

CLIFFS NATURAL RESOURCES INC.

Form 424B5

December 06, 2012

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to the notes has become effective under the Securities Act of 1933, as amended. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell the notes and are not soliciting an offer to buy the notes in any jurisdiction where the offer or sale is not permitted.

Filed Pursuant to Rule 424(b)(5)

Registration No. 333-165376

SUBJECT TO COMPLETION, DATED DECEMBER 6, 2012

Preliminary Prospectus Supplement To Prospectus dated March 10, 2010

\$

Cliffs Natural Resources Inc.

% Senior Notes due 20

We are offering \$ aggregate principal amount of % senior notes due 20 , which we refer to in this prospectus supplement as our notes.

We will pay interest on the notes on and of each year, beginning on , 2013. The notes will mature on , 20 . The notes will be issued only in denominations of \$2,000 and integral multiples of \$1,000 above that amount.

The interest rate payable on the notes will be subject to adjustment from time to time if the rating assigned to the notes is downgraded (or subsequently upgraded) under the circumstances described under the heading Description of the Notes Interest Rate Adjustment Based on Rating Events.

We have the option to redeem some or all of the notes at any time and from time to time, as described under the heading Description of the Notes Optional Redemption. If a change of control triggering event occurs, we will be required to offer to purchase the notes at a purchase price equal to 101% of their principal amount, plus accrued and unpaid interest, if any, to the date of purchase. See Description of the Notes Change of Control Triggering Event.

The notes will be our senior unsecured obligations and will rank equally with all of our other existing and future senior unsecured and unsubordinated indebtedness, but will be effectively junior to any secured indebtedness which we may incur in the future. The notes will not be the obligation of any of our subsidiaries. For a more detailed description of the notes, see Description of the Notes.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the notes or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

See Risk Factors beginning on page S-10 of this prospectus supplement and the risk factors contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2012, June 30, 2012 and September 30, 2012, which are incorporated by reference herein, for a discussion of certain risks that you should consider in connection with an investment in the notes.

	Per Note	Total
Public Offering Price ⁽¹⁾	%	\$
Underwriting Discount	%	\$
Proceeds to us (before expenses) ⁽¹⁾	%	\$

(1) Plus accrued interest, if any, from December , 2012.

The notes will not be listed on any securities exchange. Currently, there is no public market for the notes.

The underwriters expect to deliver the notes to purchasers through the book-entry delivery system of The Depository Trust Company for the benefit of its participants, including Euroclear Bank S.A./N.V. and Clearstream Banking, société anonyme, on or about December , 2012.

Joint Book-Running Managers

BofA Merrill Lynch

J.P. Morgan

Citigroup

, 2012

TABLE OF CONTENTS

TABLE OF CONTENTS

Prospectus Supplement

	Page
<u>About This Prospectus Supplement</u>	<u>ii</u>
<u>Where You Can Find More Information</u>	<u>ii</u>
<u>Information We Incorporate by Reference</u>	<u>ii</u>
<u>Disclosure Regarding Forward-Looking Statements</u>	<u>iv</u>
<u>Summary</u>	<u>S-1</u>
<u>Risk Factors</u>	<u>S-10</u>
<u>Ratio of Earnings to Fixed Charges</u>	<u>S-13</u>
<u>Use of Proceeds</u>	<u>S-14</u>
<u>Capitalization</u>	<u>S-15</u>
<u>Description of the Notes</u>	<u>S-16</u>
<u>Material U.S. Federal Tax Considerations</u>	<u>S-25</u>
<u>Certain ERISA Considerations</u>	<u>S-29</u>
<u>Underwriting</u>	<u>S-31</u>
<u>Legal Matters</u>	<u>S-35</u>
<u>Experts</u>	<u>S-35</u>

Prospectus

<u>About This Prospectus</u>	<u>1</u>
<u>Where You Can Find More Information</u>	<u>1</u>
<u>Information We Incorporate by Reference</u>	<u>1</u>
<u>Disclosure Regarding Forward-Looking Statements</u>	<u>3</u>
<u>Our Business</u>	<u>4</u>
<u>Risk Factors</u>	<u>4</u>
<u>Use of Proceeds</u>	<u>4</u>
<u>Ratio of Earnings to Fixed Charges</u>	<u>5</u>
<u>Description of Debt Securities</u>	<u>6</u>
<u>Plan of Distribution</u>	<u>14</u>
<u>Legal Matters</u>	<u>15</u>
<u>Experts</u>	<u>15</u>

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS SUPPLEMENT

We provide information to you about this offering in two separate documents. The accompanying prospectus provides general information about us and the securities we may offer from time to time, some of which may not apply to this offering. This prospectus supplement describes the specific details regarding this offering. Generally, when we refer to the prospectus, we are referring to both documents combined. Additional information is incorporated by reference in this prospectus supplement. If information in this prospectus supplement is inconsistent with the accompanying prospectus, you should rely on this prospectus supplement.

We have not, and the underwriters have not, authorized anyone to provide any information other than contained or incorporated by reference in this prospectus supplement or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. You should not assume that the information contained in this prospectus supplement, the accompanying prospectus or any document incorporated by reference is accurate as of any date other than the date mentioned on the cover page of these documents. We are not, and the underwriters are not, making offers to sell the securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation.

References in this prospectus supplement to the terms we, us, the Company or Cliffs or other similar terms mean Cliffs Natural Resources Inc. and its consolidated subsidiaries, unless we state otherwise or the context indicates otherwise. As used in this prospectus supplement, the term ton means a long ton (equal to 2,240 pounds) when referring to our U.S. Iron Ore business segment, the term ton means a short ton (equal to 2,000 pounds) when referring to our North American Coal business segment and the term metric ton means a metric ton (equal to 1,000 kilograms or 2,205 pounds) when referring to our Eastern Canadian Iron Ore business segment.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational reporting requirements of the Securities Exchange Act of 1934, as amended, which we refer to as the Exchange Act. We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available over the Internet at the SEC's website at www.sec.gov. You may read and copy any reports, statements and other information filed by us at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call 1-800-SEC-0330 for further information on the Public Reference Room. You may also inspect our SEC reports and other information at the New York Stock Exchange, 20 Broad Street, New York, New York 10005, or at our website at www.cliffsnaturalresources.com. The information contained on or accessible through our website is not part of this prospectus supplement or the accompanying prospectus, other than the documents that we file with the SEC that are incorporated by reference in this prospectus supplement or the accompanying prospectus.

