



## NEWS RELEASE

### **Advanced Explorations' Canadian Magnetite Project Indicates Potential US \$2.76 Billion NPV in Preliminary Economic Assessment**

TORONTO, June 10 /CNW/ - Advanced Explorations Inc. (the "Company" or "AEI") today announced positive economics from a Preliminary Economic Assessment ("PEA") of its Roche Bay Magnetite Project located on the east coast of the Melville Peninsula in Nunavut, Canada.

#### **Highlights include:**

- Annual production of 1 million tonnes of high value 96% - 98% Fe direct reduced iron ("DRI") nuggets.
  - Forecast sale value of US \$500 / tonne nugget, freight on board ("FOB")
    - US \$750 / tonne nugget assuming 70% of 2008 peak prices
  - Operating Expenditure ("OPEX"): US \$176 / tonne nugget
  - Net Present Value ("NPV") before taxes at a 10% discount rate:
    - US \$1.16 billion at US \$500 / tonne nugget
    - US \$2.76 billion at US \$750 / tonne nugget
  - Pre-tax Internal Rate of Return ("IRR"):
    - 24.4 % at US \$500 / tonne nugget
    - 39.5 % at US \$750 / tonne nugget
  - Capital Expenditure ("CAPEX"): US \$1.11 billion.
- Project payback of approximately three to five years on base case assumptions.
- Inferred Resource of 357 million tonnes grading 28.1 % total iron at a 25 % iron cut-off for the C-Zone only.
  - The historical and non NI 43-101 compliant resource of 700 million tonnes from the proximal A, B and D-Zones was not included in this report but is considered an excellent exploration target for future drill programs.
- Three years of baseline environmental studies have been completed.
- The Project is located adjacent to a deep water ocean harbor providing AEI with a wide range of efficient construction, development and shipping options.

John Gingerich, President & CEO of AEI, commented:

"We are extremely pleased that the PEA confirms that we have a very viable project with a projected operating cost less than half of current spot prices. It's a long life project with massive upside and it's located in Canada; always a safe environment for investment. AEI believes that the PEA was completed to the highest standards using conservative estimates. Our base case forecast price is less than 50% of the peak prices of 2008. The Company sees potential for a stronger market recovery and growing demand for high quality electric arc furnace product and believes prices of \$750 / tonne are possible. Under this circumstance the economics of a NPV of US \$2.8 billion are exceptional. Additionally, the Direct Reduction process plants are modular and expandable in 500,000 tonne increments, while preliminary analysis suggests that expanding to 1.5 million tonnes per annum would provide even stronger economics. These scenarios will be studied during the definitive feasibility study".

Jim Excell, Strategic Advisor for Project Development, said:

"Having built and operated a mine in the Canadian Arctic, this project has all the necessary elements to be a successful iron nugget mine in the Canadian North".

The PEA is based on the review of technical studies performed to this date and the AEI internal scoping study prepared by Dr. Florin Gheorghiu, Ph.D. Eng, AEI's VP Engineering & Technology. The PEA also includes expert contributions including Golder Associates, EBA Engineering and GTX Consulting and was overall reviewed for its technical content by Met-Chem Canada under the direction of Mr. Alain Dorval, P. Eng. As the Company's Independent Qualified Person, Mr. Alain Dorval has also reviewed the contents of this release. Mr. Garrett Macdonald, MBA, P.Eng of GTX Consulting Inc. contributed the mining section and the economic modeling, while Richard Hoos M.Sc., of EBA Engineering Consultants Ltd. authored the environmental component to the report. The resource and geology sections were provided by Dr. Bill Shaw P.Geo and Mr. Paul Palmer P. Eng & P.Geo from Golder Associates and are based upon AEI's most recent NI 43-101 Technical Report which Golder Associates authored and filed on SEDAR April 24th, 2009.

The selection of iron nuggets as a final product is based on the rigorous study of mineralogical, chemical and physical characteristics of Roche Bay magnetite ores, in relationship with enrichment process efficiency, investment cost of the project and steel market demand. The iron nugget, produced by the direct reduction of iron, is a high quality product used as a feedstock in electric arc furnaces.

