



1.0 INTRODUCTION AND PROJECT OVERVIEW

1.1 Project Proponent Information and Contacts

IAMGOLD Corporation (IAMGOLD) is a leading mid-tier gold producer with six operating gold mines (including current joint ventures) on three continents. In the province of Québec, the Company also operates the Niobec mine, making it one of the world's top three producers of niobium, and also owns a rare earth element resource close to its niobium mine. IAMGOLD's growth plans are strategically focused on certain regions in Canada and select countries in South America and Africa (IAMGOLD Corporation, 2012).

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IAMGOLD is listed on the Toronto Stock Exchange under "IMG" and on the New York Stock Exchange as "IAG". As a Canadian reporting issuer, with securities listed on the Toronto Stock Exchange, IAMGOLD has in place a corporate governance structure that is responsive to Canadian regulatory requirements. The Board of Directors' primary duty and responsibility is to supervise or oversee the management of the business and affairs of the Corporation, with a view to the long-term best interests of the Corporation, including all of its stakeholders, such as shareholders. The Board of Directors discharges this primary duty either directly or through committees that it oversees. Committees of the Board report to the Board with respect to the performance and fulfillment of their Board-approved mandates (IAMGOLD Corporation, 2012). There are currently four standing committees, which ensure adherence to published policies, including:

- · Code of Business Conduct and Ethics;
- Disclosure Policy; and
- Whistleblower Policy.

Zero Harm is IAMGOLD's vision that guides all operations and activities undertaken by IAMGOLD. It is IAMGOLD's commitment to continually strive to reach the highest standards in





human health and safety, minimization of impacts on the environment, and working cooperatively with host communities.

In more detail, IAMGOLD's Zero Harm Vision can be summarized as follows:

- HSS Policies: IAMGOLD expects a commitment to health, safety and sustainability from all of our employees from our operators, to our contractors to our CEO. Through this commitment we embrace:
- RESPECT: Our activities will be conducted in a way that respects cultures, customs, social values, laws and human rights.
- ENGAGEMENT: We will pursue the support of host communities and governments through responsive, meaningful dialogue.
- ENVIRONMENTAL STEWARDSHIP: We will focus on understanding the interaction between our activities and the environment, and seek ways to protect and maximize sustainable development.
- HEALTH AND SAFETY: We will promote a work environment where the health and safety of people are always our first priorities.

With regards to Health and Safety IAMGOLD requires a commitment by all employees and contractors to work toward a workplace free of incidents and illness. We strive to protect all employees and contractors against workplace hazards. Achieving and maintaining 'zero injuries' is a continuous journey, with management providing the leadership and direction and employees involved in developing the safety practices.

These guiding principles will be applied through a commitment to:

- Understanding that no task is so important that it cannot be completed safely;
- Providing a safe and healthy workplace for all our people;
- Training and continually motivating our people to work in a safe and responsible manner;
- Incorporating leading practices within health and safety in the planning and decisionmaking process throughout the life cycle of our operations;
- Achieving excellence in health and safety performance through the application of leading practices;
- Complying with relevant legislation and exceeding community expectations;
- Striving towards continuous improvement in our safety and health performance by setting and reviewing achievable targets;
- Holding employees and contractors accountable for our health and safety performance.

Through its internal management structure IAMGOLD will implement these policies during all phases of the Project.





1.2 Project Overview

IAMGOLD acquired Trelawney Mining and Exploration Inc. (Trelawney) in 2012. Trelawney had been exploring the Côté Gold Project (the Project) property since 2009, with the objective of developing an open pit gold mine and process plant. As of December 31, 2012, the Côté Gold drill hole database contains results of 293 diamond drill holes for a total of 158,047 m (IAMGOLD Corporation, 2013). Additionally, IAMGOLD has undertaken or commissioned environmental, hydrogeological, geotechnical, mineralogical, engineering, logistics and economic studies related to potential property development.

The Project is located in the Chester and Neville Townships in the District of Sudbury, northeastern Ontario. It is approximately 20 kilometres (km) southwest of Gogama, 130 km southwest of Timmins, and 200 km northwest of Sudbury (see Figure 1-1).

IAMGOLD proposes to construct, operate and eventually rehabilitate a new open pit gold mine, and is currently conducting engineering studies to further confirm and determine the technical and economic aspects of the Project.

The preliminary site layout (see Figure 1-2) proposes to place the required mine-related facilities in close proximity to the open pit, to the extent practicable, on lands that are leased and/or, patented lands held fully and/or jointly by IAMGOLD. Open pit mining operations will occur at a rate of approximately 60,000 tonnes of ore per day (tpd). Overburden, mine rock and low grade ore extracted from the open pit will be stockpiled in a nearby mine rock area (MRA).