INFORMATION WE INCORPORATE BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus supplement the information in documents we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus supplement and information that we file later with the SEC will automatically update and supersede this information. Any statement contained in any

document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in or omitted from this prospectus supplement, or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

ii

TABLE OF CONTENTS

We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until the completion of the offering of securities described in this prospectus supplement:

our Annual Report on Form 10-K for the year ended December 31, 2011;
our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2012, June 30, 2012 and September 30, 2012;
and

our Current Reports on Form 8-K, as filed with the SEC on February 9, 2012, February 17, 2012, March 14, 2012, March 19, 2012, April 19, 2012, May 14, 2012, May 18, 2012, August 17, 2012, September 7, 2012, September 14, 2012, October 19, 2012, November 15, 2012 and December 3, 2012.

We will not, however, incorporate by reference in this prospectus supplement any documents or portions thereof that are not deemed filed with the SEC, including any information furnished pursuant to Item 2.02 or Item 7.01 of our Current Reports on Form 8-K unless, and except to the extent, specified in such Current Reports. You may obtain copies of these filings without charge by accessing the investor relations section of www.cliffsnaturalresources.com or by requesting the filings in writing or by telephone at the following address.

Cliffs Natural Resources Inc.
Investor Relations
200 Public Square
Suite 3300
Cleveland, Ohio 44114
Telephone Number: (216) 694-5700

TABLE OF CONTENTS

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus, including the documents incorporated by reference, contain statements that constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may be identified by the use of predictive, future-tense or forward-looking terminology, such as believes, anticipates, expects, estimates, intends, may, will or similar. These statements speak only as of the date of this prospectus supplement or the date of the document incorporated by reference, as applicable, and we undertake no ongoing obligation, other than that imposed by law, to update these statements. These statements appear in a number of places in this prospectus supplement, including the documents incorporated by reference, and relate to, among other things, our intent, belief or current expectations of our directors or our officers with respect to: our future financial condition; results of operations or prospects; estimates of our economic iron ore and coal reserves; our business and growth strategies; and our financing plans and forecasts. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve significant risks and uncertainties, and that actual results may differ materially from those contained in or implied by the forward-looking statements as a result of various factors, some of which are unknown, including, without limitation:

- uncertainty or weaknesses in global economic and/or market conditions, including downward pressure on prices and reduced market demand;
- trends affecting our financial condition, results of operations or future prospects, particularly any slowing of the economic growth rate of China for an extended period;
- our ability to successfully integrate acquired companies into our operations and achieve post-acquisition synergies, including without limitation, Cliffs Quebec Iron Mining Limited (formerly Consolidated Thompson Iron Mining Limited, or Consolidated Thompson);
- our ability to successfully complete planned divestitures;
- our ability to reach agreement with our iron ore customers regarding modifications to sales contract pricing escalation provisions to reflect a shorter-term or spot-based pricing mechanism;
- the outcome of any contractual disputes with our customers, joint venture partners or significant energy, material or service providers or any other litigation or arbitration;
- changes in sales volume or mix;
- the impact of price-adjustment factors on our sales contracts;
- the ability of our customers to meet their obligations to us on a timely basis or at all;
- our actual economic iron ore and coal reserves or reductions in current resource estimates;
- our ability to successfully identify and consummate any strategic investments;
- events or circumstances that could impair or adversely impact the viability of a mine and the carrying value of associated assets;
- the results of pre-feasibility and feasibility studies in relation to projects;
- impacts of increasing governmental regulation and related costs, including failure to receive or maintain required environmental permits, approvals, modifications or other authorization of, or from, any governmental or regulatory entity and costs related to implementing improvements to ensure compliance with regulatory changes;
- our ability to achieve planned production rates or levels;
- uncertainties associated with unanticipated geological conditions, natural disasters, weather conditions, supply or price of energy, equipment failures and other unexpected events;
- adverse changes in currency values, currency exchange rates, interest rates and tax laws;

our ability to maintain adequate liquidity and successfully implement our financing plans;

iv

TABLE OF CONTENTS

our ability to maintain appropriate relations with unions and employees and renew expiring collective bargaining agreements on satisfactory terms;

availability of capital equipment and component parts;

the amount, and timing of, any insurance recovery proceeds with respect to our Oak Grove Mine;

risks related to international operations;

the potential existence of significant deficiencies or material weakness in our internal control over financial reporting; problems or uncertainties with productivity, tons mined, transportation, mine-closure obligations, environmental liabilities, employee-benefit costs and other risks of the mining industry; and

other risks described in our reports filed with the SEC.

These factors and the other risk factors described in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference, are not necessarily all of the important factors that could cause actual results to differ materially from those expressed in any of our forward-looking statements. Other unknown or unpredictable factors also could harm our results. Consequently, there can be no assurance that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to or effects on us. Given these uncertainties, prospective investors are cautioned not to place undue reliance on such forward-looking statements.

v

TABLE OF CONTENTS

SUMMARY

This summary highlights information about us and the notes being offered by this prospectus supplement. This summary is not complete and may not contain all of the information that you should consider prior to investing in our notes. For a more complete understanding of our Company, we encourage you to read this prospectus supplement, including the information incorporated by reference in this prospectus supplement and the other documents to which we have referred.

Our Company

Cliffs Natural Resources Inc. traces its corporate history back to 1847. Today, we are an international mining and natural resources company. A member of the S&P 500 Index, we are a major global iron ore producer and a significant producer of high- and low-volatile metallurgical coal. Our strategy is to continually achieve greater scale and diversification in the mining industry through a focus on serving the world's largest and fastest-growing steel markets. Driven by the core values of safety, social, environmental and capital stewardship, our Company's associates across the globe endeavor to provide all stakeholders operating and financial transparency.