The incorporation of a direct reduction ("DR") nugget process is expected to bring many strategic advantages to the Roche Bay Magnetite Project including:

- Reasonable CAPEX and OPEX costs.
- Iron nuggets are a higher profit value-add product than blast furnace pellets or iron concentrates.
- Low-cost non-metallurgical coal is used as a reduction agent.
- High thermal efficiency of the DR process; the heat recovery from the DR exhaust gas will produce all the electricity required to power the Roche Bay site.
- Environmentally responsible process - very low CO<sub>2</sub> and SO<sub>2</sub> emissions.

The electric power required to produce the iron nuggets, estimated to be up to 30 Megawatts ("MW"), will be generated via a steam-based power plant. The steam will be produced by a recuperative heat exchanger placed on the exhaust gas circuit of the DR furnace. The highly energy-efficient DR process creates power at no additional cost for the project. Following electrical power generation, the remaining captured energy from the steam cooling will be used for the heating of industrial plant and camp buildings. An additional 10 MW of capacity is being considered for power supply to external customers.

John Gingerich, President & CEO of AEI, commented:

"A project of this scale will provide the base for a wide range of economic and development options for the governments of Nunavut and Canada. The project has the resources to last over fifty years thus creating direct and indirect employment opportunities for the entire Melville Peninsula for many generations. It is an excellent fit with the social-economic strategy of both the Federal and Nunavut governments providing a number of collaborative opportunities. With the possibility of an additional 10 MW of electricity available, power could be provided to both Hall Beach and Igloolik communities with still enough power available for new business initiatives or a northern naval port that would directly support Canada's claim of Arctic sovereignty".

The PEA is based on the following general assumptions:

- The 20 year starter pit will commence on the C-Zone North.
- The initial ore production rate is assumed to be 15,000 tonnes per day, or 5.0 million tonnes per year.

- High-grade ore of 30% Fe outcropping on the surface is expected to create a very low initial waste to ore strip ratio of 0.5:1.
- The C-Zone North open pit would be located 10 km west via road haul to the stockpile and production facilities at Roche Bay.
- Production, port and ship loading facilities would be located adjacent to the natural deep water harbour within Roche Bay.
- The shipping season for the current business model is 275 days a year.
- Currency exchange rate 1 CAD = 0.85 USD.

Positive Factors not considered in the PEA:

- The PEA did not consider the cost reductions associated with off-site construction and on-site assembly.
- Study did not consider the potential benefits from the co-development and sale of surplus power (up to 10 MW).
- Report did not consider collaborative and support opportunities associated with both levels of Government (site Industrial park, etc.).
- The PEA did not consider the possible Kyoto credit associated with the environmentally more responsible development/process.

For the past three years beginning in 2006, EBA has been retained to undertake the full range of appropriate environmental baseline studies needed for the preparation of the anticipated environmental assessment and regulatory documentation required to support regulatory approval of the project. Studies undertaken have addressed the following key environmental disciplines: Vegetation and Terrain; Water Quality and Hydrology; Freshwater and Marine Aquatic Resources; Terrestrial and Marine Wildlife Resources (mammals and birds); Archaeological Resources. Traditional Knowledge and Socio-economic Studies will be undertaken as part of future programs.

The PEA is preliminary in nature, and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the reserves development, production and economic forecasts on which this PEA is based will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

A qualified person has not done sufficient work to classify the historical estimate as current mineral resources. The issuer is not treating the historical estimate as current mineral resources, and the historical estimate should not be relied upon.

## **ON BEHALF OF THE BOARD**

John Gingerich, President & CEO

### **ABOUT Advanced Explorations Inc.**

Advanced Explorations Inc., based in Toronto, Ontario, is a mining exploration company focused on developing high quality iron ore opportunities. As part of this strategy, AEI acquired the option to earn a 100% ownership interest in the Roche Bay Magnetite Project located on the Melville Peninsula in Nunavut, Canada. Led by an experienced management team with technical, exploration and mining expertise the company has the capabilities to rapidly advance the Roche Bay Project and explore other local and global opportunities. Located proximal to a natural deep water harbour the Roche Bay deposit benefits from transportation efficiencies possibly making it one of the world's premium iron ore prospects. In 2008, AEI updated its business plan for the Roche Bay project and is examining moving forward from the traditional iron pellet operation to a granulated pig iron (nugget) business. Shares of the company trade at the TSX Venture Exchange (AXI) and at the Frankfurt Stock Exchange (AE6). For more information please visit [www.advanced-exploration.com](http://www.advanced-exploration.com).

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