FOR IMMEDIATE RELEASE
May 12, 2011 (6:00 a.m. EST)

Athabasca Oil Sands Corp. Announces Filing of 2011 First Quarter Financial Statements

CALGARY – Athabasca Oil Sands Corp. (TSX: ATH) has filed its financial statements and management's discussion and analysis (MD&A) for the first quarter ended March 31, 2011. These documents can be retrieved electronically from SEDAR (**www.sedar.com**) and from Athabasca's website (**www.aosc.com**).

Athabasca Updates 2011 Activities

In Athabasca's first quarter, the company successfully completed its 2010-2011 winter drilling program, filed a regulatory application for a 12,000 barrels/day steam assisted gravity drainage (SAGD) project at Hangingstone and acquired key additional petroleum and natural gas (P&NG) rights in the Deep Basin area of northern Alberta.

According to Bill Gallacher, Athabasca's chair of the board of directors, the company's fundamental business strategy is to explore and produce its various oil properties to take advantage of high prices as global demand and usage continues to climb. This is expected to give shareholders an excellent return on their investment in the short and long-term.

"Oil remains the dominant energy commodity," Gallacher says. "Athabasca believes the unconventional riches of Alberta's oil sands will both enhance the world's energy security and play an increasingly important role in setting the global oil price for the next four to five decades. The company recently purchased more than 1.0 million acres of prospective Deep Basin light oil properties, an area from which the company could begin producing and selling light oil later this year. Both strategies will require on-going capital discipline and prudent risk-taking."

Completed Successful Winter Drilling Season (2010-2011)

Athabasca's bitumen assets are core to the company. During the quarter, it drilled a total of 89 delineation and 38 water wells. Initial results look promising.

The drilling program included several wells designed to perform two tests in the Dover West Leduc carbonate formation: a slanted well where steam was injected to assess steam behaviour within the reservoir, two horizontal wells to test heat conductive heating behaviour using thermal assisted gravity drainage (TAGD) with four associated observation wells.

Athabasca injected quantities of steam into the highly-fractured reservoir and observed that a good steam chamber was formed. The company's initial conclusion is that SAGD remains a viable option to heat the bitumen in this formation, which management believes is good news.

It also drilled the horizontal pair for the TAGD test, inserted mineral insulated cable into the wellbores and turned the heaters on to heat the reservoir for six to 10 months. The company expects to turn the lower well into a producer this fall or early winter.

“If successful, TAGD could be the key to producing bitumen carbonate reefs globally,” says Sveinung Svarte, Athabasca’s president and CEO. “These types of reservoirs could be heated at lower temperatures, thus needing less energy and potentially saving significant operating costs.”

In addition to further steam tests, Athabasca anticipates applying for a TAGD pilot of up to 12,000 barrels/day in late 2011 with a view to obtaining regulatory approval in late 2012 or early 2013. Construction would commence shortly thereafter with startup in late 2013 or early 2014.

Athabasca drilled 22 delineation wells in the Birch area, the company’s largest asset in net acreage with approximately 470,000 acres of contiguous land containing 1.15 billion barrels of contingent resource (best estimate). The preliminary drilling results looked positive so management requested the regulatory group begin preparation of a commercial application and environmental impact assessment (EIA).

Filed Hangingstone Project Application (100%)

On March 31, 2011 Athabasca filed its regulatory application to construct a 12,000 barrels/day SAGD project at Hangingstone, located about 20 kilometres southwest of Fort McMurray. This is expected to be the company’s first wholly-owned oil sands production with first steam anticipated as early as the fourth quarter of 2013.

“Athabasca is very proud of the team which put together the regulatory package,” Svarte reports. “We expected the application to be filed in the second quarter and they managed to submit it in the first quarter.”

The Hangingstone asset consists of 110,000 net undeveloped acres with a currently identified contingent resource base of 752 million barrels (best estimate) capable of supporting the development of a commercial project of approximately 80,000 barrels/day. Production would be marketed as bitumen blend.

With the application filed, Athabasca now plans to continue engineering and begin the procurement process for long-lead time equipment. After regulatory approval is received, anticipated sometime in 2012, road construction, site preparation and drilling will commence. The company expects to drill 25 well pairs of injectors and producers, along with a number of observation wells from well pads. The construction is anticipated to be completed in 2013 followed by commissioning of the facilities and start-up.

Purchased Acreage in Deep Basin (100%)

In its pursuit of prospective light oil, Athabasca acquired more acreage in one of Western Canada’s hottest exploration plays in the Deep Basin area, in northwestern Alberta. The company is interested in several formations – the Duvernay, Montney, Doig, Nordegg and Wilrich. Additional evaluation work continued in this area during the first quarter, 2011.

Svarte says the company is encouraged by early analysis of this program. “The Deep Basin region appears to contain sizeable resources of light oil, which could underpin a substantial increase in Canadian production and exports during the next 20 years.”

Looking Forward

Athabasca's significant contingent resource base creates an opportunity for joint ventures with companies that can afford large expenditures, have the technical expertise to create even better projects and can help accelerate commercial development. Company executives continue to talk with potential joint venture companies to further de-risk Athabasca's undeveloped barrels of bitumen.

"Athabasca continues to deliver on its promises," Svarte reports. "It offers investors high leverage to oil prices because of its large resource base and long life assets. We expect to continue unlocking more bitumen and light oil resources in 2011."

Athabasca is a dynamic company focused on the development of oil resource plays including Athabasca bitumen and Deep Basin light oil in Alberta, Canada. It was incorporated in 2006 with a goal to use the latest technology to produce crude oil and bitumen in a sound and safe manner. It has excellent assets, talented people and is well financed. It is traded on the TSX under the symbol ATH.