We have been a leader in iron ore mining technology for more than 160 years. We operated some of the first mines on Michigan's Marquette Iron Range and pioneered early open-pit and underground mining methods. From the first application of electrical power in Michigan's underground mines to the use of today's sophisticated computers and global positioning satellite systems, we have been a leader in the application of new technology to the centuries-old business of mineral extraction. Today, our engineering and technical staffs are engaged in full-time technical support of our operations and improvement of existing products.

We are expanding our leadership position in the industry by focusing on high product quality, technical excellence, superior relationships with our customers and partners and improved operational efficiency through cost-saving initiatives. We operate a fully-equipped research and development facility in Ishpeming, Michigan, which supports each of our global operations. Our research and development group is staffed with experienced engineers and scientists and is organized to support the geological interpretation, process mineralogy, mine engineering, mineral processing, pyrometallurgy, advanced process control and analytical service disciplines. Our research and development group also is utilized by iron ore pellet customers for laboratory testing and simulation of blast furnace conditions.

Today, we are organized through a global commercial group responsible for sales and delivery of our products and a global operations group responsible for the production of the minerals we market. Our Company's operations are organized according to product category and geographic location: U.S. Iron Ore, Eastern Canadian Iron Ore, North American Coal, Asia Pacific Iron Ore, Latin American Iron Ore, Ferroalloys, and our Global Exploration Group. In the United States, we operate five iron ore mines in Michigan and Minnesota, five metallurgical coal mines located in West Virginia and Alabama and one thermal coal mine located in West Virginia. We also operate two iron ore mines in Eastern Canada and an iron ore mining complex in Western Australia. In Latin America, we have a 30 percent interest in Amapá, a Brazilian iron ore operation. We also have a large-scale chromite project in the feasibility stage of development in Ontario, Canada. In addition, our Global Exploration Group is focused on early involvement in exploration activities to identify new world-class projects for future development or projects that add significant value to existing operations.

TABLE OF CONTENTS

The following map shows our global footprint:

U.S. Iron Ore

The production from our U.S. Iron Ore business is sold to integrated steel companies in North America. The five U.S.-based mines have an annual rated capacity of 32.9 million gross tons of iron ore pellet production, representing 57.8 percent of total pellet production capacity in the United States. Based on our equity ownership in these mines, our share of the annual rated production capacity is currently 24.4 million gross tons, representing 42.9 percent of total annual pellet capacity in the United States.

Our U.S. Iron Ore revenues primarily are derived from sales of iron ore pellets to the North American integrated steel industry, consisting of five major customers. Generally, we have multi-year supply agreements with our customers. Sales volume under these agreements largely is dependent on customer requirements, and in many cases, we are the sole supplier of iron ore to the customer. Historically, each agreement has contained a base price that is adjusted annually using one or more adjustment factors. Factors that could result in a price adjustment include international iron ore prices, measures of general industrial inflation and steel prices. Additionally, certain of our supply agreements have a provision that limits the amount of price increase or decrease in any given year.

Each of our U.S. Iron Ore mines is located near the Great Lakes. The majority of our iron ore pellets are transported via railroads to loading ports for shipment via vessel to steelmakers in North America or into the international seaborne market via the St. Lawrence Seaway.

During 2011, 2010 and 2009, we sold 24.2 million, 23.0 million and 13.7 million tons of iron ore pellets, respectively, from our U.S. Iron Ore mines. The segment's five largest customers together accounted for a total of 83 percent, 91 percent and 92 percent of U.S. Iron Ore product revenues for the years 2011, 2010 and 2009, respectively.

At the end of 2011, our U.S. Iron Ore mines had proven and probable mineral reserves totaling approximately 805 million tons.

S-2

TABLE OF CONTENTS

Eastern Canadian Iron Ore

The production from our Eastern Canadian Iron Ore business is sold into the seaborne market. The two Canadian-based mines have a total annual rated capacity of 12.8 million tons of production, comprised of 7.2 million tons of iron ore concentrate and 5.6 million tons of iron ore pellets.

Our Eastern Canadian Iron Ore revenues are derived from sales of iron ore concentrate and iron ore pellets to customers in Asia, Europe and North America. Sales volume under the agreements is dependent on customer requirements. We have one major customer for iron ore concentrate and various customers for our iron ore pellets, none of which is considered individually significant. Pricing for our Eastern Canadian Iron Ore customers consists of a mix of multi-year and short-term pricing arrangements that are linked to the spot market. The arrangements primarily use short-term pricing mechanisms of various durations based on spot prices.

Both of our Eastern Canadian Iron Ore mines are located near the St. Lawrence Seaway. Our iron ore products are transported via railroads to loading ports for shipment via vessel to steelmakers in North America or into the international seaborne market.

During 2011, 2010 and 2009, we sold 7.4 million, 3.3 million and 2.7 million metric tons of iron ore pellets and concentrate, respectively, from our Eastern Canadian Iron Ore mines, with the segment's five largest customers together accounting for a total of 59 percent, 67 percent and 82 percent of Eastern Canadian Iron Ore product revenues for the years 2011, 2010 and 2009, respectively.

At the end of 2011, our Eastern Canadian Iron Ore mines had proven and probable mineral reserves totaling approximately 430 million tons.

North American Coal

We are a leading supplier of metallurgical coal in North America. As of December 31, 2011, we own and operate five metallurgical coal mines located in West Virginia and Alabama and one thermal coal mine located in West Virginia that currently have a rated capacity of 9.4 million tons of production annually.

These coals generally sell at a premium over the more prevalently mined thermal coal, which is generally used to generate electricity. Metallurgical coal receives this premium because of its coking characteristics, which include expansion and contraction when heated, and volatility, which refers to the loss in mass when coal is heated in the absence of air. Coals with lower volatility produce more efficient coke for steelmaking and are more highly valued than coals with a higher volatility, all else being equal.

