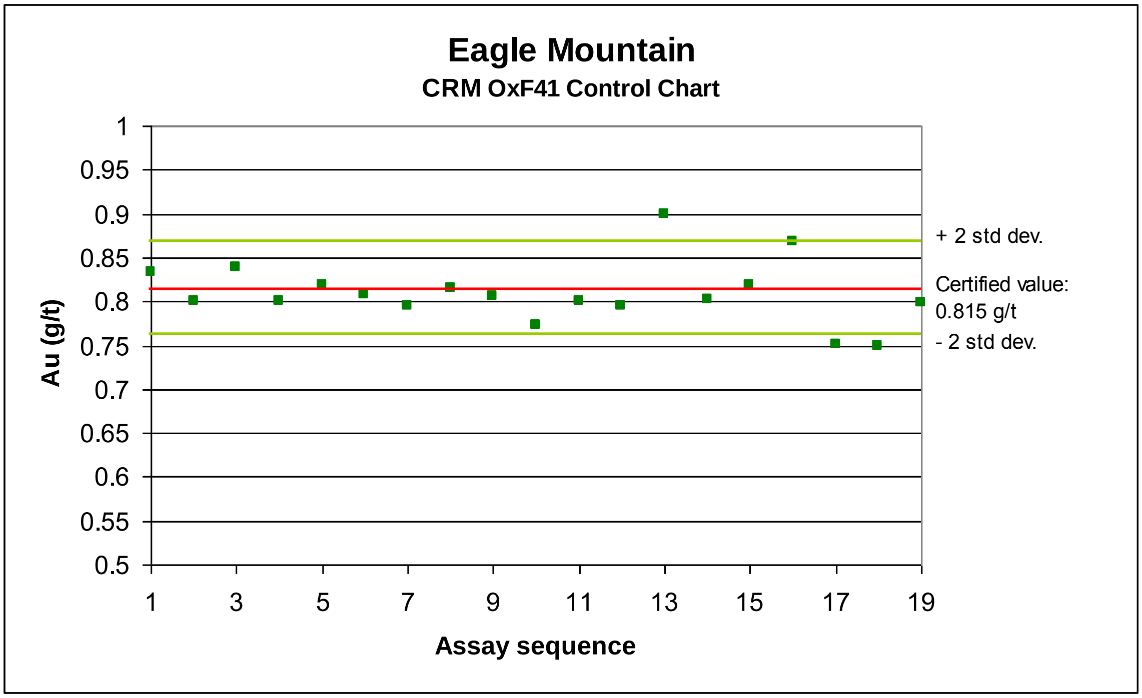



**Figure 13-4: Standard OxF41 Control Chart**

Four assay results of standard OxF41 were outside the 95% confidence interval but only one (#13 from EMD024) was significantly outside. All results are from Acme's Chilean laboratory.

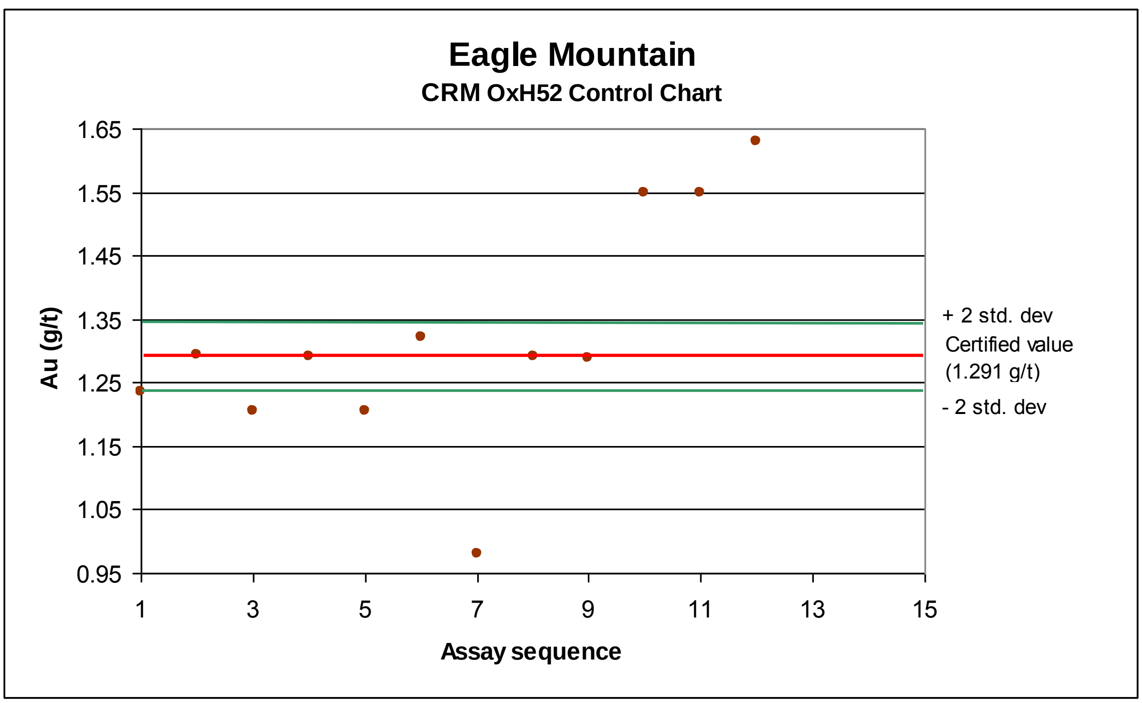



**Figure 13-5: Standard OxH52 Control Chart**

Half the assay results of standard OxH52 came back anomalous (three below and three above the 95% confidence interval). The three results plotting above the 95% confidence interval are from a single sample batch submitted to Actlabs.

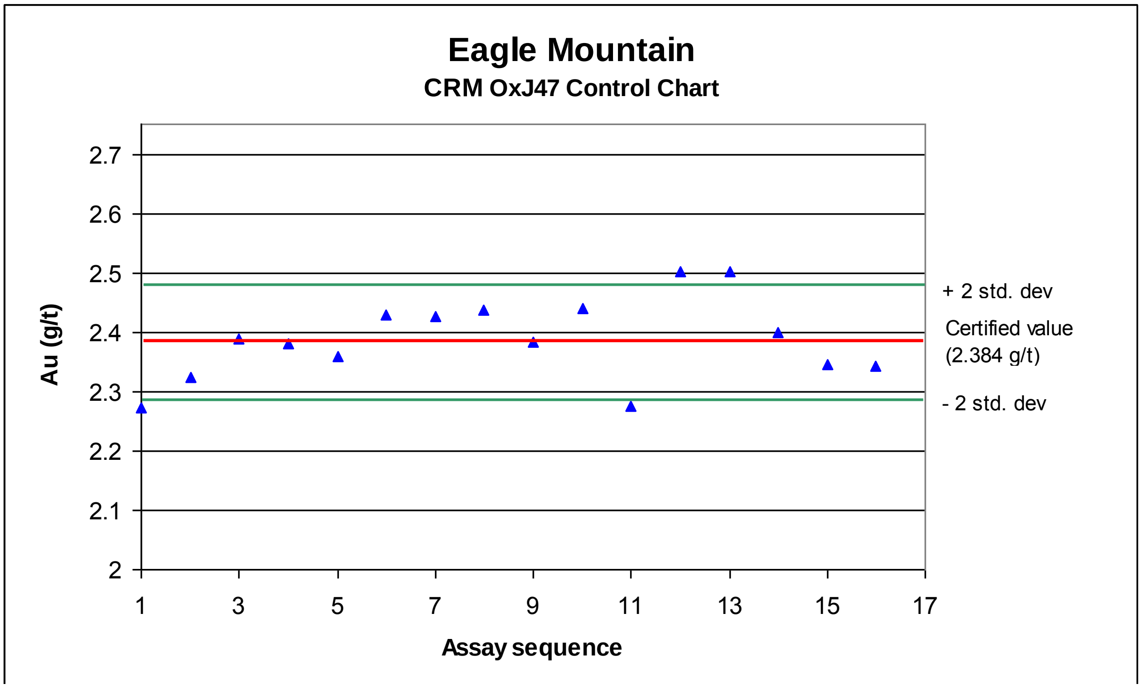



**Figure 13-6: Standard OxJ47 Control Chart**

Four assay results came back anomalous from standard OxJ47, but close to the 95% confidence interval limits. All results are from Acme's Chilean laboratory.

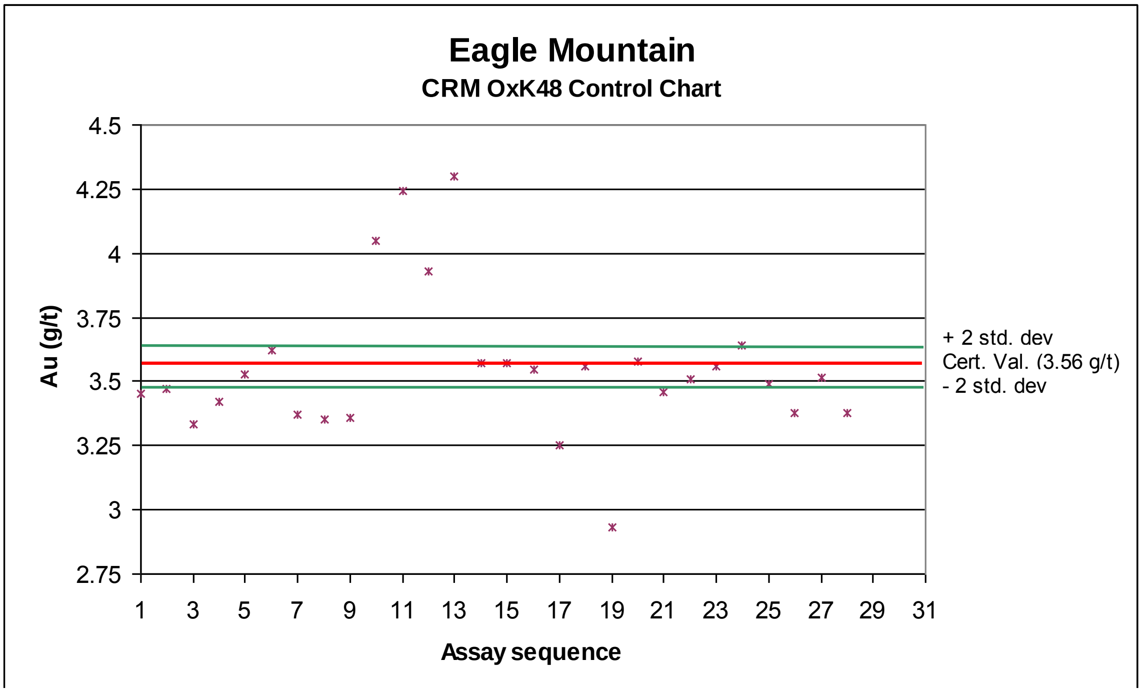



**Figure 13-7: Standard OxK48 Control Chart**

Like standard OxH52, half the assays of standard OxK48 failed the accuracy criteria and like OxH52, all the Activation Laboratories results came back anomalously high. This clear bias of Chilean ActLabs results over several standards must be investigated closely by the exploration group with the laboratory management.

### 13.1.3 Duplicates

GSR 1997 holes EM001 to EM021 had duplicate ¼ core assayed by Loring in the same batch under a different sample number. Thirty five sample pairs can be identified and show reasonable correlation (Figure 13-8). In addition, 150 available sample intervals from EM016, 016a, 017 & 017a that were considered to have molybdenum potential were ¼ cored and analyzed for multi-element geochemistry and gold using the Actlabs 1H package in 2006-2007. A good correlation generally exists between Loring 1997 and Actlabs 2007 gold results. The poor correlation of three data is a result of substandard splitting practices in 1997, whereby the volume of mineralized vein material in original samples could not be adequately replicated.

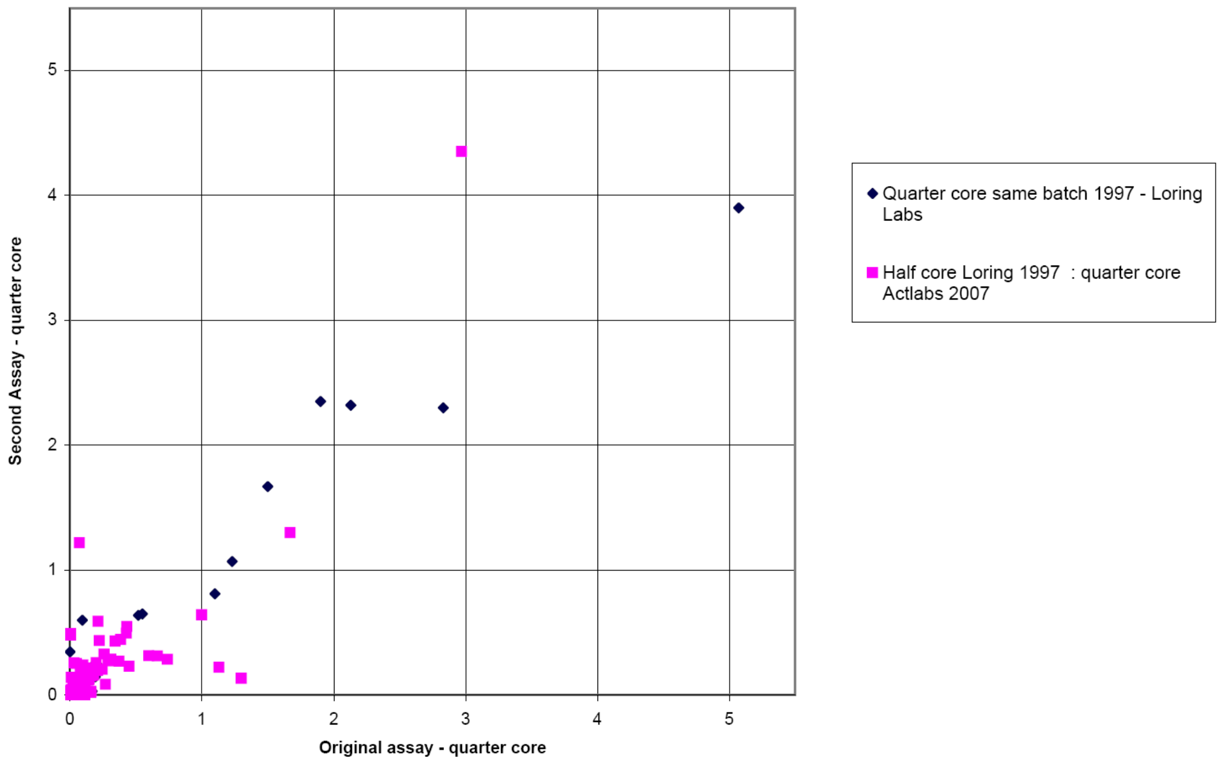



**Figure 13-8: EM001-021 core duplicate assays.**

Duplicate assays from rejects of five holes drilled in 1998 under the GSR / OGM joint venture were analyzed in one batch. A total of 82 rejects from the Omai mine laboratory were prepared and assayed by Loring. Again, there are no significant problems (Figure 13-9). In 1999, 256 rejects from EM041 to 070 were submitted to Loring for duplicate analysis. A slightly lower duplicate assay result was returned for four samples (Figure 13-9).

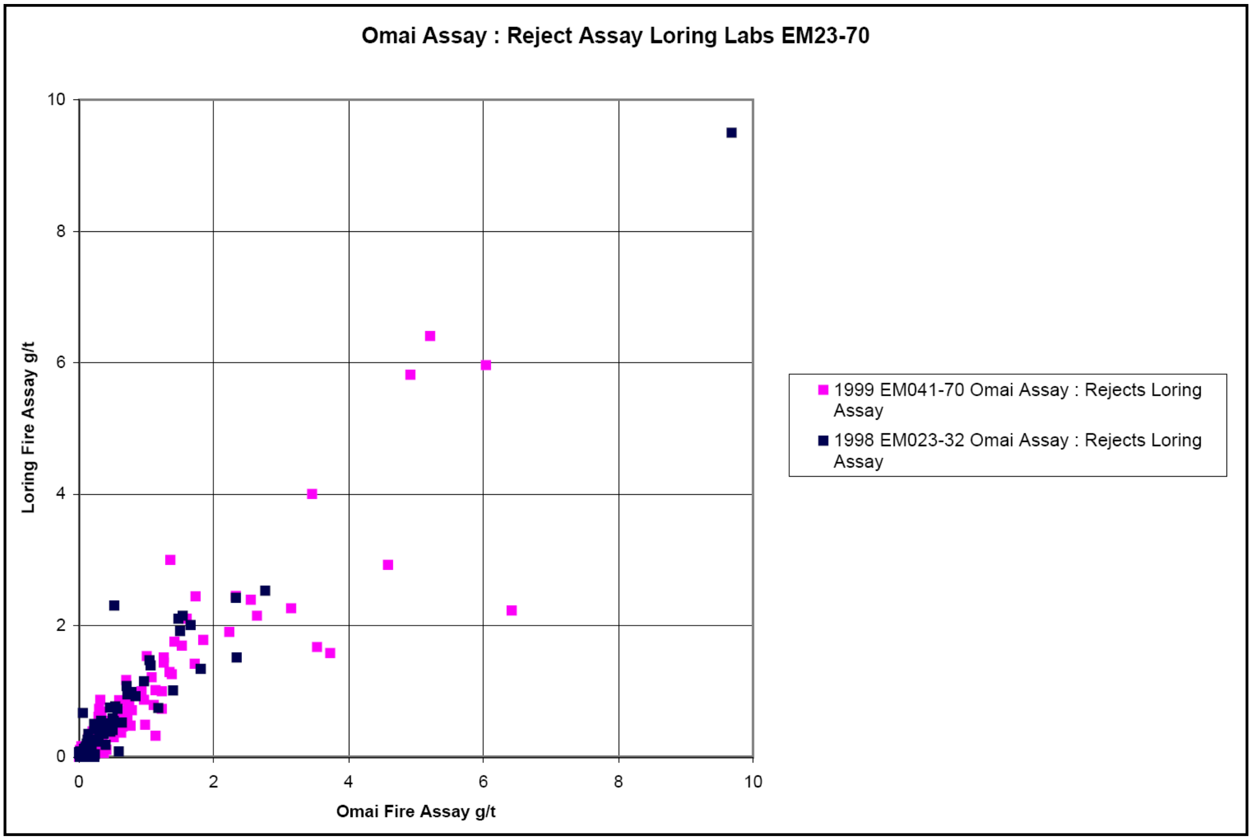



**Figure 13-9: EM023-032 and EM041-070 reject analysis**

A variety of duplicate analyses has been performed for drill holes supervised by IAMGOLD. Samples were chosen for a number of criteria. Almost all visibly anomalous sequences have been duplicated using the Actlabs 1H package, either from pulps or rejects, depending on which could be located more quickly. In a few cases ¼ core was used. As well as checking the validity of the gold data, it was hoped that the individual mineralisation zones could be discriminated based on variations in trace element chemistry. Multi-element data was also acquired for zones of specific interest, for example, intervals containing visible molybdenite. In total 562 pulps, 64 rejects, and 7 quarter core samples were reanalyzed (Figure 13-10). Note that 30ppm is the upper detection limit for gold using the Actlabs INAA method. Most outlying samples are from earlier batches submitted to Acme during setup of their sample preparation facility in Guyana. It is therefore possible that some sample preparation problems occurred, including sample switching.

