



# EMGOLD MINING CORPORATION

## IDAHO - MARYLAND TECHNICAL REPORT

### 19.0 INTERPRETATION AND CONCLUSIONS

The following are conclusions of this updated Technical Report:

1. Property and mineral rights purchases and changes occurred after release of the 2004 report. In 2005 Emgold acquired 30 acres of underground mineral rights, while the lease option agreement with the BET Group for mineral rights was modified. Seven acres of surface rights are being purchased. All of these changes should benefit the Idaho-Maryland Mine Project.
2. The Idaho-Maryland Mine Project is in the process of permitting. A predecessor company had received permits to dewater and conduct underground exploration in 1996, but was not able to start due to funding problems. Emgold applied for permits in 2005 to dewater, explore and mine the property. A draft environmental impact report (EIR) was prepared in 2008, reviewed by the public, and is currently undergoing revision. Presumably it will be re-circulated for public review, so finalization of this report might take another year. Once that is done, the City of Grass Valley will vote to certify the EIR, and then vote on whether or not to approve a conditional use permit for the project, which could occur before the end of year 2010.
3. Most of the future exploration work for the Idaho-Maryland Project will take place from underground drill stations and will include geologic mapping, channel sampling of veins, and bulk sampling. Planned access for drilling would be from an exploration decline and from the New Brunswick Shaft. AMEC's review of the geology and geotechnical drilling in 2004 concluded that the rock types in the Brunswick Slab would support a decline.
4. The lode gold deposits on the Idaho-Maryland property are structurally controlled. Brittle-ductile contact zones, faults and tectonic slabs exist that have created conduits for mineralizing fluids and areas favorable to the deposition of gold. Historic data along with results of the 2003-2004 surface drilling programs suggests that additional gold mineralization exists on the property.
5. In response to a recommendation in the 2002 Technical Report, surface drilling programs were conducted in 2003 and 2004 to test the geologic model on the west end of the Idaho Deformation Corridor. The results, summarized in the 2004 Preliminary Assessment Technical Report, supported the model.
6. To assess the gold exploration potential of the Idaho-Maryland project, Juras conducted extensive reviews of pertinent geological, mining, and metallurgical



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data in 2002, and 2004. Unless otherwise stated, the technical conclusions of AMEC listed in the 2002 and 2004 reports remain valid for this updated technical report.

7. The geologic and resource model is in the process of being updated to use in future exploration and mine planning, which will encompass geostatistical modeling. Toward this goal, the assay database has been computerized, the historic stopes have been modeled, and computer modeling of veins is in progress. This work is being done with assistance and technical review by AMEC. This work is necessary to determine which veins have sufficient mineralization and volume to be explored and developed.
8. The geology of the Idaho-Maryland structurally-controlled gold mineralization is well understood. With the use of an extensive historic database, a comprehensive geological model for the project area has been defined. The Juras reviews in 2002 and 2004 confirmed the proper use of this geological knowledge in defining the vein sets, estimating the mineral resources, and outlining new target areas for exploration.
9. The database to support the Idaho-Maryland mineral resource estimate contains over 36,000 gold assays, the majority of which were taken from underground samples (mostly channel samples). Those from diamond drill holes comprise a minor portion of the assay database. The assay data reside as handwritten entries on scale assay plans (1" to 50 ft) for all mine levels. AMEC had recommended that Emgold capture this assay data into electronic form (database or spreadsheet, or both) so it could be easily reproduced and/or used for comprehensive data analyses. Emgold has since completed this work.
10. In 2009 two log books of assays were found that contain assays not listed on mine maps. They would add approximately 2000 new assays (or about 5 percent of the total). One book pertained to samples taken from the Idaho-Maryland and the other was for samples taken from the Brunswick Mine. Most assays not listed on maps appear to be footwall and hangingwall assays. The new assays have not been used in any resource calculations, however, prior to using the data, an independent review will be needed to determine if it is usable, to verify the accuracy of those specific assays listed on the maps.
11. Because high nugget value deposits with coarse gold areas are best sampled with large samples, which was not common practice at the time the Idaho-Maryland Mine was in operation, any estimates made using this historic data should include comparisons with values unadjusted and adjusted for the regular underreporting of grade (i.e., call factor). Juras believed that the comprehensive set of assay plans, supported by records of muck car stope samples and mapped geology data, as well as the detailed historical



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production records, all supported the integrity of the assay data for the Idaho-Maryland project. These data were deemed suitable for use in mineral resource estimation. Juras checked the transcription of data onto assay plans and mineral resource worksheets and concluded that the data were sufficiently free of error to be adequately used for resource estimation.