Ore processing will be carried out by conventional methods using a combination of gravity separation and cyanidation for gold recovery, followed by in-plant cyanide recycle and destruction. Tailings will be stored in a constructed tailings management facility (TMF). A high proportion of the ore processing plant water requirement will derive from water recycled from the TMF, augmented by open pit dewatering, as well as runoff collected from the various stockpile areas, with a seasonal need for fresh water make-up (from Mesomikenda Lake). Excess site water will be discharged to Bagsverd Creek via a polishing pond and/or additional water treatment, if required. Such discharge will meet applicable Federal and Provincial effluent discharge requirements and will be protective of receiving water aquatic life.

Mining operations will be supported by the development of an explosives manufacturing and storage facility. A maintenance garage, warehouse and administration complex will be developed adjacent to the ore processing plant.

An on-site accommodations complex will also be developed at the start of construction with a capacity to host 1,500 workers. This complex will provide accommodation for the construction and operations workforce. Some Project personnel may commute from Gogama and from the Mattagami First Nation. Potable water will be extracted primarily from groundwater resources. Non-hazardous domestic solid waste will likely be deposited in the existing nearby Ministry of Natural Resources and Forestry landfill (see Figure 1-2). Domestic sewage will be treated using





a packaged sewage treatment plant or equivalent. Hazardous solid and liquid waste will be hauled off site by licensed contractors to licensed storage facilities. Opportunities to recycle some of the hazardous waste, such as used oil, will be investigated.

Initial construction power will be provided by the existing transmission line connection to the Provincial electrical grid, supported by diesel power generator(s) (less than 5 MW required). Permanent power will be provided through a dedicated connection to a proposed new 230 kV transmission line, originating from a substation located within the City of Timmins.

As part of the proposed development of the open pit, Côté Lake will need to be drained. It is expected that portions of Three Duck Lakes, Chester Lake, Clam Lake and the Mollie River system will be dammed and/or require realignment to allow for the safe development and operation of the open pit. It is currently planned that Bagsverd Creek will also be realigned to allow development of the TMF.

1.3 Project Components

Physical works related to the Project are proposed to consist of:

- open pit: approximately 210 hectares (ha) in area, with a depth of approximately 550 m.
 Mining will occur at a rate of approximately 60,000 tpd of ore production over an approximate 15 year period.
- MRA: approximately 20 million tonnes (Mt) of overburden and 850 Mt of mine rock not required for site construction purposes will be stored in a surface stockpile. A low-grade ore stockpile will also be developed.
- ore processing plant: ore will be crushed, ground and processed on site to recover gold.
 The exact gold production rate will depend on ore grade and gold prices. The doré gold
 bar product will then be securely transported off site by road. Typically, for a project of
 this size, the final product is shipped off site by truck once per week.
- TMF: a preferred area for TMF development has been selected. This TMF covers an
 area of approximately 840 ha and will provide capacity for the storage of a approximately
 261 Mt of tailings over the expected Project life. The maximum projected dam heights
 are expected to be in the range of 40 m to 45 m above grade.
- water management facilities: the principal flows at the Project site will be managed with drainage works, pipelines and water management ponds. Watercourse realignments will also be required around the open pit and TMF.
- transmission line: power during the operations phase of the Project will be supplied by a new 230 kV transmission line connected to the existing Hydro One Network in Timmins at the Porcupine substation.





 associated buildings, facilities and infrastructure: additional permanent on-site facilities currently planned, are expected to include: a maintenance garage, a fuel and lube facility, a warehouse, an administration complex, a construction and operations accommodations complex, an explosives manufacturing and storage facility, an aggregate plant and pit, fuel storage facilities, potable and process water treatment facilities and domestic and industrial solid waste handling facilities. These facilities will be supported by related on-site access roads, pipelines and power infrastructure.

Primary construction phase activities will include:

- procurement of material and equipment;
- movement of construction materials to select laydown areas at and near the Project site;
- construction of additional site access roads;
- construction of dams and water realignment channels/ditches in preparation for the development of the open pit, as well as the construction of the TMF;
- construction/placement of "compensatory" fish habitat within channel realignments and works authorized to offset the loss of lake habitat;
- dewatering of Côté Lake to allow for development of the open pit;
- stripping of overburden and initiation of open pit mine development;
- development of aggregate source(s) anticipated to be principally for concrete manufacture, foundation work and TMF dam filter zones;
- establishment of site area drainage works, including pipelines from freshwater / recycled water sources;
- development and installation of construction facilities, including laydown areas, camp facilities, augmentation of electrical substation capacity and other related construction infrastructure;
- construction of associated buildings and facilities, such as a fuel bay, sewage treatment plant and landfill (if developed);
- preparation of on-site mineral waste handling facilities, including the TMF dams;
- construction and energizing of a 230 kV feeder transmission line, including an on-site electrical substation; and
- expansion of environmental protection and monitoring plan(s) for construction activities;

Activities that will be carried out during the operations phase are anticipated to include:

- ore and mine rock extraction activities:
- ore processing (gravity separation and cyanidation, with a cyanide destruction process, using recycled water as much as feasible);





- ongoing management of chemicals and wastes;
- water management/treatment;
- environmental monitoring and reporting;
- follow-up environmental studies; and
- progressive site reclamation, where practical.