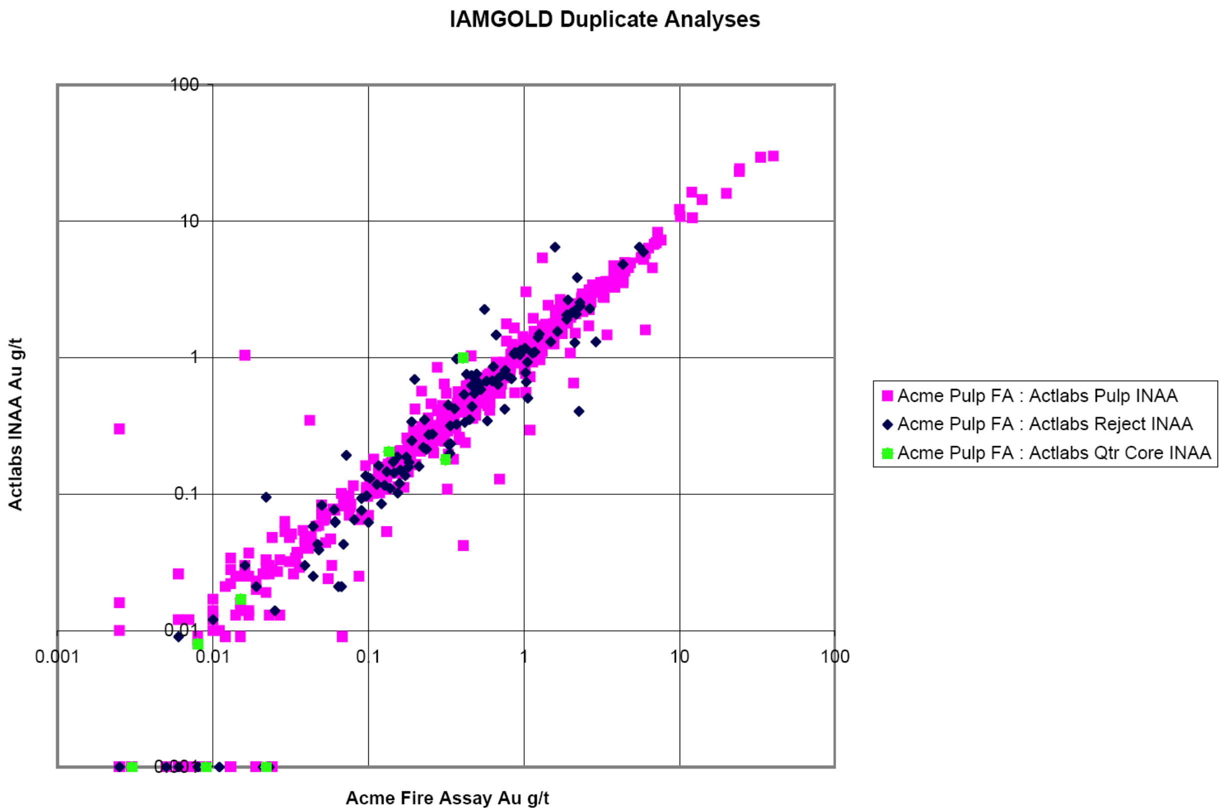



**Figure 13-10: 2007-2009 pulp, reject and quarter core duplicate analysis**

The comparison of Acme fire assay results for IAMGOLD 2007-2009 samples against Actlabs INAA results for pulps, rejects and quarter core are presented above.

The precision performance of each type of duplicate is illustrated in Figure 13-11 as the half absolute relative difference ("HARD") of each pair ordered according to their increasing HARD values. The plot indicates that pulp duplicates have the best precision at +/- 40% for the 90% percentile while reject duplicates, because of their coarser size, have a lower precision performance of +/- 60%. Quarter core re-assays perform poorly with a precision of +/- 88%. Some authors suggest that a precision of 10% and 20% at the 90% percentile should be aimed for pulps and rejects respectively. However, thresholds of 20% and 40% are probably more realistic.

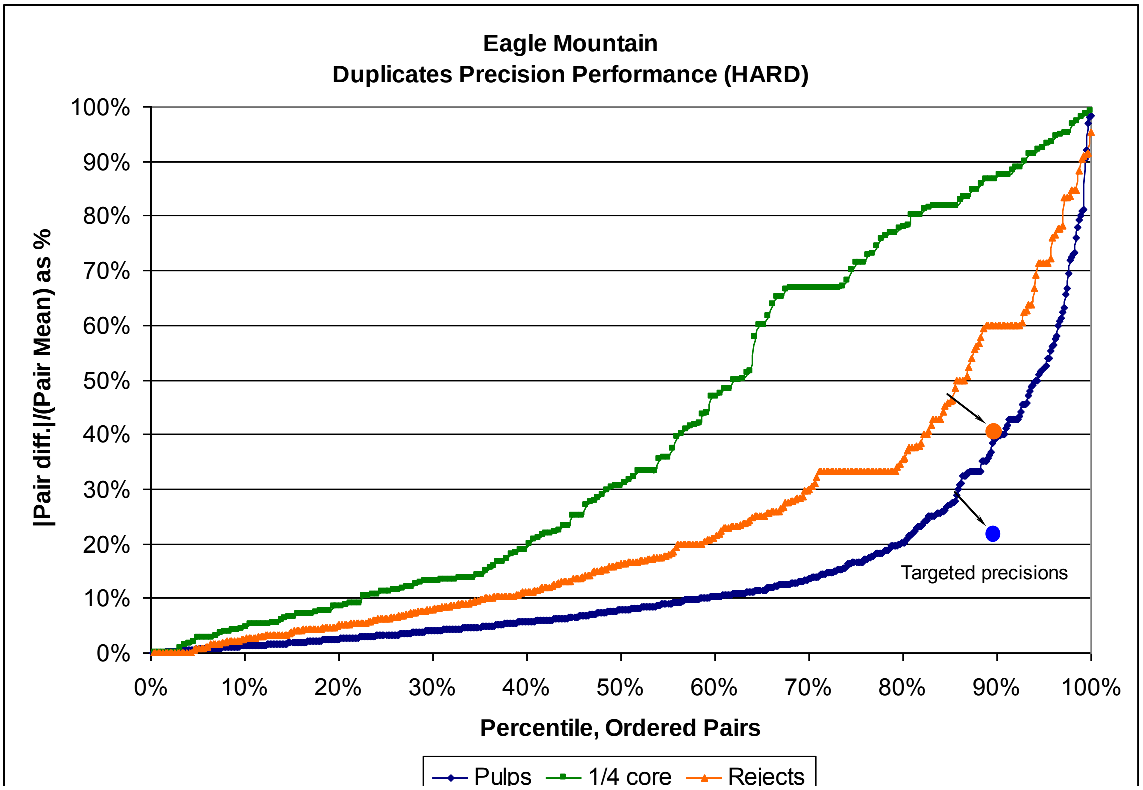



**Figure 13-11: Duplicate precision performance chart**

Abzalov (2008) recommends that the average coefficient of variation CVavg(%) be used instead of HARD whose statistical meaning is less evident. The average coefficient of variation is calculated using the formula:

$$CV_{avg}(\%) = 100\,x\sqrt{\frac{2}{N}\sum_{i=1}^{N}\left(\frac{(a_i - b_i)^2}{(a_i + b_i)^2}\right)}$$

Table 13-1 lists the average coefficient of variation for the three types of duplicates used at Eagle Mountain together with the acceptable values, although the latter can differ by the grade range, mineralogy and statistical distribution of each deposit. The experimental CVavg values fall short of the targeted precisions. Preparation and assaying procedures such as the crushing/grinding (P95) and homogenization should be reviewed with the laboratory.

**Table 13-1: Experimental and expected levels of precision (CVavg %).**

| TYPE | Pulp | Reject | ¼ Core |
|---|---|---|---|
| Eagle Mountain | 32 | 45 | 73 |
| Acceptable value | ≤ 20 | ≤ 25 | ≤ 30 |

It is recommended that the frequency of control samples in all future laboratory submissions be sufficiently high such that each sample batch contains at least one high-grade standard, one blank and one low-grade standard or pulp duplicate. Extra blanks should be submitted at the end of an expected high grade sample stream (where visible gold has been observed, for example).

# 14 DATA VERIFICATION

## 14.1 ACA HOWE 2010 VERIFICATION

### 14.1.1 ACA Howe 2010 Site Visit

Confirmation of the existence of reported work sites was conducted by Howe representative and co-author Mr. I. Trinder during his visit to the Property from mid-day October 9$^{th}$, 2010 to mid-day October 12$^{th}$, 2010 as part of Howe's due diligence in the preparation of this technical report. During the property visit, Mr. Trinder, along with Stronghold personnel: Mr. Ioannis (Yannis) Tsitos, President, CEO and Director, Mr. Michael Byron, Vice President Exploration and Mr. Art Freeze, Director, met with IAMGOLD's Guyana Exploration Manager, Linda Heesterman, Senior Geologist Anne Casselman and Exploration Geologist Kevin Pickett to examine the Property area and discuss the IAMGOLD's exploration activities, methodologies, findings and interpretations. IAMGOLD's Georgetown, Guyana office was also visited on the afternoon of October 12$^{th}$, 2010.

Mr. Trinder completed an inspection of isolated surface outcrops, historic trenches and adits, and selected drill hole collars. The field camp, core logging and core sampling facilities were inspected. The condition of Company's onsite core storage racks was checked and core from several holes was examined. Core from GSR drilling campaigns and later are well kept in plastic core trays in core sheds on site (Figure 14-1). All of the work sites and technical observations were as reported by the Company. A comparison of IAMGOLD drill hole collar locations and Howe GPS check locations are presented in Table 14-1. Given the use of a hand-held GPS unit during the site visit and the extensive jungle canopy, the differences in coordinate positions are reasonable. In essence all of the work sites and technical observations were as reported.

Mr. Trinder acquired a complete digital database of all historic and current exploration on the Property, and acquired and reviewed copies of historic reports available for the Property. The information was found to be well organized and easily accessible. The most important data on paper copies have been digitized and backups kept offsite. Most of the relevant exploration data have been merged into a single MS® Access database.

In addition, Mr. Trinder completed a field and desktop review of drilling and sampling methodology, quality assurance and quality control procedures, security, etc. Logging, sampling and core handling procedures were found to be compliant with NI 43-101 standards. Electronic and paper copies are kept on site with offsite backup at the Georgetown office.

Eagle Mountain reject sample material is routinely returned from the laboratory and stored within a gated area at the IAMGOLD/OGM exploration office in Georgetown. Pulps are returned and stored on shelving within the same office.

Howe notes that the deeply incised topography and limited access trails on the Property has placed limits on the amount and location of exploration drilling to date. Additional access trails will need to be constructed to support any future definition drilling program(s).

Clouston (2009) considered the topography to be well defined over the main resource area, but noted that it relied on sparser information (i.e. survey points) in the fringe areas such as Baboon to the southwest and Dispute Pit to the northwest. Based on Clouston's recommendations additional theodolite survey points and traverses were collected after the October 2009 resource estimate Figure 10-3. The topographic surface and drill hole collar coordinates should be revised in future resource estimates to include the new data points.

**Table 14-1: Drill hole collar location checks.**

| Hole ID | Resource Database | | Howe GPS Check | | |
|---|---|---|---|---|---|
| | UTM_East | UTM_North | UTM_East | UTM_North | Difference |
| EMD08-13/EMD08-14 | 266072 | 576408 | 266074 | 576399 | 11 |
| EMD08-10 | 266081 | 576563 | 266074 | 576560 | 10 |
| EMD07-07 | 266067 | 576628 | 266044 | 576644 | 39 |
| EMD07-02/EMD07-03 | 265658 | 576718 | 265657 | 576716 | 3 |
| EMD08-19 | 265288 | 576529 | 265282 | 576536 | 13 |
| EM-039 | 265433 | 576376 | 265426 | 576386 | 17 |
| EMD08-23 | 265170 | 576530 | 265164 | 576522 | 14 |
| EMD08-31 | 265078 | 576508 | 265077 | 576510 | 3 |
| EMD09-41 | 265057 | 576216 | 265064 | 576228 | 20 |
| EMD08-24/EMD08-25 | 264930 | 576227 | 264931 | 576231 | 4 |
| EMD09-40 | 264925 | 576167 | 264913 | 576168 | 13 |
| EMD08-22/22A | 264860 | 576700 | 264842 | 576695 | 23 |
| EMD09-38/EMD09-39 | 264810 | 576660 | 264811 | 576673 | 14 |
| EM97-20 | 264446 | 576617 | 264443 | 576622 | 8 |

**Figure 14-1: Core storage at the Eagle Mountain camp.**

### 14.1.2 ACA Howe 2010 Verification Sampling

Howe conducted limited verification sampling during its 2010 site visit consisting of four samples of quarter core from holes EM99-66, EMD07-08, EMD08-12 and EMD08-30.

Mr. Trinder supervised the cutting of the quarter core samples, sealed the sample bags and maintained possession of all samples until delivery by courier to SGS Canada's geochemistry lab at 1885 Leslie Street, Toronto, Ontario. SGS-Toronto is a reputable, ISO/IEC17025 accredited laboratory qualified for the material analysed. SGS quality control procedures are method specific and include duplicate samples, blanks, replicates, reagent / instrument blanks for the individual methods.

The samples were prepared using SGS sample preparation package PRP89, which consists of conventional drying if required, in 105$^{o}$C ovens; crushing; splitting and; pulverizing. After drying, the sample was passed through a primary oscillating jaw crusher producing material of 75% passing a 2mm screen. A 250-gram sub-sample was split from the crushed material using a stainless steel riffle splitter. This split was then ground to 85% passing 75 microns or better using a ring pulveriser.

The verification samples were analysed for gold using SGS analytical code FAI313 (Table 14-2).

**Table 14-2: ACA Howe Verification Samples – SGS Analytical Method**

| Method code | Description | Lower Detection Limit |
|---|---|---|
| FAI313 | Au fire assay; ICP finish, 30 g nominal sample weight. | >5 ppb Au |

The duplicate core samples provide an independent confirmation of the presence of significant gold mineralisation in the Eagle Mountain Property (Table 14-3, Appendix B). Data are too limited however, to make a meaningful comparison of Howe's duplicate sample analytical results with Northern Gold's original analytical results. Howe notes however, that the variation between the original and duplicate assay results are reasonable given the difference in sample size (1/2 core vs. ¼ core) and are typical for gold exploration projects with coarse visible gold (nugget effect).

**Table 14-3: ACA Howe Duplicates *vs*. Original Samples**

| ACA Howe Sample # | Hole ID | From | To | Zone | Sample Type | ACA Howe Au (ppb) | OMG Sample # | OMG Au (ppb) |
|---|---|---|---|---|---|---|---|---|
| ACA 332816 | EM99-66 | 63.1 | 64.6 | Millionaire | 1/4 core | 787 | 332816 | 1230 |
| ACA 521221 | EMD07-08 | 15.60 | 16.24 | Zion | 1/4 core | 2170 | 521221 | 2040 |
| ACA 521844 | EMD08-12 | 84.02 | 84.62 | Saddle | 1/4 core | 424 | 521844 | 530 |
| ACA 524476 | EMD08-30 | 71.00 | 71.80 | Millionaire | 1/4 core | 2470 | 524476 | 2130 |
| ACA 100000 | CDN-GS-5D | | | Rec. Value: 5060 ppb Au | Standard | 5120 | n/a | |

### 14.1.3 Database Verification

Howe conducted a spot check comparison of approximately 10 percent of the drill hole database assays against available digital scans/PDF files of original lab certificates to verify the database's accuracy and completeness. No errors were detected.

The IAMGOLD Gemcom database, wireframe "solid" models and block model were imported to Micromine 2010 software and the database files were reviewed and "verified" for errors such as missing data and overlapping intervals. No significant errors were detected.

Howe reviewed cross-sections showing the diamond drill hole traces, assay intervals, lithological intervals, mineralised zone intervals, zone wirefame "solid" outlines, surface trace, saprolite/non-oxidised rock surface trace, fault traces and block model slices.

Howe also carried out a crosscheck of IAMGOLD's variography and a cross-check of block modelling and grade estimation results for the Millionaire Zone. All were found to be acceptable.

Howe is of the opinion that the drill hole and assay database for the Eagle Mountain Project is of sufficient quality to provide the basis for the conclusions and recommendations reached in this Report.

# 15 ADJACENT PROPERTIES

There are no significant mineral properties adjacent to the EMPL other than tenements owned by small-scale miners. The claims in the Bishop Growler area located inside the EMPL (Figure 4-3) were valid at the time title was granted. Their current status is unknown, although this is currently being investigated by the Exploration Group.

# 16 MINERAL PROCESSING AND METALLURGICAL TESTING

Limited metallurgical test work has been performed on Eagle Mountain mineralisation, and a processing flowsheet has not been developed. Metallurgical studies completed to date are limited to desliming and gravity gold recovery test work. During the first quarter of 1989, two samples of saprolite were collected and treated to evaluate the free gold content and the feasibility of gold extraction by gravity. The preliminary results indicated that the majority of gold does not appear to be amenable to the gravity recovery method. Furthermore, the results may signify that gold is locked up in quartz or oxides.

Additional test work was completed later in 1989, and the preliminary testing on saprolite material showed that desliming achieves feed volume reduction of up to 81% with a high gold recovery to the sands fraction (+90%). It was anticipated that desliming mineralisation could be an important pre-concentration step prior to processing. Gold recovered by gravity reached only 24 % of the total gold content, again demonstrating that the remainder of the gold may be locked in quartz or associated with oxides.

In 1991, GSR carried out additional gold gravity test work at Lakefield Research using a Falcon concentrator. Nine gravity tests were completed and average gold recovery was between 33 to 42 % of the total gold content. The gravity gold recovery increased using the more advanced gold recovery technology, but not significantly enough to be retained as a single technology for the recovery of gold from the Eagle Mountain deposit.

## 16.1 2009-2010 SGS Canada Inc. Testwork

OGM submitted samples of „Oxide' (saprolite) mineralisation and „Hard Rock' (fresh - unoxidised) mineralisation from the Eagle Mountain deposit to SGS Canada Inc. in Lakefield, Ontario for testwork to establish the nature of the gold occurrence. The testwork involved sample characterization using head analyses, mineralogy and grindability studies and an investigation of the amenability of the samples to gold recovery/extraction utilizing gravity separation and cyanide leaching.

SGS Lakefield received the shipment of Eagle Mountain samples on September 11, 2009 containing 4 „Hard Rock' (fresh - unoxidised) mineralisation samples (Kilroy, Millionaire, Zion and Saddle) and 4 „Oxide' (saprolite) mineralisation samples (Kilroy Sap, Millionaire Sap, Zion Sap and Saddle Sap). The Saddle mineralisation samples were not used in this test program and were retained in storage.

The following description of testwork and results has been extracted from the Executive Summary of SGS Canada's final report (SGS Canada Inc., 2010).

The individual „Oxide' mineralisation types underwent head analyses and cyanidation testing. A composite test sample generated from the 3 individual samples was used for mineralogical studies and gravity separation testwork.

The individual „Hard Rock' mineralisation types underwent grindability testing, head analyses and cyanidation testing. A composite test sample generated from the 3 individual samples was used for mineralogical studies and gravity separation testwork.

The head analyses of the „Oxide' mineralisation samples are summarized in Table 16-1. The first column gives the Au grade by screened metallics protocol and the second column reports the mean Au grade based on fire assay of duplicate cuts. The screened metallics Au values are likely to be more reliable due to the larger sample mass used.

**Table 16-1: Head Analysis Summary: Eagle Mountain "Oxide" Mineralisation Samples**

| Sample ID | Au[1] (g/t) | Au[2] (g/t) | Ag (g/t) | S % | S= % | Fe % | Cu (g/t) | Zn (g/t) |
|---|---|---|---|---|---|---|---|---|
| Kilroy Sap Oxide | 2.79 | 1.62 | 3.0 | < 0.01 | < 0.05 | 0.28 | 25 | 65 |
| Millionaire Sap Oxide | 0.68 | 0.45 | 1.1 | 0.05 | < 0.05 | 0.44 | 37 | 67 |
| Zion Sap Oxide | 0.68 | 0.70 | 3.3 | 0.02 | < 0.05 | 0.35 | 71 | 49 |

Au[1] Gold by screened metallics protocol
Au[2] Gold by fire assay - duplicate cuts

The significant difference in Au grade seen between the screened metallics and fire assay data for the Kilroy Sap Oxide indicated the presence of „nugget' gold in the sample. The Kilroy Sap Oxide was found to contain a significant quantity of coarse gold with 34.4% of the Au reporting to the +106µm fraction (0.8% of the mass) of the screened metallics. The Millionaire and Zion mineralisation contained little coarse gold with the screened metallics +106µm fraction containing only 3.1% (in 2.5% mass) and 0.3% (in 2.2% mass) of the Au respectively.

Examination of the bulk mineralogy of the „Oxide Composite' showed that the sample was mainly composed of quartz, with moderate amounts of plagioclase and kaolinite and minor to trace amounts of gibbsite, illite, potassium feldspar, goethite and magnetite.

The gold deportment study identified and measured 253 gold grains. Approximately 40% (accounting by total surface area) of the gold particles occurred as liberated grains with an average size of 10µm, with a further 39% occurring as locked grains (mainly with goethite) averaging 6µm in size. The remaining 21% were seen to occur as attached grains, predominantly to goethite and hematite, with an average size of 7µm. The largest gold grains observed were approximately 40µm.

A significant proportion of attached and locked gold occurred either partially or completely rimmed by a complex oxide/chloride phase which is mainly composed of variable amounts of Cu, Ag, Fe, (Si, Al, Ni, Sn, Cr), Cl and O. It was suspected these complex rims on native gold could hinder leaching and affect gold recovery.

The gold in the sample was found to be present mostly as native gold, hosting trace amounts of silver, copper and iron. The average composition was approximately 97.4% Au, 1.9% Ag, 0.4% Cu and 0.3% Fe.

Approximately 25% of the gold reported to the float fraction. Superpanning of a 60g subsample of the floats revealed no visible gold indicating that it is possibly present as fine inclusions in silicate minerals.

The head analyses of the „Hard Rock' mineralisation samples are summarized in Table 16-2. The Kilroy „Hard Rock' sample (1.18 g/t Au) was higher grade than the Millionaire and Zion „Hard Rock' samples at 0.58 g/t Au and 0.57 g/t Au respectively. The silver head grades for the 3 „Hard Rock' mineralisation types were all below the detection limit (< 0.5 g/t).