Each of our North American coal mines is positioned near rail or barge lines providing access to international shipping ports, which allows for export of our coal production. International and North American sales represented 54 percent and 46 percent, respectively, of our North American Coal sales in 2011.

In 2011, we sold a total of 4.2 million tons, compared with 3.3 million tons in 2010 and 1.9 million tons in 2009.

At the end of 2011, we estimate a total of approximately 163 million tons of total proven and probable recoverable reserves of metallurgical coal and, further, we estimate a total of approximately 51 million tons of proven and probable recoverable reserves of thermal coal.

Asia Pacific Iron Ore

Our Asia Pacific Iron Ore operations are located in Western Australia and include our wholly owned Koolyanobbing complex. We serve the Asian iron ore markets with direct-shipping fines and lump ore. Our mining complex has an annual rated capacity of 11.0 million tons of lump and fines iron ore production.

Asia Pacific Iron Ore has three-year term supply agreements with steel producers in China and five-year supply agreements in Japan for the sale of production from its Koolyanobbing operations. The agreements with steel producers in China and Japan accounted for approximately 90 percent and 10 percent, respectively, of sales volume for the nine months ended September 30, 2012. Sales volume under the agreements partially is dependent on customer requirements. Pricing for our Asia Pacific Iron Ore customers consists of short-term

S-3

TABLE OF CONTENTS

pricing mechanisms of various durations based on the average daily spot prices, with certain pricing mechanisms that have a duration of up to a quarter.

During 2011, 2010 and 2009, we sold 8.6 million, 9.3 million and 8.5 million metric tons of iron ore, respectively, from our Western Australia mines. No customer comprised more than 10 percent of our consolidated sales in 2011, 2010 or 2009. Asia Pacific Iron Ore's five largest customers accounted for approximately 50 percent of the segment's sales in 2011, 36 percent in 2010 and 39 percent in 2009.

Our direct lump and fines shipping product is transported from Koolyanobbing by rail approximately 360 miles south to the Port of Esperance, via Kalgoorlie, for shipment to our customers in Asia.

At the end of 2011, we had approximately 90 million metric tons of proven and probable reserves in our Asia Pacific Iron Ore business.

Investments

In addition to our reportable business segments, we are partner to a number of projects, including Amapá in Brazil, which comprises our Latin American Iron Ore operating segment.

We are a 30 percent minority interest owner in Amapá, which consists of an iron ore deposit, a 120-mile railway connecting the mine location to an existing port facility and 71 hectares of real estate on the banks of the Amazon River, reserved for a loading terminal. Amapá initiated production in late December 2007. The remaining 70 percent of Amapá is owned by Anglo American plc, which is actively marketing its ownership share of this project.

During 2011, Amapá's annual production totaled 4.8 million metric tons of iron ore fines products, compared with 4.0 million metric tons and 2.7 million metric tons in 2010 and 2009, respectively. Anglo has indicated that it expects Amapá will produce 5.9 million metric tons and sell 5.8 million metric tons of iron ore fines products in 2012 and 6.1 million metric tons annually once fully operational, which is expected to occur in 2013, based on current capital expenditure levels.

We previously owned a 45 percent economic interest in Sonoma, located in Queensland, Australia, which we sold, along with our ownership of the affiliated washplant, for approximately AUD \$141 million in the fourth quarter of 2012.

Growth Strategy and Recent Developments

Growth Strategy

In 2011, we continued to increase our operating scale and presence as an international mining and natural resources company by maintaining our focus on integration and execution, including the integration of our acquisition of Consolidated Thompson Iron Mining Limited, or Consolidated Thompson (now known as Cliffs Quebec Iron Mining Limited). In addition, we have a number of capital projects underway in all of our reportable business segments. We believe these projects will continue to improve our operational performance, diversify our customer base and extend the reserve life of our portfolio of assets, all of which are necessary to sustain continued growth. As we continue to successfully grow our core mining businesses, we center our decision-making on areas that will allow our management focus and allocation of capital resources to be deployed where we believe we can have the most impact

for our stakeholders. Throughout 2011 and 2012, we also reinforced our global reorganization, as our leadership moved to an integrated global management structure.

Specifically, we continued our strategic growth as an international mining and natural resources company through the following transactions in 2011:

Cliffs Chromite Project. In February 2011, we released preliminary project information for potential development of our Black Thor chromite deposit in the McFaulds Lake area of Northern Ontario. This project involves developing a world-class chromite deposit, the largest known in North America, located in one of the most remote areas of Ontario, the Far North. To date, exploration has consisted of geophysics and extensive diamond drilling to delineate and quantify the Black Thor chromite zone. The released project information presented a base case reflecting one set of realistic options for the major inter-related components of the

S-4

TABLE OF CONTENTS

project, from mining of the chromite ore to ferrochrome production. A pre-feasibility study was completed in the first half of 2012 and work immediately began on the feasibility study stage of the project. During the course of feasibility and detailed design studies, other viable options may be identified and considered.

Consolidated Thompson. In May 2011, we acquired all of the outstanding common shares of Consolidated Thompson for C\$17.25 per share in an all-cash transaction including net debt. The acquisition reflects our strategy to build scale by owning expandable and exportable steelmaking raw material assets serving international markets. The properties acquired through the acquisition are in proximity to our existing Canadian operations and will allow us to leverage our port facilities and supply the iron ore produced to the seaborne market. The acquisition also is expected to further diversify our existing customer base. Approval for capital investments totaling over \$1.3 billion over the 2011 to 2016 timeframe has been obtained from our Board of Directors for the expansion of the Bloom Lake mine and related processing capabilities in order to ramp-up production capacity from 7.2 million to 14.5 million metric tons of iron ore concentrate per year. The approved capital investments also include common infrastructure necessary to support the mine's future production levels.

