



Idaho-Maryland Mining Corporation

SECTION 2

**Introduction and
Terms of Reference**





IDAHO-MARYLAND MINING CORPORATION

PRELIMINARY ASSESSMENT TECHNICAL REPORT
IDAHO-MARYLAND MINE, GRASS VALLEY, CALIFORNIA

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 Introduction

Idaho-Maryland retained the services of AMEC Americas Limited (AMEC) to evaluate the potential of a ceramics project on the Idaho-Maryland property and to report the findings in a Preliminary Assessment report. AMEC has completed two previous evaluations of the property based on the gold mining potential. The first was an independent Qualified Person's review and evaluation in the form of a Technical Report as defined in National Instrument 43-101, Standards of Disclosure for Mineral Projects in November 2002. The second was a Scoping Study, dated January 2003.

The overall development plan for the Idaho-Maryland project envisions the following three major components:

1. Development of a decline to access underground drill stations for gold exploration
2. Construction of a commercial ceramics production facility which will utilize development rock from the decline and rock from an underground room-and-pillar mine as initial feed material
3. Upon delineation of an economic gold resource, establishment of a gold mining and processing operation, integrated with the ceramics process so that gold process tailings would combine with mine rock as the feedstock for the ceramic process

Previous work by Emgold focused on identifying and developing the gold resource at the property with the objective of establishing a commercial gold mine. Idaho-Maryland management plans to continue pursuing development of the gold resources through further surface and underground exploration; however, underground exploration can only proceed after a Conditional Mine Use Permit is received from the City of Grass Valley. Obtaining this permit depends on acceptance of the project by the City of Grass Valley and Nevada County. In the event of planning and establishing a mining operation, the satisfactory management and treatment of all development rock and tailings from any underground exploration, mining, and recovery process would be critical to this acceptance.

In response to this, Idaho-Maryland management identified and licensed a new technology that offers the potential to utilize the decline development rock and gold process tailings for the production of ceramic building products. The trade name for the technology is Ceramext™. Successful application of the Ceramext™ technology would see all the mine development rock and gold process tailings consumed thereby eliminating the requirement for long-term surface storage of these materials.



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Upon identification of the Ceramext™ technology, Idaho-Maryland technical personnel also investigated the possibility of establishing a commercial industrial minerals mine on the Idaho-Maryland property. Their investigation led to the identification of a significant mineral deposit, the Brunswick Slab, within the Idaho-Maryland property boundaries that would provide suitable feed for the Ceramext™ process.

Application of the Ceramext™ technology combined with the suitability of the Brunswick Slab rock as feed material to the ceramics process may provide a business case for production of high-quality ceramic building materials. The successful production and sales of ceramic materials would allow Idaho-Maryland to continue with exploration, definition, and development of potential gold targets, with the objective to identify an economic gold reserve while generating positive cash flow from the ceramics development.

The industrial minerals mine will have an initial production rate of 1,200 ton/d, expanding in stages to an ultimate capacity of 2,400 ton/d by the end of the third year.

This study may be used to guide future work on the development of the project as well as to provide a development scenario for preparation of the use permit application. The study has been completed to a scoping level of accuracy. Facilities included in the scope are underground mine operations, a ceramics manufacturing facility, and ancillary plant and infrastructure.

Emgold through its wholly owned subsidiary, Golden Bear Ceramics Company, has signed an exclusive world-wide license agreement with Ceramext™, LLC to develop and use the Ceramext™ Process to convert mine development rock, tailings, waste and other naturally occurring materials into high quality ceramics. The Ceramext™ Process is a patented, energy-efficient, one-step technology capable of converting a wide variety of raw materials, including mine tailings and fly ash into high-strength, low-porosity, industrial ceramics such as floor tile, roof tile, brick, construction materials and other industrial and commercial products.

2.2 Terms of Reference

AMEC obtained information and data for the study from the Idaho-Maryland project site during visits between 3 and 11 October 2002, 3 and 4 June 2004, 24 August to 1 September 2004, and on 29 October 2004. Information was also obtained from a Scoping Study completed by AMEC in January 2003 for Emgold, which assessed the potential to establish a gold mining and processing operation. Additional information was obtained from Emgold's head office in Vancouver, BC.

Idaho-Maryland and Emgold provided AMEC with the following information:



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- overall project scope
- capital and operating costs for the Ceramext™ process and plant facilities
- manpower level for the Ceramext™ manufacturing facility
- general and administration (G&A) costs
- property ownership and location details
- historical and current gold resource and industrial minerals resource data
- labor rates as determined by Western Compensation and Benefits Consultants.

Pertinent data were reviewed in sufficient detail for the preparation of this document. The following AMEC personnel provided Qualified Person review:

- Sean Waller, M. Sc., P. Eng. Acted as study manager and provided input and/or review on crushing and grinding process design, capital and operating cost estimates relating to crushing, grinding, certain infrastructure and site services (Sections 16, Sections 19.3 to 19.5, and Sections 19.7.1 and 19.7.2). Mr. Waller has not visited the site.
- Stephen Juras, Ph. D., P. Geol. Reviewed geologic data, mineralogy and resource estimates as well as sample handling protocols (Sections 7 – 13, Section 17). Dr. Juras also visited the site on 3 to 4 June 2004 and 29 October 2004 as part of this preliminary Assessment. Dr. Juras had previously visited the site during the period of 3 to 11 October 2002 as part of a previous Preliminary Assessment performed by AMEC.
- Mr. Joe Ringwald, P. Eng. Reviewed the underground mine design and costs (Sections 19.1, 19.3, 19.4, and 19.7.1). Mr. Ringwald has not visited the site.

Additional Qualified Person assistance was provided by the following persons:

- For all technical, financial and marketing information pertaining to the Ceramext™ technology and process, and ceramics marketing, AMEC has relied on information supplied by Dr. Carl Frahme, Ph.D. (Sections 16.1.2, 16.3.1, 19.3.3, 19.4.3, 19.7.2) AMEC understands Dr. Frahme is an independent consultant with recognized expertise in ceramics manufacture and marketing. Dr. Frahme is currently an independent consultant to Idaho-Maryland and Golden Bear Ceramics Company.
- For environmental information pertaining to the project site, AMEC has relied on information supplied by Patricia Nelson, Thomas Graham and Matthew Walraven of MACTEC Engineering and Consulting, Inc. AMEC understands that Ms. Nelson, Mr. Graham and Mr. Walraven are suitably qualified environmental scientists and that MACTEC is a recognized consulting firm with expertise in the environmental sciences. Ms. Nelson visited the site on numerous occasions. Mr. Walraven visited the site on



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September 13, 2004 and Mr. Graham visited the site on 2 and 3 August 2004.
(Section 4.0).

The Ceramext™ process is a key parameter to the potential technical and economic viability of the project. This is a new, proprietary, patented process currently under development but at this point not proven in a commercial application. All information and data concerning the Ceramext™ process were provided by Emgold, Idaho-Maryland management, and Dr. Carl Frahme, independent consultant of Emgold's wholly owned subsidiary Golden Bear Ceramics Company.

Unless otherwise stated, all costs in this report are expressed in 4th quarter US dollars.



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SECTION 3

Disclaimer