**Table 16-2: Head Analysis Summary: Eagle Mountain "Hard Rock" Mineralisation Samples**

| Sample ID | Au (g/t) | Ag (g/t) | S % | S= % | Fe % | Cu (g/t) | Zn (g/t) |
|---|---|---|---|---|---|---|---|
| Kilroy Hardrock | 1.18 | < 0.5 | 0.53 | 0.48 | 0.20 | 11 | 44 |
| Millionaire Hardrock | 0.58 | < 0.5 | 0.30 | 0.26 | 0.24 | 15 | 43 |
| Zion Hardrock | 0.57 | < 0.5 | 0.37 | 0.34 | 0.17 | 11 | 43 |

Examination of the mineralogy of the „Hard Rock Composite' by bulk modal analysis conducted using QEM ARMS (Automated Rapid Mineral Scan) showed that 47.5% of the sample was composed of plagioclase and 28.3% was quartz. Potassium feldspar, micas and amphibole accounted for a further 15% of the sample. Pyrite was the main sulphide mineral present. The mineralogical analysis identified 72.7% of the pyrite as free and 4.1% liberated. Fe/Ti oxides in the sample were identified as being 30.9% free and 26.5% liberated.

The Eagle Mountain „Hard Rock' samples underwent a standard Bond Ball Mill Grindability test with a closing screen size of 150µm. The mineralisation types were found to be medium (Millionaire) to moderately hard (Kilroy) based on the SGS database. The Bond Ball Mill Grindability test results are presented in Table 16-3.

**Table 16-3: Bond Ball Mill Grindability Test Results (Metric)**

| Sample | Work Index (kWh/t) | Hardness Percentile | Relative Hardness |
|---|---|---|---|
| Millionaire | 15.2 | 57 | medium |
| Zion | 16.2 | 67 | ↓ |
| Kilroy | 17.0 | 74 | mod hard |

EGRG tests were carried out on samples of „Oxide Composite' and „Hard Rock Composite' to determine the GRG value (theoretical maximum amount of gold recoverable) as a function of the size distribution.

The „Oxide Composite' had a GRG number of 70.2 indicating that approximately 70% of the gold in the sample was recoverable by gravity separation. This data is supported by the results of the heavy liquid separation (HLS) at SG 3.1 g/cm3 conducted during mineralogy sample preparation which showed 75% gold distribution to the HLS sink fraction.

The calculated head grade from the EGRG test for the „Oxide Composite' was 1.78 g/t Au. This correlated well with the expected head grade based on the individual head analyses of approximately 1.4 g/t Au. The EGRG value is likely to be more reliable due to the larger sample size and assay methodology used.

The „Hard Rock Composite' had a GRG number of 47.5 indicating that approximately 45% of the gold in the sample was recoverable by gravity separation. Most of the gold was recovered at the progressively finer grind sizes. This result indicated that there is a low free gold component in the „Hard Rock Composite' sample.

The calculated head grade from the EGRG test for the „Hard Rock Composite' was 0.87 g/t Au. This correlated well with the expected head grade based on the individual head analyses of approximately 0.8 g/t Au. The EGRG value is likely to be more reliable due to the larger sample size and assay methodology used.

Standard "rolling bottle" leach tests were completed on the each of the Eagle Mountain „Oxide' and „Hard Rock' mineralisation samples to examine response to cyanide leaching. There was no preliminary gravity separation stage employed prior to cyanidation to remove any free gold. The cyanidation conditions applied were as follows:

Target grind size = 74µm
Pulp density = 40% solids (w/w)
Pulp pH = 10.5 – 11 (maintained with lime)
Cyanide Concentration = 1.0 g/L as NaCN
Retention time = 24 hours

The cyanidation test results are summarized in Table 16-4. The Zion „Oxide' showed a poor response to cyanidation with only 64.9% Au recovery. A further "rolling bottle" leach test was conducted maintaining the same leach conditions with a 72 hour retention time. Au extraction increased to 95.5%. The complex rims observed during the gold deportment study may be influencing the leach kinetics. Further study is recommended to confirm this.

Silver extraction in the „Oxide' mineralisation showed a relationship to feed grade. The Millionaire „Oxide' sample assayed at 1.1 g/t Ag and showed approximately 69% Ag recovery. The Kilroy „Oxide' showed almost 82% silver recovery with a 3 g/t Ag head grade.

All of the „Hard Rock' mineralisation types showed a good response to cyanidation with Au recoveries from 92.7% to 95.5%. Silver recovery was low showing a relationship to low head grade.

**Table 16-4: Cyanidation Test Results Summary**

| Feed | Grind Actual | Extraction (%) | | Residue (g/t) | |
|---|---|---|---|---|---|
| | ($P_{80}$ µm) | Au | Ag | Au | Ag |
| Kilroy Sap Oxide | 83 | 96.7 | 81.9 | 0.09 | 0.5 |
| Millionaire Sap Oxide | 99 | 91.0 | 69.2 | 0.10 | 0.5 |
| Zion Sap Oxide | 91 | 64.9 | 80.9 | 0.31 | 0.5 |
| Kilroy Hard Rock | 72 | 92.7 | 30.5 | 0.07 | 0.5 |
| Millionaire Hard Rock | 75 | 95.5 | 20.8 | 0.03 | 0.5 |
| Zion Hard Rock | 79 | 94.2 | 29.1 | 0.03 | 0.5 |

The metallurgical tests demonstrated that the Kilroy Sap and Millionaire Sap „Oxide' mineralisation types are amenable to gold extraction by cyanidation. Cyanidation was also effective for gold extraction from the Zion Sap mineralization however, the rate of leaching appeared to be much slower. The „Oxide' composite tested was amenable to gold recovery by gravity separation.

The metallurgical tests demonstrated that the „Hard Rock' mineralisation types are amenable to gold extraction by cyanidation. Gravity separation techniques were not of significant value for recovering gold from the „Hard Rock Composite' sample tested.

# 17 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

## 17.1 Resource Audit

IAMGOLD Technical Services and Exploration Guyana Group ("ITS") prepared an internal technical report dated October 2009 that included a mineral resource estimation (Clouston, 2009). The report was prepared following NI 43-101 Form F1 however it was not independent.

During November 2010, Douglas Roy, M.A.Sc. (Mining Engineering), P.Eng., an Associate Mining Engineer from ACA Howe International Limited thoroughly reviewed Section 17, "Mineral Resource and Mineral Reserve Estimates," of ITS's October 2009 report. Mr. Roy ("the Reviewing Author") is a "Qualified Person" with respect to estimating mineral resources and reserves for precious metals deposits.

In carrying out the audit of ITS's October 2009 mineral resource estimate, the Reviewing Author did the following:

- Imported ITS's drill database, wireframe "solid" models and block model to Micromine 2010 software;
- Reviewed the data and "verified" the database for errors such as missing data, overlapping intervals *et cetera*;
- Reviewed cross-sections showing the diamond drill hole traces, assay intervals, lithological intervals, mineralised zone intervals, zone wirefame "solid" outlines, surface trace, saprolite/non-oxidised rock surface trace, fault traces and block model slices.
- Carried out a cross-check of variography;
- Carried out a cross-check of block modelling and grade estimation results for the Millionaire Zone; and,
- Compared the cross-check results against ITS's results.

## 17.2 Introduction

The ITS October 2009 Eagle Mountain project resource estimate was carried out using the block model method with the aid of Gemcom Software. This study included a total of 197 drill holes, totaling 24,203 metres which were drilled between 1947 and 2009. The last hole named EMD09-43 was completed on 16 June 2009. Originating from different drilling campaigns, hole identifications as well their orientations vary as follows: AD01 to AD57 (Anaconda, 1947-48), EHD01 to EHD15 (GGMC, 1973), EM001 to EM040 (Golden Star/OMG, 1997-98), EM99-41 to EM99-70 (OMG/Cambior, 1999), EMD07-01 to EMD07-09 (IAMGOLD/OMG, 2007), EMD08-10 to EMD08-31 (IAMGOLD/OMG, 2008), and finally EMD09-32 to EMD09-43 (IAMGOLD/OMG, 2009). The database also contains 4,653 augers, 124 continuous channel sample segments from 9 adits, 172 continuous channel sample segments from 39 trench localities, 148 grab samples, 5,279 soil samples and 10 trado auger sites. Overall, six mineralisation solids were created and used to generate a resource estimate.

At present, the entire mineral resource has been classified as *Inferred* (subdivided into category 2 and category 3 based interpolation parameters including the size of search ellipse). ITS notes, and Howe concurs, that if the quality of the database could be improved (for example, by twinning older (pre-Golden Star) drill holes, having the majority of the database supported by well-documented assaying QA/QC protocols, attaining thorough collar and down-hole surveys, matching holes with orphan assays that are still found in the database, as well as providing an exhaustive density measurement database), it would then be possible to re-classify some of the inferred resource (category 2) as *Indicated*.

Mineral resource estimation was carried out using the diamond drill sample results only. ITS considered the quality control for auger, trench and adit samples poor compared to the diamond drill sampling.

The mineral resource estimate was prepared in accordance with CIM Standards on Mineral Resources and Mineral Reserves[2] where:

- A *Measured Mineral Resource*, as defined by the CIM Standing Committee is "that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity."
- An *Indicated Mineral Resource* as defined by the CIM Standing Committee is "that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonable assumed." And,
- An *Inferred Mineral Resource* as defined by the CIM Standing Committee is "that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, working and drill holes."

A *Mineral Reserve* is "the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study." This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors

[2] CIM Definition Standards for Mineral Resources and Mineral Reserves, adopted December 11, 2005

that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.

- A *Probable Mineral Reserve* is "the economically mineable part of an Indicated, and in some circumstances a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified."
- A *Proven Mineral Reserve* is "the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified."

Classification, or assigning a level of confidence to Mineral Resources, has been undertaken in strict adherence to the CIM Definition Standards for Mineral Resources and Mineral Reserves (December 2005).

Only mineral resources were identified in this report. No mineral reserves were identified.

### 17.3 Data Supplied by ITS

ITS supplied Howe with the following data (in digital format) for the resource audit:

- Sample database in Gemcom format – Microsoft Access ".mdb" file titled "GD_EMountain_April09.mdb", 60,096,512 bytes.
- Mineralised zone "solid" wireframe files titled:
  - KILROY-FINAL-AUG09.dxf;
  - MILLION-FINAL-AUG09.dxf;
  - NEWZONE2-FINAL-AUG09.dxf;
  - NEWZONE3-FINAL-AUG09.dxf;
  - SADDLE-FINAL-AUG09.dxf;
  - ZION-FINAL-AUG09.dxf;
- Topographic "surface" wireframe titled "SURFTOPO-FINAL-AUG09.dxf";
- "Boundary" and "Thrust" fault "surface" wireframe files located within the file "EM Mar09 Solids.DXF";
- Block models titled:
  - BM AU-CAP_DDH.txt (block grade values);
  - BM CATEG_DDH.txt (resource category);
  - BM DENSITY.txt (bulk density / specific gravity);
  - BM Rocktype.txt (rock code);

ITS reported that the data provided was the same data that they used for their mineral resource estimate reported in October 2009 (Clouston, 2009).

### 17.4 Rock Type Modeling

The current ITS generated wireframe "solids" are updates of wireframes created in May 2009. Changes are mostly extensions of the main zones (100 metres around the last drill hole intersected by the zones). In addition to the four main mineralized solids (i.e. Saddle, Zion, Kilroy, and Millionaire), two new mineralized zones were modeled to include the significant intercepts located at depth beneath the central part of Millionaire zone (NZ-2 and NZ-3; Figure 17-1).

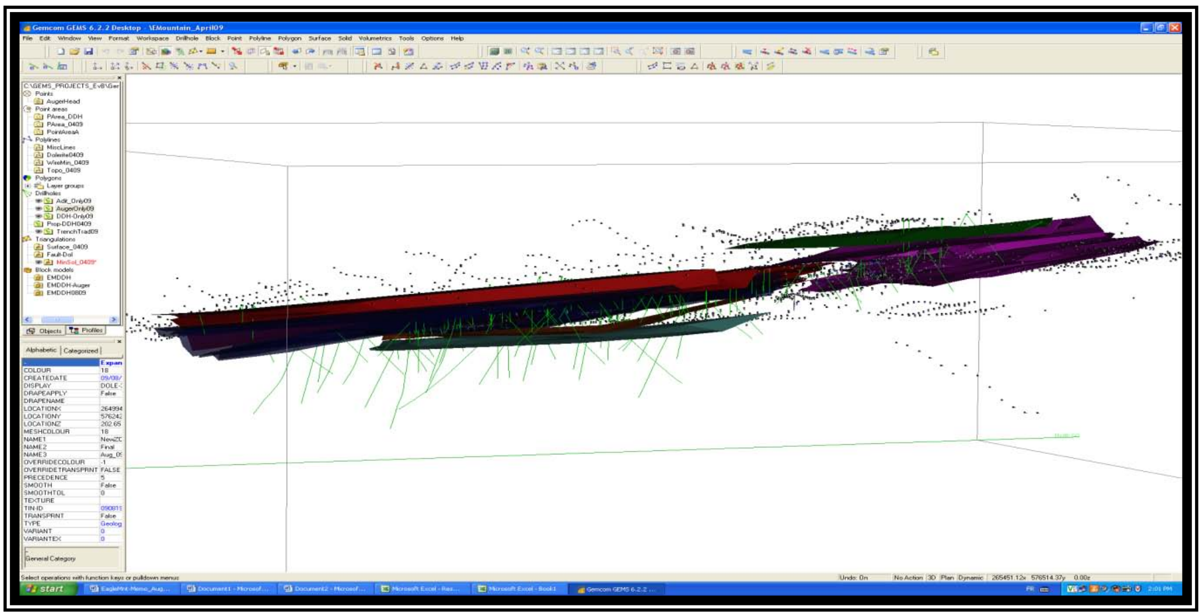


**Figure 17-1: Perspective view of Eagle Mountain mineralisation solids (ITS, 2009).**

A major fault was modeled according to the topographic surface and geologists recommendations to delineate the northeast end of Millionaire, Kilroy, NZ-2 and NZ-3 and the southeast end of Saddle and Zion (Figure 9-2 and Figure 17-2).

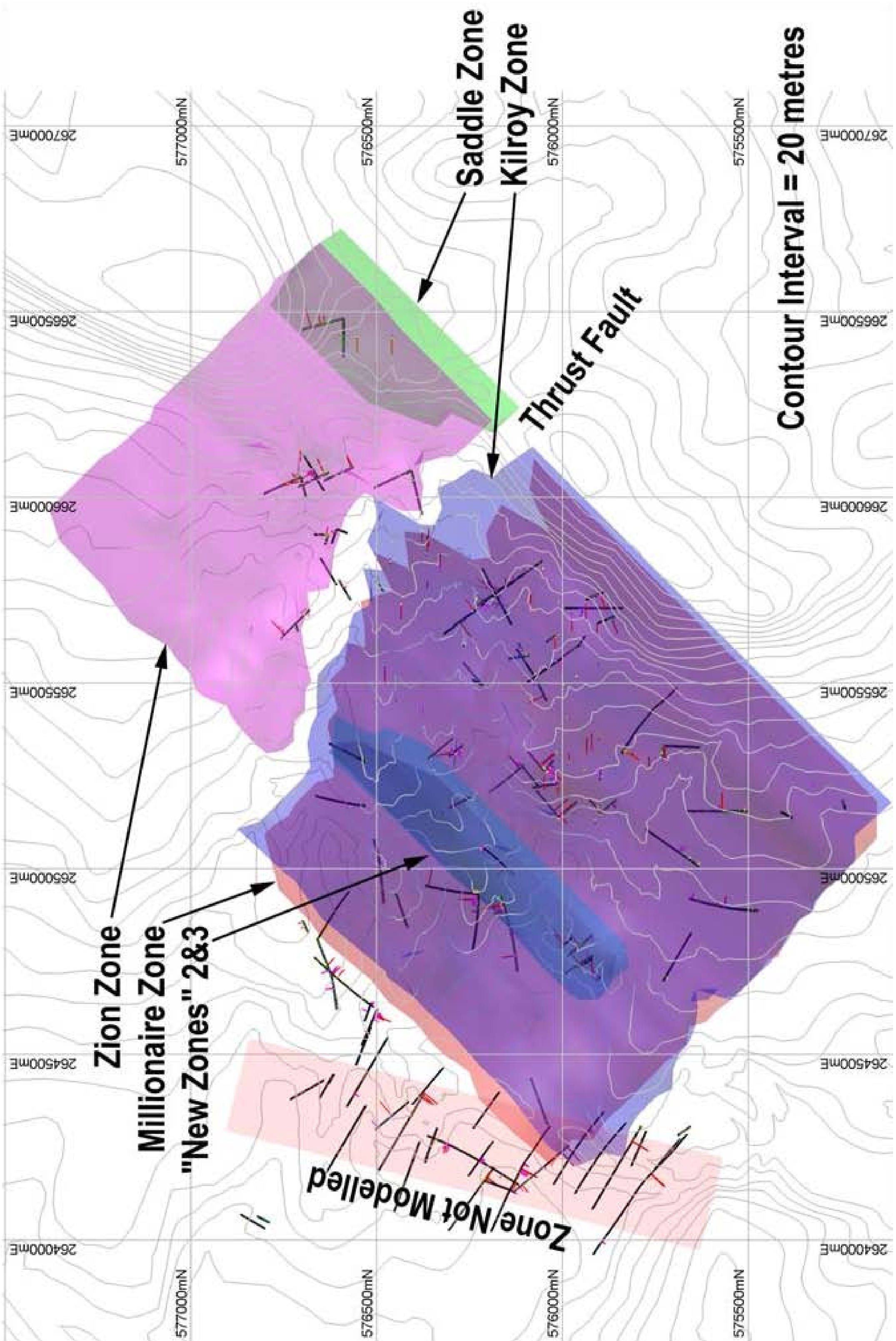



**Figure 17-2: Plan view of diamond drilling and mineralised zone solids.**

ITS solids were created in GEMCOM using 3D rings and tie line tools. The solids were based on capped composites at grades > 0.5g/t Au. Assays from drill holes, augers, adits and trenches were displayed, and a width of 3 metres was chosen as the minimum thickness for each solid. Note that snapping of the solid vertices was done on assay intervals only and that some narrower or weaker intercepts were included for sake of model continuity (Figure 17-3).

Table 17-1 lists all surfaces and solids used in the resource estimate. Once validated, all solids were categorized by ITS according to the codes described in Table 17-1.

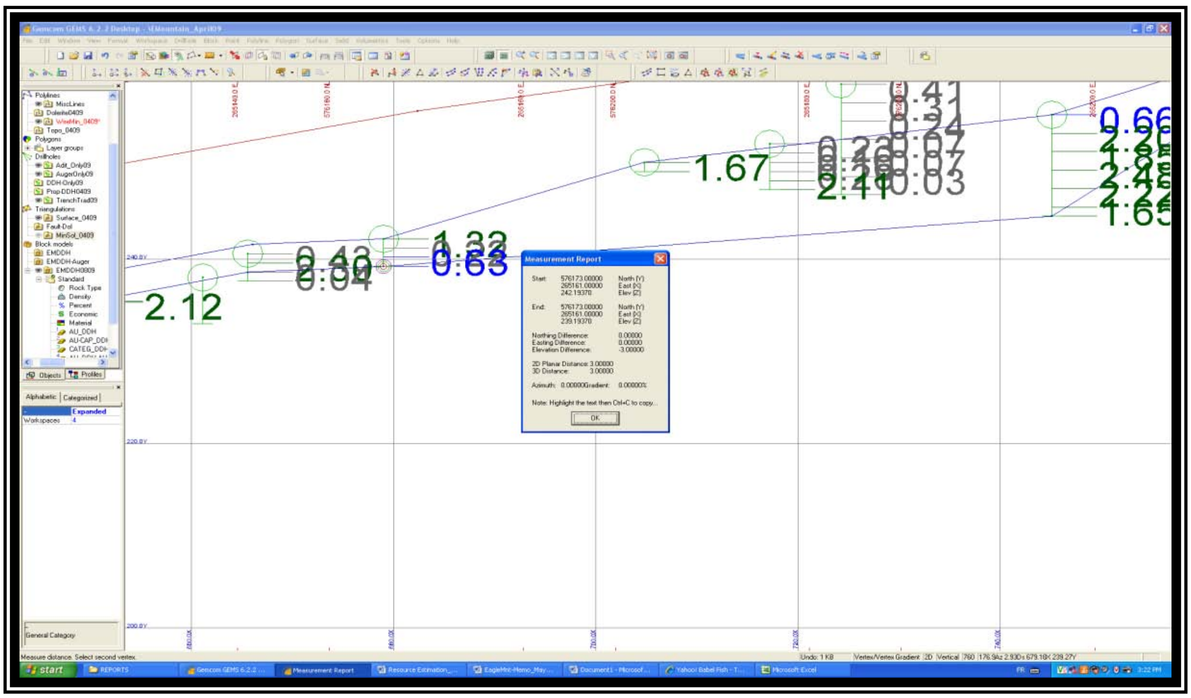



**Figure 17-3: Example of assay snapping and minimum width.**

**Table 17-1: Eagle Mountain rock codes**

| Type of Unit | Solid name | Rock Code | Solid Precedence |
|---|---|---|---|
| Geology (mineralisation) | Kilroy – Final – Aug09 | 300 | 1 |
| Geology (mineralisation) | Zion – Final – Aug09 | 200 | 3 |
| Geology (mineralisation) | Million – Final – Aug09 | 100 | 2 |
| Geology (mineralisation) | Saddle – Final – Aug09 | 400 | 4 |
| Geology (mineralisation) | NewZone2 – Final – Aug09 | 600 | 6 |
| Geology (mineralisation) | NewZone3 – Final – Aug09 | 700 | 5 |
| Surface (Topographic) | SurfTOPO – Final – Aug09 | - | - |
| Surface (Alteration) | Saprolit – Extended – April09 | - | - |
| Surface (Bottom) | Bottom - -325m – April09 | - | - |

### 17.4.1 Howe's Audit of Mineralised Intervals

On each cross-section, the Reviewing Author compared the mineralised-zone-tagged assay intervals (regularised over two metre intervals) against:

a) the raw assay intervals;
b) the lithology; and,
c) the mineralised zone interpretation (zone wireframe "solid").

