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ATHABASCA URANIUM ACQUIRES STRATEGIC EAST KEY LAKE OPTION

Athabasca Uranium Inc. (“Athabasca” or the “Company”) is pleased to announce that it has entered into an agreement with an arm’s-length vendor by which the Company has the option to earn a 100% interest in the East Key Lake Property in northeast Saskatchewan.

The 749-hectare East Key Lake Property is located on the eastern margin of the uranium-rich Athabasca Basin, the most productive uranium-producing region in the world. The Property is adjacent to Hathor Exploration’s Russell South Project and Triex Minerals’ Highrock Project, and is approximately 15 kilometers from Cameco’s Key Lake Mine, which has historic production of over 200 million pounds of uranium and is currently processing ore from the McArthur River Mine.

The Company can earn a 100% interest in the Property by paying \$40,000 and issuing 1,000,000 common shares to the Vendor, by making additional payments totalling \$750,000 over the next 42 months and by filing \$3,000,000 in exploration expenditures on the Property within four years. A 1% net smelter return royalty has also been granted to the Vendor, which may be purchased by the Company for \$1,500,000. The Agreement is subject to regulatory approval.

The East Key Lake Property is the first of three strategic acquisitions in the Athabasca Basin on which the Company has an exclusive right of first offer, as announced January 20, 2011. “East Key Lake is a strategic addition to our property portfolio. The Key Lake Mine and its history of production are legendary – that, combined with the data acquired through our current heli-borne Z-TEM survey of the area, presented us with a compelling prospect,” commented Gil Schneider, Athabasca President & CEO. “We look forward to advancing this Project through our 2011 exploration program.”

Preliminary results from the Company’s Z-TEM survey have shown excellent correlation with the Saskatchewan government’s EXTECH IV regional Mag/EM survey conducted in 2004. An examination of total magnetic intensity (TMI) revealed a roughly northeast-trending magnetic feature, interpreted as an archean granitic fold or body. In addition, electromagnetic (EM) data revealed a significant conductive anomaly coincident with a magnetic low, just west of the magnetic high. This conductive region has been preliminarily evaluated as a high priority target zone at East Key Lake. Uranium-rich mineralization at the Key Lake, Collins Bay and McClean mines were all discovered at or near conductive sandstone layers at the transition between sandstone and granitic zones, presumably because these are regions of faulting through which mineralizing fluids have entered the Basin.

The Z-TEM survey, which is now at 73% completion, should be completed in the near term - upon completion, all Z-TEM data will be processed and correlated with existing data, including a 2006 GEOTEM survey conducted by International Uranium Corp. Ground surveying is slated to begin within a few weeks on several of the Company’s projects, including East Key Lake. Drilling is likely to follow soon thereafter.

Investor Relations Appointment

The Company is also pleased to announce that it has appointed Skyblue Relations as its investor relations service provider. Skyblue is headed by Todd Hanas, who has been providing investor relations to public

companies and been involved in the resource industry for the past fifteen years. Skyblue will be responsible for daily interaction with investors and shareholders, marketing the company to both retail and institutional investors, as well as making introductions to industry analysts and the media. The Company has entered into an investor relations agreement with Skyblue for a term of one year, paying a fee of \$7,500 per month. The Agreement is subject to the approval of the TSX Venture Exchange.

About Athabasca Uranium

Athabasca Uranium Inc. is a junior uranium exploration and development company trading on the TSX Venture Exchange under the symbol UAX. The Company's stated vision is to acquire and explore prospective properties located in the uranium-rich Athabasca Basin in northeast Saskatchewan, utilizing leading-edge technologies to become a world-class uranium mining company.

Additional information on Athabasca Uranium, its properties and exploration activities is available at the Company's website: www.athabascauranium.com.

ON BEHALF OF THE BOARD OF DIRECTORS

"Gil Schneider"

Gil Schneider, President & CEO

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