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NOTE TO ANALYSTS AND EDITORS:

Sveinung Svarte will present Athabasca's updated story with a live webcast presentation at:
Raymond James New York Conference
Monday, May 16, 2011 9:30 – 9:50 AM EST (Q&A to follow)
To listen and view this online event, please visit: http://wsw.com/webcast/rj66/athof/.
It will be available in an archived link for 30 days following at this site.
The presentation will also be available at www.aosc.com.

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Reader Advisory

This News Release contains forward-looking information that involves various risks, uncertainties and other factors. All statements other than statements of historical fact are forward-looking statements. The use of any of the words "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "should", "believe", "predict", "pursue" and "potential" and similar expressions are intended to identify forward-looking statements. The forward-looking information is not historical fact, but rather is based on AOSC's current plans, objectives, goals, strategies, estimates, assumptions and projections about AOSC's industry, business and future financial results. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. No assurance can be given that these expectations will prove to be correct and such forward-looking statements included in this News Release should not be unduly relied upon. These statements speak only as of the date of this News Release. In particular, this News Release may contain forward-looking statements pertaining to the following: AOSC's capital expenditure programs; the estimated quantity of AOSC's Probable and Possible Reserves and Contingent Resources; AOSC's drilling plans; AOSC's plans for, and results of, exploration and development activities; AOSC's estimated future commitments; proposed experimental testing in the Dover West area and the results there from; business plans;; AOSC's plans with respect to the Birch and Grosmont assets; and the timing for receipt of regulatory approvals. With respect to forward-looking statements and forward-looking information contained in this News Release, assumptions have been made regarding, among other things: AOSC's ability to obtain qualified staff and equipment in a timely and cost-efficient manner; the regulatory framework governing royalties, taxes and environmental matters in the jurisdictions in which AOSC conducts and will conduct its business; the applicability of technologies for the recovery and production of AOSC's reserves and resources; future capital expenditures to be made by AOSC; future sources of funding for AOSC's capital programs; AOSC's future debt levels; geological and engineering estimates in respect of AOSC's reserves and resources; the geography of the areas in which AOSC is conducting exploration and development activities; and AOSC's ability to obtain financing on acceptable terms. Actual results could differ materially from those anticipated in these forward-looking statements as a result of the risk factors set forth above and in the Company's Annual Information Form dated March 28, 2011, which is available on the SEDAR website at www.sedar.com ("AIF"), including: fluctuations in market prices for crude oil and bitumen blend; general economic, market and business conditions; variations in foreign exchange and interest rates; factors affecting potential profitability; the global financial crisis; uncertainties inherent in estimating quantities of reserves and resources; AOSC's status and stage of development; uncertainties inherent in Steam Assisted Gravity Drainage ("SAGD"), Cyclic Steam Stimulation ("CSS"), Thermal Assisted Gravity Drainage ("TAGD") and other bitumen recovery processes; the potential impact of the exercise of the Put/Call Options (as defined in the AIF) on AOSC; failure to meet development schedules and potential cost overruns; increases in operating costs can make projects uneconomic; the effect of diluent and natural gas supply constraints and increases in the costs thereof; gas over bitumen issues affecting operational results;; environmental risks and hazards and the cost of compliance with environmental regulations, including greenhouse gas regulations and potential Canadian and U.S. climate change legislation; failure to obtain or retain key personnel; the substantial capital requirements of AOSC's projects; the need to obtain regulatory approvals and maintain compliance with regulatory requirements; extent of, and cost of compliance with, government laws and regulations and the effect of changes in such laws and regulations from time to time; changes to royalty regimes; political risks; failure to accurately estimate abandonment and reclamation costs; risks inherent in AOSC's operations, including those related to exploration, development and production of oil sands reserves and resources, including the production of oil sands reserves and resources using SAGD, CSS, TAGD or other in-situ technologies; the potential for management estimates and assumptions to be inaccurate; long term reliance on third parties; reliance on third party infrastructure for project facilities; failure by counterparties to make payments or perform their operational or other obligations to AOSC in compliance with the terms of contractual arrangements between AOSC and such counterparties and the possible consequences thereof; the potential lack of available drilling equipment and limitations on access to AOSC's assets; aboriginal claims; seasonality; hedging risks; risks associated with establishing and maintaining systems of internal controls; insurance risks; claims made in respect of AOSC's operations, properties or assets; competition for, among other things, capital, the acquisition of reserves and resources, export pipeline capacity and skilled personnel; the failure of AOSC or the holder of certain licenses or leases to meet specific requirements of such licenses or leases; risks arising from future acquisition activities; risks relating to the reliance on financial information, including that financial information does not reflect the added costs that AOSC expects to incur as a public entity; volatility in the market price of the common shares. In addition, information and statements in this News Release relating to "reserves" and "resources" are deemed to be forward-looking information and statements, as they involve the implied assessment, based on certain estimates and assumptions, that the reserves and resources described exist in the quantities predicted or estimated, and that the reserves and resources described can be profitably produced in the future. The assumptions relating to AOSC's reserves and resources are contained in the reports of GLJ Petroleum Consultants Ltd. dated effective December 31, 2010 and DeGolyer and MacNaughton Canada Limited dated effective December 31, 2010. The risks and uncertainties referred to above are described in more detail in AOSC's AIF and in AOSC's Statement of Oil and Gas Reserves Data and Other Oil and Gas Information for the Year Ended December 31, 2010, each of which is available on the SEDAR website at www.sedar.com. See also AOSC's financial statements and Management's Discussion and Analysis for the year ended December 31, 2010, which is also available on SEDAR. Readers are cautioned that the foregoing list of risk factors should not be construed as exhaustive. The forward-looking statements included in this News Release are expressly qualified by this cautionary statement. AOSC does not undertake any obligation to publicly update or revise any forward-looking statements except as required by applicable securities laws.