

CAMECO CORP  
Form 6-K  
October 18, 2010

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549  
FORM 6-K**

**Report of Foreign Private Issuer  
Pursuant to Rule 13a-16 or 15d-16 Under  
the Securities Exchange Act of 1934  
For the month of October, 2010**

**Cameco Corporation**  
(Commission file No. 1-14228)  
**2121-11th Street West**  
**Saskatoon, Saskatchewan, Canada S7M 1J3**  
(Address of Principal Executive Offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F  Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

If  Yes  is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b):

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**Exhibit Index**

| Exhibit No. | Description                          | Page No. |
|-------------|--------------------------------------|----------|
| 1.          | Press Release dated October 15, 2010 | 3        |

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: October 15, 2010

Cameco Corporation

By: *Gary M. S. Chad*

Gary M.S. Chad  
Senior Vice-President, Governance,  
Law and Corporate Secretary