With very few exceptions, the Reviewing Author agrees with ITS's zone interpretations.

### 17.4.2 Additional Zone

There is a mineralized zone on the west side of the property that has not yet been modeled (refer to Figure 17-2). The zone covers the Elephant Creek, Telford and Dispute areas. A preliminary examination of the data reveals a sub-vertical zone defined by relatively higher grade assays. IAMGOLD notes that these occurrences are not included in the current resource estimate because significant concentrations of mineralisation have not yet been identified. The Reviewing Author recommends more work should be carried out to interpret and model this zone when additional exploration data becomes available.

## 17.5 Block Model Limits

The block model is a standard type (rock code assignment using a volume threshold of 50%). The model is oriented east-west while the mineralisation solids are oriented north-east / south-west. Limits and dimensions of the block model are provided in Table 17-2.

**Table 17-2: August 2009 block model limits.**

| Description | Origin | Minimum | Maximum | Block Size (m) | Number |
|---|---|---|---|---|---|
| **Easting** | 263 500 | 263 500 | 267 000 | 10 | 350 |
| **Northing** | 575 000 | 575 000 | 577 500 | 10 | 250 |
| **Elevation** | 750 | -375 | 750 | 5 | 225 |
| **Rotation** | 0° (counter-clockwise) | | | | |

## 17.6 Block Model Construction

Blocks were initialized to waste rock code (999) and sequentially updated as follows: all blocks located 99.99% above the topographic surface were initialized to air code (15). Non-air blocks were updated from the six solids following their level of precedence (Table 17-1). A 50% volume threshold was required to update a block (Figure 17-4).

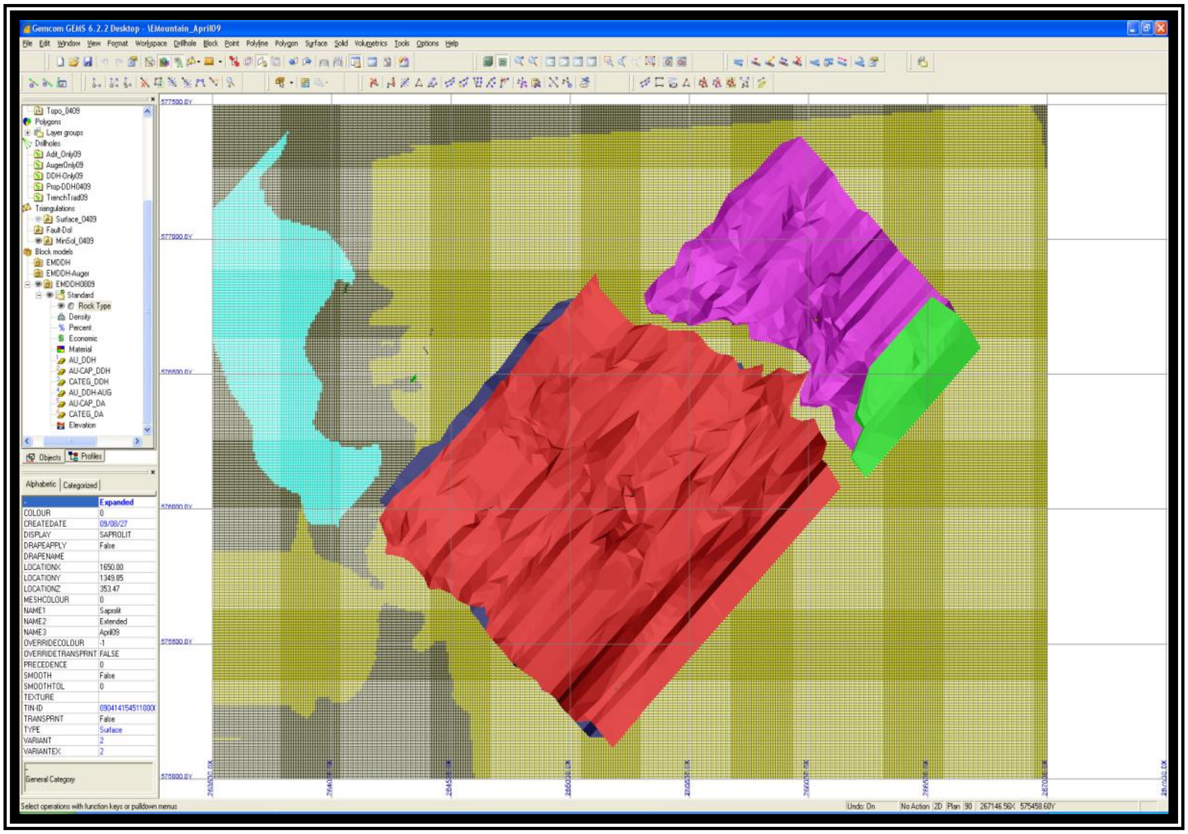


**Figure 17-4: Plan view of rock type model and mineralisation solids.**

The saprolitic alteration surface was then displayed and a rock code prefix of 9 was added to all rock codes lying above the base of the saprolite horizon. For example, Kilroy's rock code in fresh rock remained 300 and was updated to 9300 in the saprolitic horizon (Figure 17-5).

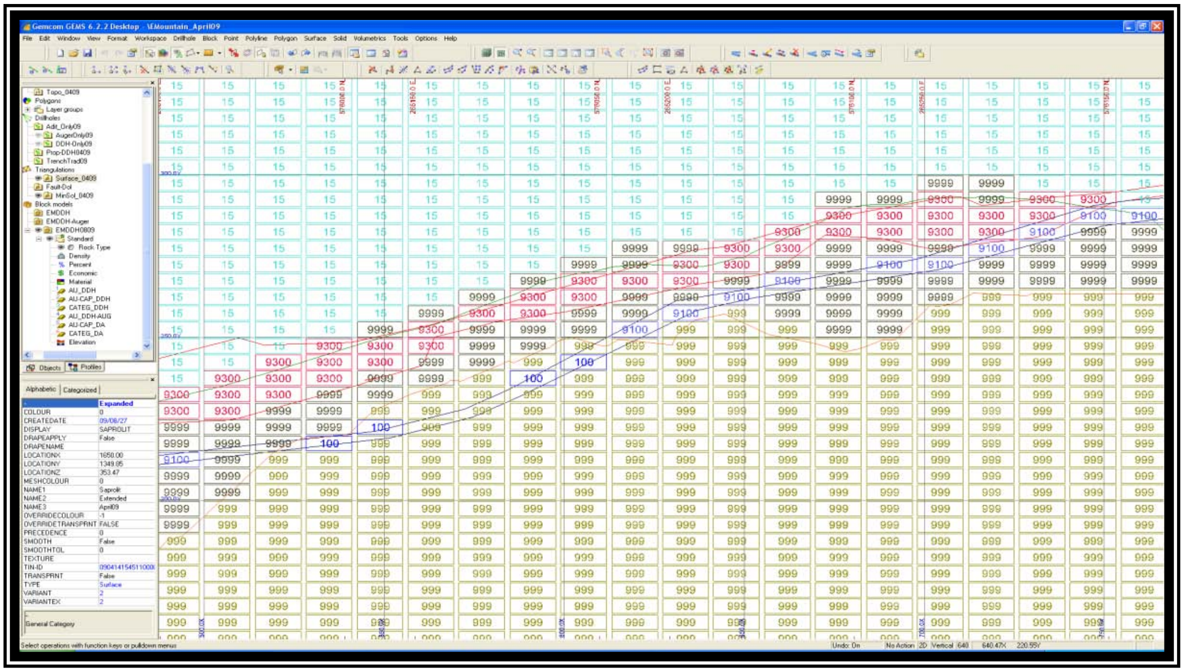


**Figure 17-5: Solids (polylines), topography & saprolite surfaces with rock type blocks**

## 17.7 Topographic DTM Surface Construction

In July 2009, a new topographic surface covering the entire project area was generated by the Guyana Exploration Group at 2.5 meter line contours. Topographic data was obtained by detailed field surveys carried out by IAMGOLD employees and contractors. An isometric 2.5 meter-spaced contour map was generated in AutoCAD and dxf formats. This was imported into the GEMCOM software in the form of status lines and a surface was created extending beyond the limits of the block model. A Surface Elevation Grid (SEG) was created from this topographic surface to constrain the estimated resource between the SEG Topo and the SEG Bottom (created at -325 metres deep). The blocks lying 99.99% above the "*topographic"* surface were assigned an "Air code" of 15.

## 17.8 Saprolitic Surface Construction

A saprolitic surface was created by copying the topographic surface 10m below it and then modified by snapping vertices at the end of each drill hole's saprolite intervals found in the Lithology Table. The saprolitic surface was extended to cover the entire block model area. The saprolitic surface was then used to update the Rock Type block model as illustrated in Figure 17-6.

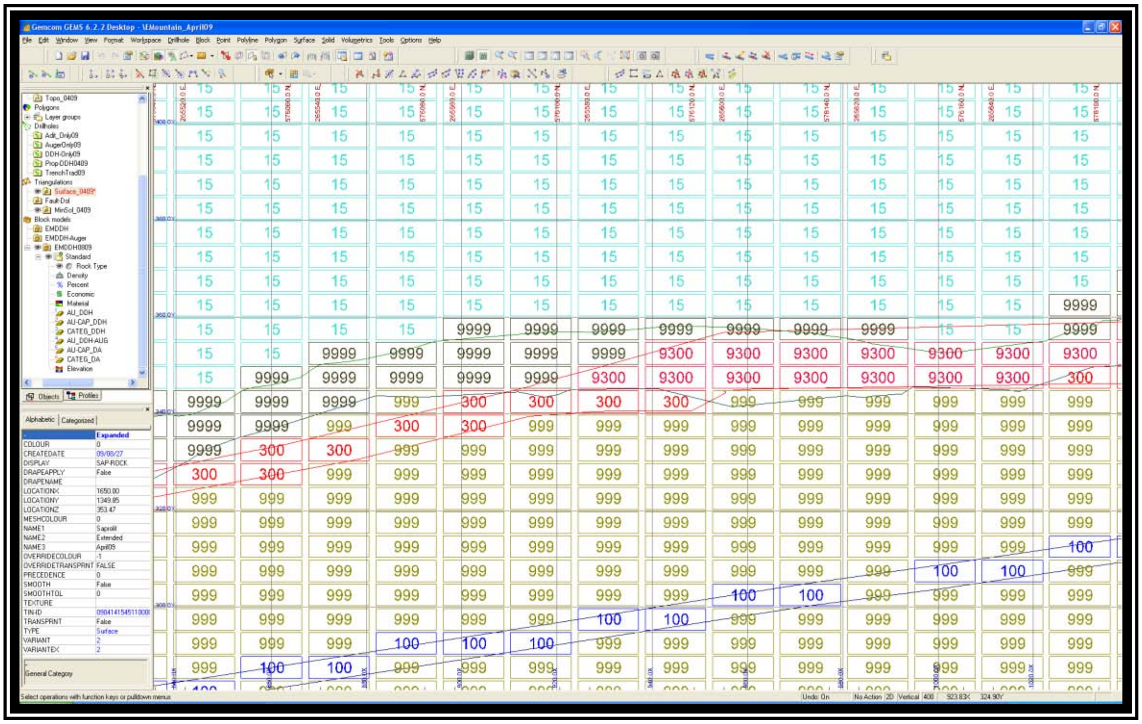


**Figure 17-6: Saprolitic Rock Codes**

## 17.9 Howe's Audit of Block Modelling

ITS used a block size of 10x10x5 metres (East x North x Elevation) while the minimum modeled thickness of this relatively flat-lying deposit was three metres. No sub-cells were used; instead, a block was considered to be within a particular zone if more than half the block was within the zone.

In the Reviewing Author's opinion, the discontinuity between (a) the minimum modeled thickness and (b) the block size in the elevation direction causes problems with respect to accurately representing the modeled "solid" wireframes of the mineralised zones. Steeper and/or thinner portions of the zones' wireframe "solid" model are not represented by blocks (Figure 17-7 to Figure 17-9), leaving "holes" or gaps in the model.

To further illustrate the problem, consider the example of a flat portion of a zone that is three metres thick. This portion occupies only three-fifths, or 60% of a block's volume; already quite close to the 50% threshold. If the same 3 metre thick zone changes orieintation to a vertical dip, it occupies only three-tenths, or 30% of a block's volume and is below the threshold for inclusion.

The ITS "parent" block size was appropriate. However, partial blocks should be used to more accurately represent the relatively steeper or thinner parts of the mineralised zones.

In Gemcom software, this can be accomplished using a "percent model" – a block model that contains a variable representing the proportion of a block within a zone. In Micromine and many other software packages, "sub-blocks" or "sub-cells" – subdivisions of the parent block – are used to accomplish the same goal.

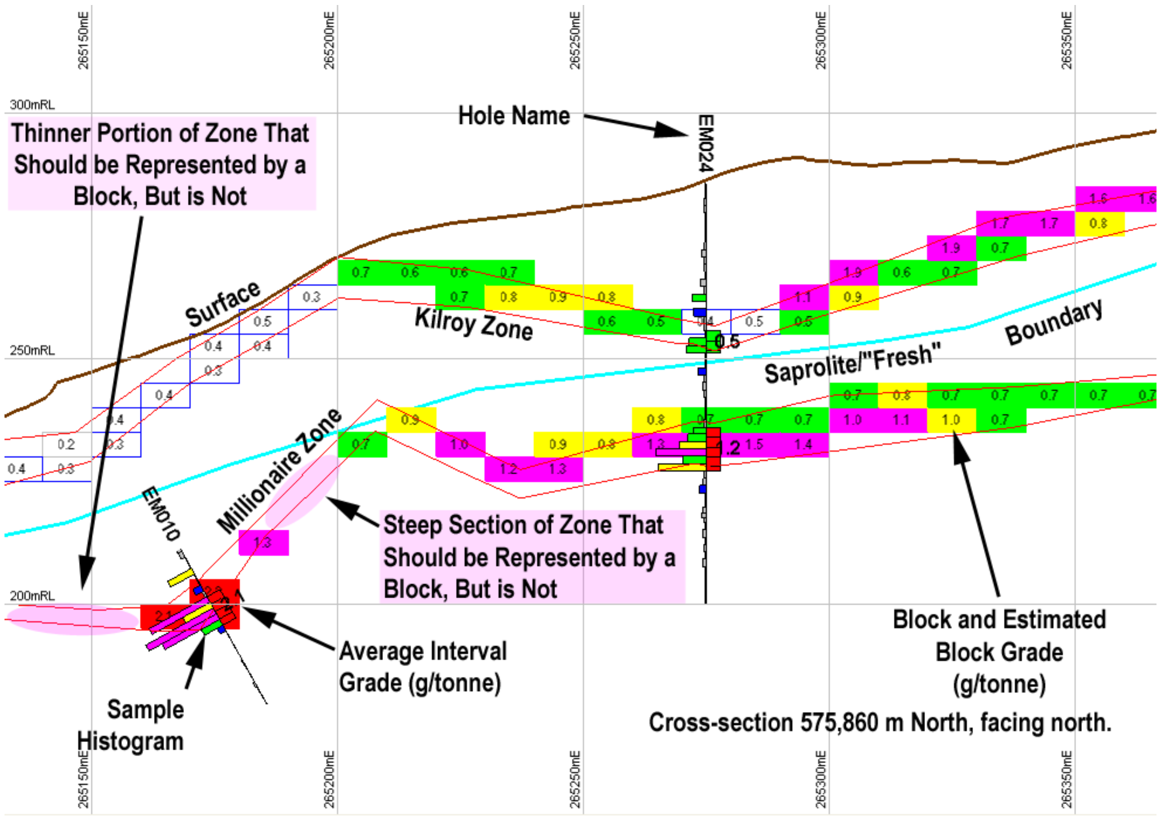



**Figure 17-7: Cross-section showing ITS's estimated "grade block model, illustrating block size problems.**

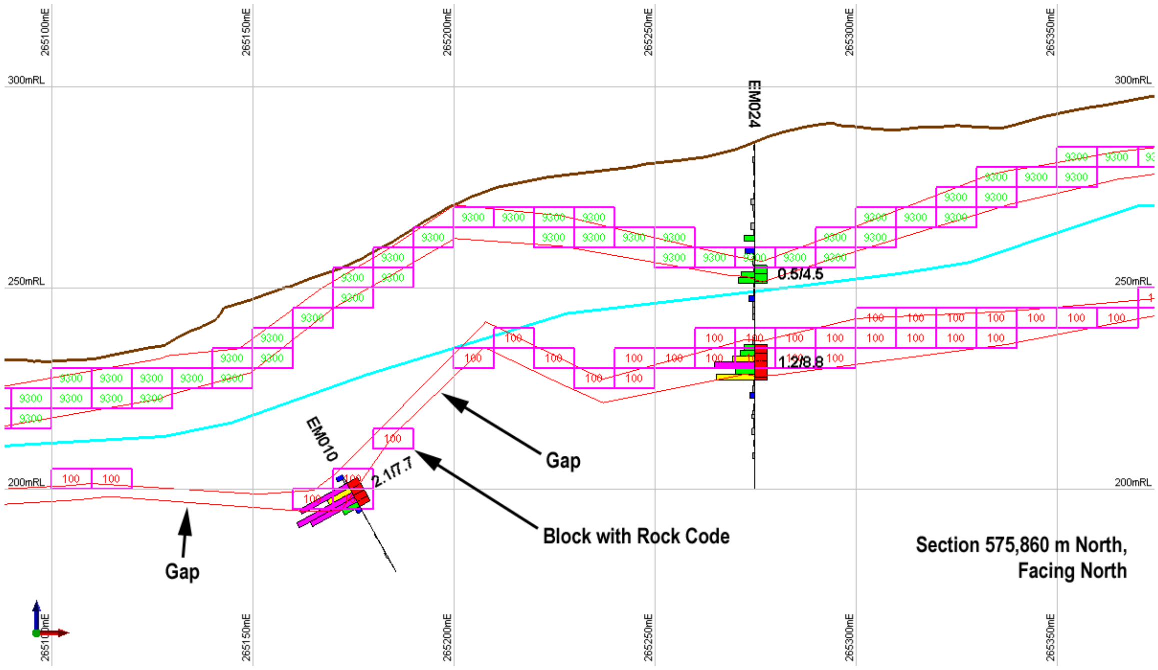



**Figure 17-8: The same (as previous figure) cross-section, showing ITS's "rock code" block model, illustrating block size problems.**


**Figure 17-9: Plan view of Millionaire Zone block model showing gaps or holes in the model (ITS's "rock code" model).**

## 17.10 Drill Hole Compositing and Sample Capping

### 17.10.1 Assay Samples

The database contains 29,096 sample assays. Of these, 1,838 diamond drill samples were used to estimate the present resource (Table 17-3).

**Table 17-3: Assays in database.**

| Type | No. of Assays in DB | Assays in res. estimation | Average length (m) | Minimum length (m) | Maximum length (m) |
|---|---|---|---|---|---|
| **Drillholes** | 13,370 | 1,838 | 1.68 | 0.02 | 6.0 |
| **Augers** | 13,955 | 2,420 | 1.29 | 0.10 | 3.0 |
| **Adits** | 390 | 141 | 0.92 | 0.01 | 1.83 |
| **Trenches, Trado** | 1,381 | 473 | 1.64 | 0.10 | 6.1 |

Considering all assays that lie within mineralised zones, sampling lengths vary from 0.02 metres to a maximum of 6.1 metres, while the average length is 1.50m (sample lengths of over 6.1 metres can be found in the drill hole database, but these correspond to sampling intervals that were not assayed). For the present resource estimate ITS chose a composite assay length of 2 metres. Compositing was controlled by the mineralized intervals (i.e. a new composite would be created when a mineralized solid was encountered in the downhole direction) and all ‘’residuals’’ shorter than 0.5m were rejected. Because a maximum of two composites per hole was used during grade estimation, this translates into a minimum down the hole mineralized interval of 2.5m.

