

CLIFFS NATURAL RESOURCES INC.

Reported by
BOOR WILLIAM C

FORM 5

(Annual Statement of Changes in Beneficial Ownership)

Filed 01/07/10 for the Period Ending 12/31/09

Address	200 PUBLIC SQUARE STE. 3300 CLEVELAND, OH 44114-2315
Telephone	216-694-5700
CIK	0000764065
Symbol	CLF
SIC Code	1000 - Metal Mining
Industry	Metal Mining
Sector	Basic Materials
Fiscal Year	12/31

FORM 5

**UNITED STATES SECURITIES AND EXCHANGE
COMMISSION
Washington, D.C. 20549**

OMB APPROVAL
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 Form 3 Holdings Reported
 Form 4 Transactions Reported

ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,
Section 17(a) of the Public
Utility Holding Company Act of 1935 or Section 30(f) of the
Investment Company Act of 1940

1. Name and Address of Reporting Person * Boor William C (Last) (First) (Middle) 200 PUBLIC SQUARE, SUITE 3300 (Street) CLEVELAND, OH 44114-2315 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol CLIFFS NATURAL RESOURCES INC. [CLF] 3. Statement for Issuer's Fiscal Year Ended (MM/DD/YYYY) <p align="center">12/31/2009</p> 4. If Amendment, Date Original Filed (MM/DD/YYYY)	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) Sr. Vice Pres., Bus. Devel. 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form Filed by One Reporting Person <input type="checkbox"/> Form Filed by More than One Reporting Person
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Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Trans. Date	2A. Deemed Execution Date, if any	3. Trans. Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				Amount	(A) or (D)	Price			
Common Stock							15562 ⁽¹⁾	I	VNQDC
Common Stock							14592.2609 ⁽²⁾	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g. , puts, calls, warrants, options, convertible securities)

1. Title of Derivate Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Trans. Date	3A. Deemed Execution Date, if any	4. Trans. Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (MM/DD/YYYY)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned at End of Issuer's Fiscal Year (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
					(A)	(D)	Date Exercisable	Expiration Date						

Explanation of Responses:

- (1) Balance shown reflects 21, 25 and 30 dividend reinvestment shares acquired June 1, September 1, and December 1, 2009, respectively, pursuant to the dividend reinvestment feature of the Cliffs Natural Resources Inc. 2005 Voluntary Non-Qualified Deferred Compensation Plan ("VNQDC").
- (2) The balance includes dividend reinvestment from dividends of \$.04 per share payable to all holders of record on June 1 and September 1, 2009 and \$.0875 per share payable on December 1, 2009. The amount shown reflects 6.2408, 7.0603, and 8.9058 dividend reinvestment shares acquired pursuant to a Dividend Reinvestment and Stock Purchase Plan for Cliffs Natural Resources Inc. Common Stock on June 1, September 1, and December 1, 2009, respectively.

Reporting Owners

	Relationships

Reporting Owner Name / Address	Director	10% Owner	Officer	Other
Boor William C 200 PUBLIC SQUARE SUITE 3300 CLEVELAND, OH 44114-2315			Sr. Vice Pres., Bus. Devel.	

Signatures

George W. Hawk, Jr. by Power of Attorney

1/7/2010

* Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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