Recent Developments

In November 2012, we announced a decision to delay portions of our Bloom Lake Mine Phase II expansion in Quebec and idle a portion of our production at two of our U.S. iron ore operations, Northshore Mining in Minnesota and Empire Mine in Michigan. At our Bloom Lake Mine in Eastern Canada, we are suspending certain components of the Phase II expansion, including the completion of the concentrator and load out facility. Depending on market conditions, we expect to complete Phase II construction in early 2014. In addition, effective January 5, 2013, we expect to idle two of the four production lines at Northshore Mining in Minnesota. We will also temporarily idle production at our Empire Mine in Michigan beginning in the second quarter of 2013 in the form of an extended summer shutdown.

We are adjusting our 2013 operating plans for our North American iron ore businesses to align with expected sales volumes. These production decreases are driven by increased iron ore pricing volatility and lower North American steelmaking utilization rates. The delay of Bloom Lake's Phase II construction decreases our expected Eastern Canadian Iron Ore 2013 sales volumes to 9 – 10 million tons from the previous expectation of 13 – 14 million tons. In 2013, we expect to achieve an annualized run rate of approximately 7 million tons for Bloom Lake's Phase I facility. Full-year 2013 expected sales volumes for U.S. Iron Ore remain unchanged at 19 – 20 million tons. We continue to work through our 2013 consolidated business plan and our preliminary 2013 capital expenditures are estimated to be approximately \$700 – \$800 million.

Corporate Information

Our principal executive offices are located at 200 Public Square, Suite 3300, Cleveland, Ohio 44114. Our main telephone number is (216) 694-5700, and our website address is www.cliffsnaturalresources.com. The information contained on or accessible through our website is not part of this prospectus supplement, other than the documents that we file with the SEC that are incorporated by reference in this prospectus supplement or the accompanying prospectus.

TABLE OF CONTENTS

The Offering

The following summary contains basic information about the notes and is not intended to be complete. It does not contain all of the information that is important to you. For a more detailed description of the notes, please refer to the section entitled "Description of the Notes" in this prospectus supplement and the section entitled "Description of Debt Securities" in the accompanying prospectus.

Issuer

Cliffs Natural Resources Inc.

Notes offered

\$ aggregate principal amount of notes.

Maturity

The notes will mature on , 20 .

Interest rate

The notes will bear interest at percent per year.

The interest rate payable on the notes will be subject to adjustment from time to time if the rating assigned to the notes is downgraded (or subsequently upgraded) under the circumstances described under the heading "Description of the Notes - Interest Rate Adjustment Based on Rating Events."

Interest payment dates

The notes will pay interest on and of each year, commencing on , 2013.

Ranking

The notes will be our senior unsecured obligations and will rank equally with all of our other senior unsecured indebtedness, including all other unsubordinated debt securities issued under the indenture, from time to time outstanding. The indenture does not restrict the issuance by us or our subsidiaries of senior unsecured indebtedness. See "Description of the Notes."

Form and denomination

The notes will be issued in fully registered form in denominations of \$2,000 or integral multiples of \$1,000 in excess thereof.

Further issuances

We may create and issue further notes ranking equally and ratably with the notes offered by this prospectus supplement in all respects, so that such further notes will be consolidated and form a single series with the notes offered by this prospectus supplement and will have the same terms as to status, redemption or otherwise.

Optional redemption

We may redeem the notes, in whole or in part, at any time and from time to time, as described under the heading "Description of the Notes - Optional Redemption."

Offer to repurchase upon change of control triggering event

If we experience a Change of Control Triggering Event (as defined herein), we will be required, unless we have already exercised our option to redeem the notes, to offer to purchase the notes at a purchase price equal to 101 percent of their principal amount, plus accrued and unpaid interest, if any, to the date of purchase. See "Description of the Notes - Change of Control Triggering Event."

Certain covenants

The indenture governing the notes contains covenants that restrict our ability, with certain exceptions, to:

incur debt secured by liens; and

engage in sale and leaseback transactions.
See Description of the Notes Certain Covenants.

S-6

TABLE OF CONTENTS

DTC eligibility

The notes will be represented by global certificates deposited with, or on behalf of, The Depository Trust Company, which we refer to as DTC, or its nominee. See Description of the Notes Book-Entry Delivery and Settlement.

Same-day settlement

Beneficial interests in the notes will trade in DTC's same-day funds settlement system until maturity. Therefore, secondary market trading activity in such interests will be settled in immediately available funds.

Use of proceeds

We expect to receive net proceeds, after deducting underwriting discounts but before deducting other offering expenses, of approximately \$ million from this offering. We intend to use a portion of the net proceeds from this offering to repay all of our senior notes due 2013 and senior notes due 2015. We intend to use the remaining net proceeds from this offering for general corporate purposes, including the repayment of borrowings outstanding under our term loan facility and our revolving credit facility. See Use of Proceeds.

No listing of the notes

We do not intend to apply to list the notes on any securities exchange or to have the notes quoted on any automated quotation system.

Governing law

The notes will be, and the indenture is, governed by the laws of the State of New York.

Risk factors

Investing in the notes involves risk. See Risk Factors on page S-10 of this prospectus supplement, in the accompanying prospectus and the documents incorporated by reference herein or therein for a discussion of certain risks you should consider in connection with an investment in the notes.

Trustee, registrar and paying agent

U.S. Bank National Association.

S-7

TABLE OF CONTENTS**Summary Consolidated Financial Data**

The table below sets forth a summary of our financial and other statistical data for the periods presented. We derived the financial data as of and for the years ended December 31, 2011, 2010 and 2009 from our audited consolidated financial statements, which have been reclassified to reflect our investment in Sonoma as a discontinued operation.

The financial data and other statistical data as of and for the nine months ended September 30, 2012 and 2011 are derived from our unaudited financial statements. The interim unaudited financial data have been prepared on the same basis as the audited financial data and include, in the opinion of management, all adjustments, consisting of normal and recurring adjustments, necessary to present fairly the data for such periods and may not necessarily be indicative of full-year results. Summary financial and other statistical data should be read in conjunction with our consolidated financial statements, the related notes and other financial information incorporated by reference into this prospectus supplement.

