

Security Class

Holder Account Number

Fold

Form of Proxy - Annual General Meeting to be held on September 18, 2012

This Form of Proxy is solicited by and on behalf of Management.

Notes to proxy

1. Every holder has the right to appoint some other person or company of their choice, who need not be a holder, to attend and act on their behalf at the meeting or any adjournment or postponement thereof. If you wish to appoint a person or company other than the persons whose names are printed herein, please insert the name of your chosen proxyholder in the space provided (see reverse).
2. If the securities are registered in the name of more than one owner (for example, joint ownership, trustees, executors, etc.), then all those registered should sign this proxy. If you are voting on behalf of a corporation or another individual you must sign this proxy with signing capacity stated, and you may be required to provide documentation evidencing your power to sign this proxy.
3. This proxy should be signed in the exact manner as the name(s) appear(s) on the proxy.
4. If this proxy is not dated, it will be deemed to bear the date on which it is mailed by Management to the holder.
5. **The securities represented by this proxy will be voted as directed by the holder, however, if such a direction is not made in respect of any matter, this proxy will be voted as recommended by Management.**
6. The securities represented by this proxy will be voted in favour or withheld from voting or voted against each of the matters described herein, as applicable, in accordance with the instructions of the holder, on any ballot that may be called for and, if the holder has specified a choice with respect to any matter to be acted on, the securities will be voted accordingly.
7. This proxy confers discretionary authority in respect of amendments or variations to matters identified in the Notice of Meeting or other matters that may properly come before the meeting or any adjournment or postponement thereof.
8. This proxy should be read in conjunction with the accompanying documentation provided by Management.

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Proxies submitted must be received by 10:00 AM (Vancouver Time) on Friday, September 14, 2012.

VOTE USING THE TELEPHONE OR INTERNET 24 HOURS A DAY 7 DAYS A WEEK!



To Vote Using the Telephone

- Call the number listed BELOW from a touch tone telephone.

1-866-732-VOTE (8683) Toll Free



To Vote Using the Internet

- Go to the following web site:
www.investorvote.com

If you vote by telephone or the Internet, DO NOT mail back this proxy.

Voting by mail may be the only method for securities held in the name of a corporation or securities being voted on behalf of another individual.

Voting by mail or by Internet are the only methods by which a holder may appoint a person as proxyholder other than the Management nominees named on the reverse of this proxy. Instead of mailing this proxy, you may choose one of the two voting methods outlined above to vote this proxy.

To vote by telephone or the Internet, you will need to provide your CONTROL NUMBER listed below.

CONTROL NUMBER



Appointment of Proxyholder

I/We, being holder(s) of Athabasca Uranium Inc. hereby appoint(s): D. Barry Lee, Chairman and Chief Financial Officer, or failing him, Gilbert G. Schneider, President and Chief Executive Officer,

OR

Print the name of the person you are appointing if this person is someone other than the Chairman of the Meeting.

as my/our proxyholder with full power of substitution and to attend, act and to vote for and on behalf of the shareholder in accordance with the following direction (or if no directions have been given, as the proxyholder sees fit) and all other matters that may properly come before the Annual General Meeting of shareholders of Athabasca Uranium Inc. to be held at McMillan LLP, Suite 1500 – 1055 West Georgia Street, Vancouver, B.C., on Tuesday, September 18, 2012 at 10:00 AM (Vancouver Time) and at any adjournment or postponement thereof.

VOTING RECOMMENDATIONS ARE INDICATED BY **HIGHLIGHTED TEXT** OVER THE BOXES.

For **Against**

1. Number of Directors

To set the number of Directors at 4.

2. Election of Directors

For Withhold

For Withhold

For Withhold

01. Gilbert G. Schneider

02. Steven J. Bruk

03. D. Barry Lee

04. Paula Rogers

For **Withhold**

3. Appointment of Auditors

Appointment of Davidson & Company LLP as Auditor of the Company for the ensuing year.

For **Against**

4. Share Option Plan

To ratify and approve the continuance of the share option plan.

Authorized Signature(s) - This section must be completed for your instructions to be executed.

I/We authorize you to act in accordance with my/our instructions set out above. I/We hereby revoke any proxy previously given with respect to the Meeting. **If no voting instructions are indicated above, this Proxy will be voted as recommended by Management.**

Signature(s)

Date

DD / MM / YY

Interim Financial Statements - Mark this box if you would like to receive Interim Financial Statements and accompanying Management's Discussion and Analysis by mail.

Annual Financial Statements - Mark this box if you would like to receive the Annual Financial Statements and accompanying Management's Discussion and Analysis by mail.

If you are not mailing back your proxy, you may register online to receive the above financial report(s) by mail at www.computershare.com/maillinglist.