The decommissioning phase activities will consist of the closure and reclamation of the various Project components, including the 230 kV transmission line, should the transfer to a utility prove not feasible. The objective of closure is to reclaim the Project site area to as near a naturalized and productive condition as possible upon completion of mining. The proposed watercourse realignment channels will remain in place. Ongoing environmental monitoring and site management will occur as needed after decommissioning activities are completed.

A preliminary schedule for the development of the Project has the construction phase commencing after completion of the coordinated Federal and Provincial environmental assessment (EA) process, and IAMGOLD has obtained the necessary approvals. The decision to proceed with construction will depend on the project economics which is based on the projected gold price. The operation and production phases are expected to start approximately two years following the commencement of construction and continue for a 15 year mine life. Closure and decommissioning will require approximately two years and the post-closure phase is anticipated to take between 50 to 80 years.

1.4 Geographic Setting

The Project is located in the Chester and Neville Townships in the District of Sudbury, northeastern Ontario. Project coordinates are as follows:

- centroid of the proposed open pit:
 - Universal Transverse Mercator (UTM) 429,629 N, 5,266,765 E (NAD 1983, UTM Zone 17N);
 - latitude / longitude (degrees minutes –seconds), -81° 56' 6.995" W,
 47° 33' 1.757" N (decimal degrees: -81.9353, 47.5506);
- transmission line start and end points:
 - northern start point:
 - o UTM 480740 E, 5368226 N,
 - latitude/longitude -81° 15' 37.997" W, 48° 28' 0.746" N (decimal degrees: -81.2606, 48.4669);





- end point at the Project site:
 - o UTM 431099 E, 5265556 N,
 - latitude / longitude -81° 54' 55.972" W, 47° 32' 23.169" N (decimal degrees: -81.9155, 47.5398).

The proposed Project site comprises an area dominated by soil and till over bedrock in a relatively flat landscape. The area is mainly characterized by gentle hills, forests, lakes and rivers. The site is located on two main subwatersheds, the Mollie River system and the Mesomikenda River system. Additionally, the intercontinental watershed divide is located south of the Project property, with the nearest boundary located southwest and more than 3.5 km from the proposed open pit location.

The Project is located in a low density rural area. Local communities and First Nation reserves, which are part of Treaty 9 are shown in Figure 1-1. The Project site does not directly overlap with First Nation reserve lands. The Mattagami 71 Reserve is the closest First Nation reserve land, located approximately 40 km north of the Project site. IAMGOLD has initiated discussions with First Nations about the Project, and about their involvement in traditional use and traditional knowledge studies to assess the use of the local area by Aboriginal peoples.

Métis continue to reside in the region; they are represented through the provincial organization of the Métis Nation Ontario (MNO). The Côté Gold Project is located within the MNO, Region 3.

Land use in the Project area consists of recreational activities by locals and tourists, including fishing, camping and hunting, and a few cottages are located on Mesomikenda Lake. It is also extensively used for sustainable harvesting of timber; however there is no active agricultural use in the Project area. Photographs of the Côté Gold Project site and related aspects are provided in Appendix A.

Two provincial parks are in the general vicinity of the Project: Spanish River and Biscotasi Lake Provincial Parks, located approximately 20 km southwest of the Project and La Motte Lake Provincial Park, located approximately 24 km northeast of the Project.

1.5 Land Ownership

A large portion of the area around the Project site is designated as active mining claims or mining leases (see Figure 1-3).

As of October 24, 2012, the Côté Gold Property includes approximately 81 patented mining claims, 456 unpatented mining claims, 3 mining leases and 50 Mining Licenses of Occupation located in the Townships of Arbutus, Yeo, Chester, Benneweis, Champagne, Smut, Invergarry, Esther, Osway, Huffman, Potier, Neville, St. Louis, Groves, Benton, Somme, and Fingal. The gold mineralization, as currently understood, is located within 13 claims in Chester Township (RPA Inc., 2012). Currently, IAMGOLD has an Exploration Agreement in place with both





Mattagami and Flying Post First Nations, as these First Nation's territories are in close proximity to the Project site.

Additional easements and land requirements are being considered at the time of submission of the Amended Environmental Impact Statement (EIS)/ Final EA Report. Land negotiations are not expected to impact the viability of the Côté Gold Project.