	Year Ended December 31,			Nine Months Ended September 30,	
	2011 ⁽¹⁾	2010 ⁽²⁾	2009	2012	2011
Financial data (in millions, except per share amounts) ⁽³⁾					
Revenue from product sales and services	\$6,563.9	\$4,483.8	\$2,197.4	\$4,336.8	\$4,960.2
Cost of goods sold and operating expenses	(3,953.0)	(3,025.1)	(1,907.3)	(3,403.2)	(2,829.4)
Other operating expense ⁽⁴⁾	(314.1)	(225.9)	(70.8)	(272.3)	(185.4)
Operating income	2,296.8	1,232.8	219.3	661.3	1,945.4
Income from continuing operations ⁽⁵⁾	1,792.5	997.4	198.3	739.1	1,600.0
Income from discontinued operations	20.1	22.5	6.8	5.1	3.7
Net income	1,812.6	1,019.9	205.1	744.2	1,603.7
Less: Net income (loss) attributable to noncontrolling interest	193.5			25.2	170.1
Net income attributable to Cliffs shareholders	1,619.1	1,019.9	205.1	719.0	1,433.6
Total assets	14,541.7	7,778.2	4,639.3	15,296.8	13,945.3
Long-term obligations	3,821.5	1,881.3	644.3	3,755.8	4,148.7
Net cash from operating activities	2,288.8	1,320.0	185.7	275.5	1,545.7
Distributions to common shareholders cash dividends ⁽⁶⁾	118.9	68.9	31.9	217.8	78.8
Repurchases of common shares	289.8				221.9
Iron ore and coal production and sales statistics (tons in millions U.S. iron ore and North American coal; metric tons in millions Asia Pacific iron ore and Eastern Canadian iron ore)					
Production tonnage U.S. iron ore	31.0	28.1	16.9	21.3	23.1
Eastern Canadian iron ore	6.9	3.9	2.7	6.2	5.2
North American coal	5.0	3.2	1.7	4.5	3.4
Asia Pacific iron ore	8.9	9.3	8.3	8.0	6.8
Production tonnage (Cliffs share) U.S. iron ore	23.7	21.5	15.0	15.7	17.6

Edgar Filing: CLIFFS NATURAL RESOURCES INC. - Form 424B5

Sales tonnage	U.S. iron ore	24.2	23.0	13.7	15.4	16.5
	Eastern Canadian iron ore	7.4	3.3	2.7	6.6	5.5
	North American coal	4.2	3.3	1.9	4.6	3.2
	Asia Pacific iron ore	8.6	9.3	8.5	8.8	6.8

On May 12, 2011, we completed our acquisition of Consolidated Thompson by acquiring all of the outstanding (1) common shares of Consolidated Thompson for C\$17.25 per share in an all-cash transaction including net debt.

Results for 2011 include the results for Consolidated Thompson since the acquisition date.

S-8

TABLE OF CONTENTS

- On January 27, 2010, we acquired all of the remaining outstanding shares of Freewest Resources Canada Inc., which we refer to as Freewest (now known as Cliffs Chromite Ontario Inc.), including its interest in the Black Thor, Black Label and Big Daddy chromite deposits in Northern Ontario, Canada. On February 1, 2010, we acquired entities from our former partners that held their respective interests in our Wabush Mines Joint Venture, which we refer to as Wabush, thereby increasing our ownership interest from 26.8 percent to 100 percent. On July 30, 2010, we acquired all of the coal operations of privately-owned INR Energy, LLC, which we refer to as INR, and since that date, the operations acquired from INR have been conducted through our wholly owned subsidiary Cliffs Logan County Coal LLC, which we refer to as CLCC. Results for 2010 include Freewest's, Wabush's and CLCC's results since the respective acquisition dates. As a result of acquiring the remaining ownership interest in Freewest and Wabush, our 2010 results were impacted by realized gains of \$38.6 million primarily related to the increase in fair value of our previous ownership interest in each investment held prior to the business acquisition. On July 10, 2012, we entered into a definitive share and asset sale agreement to sell our 45 percent economic interest in the Sonoma joint venture coal mine located in Queensland, Australia. The assets to be sold include our interest in the Sonoma mine along with our ownership of the affiliated washplant. On September 27, 2011, we announced our plans to cease and dispose of the operations at the renewaFUEL, LLC, which we refer to as renewaFUEL (now known as Cliffs Michigan Biomass, LLC), biomass production facility in Michigan. On January 4, 2012, we entered into an agreement to sell the renewaFUEL assets to RNFL Acquisition LLC. The results of operations of the Sonoma and renewaFUEL operations are reflected in the consolidated financial statements for all periods presented as discontinued operations in the *Income from discontinued operations* line item above.
- (4) In the fourth quarter of 2011, a goodwill impairment charge of \$27.8 million was recorded for our CLCC reporting unit, within the North American Coal operating segment.
- In December 2010, we completed a legal entity restructuring that resulted in a change to deferred tax liabilities of \$78.0 million on certain foreign investments to a deferred tax asset of \$9.4 million for tax basis in excess of book basis on foreign investments as of December 31, 2010. A valuation allowance of \$9.4 million was recorded against this asset due to the uncertainty of realization. The deferred tax changes were recognized as a reduction to our income tax provision in 2010.
- (5) On May 12, 2009, our Board of Directors enacted a 55 percent reduction in our quarterly common share dividend to \$0.04 from \$0.0875 for the second and third quarters of 2009 in order to enhance financial flexibility. The \$0.04 common share dividends were paid on June 1, 2009 and September 1, 2009 to shareholders of record as of May 22, 2009 and August 14, 2009, respectively. In the fourth quarter of 2009, the dividend was reinstated to its previous level. On May 11, 2010, our Board of Directors increased our quarterly common share dividend from \$0.0875 to \$0.14 per share. The increased cash dividend was paid on June 1, 2010, September 1, 2010 and December 1, 2010 to shareholders on record as of May 14, 2010, August 13, 2010 and November 19, 2010, respectively. In addition, the increased cash dividend was paid on March 1, 2011 and June 1, 2011 to shareholders on record as of February 15, 2011 and April 29, 2011, respectively. On July 12, 2011, our Board of Directors increased the quarterly common share dividend by 100 percent to \$0.28 per share. The increased cash dividend was paid on September 1, 2011 and December 1, 2011 to shareholders on record as of the close of business on August 15, 2011 and November 18, 2011, respectively. Additionally, the increased cash dividend was paid on March 1, 2012 to shareholders of record as of the close of business on February 15, 2012. On March 13, 2012, our Board of Directors increased the quarterly common share dividend by 123 percent to \$0.625 per share. The increased cash dividend was paid on June 1, 2012 and August 31, 2012 to shareholders of record as of the close of business on April 27, 2012 and August 15, 2012, respectively.

