

# CLIFFS NATURAL RESOURCES INC.

Reported by  
**IRELAND JAMES D III**

## FORM 5

(Annual Statement of Changes in Beneficial Ownership)

Filed 01/05/10 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

[ ] Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).  
 [ ] Form 3 Holdings Reported  
 [ ] Form 4 Transactions Reported

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

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**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 *			2. Issuer Name and Ticker or Trading Symbol			5. Relationship of Reporting Person(s) to Issuer (Check all applicable)			
<b>IRELAND JAMES D III</b>			<b>CLIFFS NATURAL RESOURCES INC. [CLF]</b>			<input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below)			
(Last)	(First)	(Middle)	3. Statement for Issuer's Fiscal Year Ended (MM/DD/YYYY)						
<b>1801 EAST 9TH STREET, SUITE 1700</b>				<b>12/31/2009</b>					
(Street)			4. If Amendment, Date Original Filed (MM/DD/YYYY)			6. Individual or Joint/Group Filing (Check Applicable Line)			
<b>CLEVELAND, OH 44114</b>						<input checked="" type="checkbox"/> Form Filed by One Reporting Person <input type="checkbox"/> Form Filed by More than One Reporting Person			
(City)	(State)	(Zip)							

**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							25690	D	
Common Stock							349592	I	Co-Trustee (1)

**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	Title	Amount or Number of Shares				
Stock Units							(3)	(3)	Common Shares	23261.2502 (4)		23261.2511	D	

**Explanation of Responses:**

- (1) The shares represented are held in five trusts for the benefit of siblings and the Reporting Person who is a co-trustee of the trusts. The Reporting Person disclaims beneficial ownership of 255,894 of these shares. The Reporting Person has an interest in the income or corpus with respect to 93,698 shares.
- (2) Convertible into Common Shares on a 1-for-1 basis.
- (3) Reflects number of Common Shares of underlying deferred compensation credited to the account of the Reporting Person pursuant to the Cliffs Natural Resources Inc. Nonemployee Directors' Compensation Plan ("Plan"). Each Stock Unit is generally distributable following

termination of service as a Director.

- (4) Balance shown reflects 37.8433, 28.663, and 44.0768 shares acquired June 30, September 30, and December 31, 2009, respectively, pursuant to the dividend reinvestment feature of the Plan. The number of deferred dividend reinvestment equivalent shares earned in the Plan is calculated using the closing market price at the end of each quarter for shares held in the Plan as of the record date with dividends earned as of June 1, September 1, and December 1, 2009.

#### Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
<b>IRELAND JAMES D III 1801 EAST 9TH STREET SUITE 1700 CLEVELAND, OH 44114</b>	<b>X</b>			

#### Signatures

**Traci L. Forrester by Power of Attorney**

**1/5/2010**

\*\* 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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