Besides IAMGOLD, other individual and small junior companies have mining claims near the proposed Project site and are described as follows:

- Liberty Mines Inc. owns the Groves exploration project, located 15 km southeast of Gogama. Drilling activities took place during 2011 but stopped temporarily, with plans of continuing the drilling in the future. The property covers 6,400 ha (Liberty Mines, 2013).
- GoldOn Resources Ltd. is an exploration company focused on sourcing and exploring mineral properties in Canada (Bloomberg Businessweek, 2013).
- Sanatana Resources Inc. is a Canadian mineral exploration and development company with interests in the Project area (Sanatana Resources Inc., 2013).

1.6 EA Report Organization and Content

This document has been prepared to provide Federal and Provincial authorities with information regarding the proposed Côté Gold Project in order to assist with decision making by the Federal Minister of the Environment regarding the applicability of the *Canadian Environmental Assessment Act* (CEAA 2012). It is also intended to provide sufficient information for the Ontario Minister of the Environment to approve the Project pursuant to the Ontario *Environmental Assessment Act*. The Federal and Provincial government authorities have agreed that a single body of knowledge, including this EA report, will be used for the coordinated EA process.

The Federal EIS Guidelines (see Appendix B) and the Provincially-approved Terms of Reference (ToR; see Appendix C), together, set out the framework and requirements for this EA report. This EA report has been prepared in accordance with the requirements outlined in these documents and is structured as follows:

- Executive Summary
- Chapter 1: Introduction and Project Overview
- Chapter 2: Regulatory Framework
- Chapter 3: Participants in Environmental Assessment
- Chapter 4: Consultation Summary
- Chapter 5: Project Description
- Chapter 6: Description of the Environment
- Chapter 7: Description and Rationale for Alternatives





Chapter 8: Effects of the Environment on the Project

• Chapter 9: Description of Project Effects

Chapter 10: Mitigation Measures

• Chapter 11: Impact Assessment

• Chapter 12: Human Health and Ecological Risk Assessment

Chapter 13: Accidents and Malfunctions

• Chapter 14: Cumulative Effects

• Chapter 15: Summary of Benefits to Canadians

• Chapter 16: Environmental Management

• Chapter 17: Flexibility to Accommodate New Circumstances

Chapter 18: Authors and Acknowledgements

• Chapter 19: References

Figures

Appendices

Concordance tables for both the EIS Guidelines and the approved ToR are also provided in Appendix B and C respectively. Additionally, a ToR commitments table is also provided in Appendix C. A glossary and list of abbreviations has been provided in front of the table of contents of this document to assist readers. The appendices include several technical support documents (TSDs) for the relevant disciplines in support of this EA report.

Comments received during the consultation period of the EIS / Draft EA Report have been provided in Appendix Z (Comments and Responses to Comments on the EIS / Draft EA Report). IAMGOLD has responded to comments received on the EIS / Draft EA Report, received up to September 30, 2014 within Appendix Z. Changes to the EA and its TSDs in response to comments have also been tracked in Appendix Z.

1.7 Methodologies

Various methodologies are used throughout the report and are explained in detail in their respective chapters. The main methodologies used are summarized briefly below.

Chapter 6 describes the environmental and social baseline conditions. These baselines have been completed using standard field protocol and scientific methodology as indicated under each of the respective disciplines, to accurately document spatial and temporal variability. Additionally, they have considered the information needs of regulatory agencies for approval of previous similar Ontario mining projects.





Chapter 7 assesses the alternatives to the Project as well as the alternate methods of carrying out the Project, in compliance with the CEAA 2012 EIS Guidelines and the Provincially-approved ToR. The methodology used to assess the alternatives has been developed in consultation with the Ontario MOECC and used successfully by AMEC for alternative assessments for a number of other mining project-related EAs in Ontario, which were subsequently approved or are currently within the approvals process by the Ontario Minister of the Environment or Federal Minister of the Environment as applicable. The methodology relies on a comparative evaluation of the overall advantages and disadvantages of a method as demonstrated through the performance descriptions.

Chapter 9 describes the effects that the Project is predicted to have on the environment. For each technical discipline, effects assessment indicators are identified to characterize how the Project could affect the environment as a whole. Each discipline also identifies study areas to describe the geographic extent of the environmental effects. The prediction of effects is then carried out using a number of analytical methods and tools including laboratory tests, mass balance calculations, statistical packages and various types of models. These tools and analytical methods are summarized for each discipline.

Finally, Chapter 11, based on the effects predicted in Chapter 9 and the application of mitigation measures described in Chapter 10, assesses the significance of the environmental impacts. The significance of the impact is assessed through predetermined assessment criteria (magnitude, geographic extent, duration, frequency, reversibility and likelihood) and a significance decision tree for each of the effects assessment indicators.