### 17.10.2Grade capping

Assay values for gold were subjected to a probability grade test (log scale) and to the deciles analysis of Parrish (1997) in order to determine the appropriate capping level for each of the mineralized zones (Table 17-4). Both log-probability plots and deciles analysis indicate that values above 10g/t Au are outliers for Millionaire and Kilroy, while values above 15g/t Au are anomalous for Zion, NZ-2 and NZ-3. No capping value was required for the Saddle assay data. Although a capping value of 15g/t Au was estimated for the two new zones NZ-2 and NZ-3, tests on assays were not performed due to very small sample populations. All capped values were applied to the samples before the “compositing” procedure.

**Table 17-4: Capped gold grade values used.**

| Rock Code | Au grade capping (Decile Analysis) | % Metal removed | No. of assays capped |
|---|---|---|---|
| Millionaire - 100 | 10 g/t | 4.23 | 3 |
| Zion – 200 | 15 g/t | 15.25 | 7 |
| Kilroy – 300 | 10 g/t | 14.56 | 11 |
| Saddle – 400 | No capping value | - | - |
| NZ-2 | 15 g/t (estimated) | - | insufficient number of samples |
| NZ-3 | 15 g/t (estimated) | - | insufficient number of samples |

## 17.11 Composite Statistics

Two-meter long composites were generated along each drill hole, starting from the collars and respecting the wireframe "solid"/drill hole intersections by starting a new composite every time one such intersection was encountered.

Composite statistics for each zone is given in Table 17-5.

**Table 17-5: Two-meter composite statistics**

| ZONE | Alteration | Element (ppm) | N > 0 | Mean | Median | Min. | Max. | Variance | Standard Deviation | Coefficient of Variation |
|---|---|---|---|---|---|---|---|---|---|---|
| MILLION | Saprolite | AU | 105 | 1.25 | 0.63 | 0.00 | 11.87 | 3.83 | 1.96 | 1.57 |
| | | AU-cap | 105 | 1.22 | 0.63 | 0.00 | 10.00 | 3.21 | 1.79 | 1.47 |
| | Fresh rock | AU | 283 | 0.92 | 0.45 | 0.00 | 19.49 | 3.56 | 1.89 | 2.06 |
| | | AU-cap | 283 | 0.78 | 0.45 | 0.00 | 5.73 | 1.04 | 1.02 | 1.32 |
| ZION | Saprolite | AU | 138 | 0.72 | 0.33 | 0.00 | 9.38 | 1.68 | 1.30 | 1.79 |
| | | AU-cap | 138 | 0.71 | 0.33 | 0.00 | 8.54 | 1.49 | 1.22 | 1.71 |
| | Fresh rock | AU | 34 | 1.44 | 1.43 | 0.01 | 3.87 | 1.02 | 1.01 | 0.70 |
| | | AU-cap | 34 | 1.40 | 1.43 | 0.01 | 3.69 | 0.86 | 0.93 | 0.66 |
| KILROY | Saprolite | AU | 362 | 1.16 | 0.47 | 0.00 | 27.77 | 8.83 | 2.97 | 2.57 |
| | | AU-cap | 362 | 0.88 | 0.47 | 0.00 | 10.00 | 1.74 | 1.32 | 1.50 |
| | Fresh rock | AU | 127 | 1.06 | 0.55 | 0.00 | 9.96 | 3.00 | 1.73 | 1.63 |
| | | AU-cap | 127 | 1.00 | 0.55 | 0.00 | 8.18 | 2.15 | 1.47 | 1.47 |
| SADDLE | Fresh rock | AU | 18 | 0.90 | 0.78 | 0.02 | 3.50 | 0.64 | 0.80 | 0.88 |
| | | AU-cap | 18 | 0.90 | 0.78 | 0.02 | 3.50 | 0.64 | 0.80 | 0.88 |
| NZ-2 | Fresh rock | AU | 39 | 0.93 | 0.44 | 0.00 | 13.61 | 5.01 | 2.24 | 2.41 |
| | | AU-cap | 39 | 0.82 | 0.44 | 0.00 | 10.63 | 3.06 | 1.75 | 2.14 |
| NZ-3 | Fresh rock | AU | 18 | 1.48 | 0.47 | 0.00 | 15.42 | 12.67 | 3.56 | 2.41 |
| | | AU-cap | 18 | 0.89 | 0.47 | 0.00 | 4.80 | 1.52 | 1.23 | 1.39 |

## 17.12 Specific Gravity

At the time of the IAMGOLD October 2009 resource estimate, density measurements were not available for each zone and major lithologies. Consequently, the density model used for the October 2009 resource estimate (Table 17-6), was based on historical results and the fact that altered granodiorite is the dominant host rock for mineralisation (Sections 7 and 10.8). Waste densities were increased relative to those in mineralized zones to take into account the presence of dolerite dykes which have not been included in this version of the model.

**Table 17-6: Average densities used in the Block Model.**

| Zones | Alteration and rock code | Density (t/m3) |
|---|---|---|
| Millionaire | Saprolite – 100 | 1.60 |
| | Fresh Rock – 9100 | 2.70 |
| Zion | Saprolite – 200 | 1.60 |
| | Fresh Rock – 9200 | 2.70 |
| Kilroy | Saprolite – 300 | 1.60 |
| | Fresh Rock – 9300 | 2.70 |
| Saddle | Saprolite – 400 | 1.60 |
| | Fresh Rock - 9400 | 2.70 |
| NZ-2 | Saprolite – 300 | 1.60 |
| | Fresh Rock – 9300 | 2.70 |
| NZ-3 | Saprolite – 300 | 1.60 |
| | Fresh Rock – 9300 | 2.70 |
| Waste | Saprolite – 999 | 1.62 |
| | Fresh Rock - 9999 | 2.77 |

After the October 2009 mineral resource estimate was carried out, IAMGOLD-OGM conducted specific gravity tests on a variety of fresh and saprolitic, mineralised and non-mineralised rock types as summarised in previous Section 10.9.

The most significant observation from the subsequent testwork is that the “Fresh” (non-oxidised) mineralised zones have a specific gravity of approximately 2.60, representing a 4% reduction from the value of 2.70 used for the October 2009 IAMGOLD mineral resource estimate. The saprolitic mineralised zones maintain a specific gravity of approximately 1.60. If the specific gravity of 2.60 were to be applied to the “Fresh” mineralised zones in IAMGOLD’s October 2009 resource estimate it would result in a reduction of approximately 470,000 tonnes and 17,000 contained ounces of gold.

## 17.13 Variography

ITS completed a preliminary variographic analysis on drill hole composites in an effort to establish the maximum interpolation ranges. The two-meter composites generated from the capped assays lying inside the mineralized intervals were examined with the Isatis geostatistical modeling software. Due to the small number of pairs, all zones were modeled together in order to conduct a meaningful analysis. Because of the grade populations' skewness and proportional effect, it was concluded that correlograms showed the spatial correlation structures better. Figure 17-10illustrates the gold correlograms and calculated models for the amalgamated two-meter composites in three directions:

- N135°, flat, along strike of the mineralized zones (red),
- N225°, -12° down-dip (green),
- N225°, +78° plunge (normal to the average mineralized plane; magenta)

The correlogram structures are summarized in Table 17-7.

**Figure 17-10: Directional Au Correlograms**

**Table 17-7: Correlogram model parameters.**

| Direction | Nugget ($C_0$) | First structure ($C_1$) | | Second structure ($C_2$) | |
|---|---|---|---|---|---|
| | (%) | (%) | Range (m) | (%) | Range (m) |
| N135°, flat | 50 | 23 | 20 | 27 | 100 |
| N225°, -12° | 50 | 23 | 70 | 27 | 120 |
| N225°, +78° | 50 | 23 | 12 | 27 | 40 |

Even though the number of pairs was always above 150, the associated drift was high enough to doubt the quality of the experimental correlograms. Consequently, a search ellipse range similar to half that suggested by the correlograms' second structure (C2) was used for the second pass (see Section 17.10 for more detail).

### 17.13.1 Howe's Cross-Check of Variography

The Reviewing Author cross-checked the variography. Directional semi-variograms were constructed for the Millionaire Zone using the same search directions that ITS used. The results are presented in Table 17-8. Natural-log-transformed samples were used.

The Reviewing Author used natural-log-transformed semi-variograms whereas ITS used correlograms. Though nugget and sill values are not directly comparable between the two methods, the range values are indeed comparable.

Also, the Reviewing Author examined the Millionaire Zone only whereas ITS considered samples from all zones together.

The Reviewing Author found that within the plane of the deposit, the experimental semi-variogram data was very regular. Spherical models could readily be fit to the data.

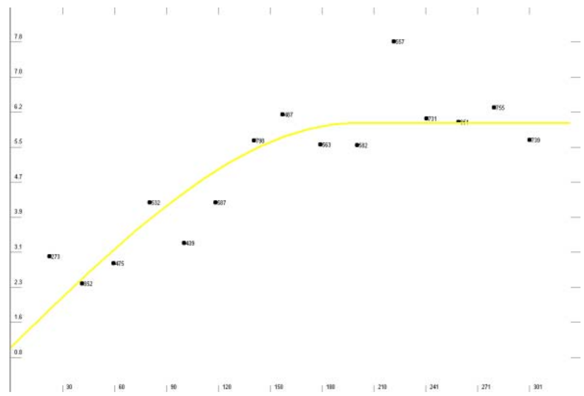
The Reviewing Author estimated the range values to be approximately fifty metres longer (within the Millionaire Zone's plane of mineralisation) than ITS's values.

Despite the shorter range values, the Reviewing Author believes that ITS's variography work is reasonably accurate and the results are acceptable for the purpose of estimating mineral resources.

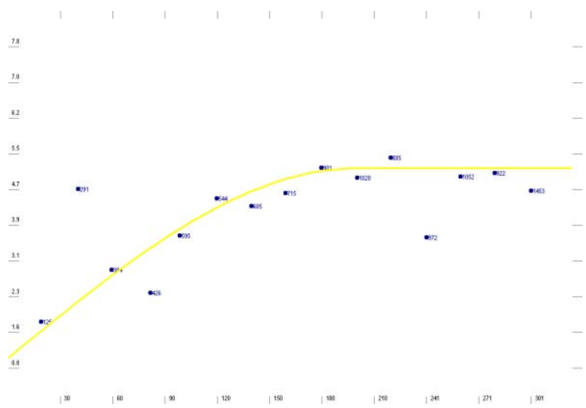
**Table 17-8: Cross-check of variography for the Millionaire Zone.**

| Direction (Azimuth, Plunge) | ITS's "Second Structure" ($C_2$) Range (metres) for All Zones | ACA Howe's Range (metres) for Millionaire Zone | Data/Model Quality |
|---|---|---|---|
| 135, 0 | 100 | 150 | Very Good |
| 45, -12 | 120 | 180 | Very Good |
| 45, +78 | 40 | 30-40 (Approx.) | Poor |
| Downhole | N/A | 6-7 | Poor-to-Good |

**135°, 0°**



**45°, -12°**



**45°, +78°**

**Figure 17-11: Cross-check of Millionaire Zone variography.**

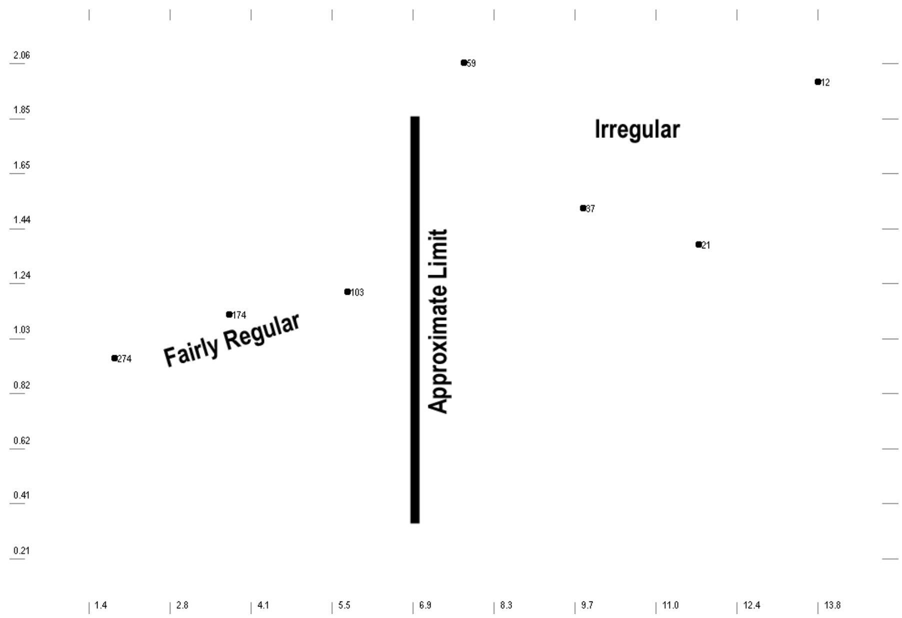



**Figure 17-12: Downhole semi-variogram, Millionaire Zone.**

## 17.14 Interpolation Parameters

The interpolation was performed using the inverse distance squared weighting method with search ellipse and interpolation profiles as described in Table 17-9 and Table 17-10 (Figure 17-13). The profiles were based on the orientation of the main geological units and the ranges suggested by the correlograms.

Two-meter, equal-length composites (with capped gold grades) were used for grade interpolation using the inverse distance in three passes for each model profile.

**Table 17-9: Search ellipse and interpolation profiles**

| | |
|---|---|
| First pass (Category 1) | A block grade is estimated if at least 5 composites from three different diamond drill holes (max. 2 comps. /hole, for a total of 4m max.) are found within a 25x35x10m elliptical search. A minimum of 3 and a maximum number of 4 holes are required. 339 blocks were interpolated within this category but were transferred into Inferred category given their low numbers, scattering and uncertainties associated with the data |
| Second pass (Category 2) | A block grade is estimated if at least 4 composites from two different diamond drill holes (max. 2 comps. /hole) are found within a 50x70x20m elliptical search. Only blocks that have not been estimated by the first pass were interpolated. A minimum of 2 and a maximum number of 4 holes were used. 7 248 blocks were interpolated within this category and transferred into Inferred category given uncertainties associated with the data |
| Third pass (Category 3) | A block grade is estimated if at least 2 composites (max. 2 comps. /hole) are found within a 100x140x40m elliptical search. Only blocks that have not been estimated by the two previous passes were interpolated. A minimum of 1 and a maximum number of 4 holes were used. 21 103 blocks were interpolated within this inferred category |

**Table 17-10: Eagle Mountain search ellipse profiles**

| Profile name | Target codes | Search ellipse radii | Number of composites | | | Orientation* | | |
|---|---|---|---|---|---|---|---|---|
| | | | Min. | Max. | Max/hole | Z | X | Z |
| Category 1 | 100-9100<br>200-9200<br>300-9300<br>400-9400<br>600-9600<br>700-9700 | X: 25m<br>Y: 35m<br>Z: 10m | 5 | 8 | 2 | -42° | +12° | 0° |
| Category 2 | 100-9100<br>200-9200<br>300-9300<br>400-9400<br>600-9600<br>700-9700 | X: 50m<br>Y: 70m<br>Z: 20m | 4 | 8 | 2 | -42° | +12° | 0° |
| Category 3 | 100-9100<br>200-9200<br>300-9300<br>400-9400<br>600-9600<br>700-9700 | X: 100m<br>Y: 140m Z: 40m | 2 | 8 | 2 | -42° | +12° | 0° |

* Rotation around each block model axis (+ is counter-clockwise)

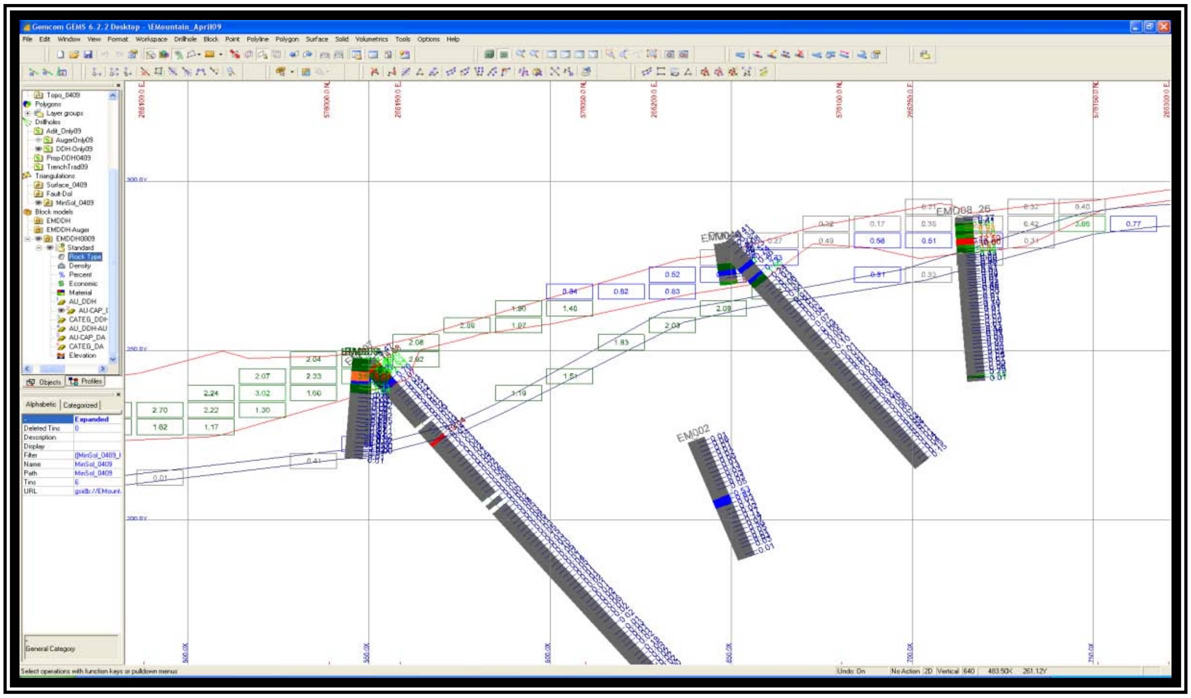


**Figure 17-13: Au-cap grades (DDH Only) Block Model with drill holes assays.**

**Table 17-11: Number of interpolated blocks**

| Point Area | Target codes | Number of Interpolated blocks |
|---|---|---|
| AU-cap DDH only | (Category 2) | *7,287* |
| | (Category 3) | *21,103* |
| AU-cap DDH, Augers, Adits, Trenches | (Category 2) | *16,540* |
| | (Category 3) | *18,030* |

## 17.15 Mineral Resource Classification

### 17.15.1 Indicated Mineral Resource

At Eagle Mountain, no Indicated Mineral Resources were identified because a large part of the sample database relies on historical data for which quality has not yet been verified. However, resources within “category 2” are defined for all blocks that have been estimated by at least two separate sources of information within a 50 x 70 x 20 metre (horizontal) search ellipse (Table 17-10). Approximately 25% of the current resource has been estimated as “category 2” Inferred. Some of the resource within “category 2” could be re-classified as *Indicated* if the quality of the database could be improved: specifically regarding issues such as twinning older drill holes, having the majority of the database supported by well-documented assaying QA/QC protocols, acquiring an exhaustive density measurement database, standardizing lithological descriptions, as well as modeling the dolerite dykes and major faults.

### 17.15.2 Inferred Mineral Resource

To qualify as Inferred Mineral Resource, only those blocks lying within a mineralized domain that were not estimated by the previous pass and which could be estimated by at least one source of information were used.

All remaining blocks within each mineralized domain that could be estimated by only one source of information were classified as *Inferred*. Moreover, these blocks had to be within distances to the nearest drill hole equal to the full variogram range. The maximum number of composites per hole was limited to two, and maximum number of four holes was used to estimate a block (Table 17-10).

Two *Inferred* resource categories (2 and 3) were defined based on the search range and on the minimum number of composites required to estimate a block (Table 17-9 and Table 17-10). The resources categories were saved in the CATEG block model where each block was assigned either a code of 2 (*Inferred-category 2*) or 3 (*Inferred-category 3*) (Table 17-12).

## 17.16 Mineral Resource Estimation Results

Mineral resources at the Eagle Mountain project are in the Inferred category only. Mineral resources were defined using a block cut-off grade of 0.5 g/tonne gold. The volume of non-mineralised dike rocks has not been deleted from the mineral resource volume. Utilizing IAMGOLD's block model, the Reviewing Author re-tabulated the non-diluted inferred mineral resource estimate (hosted by saprolite (oxide) and "fresh" (non-oxidised) rock) as 17.95 million tonnes with an average gold grade of 1.26 g/tonne gold for 729,000 ounces of gold (Table 17-12 and Table 17-13).

