

Globex Mining Enterprises Inc.

"At Home in North America" 20,197,674 shares issued and outstanding

September 22, 2010

GLOBEX: Test Work on Refractory Gold Ore Highly Successful

Rouyn-Noranda, Quebec, Canada. GLOBEX MINING ENTERPRISES INC. (GMX – Toronto Stock Exchange, G1M – Frankfurt, Stuttgart, Berlin, Munich, Xetra Stock Exchanges and GLBXF – International OTCQX) is pleased to provide an update on its 75% Globex, 25% Drinkard Metalox (DMI) joint venture regarding the application of hydrometallurgical technologies to refractory gold ores. (See press release April 22, 2010)

Since the announcement of the joint venture we have incorporated a new company called **Eco Refractory Solutions Inc.** (75% Globex and 25% DMI) which will serve as the technical and marketing vehicle for the gold recovery process.

We were solicited by a number of companies, both public and private, regarding test work for refractory gold ores and tailings, both in North America and beyond.

Test work was initiated upon a sizable sample of refractory gold bearing core from a mining company's large tonnage, low grade gold deposit. **Results indicated gold recoveries in the 95% range were possible.** Due to this initial success, a technical confidentiality agreement was signed with the mining company and test work was initiated upon a 5kg sample of gold bearing concentrate from the refractory gold deposit. **This test work indicated gold recoveries of up to 98.5% are possible.** The success of the second phase of testing has resulted in the client deciding to proceed with a third phase program involving a larger sample of refractory gold concentrate. Work will begin upon delivery of the concentrate sample. The new test work will be closely monitored by the client as it will demonstrate, in a step by step manner, all aspects of the process including the superior environmental benefits of the method.

The gold recovery achieved is equal to or better than the gold recovery from free milling gold ores using conventional recovery methods and sets a new standard for the possible recovery of gold from refractory gold ores and/or concentrates.

We are very pleased with the gold recoveries achieved from both the core and concentrate of our first client and we look forward to better defining the process application to this particular ore body.

Eco Refractory Solutions Inc (ERS) has also signed a number of new technical confidentiality agreements with other interested parties and has fielded enquiries from several additional companies.

ERS believes that our process can deliver high gold recoveries from refractory ores with lower capital and operating costs and less environmental impact than other methods.

Refractory Gold Ores and the Eco Refractory Solutions Advantage

The term refractory when applied to gold in ores or concentrates means that recovery of the gold is impeded due to the presence of substances that consume reagents before the gold can be dissolved and preferentially adsorbed in a process called preg-robbing or that the gold particles are very fine and distributed in such a manner that leach solutions cannot come in contact with the gold. Many of such ores contain appreciable quantities of arsenopyrite, pyrite, pyrrhotite or other sulphides which create environmental problems such as mine acid drainage and/or the release of arsenic into tailings.

Numerous such refractory ore deposits exist which are not being mined due to low gold recoveries using standard recovery methods or environmental problems related in particular to the potential release of arsenic into the environment. Also, a large number of gold mine tailings containing significant unrecovered gold are scattered around the world which may benefit from the utilisation of our method.

The Eco Refractory Solutions Inc. hydrometallurgical process is expected to provide numerous benefits. Capital and operating costs are projected to be significantly lower than other methods. The process is in large part a closed system regenerating and recycling the principal reagents. In addition, problems related to the release of arsenic into the environment and acid mine drainage are solved by the transformation of the arsenic and the oxidation of sulphides into environmentally stable forms.

This press release was written by Jack Stoch, P. Geo., President and CEO of Globex in his capacity as a Qualified Person (Q.P.) under NI 43-101

We Seek Safe Harbour.

For further information, contact:

Jack Stoch, P.Geo., Acc.Dir. President & CEO Globex Mining Enterprises Inc. 86, 14th Street Rouyn-Noranda, Quebec Canada J9X 2J1

Forward Looking Statements

Except for historical information this News Release may contain certain "forward looking statements". These statements may involve a number of known and unknown risks and uncertainties and other factors that may cause the actual results, level of activity and performance to be materially different from the Companies expectations and projections. A more detailed discussion of the risks is available in the "Annual Information Form" filed by the Company on SEDAR at www.sedar.com

Foreign Private Issuer 12g3 – 2(b) CUSIP Number 379900 10 3

> Tel.: 819.797.5242 Fax: 819.797.1470 info@globexmining.com www.globexmining.com