12. It was also recommended that Emgold design and carry out a program of metallurgical testwork. Using small samples of drill cores from the 2003-2004 surface drilling programs and samples of historic mine tailings, Emgold completed preliminary tests on gold recovery using gravity concentration, flotation, and cyanide. Although of limited value due to the small sample size and not representing all mineralized areas, results were in agreement with historic mill recoveries, with overall gold recoveries using gravity, flotation and cyanide being above 95 percent. Further extensive testing will have to wait until the mine is dewatered and there is access to obtain samples for metallurgical test work.
13. Juras (AMEC) had recommended that Emgold initiate a program to obtain bulk density measurements of various lithologic types and ore types as part of any planned exploration work. This work was partially completed in 2004 using representative samples that were available. Surface drill samples of Brunswick Slab meta-volcanic rocks were analyzed and had an average bulk density value (or tonnage factor) of 11.4. However, this would not be applicable to all rock types or veins on the property. Once the mine is dewatered and there is access to obtain samples for metallurgical test work, an extensive program will be required.
14. Juras (AMEC) conducted a reconnaissance review of the distribution of gold mineralization at Idaho-Maryland. The observed distribution on cumulative probability plots showed typical lognormal trends. Each vein system does appear to have a unique grade distribution, and the higher-grade distributions (greater than 1 oz/ton (34 g/t) Au values) are an integral part of a system's population. AMEC recommended that Emgold conduct a more detailed statistical review of the gold assay data. The review, by vein system and mineralization type, would assist in future grade interpolation and in the selection of appropriate gold capping levels. Emgold staff has computerized the assay database and is continuing to model the geology. Once finished, the company will be able to complete the geostatistical analyses recommend by AMEC.
15. The 2002 and 2004 mineral resource estimates were made using traditional longitudinal sections and 3-D geologic models created using commercial mine planning software (Vulcan® and MineSight®). Juras validated the evidence for pertinent vein/structural interpretation data support and consistency and



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stated that all examples based on the underground data demonstrated good data back-up and sound projection limits. The interpretations of the drillhole intercepts were also considered sound and reasonably projected. AMEC also checked numerous resource blocks for correct tabulation of sample values, reasonable projection limits, and volumetric and trigonometric calculations, and concluded that the checked blocks were properly constructed and calculated. The gold resources added in 2007 followed the same criteria previously established by Juras. All gold resources in this report are compliant with National Instrument 43-101.

16. Only data that could be reconciled to a geologically consistent interpretation was included in the 2002 resource estimate. As a result about 25% of the data was excluded because it was not supported by a coherent interpretation. AMEC recommended that Emgold continue to work on geological interpretations in areas hosting the excluded material, which will require an ongoing effort.
17. According to Juras (for AMEC), the mineral resource classification of the Idaho-Maryland deposits used logic that is consistent with the CIM definitions referred to National Instrument 43-101. The mineral resources were classified into measured, indicated and inferred resource categories. AMEC assessed the criteria used by Emgold for this classification and generally agreed with them. Emgold's classification protocol was amended to classify mineral resources outlined by single drillhole intercepts as inferred mineral resources and to downgrade any resource blocks that demonstrate a degree of uncertainty in the grade estimate due to the presence of numerous +1 oz/ton Au assayed samples (mostly originally measured mineral resources downgraded to indicated mineral resources). In the case of the latter condition, those blocks will remain in the downgraded resource category until such time that a proper investigation is carried out on setting appropriate grade capping levels at Idaho-Maryland.