The non-diluted inferred mineral resource is detailed at four different block cut-off grades of 0.3, 0.5, 0.7 and 1.0 g/tonne in order to better understand the influence of grade on the size of the resource (Table 17-12). The non-diluted inferred mineral resources of the various mineral zones at a block cut-off grade of 0.5 g/t Au is presented in Table 17-12. Both rock types show a moderate sensitivity to the block cut-off grade. For example, increasing the cutoff from 0.5 g/t Au to 0.7 g/t Au reduces ounces by 17% and tonnage by one-quarter.

# Table 17-12: Howe Re-tabulated Eagle Mountain Mineral Resource (non-diluted)

*Resources By Alteration levels and cut-off grades*
*(AU-CAP block model, August 2009)*
*DDH assays composites only*

| | | Inferred (Category 2) | | | Inferred (Category 3) | | | Total Inferred (Category 2 & 3) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **AU-CAP** | ***Cut-off g/tonne*** | ***Tonnage (000's t)*** | ***AU-cap g/tonne*** | ***oz*** | ***Tonnage (000's t)*** | ***AU-cap g/tonne*** | ***oz*** | ***Tonnage (000's t)*** | ***AU-cap g/tonne*** | ***oz*** |
| **Saprolite** | *0.3* | *2,780* | *1.23* | *109,900* | *5,440* | *1.23* | *215,200* | *8,220* | *1.23* | *325,100* |
| **(SG = 1.6)** | **0.5** | **2,300** | **1.40** | **103,500** | **3,940** | **1.40** | **177,400** | **6,240** | **1.40** | **280,900** |
| | *0.7* | *1,860* | *1.59* | *95,100* | *3,000* | *1.59* | *153,400* | *4,860* | *1.59* | *248,500* |
| | *1* | *1,300* | *1.92* | *80,300* | *2,120* | *1.92* | *130,900* | *3,420* | *1.92* | *211,200* |
| | | | | | | | | | | |
| **Fresh Rock** | *0.3* | *3,480* | *1.04* | *116,400* | *10,400* | *1.04* | *347,800* | *13,880* | *1.04* | *464,200* |
| **(SG = 2.70)** | **0.5** | **2,820** | **1.19** | **107,900** | **8,890** | **1.19** | **340,200** | **11,710** | **1.19** | **448,100** |
| | *0.7* | *2,280* | *1.33* | *97,500* | *6,130* | *1.33* | *262,200* | *8,410* | *1.33* | *359,700* |
| | *1* | *1,460* | *1.61* | *75,600* | *4,640* | *1.61* | *240,200* | *6,100* | *1.61* | *315,800* |
| | | | | | | | | | | |
| **Total** | *0.3* | *6,260* | *1.12* | *226,300* | *15,840* | *1.11* | *563,000* | *22,100* | *1.11* | *789,000* |
| **(Rounded)** | **0.5** | **5,120** | **1.28** | **211,400** | **12,830** | **1.25** | **517,600** | **17,950** | **1.26** | **729,000** |
| | *0.7* | *4,140* | *1.45* | *192,600* | *9,130* | *1.42* | *415,600* | *13,270* | *1.42* | *608,000* |
| | *1* | *2,760* | *1.76* | *155,900* | *6,760* | *1.71* | *371,100* | *9,520* | *1.72* | *527,000* |

Notes for Mineral Resource Estimate:

1. Cut-off grade for mineralised zone interpretation was 0.5 g/tonne.
2. Block cut-off grade for mineral resources was 0.5 g/tonne.
3. Gold price was $US 1000 per troy ounce.
4. Zones extended up to 100 metres along strike from last intercept.
5. Minimum zone thickness was 3 metres.
6. Non-diluted.
7. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
8. Resource estimate prepared by Iamgold Technical Services and reviewed by Doug Roy, M.A.Sc., P.Eng..
9. A specific gravity (bulk density) value of 1.6 was used for saprolite (oxidised) rock and 2.7 was used for fresh (non-oxidised) rock.
10. Top-cut values, ranging from 10-15 g/tonne depending on the zone, were determined using decile analysis.

**Table 17-13: Howe Re-tabulated Eagle Mountain Inferred Mineral Resource by Zone**

| Oxidation Level | Zone | Tonnes (000's) | Grade (g/tonne) | Ounces |
|---|---|---|---|---|
| Saprolite (Oxide) | Millionnaire | 1,740 | 1.40 | 78,400 |
| | Zion | 1,400 | 1.47 | 66,300 |
| | Kilroy | 2,930 | 1.35 | 127,000 |
| | Saddle | 100 | 1.96 | 6,300 |
| | NZ-2 | 20 | 1.96 | 1,300 |
| | NZ-3 | 50 | 0.97 | 1,600 |
| Subtotal, Saprolite* | | 6,240 | 1.40 | 280,900 |
| Fresh Rock | Millionnaire | 6,070 | 1.09 | 212,800 |
| (Non-Oxidised) | Zion | 1,590 | 1.64 | 83,900 |
| | Kilroy | 1,610 | 1.25 | 64,500 |
| | Saddle | 680 | 1.05 | 23,000 |
| | NZ-2 | 1,400 | 1.04 | 46,900 |
| | NZ-3 | 360 | 1.47 | 17,000 |
| Subtotal, Fresh Rock* | | 11,710 | 1.19 | 448,100 |
| Saprolite + Fresh Rock | Millionnaire | 7,810 | 1.15 | 291,200 |
| | Zion | 2,990 | 1.55 | 150,200 |
| | Kilroy | 4,540 | 1.30 | 191,500 |
| | Saddle | 780 | 1.16 | 29,300 |
| | NZ-2 | 1,420 | 1.05 | 48,200 |
| | NZ-3 | 410 | 1.40 | 18,600 |
| **Grand Total*** | | **17,950** | **1.26** | **729,000** |

* Rounded.

Notes for Mineral Resource Estimate:

1. Cut-off grade for mineralised zone interpretation was 0.5 g/tonne.
2. Block cut-off grade for mineral resources was 0.5 g/tonne.
3. Gold price was $US 1000 per troy ounce.
4. Zones extended up to 100 metres along strike from last intercept.
5. Minimum zone thickness was 3 metres.
6. Non-diluted.
7. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
8. Resource estimate prepared by Iamgold Technical Services and reviewed by Doug Roy, M.A.Sc., P.Eng..
9. A specific gravity (bulk density) value of 1.6 was used for saprolite (oxidised) rock and 2.7 was used for fresh (non-oxidised) rock.
10. Top-cut values, ranging from 10-15 g/tonne depending on the zone, were determined using decile analysis.

Howe's re-tabulation compares very well with IAMGOLD's October 2009 non-diluted <u>inferred</u> mineral resource estimate of 17.96 million tonnes with an average gold grade of 1.27 g/tonne gold for 733,500 ounces of gold (Table 17-14). The difference between Howe's re-tabulation and IAMGOLD's estimate is insignificant at less than 1% and is attributed to differences in rounding of values. **The Reviewing Author finds IAMGOLD's October 2009 Eagle Mountain mineral resource estimate reasonably accurate and NI 43-101 compliant.**

**Table 17-14: IAMGOLD Eagle Mountain Inferred Mineral Resource by Zone (Oct. 2009)**

| *AU-cap_DDH only 0.5 g Au/t cut-off* | **Mineralized Zones** | **Tonnes (000's)** | **AU-cap g/tonne** | **AU-cap oz contained** |
|---|---|---|---|---|
| *Saprolite (oxide)* | **Millionnaire** | *1,743* | *1.34* | *75,100* |
| | **Zion** | *1,404* | *1.41* | *63,500* |
| | **Kilroy Saddle** | *2,931* | *1.29* | *121,100* |
| | **NZ-2** | *103* | *1.88* | *6,200* |
| | **NZ-3** | *15* | *1.88* | *900* |
| | | *51* | *0.93* | *1,500* |
| | **subtotal** | ***6,248*** | ***1.34*** | ***268,300*** |
| *Fresh Rock (non-oxidised)* | **Millionnaire** | *6,074* | *1.13* | *221,400* |
| | **Zion** | *1,585* | *1.70* | *86,600* |
| | **Kilroy Saddle** | *1,609* | *1.29* | *66,600* |
| | **NZ-2** | *687* | *1.09* | *24,200* |
| | **NZ-3** | *1,395* | *1.08* | *48,600* |
| | | *362* | *1.52* | *17,700* |
| | **subtotal** | ***11,711*** | ***1.24*** | ***465,100*** |
| *Saprolite & Fresh Rock (oxide & non-oxidised)* | **Millionnaire** | *7,817* | *1.18* | *296,500* |
| | **Zion** | *2,989* | *1.56* | *150,100* |
| | **Kilroy Saddle** | *4,540* | *1.29* | *187,700* |
| | **NZ-2** | *790* | *1.20* | *30,400* |
| | **NZ-3** | *1,410* | *1.09* | *49,500* |
| | | *413* | *1.45* | *19,300* |
| ***Saprolite & Fresh Rock (oxide & non-oxidised)*** | **Total*** | **17,959** | **1.27** | **733,500** |

Notes for Mineral Resource Estimate:

1. Cut-off grade for mineralised zone interpretation was 0.5 g/tonne.
2. Block cut-off grade for mineral resources was 0.5 g/tonne.
3. Zones extended up to 100 metres along strike from last intercept.
4. Minimum zone thickness was 3 metres.
5. Non-diluted.
6. Resource estimate prepared by Iamgold Technical Services
7. A specific gravity (bulk density) value of 1.6 was used for saprolite (oxidised) rock and 2.7 was used for fresh (non-oxidised) rock.
8. Top-cut values, ranging from 10-15 g/tonne depending on the zone, were determined using decile analysis.

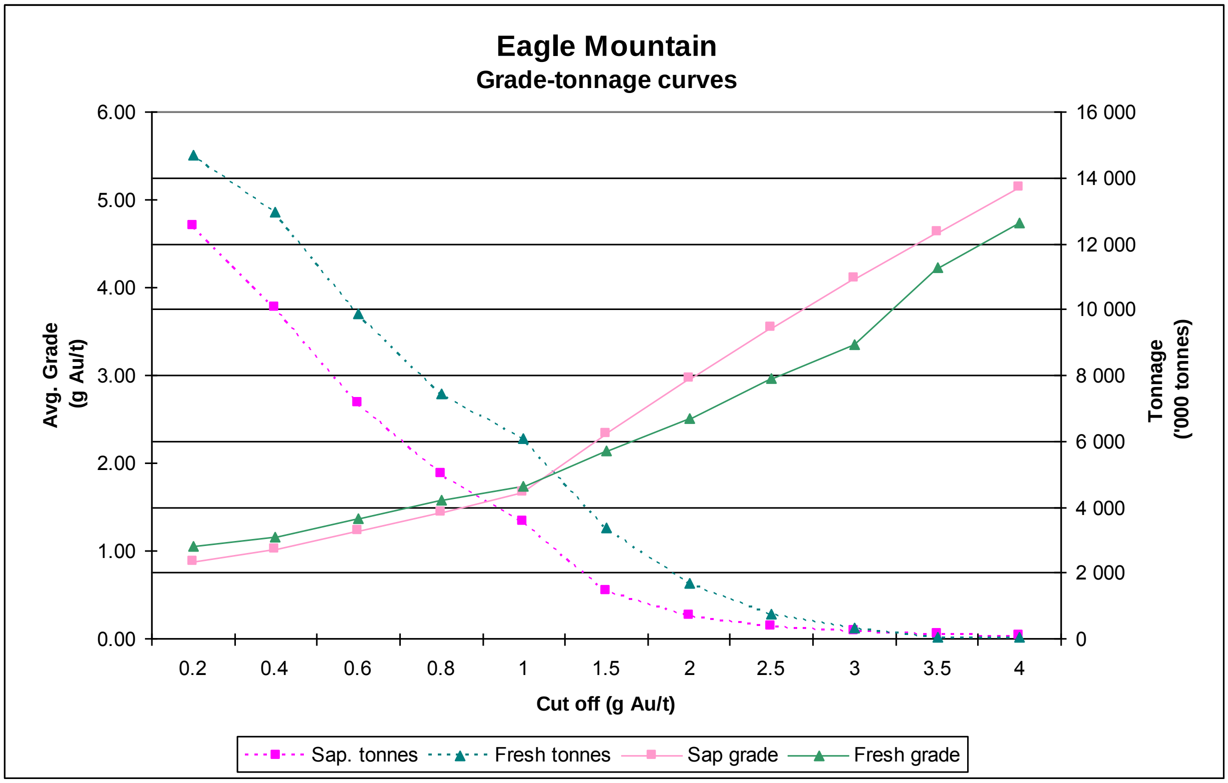
Other than a group of third party small scale mining permits of questionable validity overlying a portion of the mineral resource area (Figure 4-3), Howe is unaware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues that may materially affect the mineral resource estimate. IAMGOLD/OMG is seeking clarification from the Guyana Geology and Mines Commission on the validity of the small scale mining permits.

The resource is based on diamond drill hole data only. Auger, adit and trench data was not used to interpolate the grades for blocks however they can be used to visually target areas where follow-up drilling is warranted.

At present, most of the resource (65% of tonnes and 63% of ounces) is located in the *fresh rock* horizon (using assays from the *drill holes* only).

IAMGOLD's grade tonnage curves based on the October 2009 mineral resource estimate are presented in Figure 17-14.

**Figure 17-14: Grade – Tonnage Curves**



## 17.17 Howe's Cross-Check of ITS's Block Modelling Results

The Reviewing Author constructed a new block model for the Millionaire Zone (the largest zone) to cross-check ITS's results. The model was constructed in the following manner:

- Coordinates for the "top of zone" contacts were extracted from the table "DDH-Only09_COMP_2M" in the supplied drill database.
- A regular grid representing the "top of zone" was constructed with a grid size of 20x20 metres (East x North).
- The "vertical length" of each intercept was calculated.
- A regular grid representing the zone thickness was constructed.
- A regular grid representing the "bottom of zone" was constructed by "subtracting" the zone thickness values for each grid square from the top of zone elevation values for each grid square.
- A "solid" wireframe, named "Millionaire from Grids" was constructed from the top and bottom grids.
- A blank block model was constructed, constrained by the solid wireframe (refer to Table 17-15 for block model parameters). The blank model was named "Blocks - Cross-Check – Blank".
  - ITS's block model parameters were used. However, two sub-blocks in each dimension were used for greater "geological resolution."
- Block grades were estimated using inverse distance weighting (power of two) with the parameters from Table 17-10.
  - The interpolation parameters were the same as those used by ITS.

The cross-check block model contained a similar mass (tonnes) at a slightly higher grade. This resulted in an 11 % increase in metal content (ounces) (refer to Table 17-16).

The Reviewing Author considers the cross-check results to be positive. Even though the cross-check results did not exactly equal ITS's results, the Reviewing Author believes that they are close enough to conclude that ITS's results are reasonably accurate.

Discussion of Results
The Reviewing Author has audited ITS's October 2009 Eagle Mountain mineral resource estimate and finds it to be NI 43-101 compliant and reasonably accurate.

In the Reviewing Author's opinion, future resource estimation work should utilize some form of sub-blocking method to better represent the modeled mineralised zone at a local scale.

## 17.18 Additional Metallurgical Test Work

Limited metallurgical work has been carried out. For a relatively lower grade, surface-exploitable deposit such as this one, the knowledge regarding to what extent the gold is recoverable using cyanide is very important. To date, only bottle-roll cyanidation work has been carried out. While useful, this work merely identifies the theoretical maximum leaching potential. Real-world processes, recovery values, retention times *et cetera* should be explored.

The Reviewing Author strongly recommends that further metallurgical test work be carried out. The work should evaluate gravity, cyanide and flotation methods. A preliminary flowsheet should be developed. This work would be crucial for any future potential preliminary economic evaluation work.

Figure 17-15 shows a plan view of the Millionaire Zone that compares both (ITS's and Howe's) block models. The "block size problem" causes the "holes" observed in ITS's model. However, even though there are some "holes" where none should be, there are other places that are "over-represented" by blocks (i.e.: the block thickness is greater than the modeled wireframe thickness). Those two problems seem to cancel each other out with respect to overall quantity.

In other words, though the "block size problem" sometimes locally misrepresents the modeled mineralised zone wireframes, it does not seem to make a significant difference with respect to global (deposit scale) volumes or tonnes.

**Table 17-15: Howe's block model parameters.**

| Direction | Model Origin (Grid, m) | Model Limit (Grid, m) | Model Extent (m) | Block Size (m) | Number of Blocks | Number of Sub-blocks |
|---|---|---|---|---|---|---|
| East | 263,500 | 267,000 | 3,500 | 10 | 351 | 2 |
| North | 575,000 | 577,500 | 2,500 | 10 | 251 | 2 |
| Elevation (RL) | -375 | 750 | 1,125 | 5 | 226 | 2 |

**Table 17-16: Comparison between ITS's Millionaire Zone resource estimate and ACA Howe's cross-check.**

| | Cut-off Grade (g/tonne) | Tonnes | Average Grade (g/tonne) | Ounces |
|---|---|---|---|---|
| Iamgold's Estimate* | 0.5 | 7,800,000 | 1.15 | 288,000 |
| ACA Howe's Cross-Check* | 0.5 | 7,800,000 | 1.27 | 319,000 |
| **Difference** | | **0%** | **+10%** | **+11%** |

* A specific gravity value of 1.6 was used for Saprolite and 2.7 for Non-Oxidised rock.

### 17.19 Discussion of Results

The Reviewing Author has audited ITS's October 2009 Eagle Mountain mineral resource estimate and finds it to be NI 43-101 compliant and reasonably accurate.

In the Reviewing Author's opinion, future resource estimation work should utilize some form of sub-blocking method to better represent the modeled mineralised zone at a local scale.

### 17.20 Additional Metallurgical Test Work

Limited metallurgical work has been carried out. For a relatively lower grade, surface-exploitable deposit such as this one, the knowledge regarding to what extent the gold is recoverable using cyanide is very important. To date, only bottle-roll cyanidation work has been carried out. While useful, this work merely identifies the theoretical maximum leaching potential. Real-world processes, recovery values, retention times *et cetera* should be explored.

The Reviewing Author strongly recommends that further metallurgical test work be carried out. The work should evaluate gravity, cyanide and flotation methods. A preliminary flowsheet should be developed. This work would be crucial for any future potential preliminary economic evaluation work.

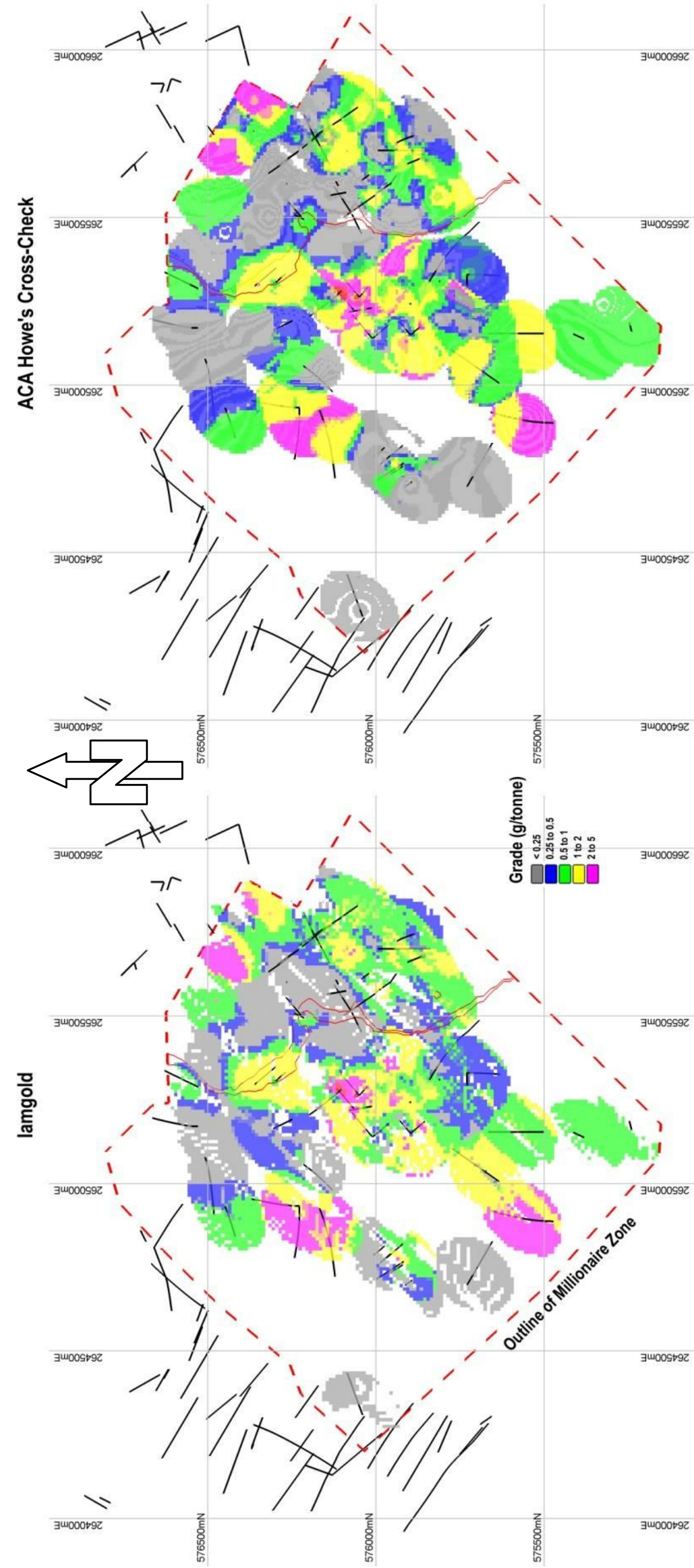



**Figure 17-15: Plan view of Millionaire zone block model comparing Howe's cross-check results against ITS's original results.**

## 18 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant information known to Howe that if undisclosed would make this Report misleading or would make this Report more understandable.