S-9

TABLE OF CONTENTS

RISK FACTORS

An investment in the notes involves risk. Prior to making a decision about investing in our notes, and in consultation with your own financial and legal advisors, you should carefully consider the following risk factors, as well as the risk factors discussed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2012, June 30, 2012 and September 30, 2012, which are incorporated herein by reference. You should also refer to the other information in this prospectus supplement and the accompanying prospectus, including our consolidated financial statements and the related notes incorporated by reference in this prospectus supplement. Additional risks and uncertainties that are not yet identified may also materially harm our business, operating results and financial condition.

Risks Related to this Offering and the Notes

The notes are subject to prior claims of any secured creditors and the creditors of our subsidiaries, and if a default occurs we may not have sufficient funds to fulfill our obligations under the notes.

The notes are our unsecured general obligations, ranking equally with our other senior unsecured indebtedness and liabilities but effectively junior to any secured indebtedness and effectively subordinated to the debt and other liabilities of our subsidiaries. The indenture governing the notes permits us and our subsidiaries to incur secured debt under specified circumstances. If we incur any secured debt, our assets and the assets of our subsidiaries will be subject to prior claims by our secured creditors. In the event of our bankruptcy, liquidation, reorganization or other winding up, assets that secure debt will be available to pay obligations on the notes only after all debt secured by those assets has been repaid in full. Holders of the notes will participate in our remaining assets ratably with all of our unsecured and unsubordinated creditors, including our trade creditors.

If we incur any additional obligations that rank equally with the notes, including trade payables, the holders of those obligations will be entitled to share ratably with the holders of the notes in any proceeds distributed upon our insolvency, liquidation, reorganization, dissolution or other winding up. This may have the effect of reducing the amount of proceeds paid to you. If there are not sufficient assets remaining to pay all of these creditors, all or a portion of the notes then outstanding would remain unpaid.

The indenture does not limit the amount of indebtedness that we and our subsidiaries may incur.

The indenture under which the notes will be issued does not limit the amount of indebtedness that we and our subsidiaries may incur. The indenture does not contain any financial covenants or other provisions that would afford the holders of the notes any substantial protection in the event we participate in a highly leveraged transaction.

Our existing and future indebtedness may limit cash flow available to invest in the ongoing needs of our business, which could prevent us from fulfilling our obligations under the notes.

After giving effect to this notes offering and the use of net proceeds therefrom, our total indebtedness at September 30, 2012 would have been approximately \$. Additionally, we have the ability under our existing credit facility to incur substantial additional indebtedness in the future. Our level of indebtedness could have important consequences to you. For example, it could:

require us to dedicate a substantial portion of our cash flow from operations to the payment of debt service, reducing the availability of our cash flow to fund working capital, capital expenditures, acquisitions and other general corporate purposes;

increase our vulnerability to adverse economic or industry conditions;

limit our ability to obtain additional financing in the future to enable us to react to changes in our business; or

place us at a competitive disadvantage compared to businesses in our industry that have less indebtedness.

Additionally, any failure to comply with covenants in the instruments governing our debt could result in an event of default which, if not cured or waived, would have a material adverse effect on us.

S-10

TABLE OF CONTENTS

Changes in credit ratings issued by nationally recognized statistical rating organizations could adversely affect our cost of financing and the market price of our securities.

Credit rating agencies could downgrade our ratings (which are currently just above so-called investment grade levels, with two credit rating agencies having placed our current credit rating on negative outlook) either due to factors specific to our business, a prolonged cyclical downturn in the mining industry, or macroeconomic trends (such as global or regional recessions) and trends in credit and capital markets more generally. The interest rate payable on the notes is subject to adjustment in the event of a change in the credit ratings on the notes. Any decline in our credit ratings, including a loss of investment grade status, would likely result in an increase to our cost of financing, including resulting in an increase of the interest rate applicable to the notes, limit our access to the capital markets, significantly harm our financial condition and results of operations, hinder our ability to refinance existing indebtedness on acceptable terms and have an adverse effect on the market price of our securities.

To service our indebtedness, we will require a significant amount of cash. Our ability to generate cash depends on many factors beyond our control. We also depend on the business of our subsidiaries to satisfy our cash needs. If we cannot generate the required cash, we may not be able to make the necessary payments under the notes.

Our ability to make payments on our indebtedness, including the notes, and to fund planned capital expenditures will depend on our ability to generate cash in the future. Our ability to generate cash, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

A significant portion of our operations is conducted through our subsidiaries. As a result, our ability to service our debts, including our obligations under the notes and other obligations, is dependent to some extent on the earnings of our subsidiaries and the payment of those earnings to us in the form of dividends, loans or advances and through repayment of loans or advances from us. Our subsidiaries are separate and distinct legal entities. Our subsidiaries have no obligation to pay any amounts due on the notes or to provide us with funds to meet our payment obligations on the notes, whether in the form of dividends, distributions, loans or other payments. In addition, any payment of dividends, loans or advances by our subsidiaries could be subject to statutory or contractual restrictions. Payments to us by our subsidiaries will also be contingent upon our subsidiaries' earnings and business considerations. Our right to receive any assets of any of our subsidiaries upon their liquidation or reorganization, and therefore the right of the holders of the notes to participate in those assets, will be effectively subordinated to the claims of that subsidiary's creditors, including trade creditors. In addition, even if we are a creditor of any of our subsidiaries, our rights as a creditor would be subordinate to any security interest in the assets of our subsidiaries and any indebtedness of our subsidiaries senior to that held by us. Finally, changes in the laws of foreign jurisdictions in which we operate may adversely affect the ability of some of our foreign subsidiaries to repatriate funds to us.