## 19 INTERPRETATION AND CONCLUSIONS

The Eagle Mountain project has been explored by numerous companies and mined by various small-scale operators. Alluvial gold has been exploited in the area since at least 1884, with an estimated 1Moz of gold produced from alluvial and eluvial sources.

Howe has reviewed the Eagle Mountain project data provided by Stronghold and IAMGOLD, including the drilling database, has visited the site and has reviewed sampling procedures and security. Howe believes that the data presented by the companies are generally an accurate and reasonable representation of the Eagle Mountain mineralisation. Howe concludes that the database for the Eagle Mountain project is of sufficient quality to permit the completion a NI 43-101 compliant Mineral Resource Estimate and provide the basis for the conclusions and recommendations reached in this Report.

A systematic QA/QC protocol was introduced at the commencement of the 2007 drilling campaign to monitor the accuracy and precision of analytical results. The majority of the older drilling data on which the mineral resource estimate is based has little or no documented QA/QC protocol. QA/QC results to date indicate that there are no major problems with the accuracy of the analyses. The current sampling and analytical protocols are considered by Howe to be appropriate.

The Reviewing Author (Mr. Roy) has audited ITS's October 2009 Eagle Mountain mineral resource estimate and finds it to be NI 43-101 compliant and reasonably accurate. IAMGOLD's Inferred mineral resources total approximately 18 million tonnes with an average grade of 1.27 g/tonne for 733,500 ounces gold using a block cut-off grade of 0.5 g/tonne.

It should be noted that a specific gravity value of 2.7 was used for fresh (non-oxidised) rock, whereas recent test work has shown that 2.6 is more representative.

Six mineralised zones were outlined. The zones are more-or-less planar in shape with an average dip of 10-15 ° southwest. The zones are thin compared to their lateral extent. The Millionaire Zone is volumetrically the largest mineralized zone and contains the most ounces of gold. However, the Zion Zone appears to have a more consistent and continuous distribution, higher grade and holds the best potential to increase the gold metal inventory.

In order to upgrade at least a portion of the current inferred resource to the indicated category, close-spaced grid drilling or trenching (on the order of 50 metres in selected areas) will be required to demonstrate the continuity of the main mineralized zones. Twinning of a portion of the pre-2007 Anaconda and GGMC drill holes and resampling of archived pre-2007 drill core is recommended where QA/QC information is lacking or insufficient.

The volume of non-mineralised dike rocks has not been deleted from the mineral resource volume. Known occurrences of volumetrically significant non-mineralised dike rocks should be wireframed for future inclusion in the model.

Following completion of IAMGOLD's October 2009 mineral resource estimate, additional specific gravity data was collected from a variety of fresh and saprolitic, mineralised and non-mineralised rock types. The most significant observation from the testwork is that the "Fresh" (non-oxidised) mineralised zones have a specific gravity of approximately 2.60, representing a 4% reduction from the value of 2.70 used for the October 2009 IAMGOLD mineral resource estimate. The new specific gravity data must be incorporated into future resource updates.

A significant portion of the mineral resource occurs at or immediately below the surface. Consequently, a detailed and accurate survey of the topographic surface will be critical to correctly assess areas where the resource is incised by erosion and how much pre-stripping will be required to expose the mineralisation where it is not at surface.

Howe concludes that the Eagle Mountain project is a property of merit as defined in NI 43-101 and warrants additional expenditures.

# 20 RECOMMENDATIONS

Howe recommends that:

1. A systematic QA/QC protocol should be continued with the insertion of standards, blanks and duplicates into the sample stream at a frequency to adequately monitor the accuracy and precision of analytical results.
2. Check samples should be submitted with inserted standards to a second laboratory as part of the Company's sampling QA/QC program. Pulps should be re-homogenised and riffle split at the check lab prior to analysis and comparable analytical methods be used at both primary and check laboratories.
3. Given the lack of QA/QC information and documentation of sampling and assaying methodologies for the historic drill core, Stronghold should conduct a check sampling program using available archived drill core.
4. Additional diamond drilling should be completed on the Eagle Mountain resource estimate area to (a) expand Inferred mineral resources along strike and (b) upgrade Inferred resources to Indicated resources.
5. Additional detailed topographic surveying of the mineral resource area be conducted to correctly assess areas where the resource is incised by erosion and determine how much pre-stripping will be required to expose the mineralisation where it is not at surface.
6. Additional specific gravity measurements should be conducted on representative Eagle Mountain samples, particularly the mineralized zones.
7. Additional metallurgical work, consisting of gravity, cyanide and flotation test work should be carried out on representative samples. This laboratory-scale work would take 1-2 months. The goal of this work would be to develop a preliminary mineral processing flowsheet that could be used during potential future preliminary economic analyses.
8. Environmental baseline studies should be initiated.
9. An update of the Eagle Mountain resource estimate should be completed. New block models should be created using sub-blocking to more accurately represent the outlined mineralised zones. Block grades should be re-estimated using the same grade estimation parameters. Revised specific gravity values, surveyed drill hole coordinates and topographic surfaces should be incorporated into the estimate. Known occurrences of volumetrically significant non-mineralised dike rocks should be wireframed for inclusion in the model.
10. Stronghold should work with IAMGOLD to determine the validity of the small scale mining permits within the Eagle Mountain PL, particularly the set of permits that overly a southwest portion of the mineral resource area.

The estimated cost of the recommended work is as follows:

| | |
|---|---|
| Step-out and in-fill diamond drilling (15,000m - $275/m all inclusive) | $ 4,125,000 |
| Check assaying of archived core | $ 25,000 |
| Topographic surveying | $ 100,000 |
| Specific gravity measurements | $ 10,000 |
| Mineral processing testwork | $ 100,000 |
| Environmental baseline studies | $ 100,000 |
| Mineral Resource Estimate update | $ 50,000 |
| **Total** | **$ 4,510,000** |

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## 22 DATE AND SIGNATURE PAGE

This report titled "Technical Report and Mineral Resource Audit on the Eagle Mountain Gold Project, Guyana" for Stronghold Metals Inc. dated November 17, 2010, was prepared and signed by the following authors:

Dated at Halifax, Nova Scotia
November 17, 2010

William D. Roy, M.A.Sc., P.Eng.
Associate Consulting Engineer
A.C.A. Howe International Limited

Dated at Toronto, Ontario
November 17, 2010

Ian D. Trinder, M.Sc., P.Geo.
Senior Geologist
A.C.A. Howe International Limited

# 23 CERTIFICATES OF QUALIFICATIONS

# CERTIFICATE of CO-AUTHOR

I, William Douglas Roy, M.A.Sc., P.Eng., do hereby certify that:

1) I am an Associate Mining Engineer of ACA Howe International Limited, whose office is located at 365 Bay St, Toronto, Ontario, Canada.
2) I graduated with a B.Eng. degree in Mining Engineering from the Technical University of Nova Scotia (now Dalhousie University) in 1997 and with a M.A.Sc. degree in Mining Engineering from Dalhousie University in 2000.
3) I am a Professional Engineer (Mining), registered with the Association of Professional Engineers of Nova Scotia (Registered Professional Engineer, No. 7472). I am a member of the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") and of the Prospectors and Developers Association of Canada ("PDAC").
4) I have worked as a mining engineer for more than ten years since graduating from university. This work has included the estimation of resources and reserves for precious metals, base metals and industrial minerals, as well as participation in pre-feasibility and feasibility studies.
5) I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43- 101") and certify that by reason of my education, affiliation with a professional association (as defined 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 co-author of the technical report titled: Technical Report and Mineral Resource Audit on the Eagle Mountain Gold Project, Guyana" for Stronghold Metals Inc. dated November 17, 2010, (the "Technical Report"). I am responsible for Section 17: Mineral Resources.
7) I have read NI 43-101 and Form 43-101 F1. This Technical Report has been prepared in accordance with that Instrument and form.
8) I have not visited the Eagle Mountain Gold Project.
9) I have had no prior involvement with the issuer nor the property that is the subject of the Technical Report.
10) I am not aware of any material fact or material change with respect to the subject matter of this Report that is not reflected in the Report, the omission to disclose which makes the Report misleading.
11) I am independent of the issuer applying all of the tests in Section 1.4 of NI 43-101.
12) 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 report not misleading.
13) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes.

REGISTERED PROFESSIONAL ENGINEER
DATE 17/11/2010
W. D. Roy
W. D. ROY
7472
PROVINCE OF NOVA SCOTIA

Dated this 17th Day of November 2010.

W D Roy

William Douglas Roy, M.A.Sc., P. Eng.
Associate Mining Engineer
ACA Howe International Limited

## CERTIFICATE of CO-AUTHOR

I, Ian D. Trinder, M.Sc., P.Geo. (ON, MAN), do hereby certify that:

1. I reside at 4185 Taffey Crescent, Mississauga, Ontario, L5L 2A6.
2. I am employed as senior geologist with the firm of A.C.A. Howe International Limited, Mining and Geological Consultants located at 365 Bay St., Suite 501, Toronto, Ontario, Canada. M5H 2V1.
3. I graduated with a degree in Bachelor of Science Honours, Geology, from the University of Manitoba in 1983 and a Master of Science, Geology, from the University of Western Ontario in 1989.
4. I am a Professional Geoscientist (P.Geo.) registered with the Association of Professional Engineers and Geoscientists of Manitoba (APEGM, No. 22924) and with the Association of Professional Geoscientists of Ontario (APGO, No. 452). I am a member of the Society of Economic Geologists and of the Prospectors and Developers Association of Canada.
5. I have over 20 years of direct experience with precious and base metals mineral exploration in Canada, USA and the Philippines including project evaluation and management. Additional experience includes the completion of various National Policy 2A and NI 43-101 technical reports for gold and base metal projects.
6. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined 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.
7. I am co-author of the technical report titled: "Technical Report and Mineral Resource Audit on the Eagle Mountain Gold Project, Guyana" for Stronghold Metals Inc. dated November 17, 2010, (the "Technical Report"). I am responsible for Sections 1 to 16 and 18 to 21 of the report. I visited the Eagle Mountain Gold Project from October 9th to 12th, 2010.
8. I have no prior involvement with the issuer nor involvement with the property that is the subject of the Technical Report.
9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
10. I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101.
11. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 17th Day of November 2010.

PROFESSIONAL GEOSCIENTIST
17/11/2010
IAN D. TRINDER
PRACTISING MEMBER
0452
ONTARIO

**Ian D. Trinder, M.Sc., P. Geo.**

# APPENDIX A
# Diamond Drill Holes used in Mineral Resource Estimate

| Hole ID | East (m) | North (m) | RL (m) | Length (m) | Collar Azimuth | Collar Dip | Company | Survey |
|---|---|---|---|---|---|---|---|---|
| AD01 | 264788.8 | 575957.8 | 187.7 | 108.7 | 319.0 | -68.0 | Anaconda | Calculated |
| AD02 | 264819.9 | 575919.9 | 191.4 | 123.6 | 319.0 | -60.0 | Anaconda | Calculated |
| AD03 | 264819.9 | 575919.9 | 191.4 | 171.2 | 0.0 | -90.0 | Anaconda | Calculated |
| AD04 | 265566.0 | 576002.5 | 341.1 | 150.7 | 325.0 | -40.0 | Anaconda | Calculated |
| AD05 | 264757.2 | 575920.1 | 177.0 | 88.2 | 327.0 | -60.0 | Anaconda | Calculated |
| AD06 | 265563.1 | 576002.2 | 340.8 | 47.6 | 0.0 | -90.0 | Anaconda | Calculated |
| AD07 | 265598.3 | 575960.3 | 340.4 | 67.8 | 325.0 | -45.0 | Anaconda | Calculated |
| AD08 | 264757.2 | 575920.1 | 177.0 | 102.1 | 0.0 | -90.0 | Anaconda | Calculated |
| AD09 | 265596.2 | 575959.5 | 340.1 | 89.9 | 124.0 | -66.0 | Anaconda | Calculated |
| AD10 | 264813.7 | 575974.0 | 189.2 | 108.6 | 317.0 | -65.0 | Anaconda | Calculated |
| AD11 | 265626.6 | 576020.6 | 354.7 | 40.8 | 324.0 | -45.0 | Anaconda | Estimated |
| AD12 | 265626.0 | 576020.6 | 354.7 | 32.3 | 0.0 | -90.0 | Anaconda | Estimated |
| AD13 | 264711.5 | 575892.4 | 168.4 | 119.5 | 324.0 | -76.0 | Anaconda | Calculated |
| AD14 | 265758.0 | 576158.6 | 388.9 | 136.6 | 325.0 | -45.0 | Anaconda | Calculated |
| AD15 | 265698.3 | 576229.8 | 368.1 | 138.4 | 325.0 | -51.0 | Anaconda | Calculated |
| AD16 | 265730.4 | 576190.6 | 386.3 | 129.5 | 145.0 | -47.0 | Anaconda | Calculated |
| AD17 | 265676.4 | 576259.2 | 353.2 | 49.4 | 145.0 | -46.0 | Anaconda | Calculated |
| AD18 | 265792.5 | 576103.4 | 383.4 | 159.6 | 328.0 | -51.0 | Anaconda | Survey |
| AD19 | 265706.7 | 576219.5 | 378.8 | 114.9 | 142.0 | -55.0 | Anaconda | Calculated |
| AD20 | 265828.4 | 576054.2 | 397.3 | 147.8 | 325.0 | -51.0 | Anaconda | Calculated |
| AD21 | 265631.1 | 576319.6 | 350.6 | 120.4 | 145.0 | -51.0 | Anaconda | Calculated |
| AD22 | 265741.2 | 576181.8 | 387.9 | 161.5 | 242.0 | -55.0 | Anaconda | Calculated |
| AD23 | 265517.4 | 576075.6 | 349.6 | 141.9 | 57.0 | -51.0 | Anaconda | Estimated |
| AD24 | 265741.4 | 576183.8 | 387.9 | 138.7 | 65.0 | -57.0 | Anaconda | Calculated |
| AD25 | 265510.3 | 576071.6 | 347.5 | 128.3 | 244.0 | -59.0 | Anaconda | Estimated |
| AD26 | 265841.6 | 576249.6 | 393.1 | 95.7 | 0.0 | -90.0 | Anaconda | Calculated |
| AD27 | 265593.7 | 576112.0 | 358.3 | 51.8 | 64.0 | -73.0 | Anaconda | Calculated |
| AD28 | 265688.7 | 575975.1 | 372.9 | 91.7 | 0.0 | -90.0 | Anaconda | Calculated |
| AD29 | 265917.9 | 576361.1 | 415.8 | 84.4 | 0.0 | -90.0 | Anaconda | Calculated |
| AD30 | 265662.3 | 575907.6 | 379.9 | 94.5 | 0.0 | -90.0 | Anaconda | Estimated |
| AD31 | 266016.8 | 576641.8 | 456.3 | 72.7 | 58.0 | -34.0 | Anaconda | Estimated |
| AD32 | 265660.0 | 575906.4 | 377.4 | 117.4 | 158.0 | -60.0 | Anaconda | Estimated |
| AD33 | 266079.2 | 576673.7 | 491.0 | 93.3 | 241.0 | -68.5 | Anaconda | Estimated |
| AD34 | 265722.4 | 575936.9 | 382.8 | 74.6 | 0.0 | -90.0 | Anaconda | Calculated |
| AD35 | 266079.2 | 576676.6 | 491.9 | 60.5 | 60.0 | -40.0 | Anaconda | Estimated |
| AD36 | 265723.1 | 575937.1 | 382.8 | 101.2 | 149.0 | -60.0 | Anaconda | Calculated |
| AD37 | 266133.7 | 576704.9 | 516.2 | 84.1 | 0.0 | -90.0 | Anaconda | Survey |
| AD38 | 265560.0 | 575903.4 | 343.9 | 44.2 | 0.0 | -90.0 | Anaconda | Calculated |
| AD39 | 266077.3 | 576694.5 | 492.9 | 49.4 | 0.0 | -90.0 | Anaconda | Survey |
| AD40 | 265520.8 | 575962.1 | 336.6 | 39.9 | 0.0 | -90.0 | Anaconda | Calculated |
| AD41 | 265137.3 | 575381.3 | 270.6 | 102.4 | 0.0 | -90.0 | Anaconda | Calculated |
| AD42 | 266377.7 | 576501.6 | 574.6 | 152.4 | 0.0 | -90.0 | Anaconda | Calculated |
| AD43 | 265137.3 | 575381.3 | 270.6 | 59.4 | 25.0 | -50.0 | Anaconda | Calculated |

| Hole ID | East (m) | North (m) | RL (m) | Length (m) | Collar Azimuth | Collar Dip | Company | Survey |
|---|---|---|---|---|---|---|---|---|
| AD44 | 265160.3 | 575239.9 | 251.8 | 67.4 | 76.0 | -62.0 | Anaconda | Calculated |
| AD45 | 266437.9 | 576552.0 | 582.1 | 105.3 | 0.0 | -90.0 | Anaconda | Calculated |
| AD46 | 265233.9 | 575324.7 | 276.3 | 50.9 | 0.0 | -90.0 | Anaconda | Calculated |
| AD47 | 266434.9 | 576459.4 | 576.9 | 83.2 | 0.0 | -90.0 | Anaconda | Calculated |
| AD48 | 264371.1 | 576414.1 | 144.4 | 185.9 | 320.5 | -51.0 | Anaconda | Calculated |
| AD49 | 265722.9 | 576570.6 | 375.5 | 89.9 | 60.0 | -48.0 | Anaconda | Calculated |
| AD50 | 265765.0 | 576608.8 | 385.5 | 118.6 | 59.0 | -45.0 | Anaconda | Calculated |
| AD51 | 264292.2 | 575775.2 | 123.4 | 133.2 | 293.0 | -38.0 | Anaconda | Calculated |
| AD52 | 264364.8 | 576403.8 | 142.6 | 173.6 | 130.0 | -35.0 | Anaconda | Calculated |
| AD53 | 264281.4 | 575689.8 | 114.5 | 64.9 | 145.0 | -50.0 | Anaconda | Calculated |
| AD54 | 264572.9 | 576516.1 | 183.0 | 153.3 | 291.0 | -45.0 | Anaconda | Calculated |
| AD55 | 264272.8 | 575682.9 | 115.6 | 155.5 | 310.0 | -46.0 | Anaconda | Calculated |
| AD56 | 264523.5 | 576540.3 | 177.5 | 153.2 | 113.0 | -46.0 | Anaconda | Calculated |
| AD57 | 264215.8 | 574218.8 | 107.9 | 185.3 | 75.0 | -39.0 | Anaconda | Calculated |
| EHD01 | 264397.2 | 576171.0 | 155.7 | 169.4 | 305.5 | -45.0 | GGMC | Estimated |
| EHD02 | 264171.6 | 576253.7 | 92.4 | 151.0 | 125.5 | -40.0 | GGMC | Estimated |
| EHD03 | 264024.3 | 576306.8 | 103.2 | 274.3 | 125.5 | -40.0 | GGMC | Estimated |
| EHD04 | 264240.0 | 574276.0 | 109.9 | 219.3 | 95.0 | -45.0 | GGMC | Estimated |
| EHD05 | 264145.0 | 574276.0 | 88.8 | 267.7 | 95.5 | -45.0 | GGMC | Estimated |
| EHD06 | 264074.9 | 576453.4 | 107.4 | 265.5 | 110.0 | -40.0 | GGMC | Estimated |
| EHD07 | 264180.0 | 576636.3 | 147.8 | 275.8 | 120.5 | -40.0 | GGMC | Survey |
| EHD08 | 264187.2 | 576494.5 | 107.1 | 292.7 | 120.5 | -35.0 | GGMC | Estimated |
| EHD09 | 264358.6 | 576580.3 | 139.7 | 286.1 | 120.5 | -40.0 | GGMC | Estimated |
| EHD10 | 264148.7 | 576024.4 | 99.5 | 288.1 | 120.5 | -29.0 | GGMC | Estimated |
| EHD11 | 264082.3 | 575920.1 | 94.4 | 341.7 | 120.5 | -40.0 | GGMC | Estimated |
| EHD12 | 264125.4 | 575965.9 | 103.9 | 304.8 | 120.5 | -37.0 | GGMC | Estimated |
| EHD13 | 264377.9 | 576733.1 | 123.3 | 137.4 | 150.5 | -40.0 | GGMC | Estimated |
| EHD14 | 263960.6 | 575917.2 | 94.3 | 483.4 | 120.5 | -27.0 | GGMC | Estimated |
| EHD15 | 264021.9 | 576192.5 | 79.5 | 442.0 | 115.0 | -43.0 | GGMC | Estimated |
| EM001 | 265574.4 | 576088.5 | 356.0 | 99.3 | 350.0 | -50.0 | Golden Star | Survey |
| EM001A | 265574.2 | 576087.6 | 356.1 | 6.4 | 0.0 | -90.0 | Golden Star | Survey |
| EM002 | 265229.8 | 576012.2 | 286.9 | 120.6 | 350.0 | -50.0 | Golden Star | Survey |
| EM002A | 265229.9 | 576013.0 | 286.9 | 25.1 | 0.0 | -90.0 | Golden Star | Survey |
| EM003 | 265262.7 | 576049.7 | 295.3 | 105.3 | 50.0 | -50.0 | Golden Star | Survey |
| EM004 | 265224.1 | 576066.4 | 281.9 | 121.2 | 50.0 | -50.0 | Golden Star | Survey |
| EM004A | 265223.5 | 576066.2 | 281.9 | 12.4 | 50.0 | -82.0 | Golden Star | Survey |
| EM005 | 265262.0 | 576048.8 | 295.3 | 52.4 | 0.0 | -90.0 | Golden Star | Survey |
| EM006 | 265262.4 | 576049.1 | 295.3 | 61.3 | 130.0 | -50.0 | Golden Star | Survey |
| EM007 | 265139.0 | 576010.8 | 247.7 | 144.1 | 50.0 | -50.0 | Golden Star | Survey |
| EM007A | 265138.3 | 576010.5 | 247.7 | 28.1 | 0.0 | -90.0 | Golden Star | Survey |
| EM008 | 265139.1 | 576009.6 | 247.7 | 99.2 | 140.0 | -50.0 | Golden Star | Survey |
| EM009 | 265149.6 | 575897.3 | 245.7 | 77.8 | 50.0 | -50.0 | Golden Star | Survey |
| EM009A | 265150.6 | 575897.9 | 245.7 | 59.8 | 50.0 | -90.0 | Golden Star | Survey |
| EM010 | 265149.2 | 575897.4 | 245.6 | 87.0 | 140.0 | -50.0 | Golden Star | Survey |
| EM011 | 265270.7 | 575940.8 | 297.0 | 93.3 | 0.0 | -90.0 | Golden Star | Survey |

| Hole ID | East (m) | North (m) | RL (m) | Length (m) | Collar Azimuth | Collar Dip | Company | Survey |
|---|---|---|---|---|---|---|---|---|
| EM012 | 265361.2 | 576050.3 | 313.9 | 104.9 | 0.0 | -90.0 | Golden Star | Survey |
| EM013 | 265311.2 | 576292.6 | 299.6 | 44.9 | 140.0 | -45.0 | Golden Star | Survey |
| EM013A | 265310.5 | 576292.2 | 299.6 | 16.7 | 140.0 | -45.0 | Golden Star | Survey |
| EM014 | 265295.6 | 576360.4 | 296.4 | 119.9 | 140.0 | -45.0 | Golden Star | Survey |
| EM015 | 265308.7 | 576292.9 | 299.6 | 43.1 | 340.0 | -70.0 | Golden Star | Survey |
| EM016 | 264639.8 | 576513.8 | 174.8 | 160.5 | 290.0 | -70.0 | Golden Star | Survey |
| EM016A | 264639.9 | 576514.4 | 174.8 | 20.6 | 290.0 | -70.0 | Golden Star | Survey |
| EM017 | 264207.4 | 576369.9 | 106.3 | 33.5 | 110.0 | -60.0 | Golden Star | Survey |
| EM017A | 264212.9 | 576369.6 | 106.3 | 190.9 | 110.0 | -60.0 | Golden Star | Survey |
| EM018 | 264068.6 | 576866.8 | 80.7 | 110.4 | 210.0 | -45.0 | Golden Star | Survey |
| EM019 | 264046.8 | 576788.8 | 102.2 | 75.0 | 26.0 | -60.0 | Golden Star | Survey |
| EM020 | 264446.0 | 576616.8 | 161.5 | 107.2 | 300.0 | -45.0 | Golden Star | Survey |
| EM020A | 264445.3 | 576614.8 | 161.6 | 46.3 | 300.0 | -45.0 | Golden Star | Survey |
| EM021 | 264767.0 | 575917.6 | 178.8 | 156.8 | 327.0 | -50.0 | Golden Star | Survey |
| EM022 | 265060.8 | 575798.6 | 245.4 | 42.0 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM023 | 265234.0 | 575832.9 | 275.4 | 16.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM023A | 265233.2 | 575833.3 | 275.4 | 82.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM024 | 265274.8 | 575857.0 | 285.6 | 85.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM025 | 265355.3 | 575934.7 | 302.4 | 82.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM026 | 265389.4 | 576087.4 | 309.0 | 58.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM027 | 265319.3 | 576015.4 | 301.9 | 46.2 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM028 | 265566.3 | 575881.7 | 345.2 | 60.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM029 | 265501.7 | 575997.3 | 332.1 | 43.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM030 | 265632.5 | 576010.0 | 353.4 | 31.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM031 | 265495.3 | 576215.0 | 334.9 | 70.4 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM032 | 265718.1 | 576434.4 | 382.3 | 70.0 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM033 | 265912.0 | 576378.7 | 417.4 | 76.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM034 | 266174.7 | 576484.3 | 481.3 | 79.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM035 | 265548.1 | 576478.4 | 340.0 | 43.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM036 | 265153.1 | 576323.9 | 273.7 | 34.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM037 | 265141.9 | 576305.9 | 270.2 | 40.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM038 | 265347.8 | 576498.9 | 316.7 | 55.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM039 | 265432.8 | 576376.1 | 319.6 | 41.7 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM040 | 265548.1 | 576478.4 | 340.0 | 52.5 | 0.0 | -90.0 | Golden Star/Omai | Survey |
| EM99-41 | 265201.7 | 575810.8 | 262.9 | 74.0 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-42 | 265266.6 | 575766.9 | 267.0 | 80.0 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-43 | 265309.6 | 575809.4 | 281.5 | 81.0 | 0.0 | -86.5 | Omai/Cambior | Survey |
| EM99-44 | 265315.3 | 575921.9 | 296.6 | 10.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-44A | 265314.1 | 575920.8 | 296.6 | 100.5 | 0.0 | -89.0 | Omai/Cambior | Survey |
| EM99-45 | 265698.0 | 576085.4 | 369.9 | 58.0 | 0.0 | -89.0 | Omai/Cambior | Survey |
| EM99-46 | 265600.4 | 576264.4 | 339.8 | 91.5 | 0.0 | -88.0 | Omai/Cambior | Survey |
| EM99-47 | 265439.7 | 576155.2 | 315.0 | 70.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-48 | 265500.0 | 576313.6 | 325.6 | 79.5 | 0.0 | -89.0 | Omai/Cambior | Survey |
| EM99-49 | 265452.4 | 576446.9 | 323.9 | 51.0 | 0.0 | -89.0 | Omai/Cambior | Survey |
| EM99-50 | 265821.8 | 576462.8 | 396.9 | 70.5 | 0.0 | -88.5 | Omai/Cambior | Survey |

| Hole ID | East (m) | North (m) | RL (m) | Length (m) | Collar Azimuth | Collar Dip | Company | Survey |
|---|---|---|---|---|---|---|---|---|
| EM99-51 | 265797.1 | 576413.9 | 391.3 | 52.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-52 | 265845.7 | 576363.6 | 396.7 | 61.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-53 | 265802.0 | 576329.5 | 382.3 | 112.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-54 | 265757.9 | 576362.9 | 376.3 | 100.5 | 0.0 | -88.0 | Omai/Cambior | Survey |
| EM99-55 | 265745.6 | 576481.3 | 386.9 | 50.5 | 55.0 | -46.0 | Omai/Cambior | Survey |
| EM99-56 | 265841.5 | 576250.1 | 392.7 | 127.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-57 | 265329.0 | 576103.1 | 305.8 | 50.5 | 0.0 | -88.0 | Omai/Cambior | Survey |
| EM99-58 | 265283.8 | 575982.4 | 300.4 | 85.0 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-59 | 265748.3 | 576152.9 | 383.9 | 49.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-60 | 265840.4 | 576157.3 | 411.0 | 100.0 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-61 | 265242.7 | 575895.9 | 281.7 | 71.5 | 0.0 | -84.0 | Omai/Cambior | Survey |
| EM99-62 | 265362.6 | 575902.1 | 301.5 | 73.0 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-63 | 265811.1 | 576052.1 | 392.9 | 100.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-64 | 265517.1 | 575907.8 | 331.5 | 41.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-65 | 265732.2 | 576231.3 | 370.1 | 109.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-66 | 265562.7 | 575820.9 | 350.2 | 90.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-67 | 265410.8 | 575989.2 | 316.3 | 121.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-68 | 265136.0 | 575912.9 | 239.4 | 79.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-69 | 265329.8 | 575723.9 | 278.1 | 84.5 | 0.0 | -90.0 | Omai/Cambior | Survey |
| EM99-70 | 265722.4 | 576010.4 | 378.2 | 70.5 | 0.0 | -90.0 | Omai/Cambior | Estimated |
| EMD07_01 | 265496.0 | 576217.7 | 334.0 | 121.0 | 50.0 | -50.0 | Omai/IAMGOLD | Surveyed |
| EMD07_02 | 265658.7 | 576719.7 | 377.3 | 80.4 | 315.0 | -50.0 | Omai/IAMGOLD | Surveyed |
| EMD07_03 | 265657.7 | 576717.9 | 377.4 | 32.8 | 255.0 | -50.0 | Omai/IAMGOLD | Surveyed |
| EMD07_04 | 265696.4 | 576680.8 | 389.9 | 170.6 | 315.0 | -50.0 | Omai/IAMGOLD | Surveyed |
| EMD07_05 | 265913.1 | 576608.5 | 422.5 | 62.5 | 288.0 | -50.0 | Omai/IAMGOLD | Surveyed |
| EMD07_06 | 265913.6 | 576607.1 | 420.0 | 47.6 | 200.0 | -50.0 | Omai/IAMGOLD | Surveyed |
| EMD07_07 | 266066.9 | 576628.0 | 471.8 | 142.7 | 335.0 | -50.0 | Omai/IAMGOLD | Surveyed |
| EMD07_08 | 266055.0 | 576705.0 | 476.0 | 172.1 | 335.0 | -50.0 | Omai/IAMGOLD | Surveyed |
| EMD07_09 | 266055.0 | 576705.0 | 476.0 | 106.3 | 255.0 | -56.0 | Omai/IAMGOLD | Surveyed |
| EMD08_10 | 266081.4 | 576562.6 | 453.0 | 138.3 | 335.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_11 | 266481.0 | 576590.0 | 597.0 | 179.0 | 345.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_12 | 266481.0 | 576590.0 | 597.0 | 162.8 | 270.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_13 | 266071.4 | 576408.8 | 457.0 | 168.8 | 335.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_14 | 266071.9 | 576407.7 | 457.0 | 191.3 | 256.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_15 | 265897.3 | 576630.3 | 417.0 | 42.0 | 290.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_16 | 265899.0 | 576630.3 | 417.0 | 60.9 | 0.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_17 | 265191.3 | 576248.4 | 269.7 | 100.0 | 334.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_18 | 265494.0 | 576214.0 | 335.0 | 49.5 | 26.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_19 | 265288.0 | 576529.0 | 308.5 | 180.0 | 26.0 | -52.0 | Omai/IAMGOLD | Estimated |
| EMD08_20 | 264627.0 | 576508.0 | 175.0 | 302.3 | 34.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_21 | 264280.0 | 576364.0 | 137.0 | 418.3 | 200.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_22 | 264860.0 | 576700.0 | 251.5 | 78.0 | 245.0 | -65.0 | Omai/IAMGOLD | Estimated |
| EMD08_22A | 264860.0 | 576700.0 | 251.5 | 66.0 | 245.0 | -55.0 | Omai/IAMGOLD | Estimated |
| EMD08_23 | 265170.0 | 576530.0 | 292.0 | 205.5 | 0.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_24 | 264930.4 | 576227.3 | 222.5 | 244.0 | 270.0 | -50.0 | Omai/IAMGOLD | Estimated |

| Hole ID | East (m) | North (m) | RL (m) | Length (m) | Collar Azimuth | Collar Dip | Company | Survey |
|---|---|---|---|---|---|---|---|---|
| EMD08_25 | 264932.8 | 576227.1 | 223.6 | 229.0 | 0.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_26 | 265280.0 | 576103.0 | 300.1 | 193.0 | 318.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_27 | 265329.5 | 575728.9 | 277.5 | 187.0 | 0.0 | -90.0 | Omai/IAMGOLD | Estimated |
| EMD08_28 | 265330.5 | 575729.4 | 277.5 | 60.5 | 270.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_29 | 265309.0 | 575841.0 | 282.0 | 344.5 | 120.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_30 | 265700.3 | 575993.9 | 373.0 | 244.8 | 180.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD08_31 | 265078.0 | 576508.0 | 263.0 | 277.0 | 250.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_32 | 264697.0 | 575729.0 | 196.0 | 247.0 | 120.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_33 | 265153.8 | 575501.5 | 287.0 | 256.0 | 0.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_34 | 265006.0 | 575634.0 | 252.0 | 271.0 | 35.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_35 | 264130.0 | 576130.0 | 80.0 | 136.0 | 20.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_36 | 264130.0 | 576130.0 | 80.0 | 301.0 | 140.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_37 | 264310.0 | 576040.0 | 145.0 | 208.0 | 70.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_38 | 264810.0 | 576660.0 | 245.0 | 400.0 | 250.0 | -62.0 | Omai/IAMGOLD | Estimated |
| EMD09_39 | 264810.5 | 576658.4 | 244.0 | 242.5 | 120.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_40 | 264925.4 | 576167.4 | 210.0 | 322.0 | 250.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_41 | 265056.7 | 576215.6 | 246.2 | 180.0 | 215.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_42 | 264931.9 | 576448.4 | 237.5 | 157.0 | 250.0 | -50.0 | Omai/IAMGOLD | Estimated |
| EMD09_43 | 264887.0 | 575472.0 | 237.5 | 280.0 | 0.0 | -50.0 | Omai/IAMGOLD | Estimated |

# APPENDIX B

## ACA Howe Duplicate Samples Analytical Certificates

SGS

# Certificate of Analysis

**Work Order: TO112554**

**To: Ian Trinder**
**A.C.A. Howe International Ltd.**
365 Bay Street
Suite 501
TORONTO
ONTARIO M5H 2V1

Date: Nov 12, 2010

| | | |
|---|---|---|
| P.O. No. | : | Project:STH101 |
| Project No. | : | - |
| No. Of Samples | : | 5 |
| Date Submitted | : | Oct 25, 2010 |
| Report Comprises | : | Pages 1 to 2 (Inclusive of Cover Sheet) |

**Distribution of unused material:**
STORE:

Certified By : ____________________
Gavin McGill
Operations Manager

***SGS Minerals Services (Toronto) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at http://www.scc.ca/en/programs/lab/mineral.shtml***

Report Footer:

| | | | |
|---|---|---|---|
| L.N.R. | = Listed not received | I.S. | = Insufficient Sample |
| n.a. | = Not applicable | -- | = No result |

*INF = Composition of this sample makes detection impossible by this method

*M* after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Methods marked with an asterisk (e.g. *NAA08V) were subcontracted
Methods marked with the @ symbol (e.g. @AAS21E) denote accredited tests

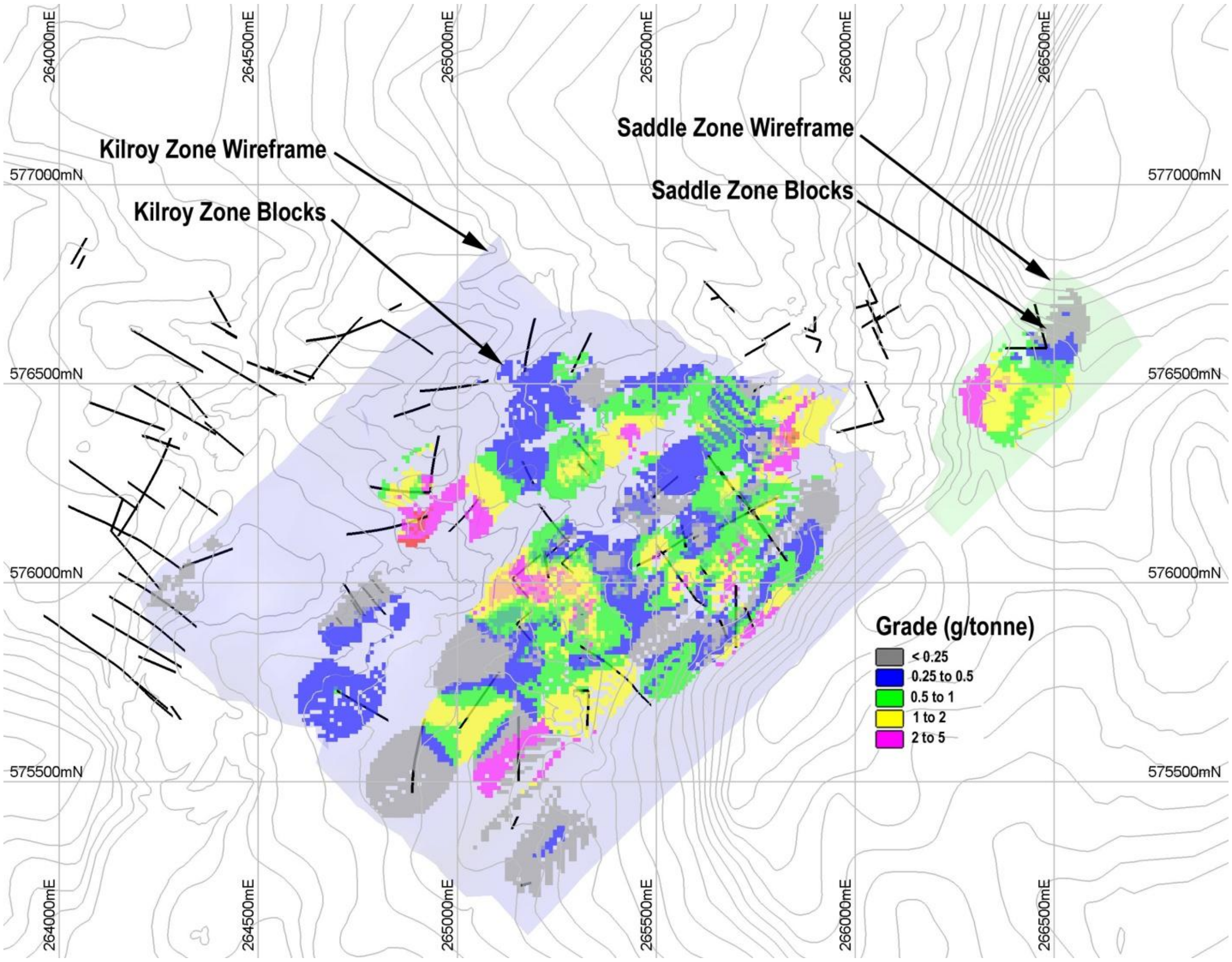
Final : TO112554 Order: Project:STH101

| Element | WtKg | Au | Ag |
|---|---|---|---|
| **Method** | WGH79 | @FAI313 | @AAS21E |
| **Det.Lim.** | 0.001 | 1 | 0.3 |
| **Units** | kg | ppb | g/t |
| ACA 332816 | 2.118 | 787 | <0.3 |
| ACA 521221 | 0.944 | 2170 | <0.3 |
| ACA 521844 | 0.844 | 424 | <0.3 |
| ACA 524476 | 0.818 | 2470 | 0.3 |
| ACA 100000 | 0.070 | 5120 | N.A. |
| *Rep ACA 521221 | | | <0.3 |
| *Rep ACA 521221 | | 1960 | |

# APPENDIX C

## Mineral Resource Estimate Plans

# Plan of Kilroy and Saddle Inferred mineral resource blocks



# Plan of Millionaire and Zion Inferred mineral resource blocks