Additionally, our historical financial results have been, and we anticipate that our future financial results will be, subject to fluctuations. We cannot assure you that our business will generate sufficient cash flow from our operations or that future borrowings will be available to us in an amount sufficient to enable us to pay our indebtedness, including the notes, or to fund our other liquidity needs and make necessary capital expenditures.

An active trading market for the notes may not develop.

There is no existing market for the notes and we do not intend to apply for listing of the notes on any securities exchange or any automated quotation system. Accordingly, there can be no assurance that a trading market for the notes will ever develop or will be maintained. Further, there can be no assurance as to the liquidity of any market that may develop for the notes, your ability to sell your notes or the price at which you will be able to sell your notes.

Future trading prices of the notes will depend on many factors, including prevailing interest rates, our financial condition and results of operations, the then-current ratings assigned to the notes and the market for similar debt securities. Any trading market that develops would be affected by many factors independent of and in addition to the foregoing, including:

the time remaining to the maturity of the notes;

S-11

TABLE OF CONTENTS

the outstanding amount of the notes;
the terms related to optional redemption of the notes; and
the level, direction and volatility of market interest rates generally.

The underwriters have advised us that they currently intend to make a market in the notes, but they are not obligated to do so and may cease market-making at any time in their sole discretion without notice.

S-12

TABLE OF CONTENTS**RATIO OF EARNINGS TO FIXED CHARGES**

The following table sets forth our ratio of consolidated earnings to fixed charges for the periods presented:

	Nine Months ended September 30, 2012	Year ended December 31,				
		2011	2010	2009	2008	2007
Ratio of Earnings to Fixed Charges	4.8x	11.0x	18.2x	5.9x	14.3x	11.5x

Fixed charges represent interest expense, capitalized interest, acceleration of debt issuance costs and the interest portion of rental expense. Earnings represent the consolidated pretax income from continuing operations before extraordinary items (excluding undistributed earnings of non-consolidated affiliates), net adjustments for capitalized interest and fixed charges deducted from earnings.

S-13

TABLE OF CONTENTS

USE OF PROCEEDS

We expect to receive net proceeds, after deducting underwriting discounts but before deducting other offering expenses, of approximately \$ million from this offering. We intend to use a portion of the net proceeds from this offering to repurchase all of our 6.31 percent Private Placement Senior Notes (Tranche A) due 2013, which we refer as our 2013 senior notes, and 6.59 percent Private Placement Senior Notes (Tranche B) due 2015, which we refer as our 2015 senior notes. We intend to use the remaining net proceeds from this offering for general corporate purposes, including the repayment of borrowings outstanding under our term loan facility and our revolving credit facility.

As of September 30, 2012, \$270.0 million and \$55.0 million aggregate principal amount of our 2013 senior notes and 2015 senior notes, respectively, were outstanding. Also as of September 30, 2012, \$922.1 million and \$250.0 million, respectively, were outstanding under our term loan facility and our revolving credit facility. Borrowings under our term loan facility and revolving credit facility, which mature on May 10, 2016 and October 16, 2017, respectively, bear interest at a floating rate based upon a negotiated base rate or the LIBOR rate plus a margin based on our leverage ratio.

Pending final use, we may invest the net proceeds from this offering in short-term, investment grade, interest-bearing securities.

S-14

TABLE OF CONTENTS**CAPITALIZATION**

The following table sets forth our cash and cash equivalents and consolidated capitalization as of September 30, 2012:

on a historical basis; and
as adjusted to give effect to this offering and the use of the net proceeds therefrom as described under Use of Proceeds.

You should read this table in conjunction with our consolidated financial statements, the related notes and other financial information contained in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2012, which is incorporated by reference in this prospectus supplement, as well as the other financial information incorporated by reference in this prospectus supplement and the accompanying prospectus.

(In millions)	As of September 30, 2012	
	Actual	As adjusted
Cash and cash equivalents	\$ 36.3	\$
Capitalization:		
Long-term debt (including current portion)		
Revolving portion of credit facility ⁽¹⁾	\$ 250.0	\$ 250.0
Term loan	922.1	922.1
2013 senior notes	270.0	
2015 senior notes	55.0	
5.90% senior notes due 2020	398.2	398.2
4.80% senior notes due 2020	499.1	499.1
4.875% senior notes due 2021	699.4	699.4
6.25% senior notes due 2040	790.2	790.2
% senior notes offered hereby		
Total long-term debt (including current portion)	3,884.0	
Total Cliffs common shareholders' equity	\$ 6,336.8	\$ 6,336.8
Total capitalization	\$ 10,220.8	\$

As of September 30, 2012, \$250.0 million was outstanding under the revolving credit facility and the principal (1) amount of letter of credit obligations totaled \$23.1 million, thereby reducing available borrowing capacity to \$1.48 billion.

S-15

TABLE OF CONTENTS

DESCRIPTION OF THE NOTES

The notes (as defined herein) will constitute a series of debt securities to be issued under the indenture dated as of March 17, 2010 (the base indenture) between us and U.S. Bank National Association, as trustee (the trustee), as supplemented by a sixth supplemental indenture to be dated as of , 2012 (the sixth supplemental indenture and, in such case, together with the base indenture, the indenture). The following description is only a summary of the material provisions of the notes and the indenture. You should read these documents in their entirety because they, and not this description, define your rights as holders of the notes. The following summary does not purport to be complete and is subject to, and is qualified in its entirety by reference to, the Trust Indenture Act of 1939 (the TIA), and to all of the provisions of the indenture and those terms made a part of the indenture by reference to the TIA. Unless the context requires otherwise, all references to we, us, our, and Cliffs in this section refer solely to Cliffs Natural Resources Inc. and not to its subsidiaries.

The following description of the particular terms of the notes offered hereby supplements the general description of debt securities set forth in the accompanying prospectus.

General

The notes will be issued in an initial aggregate principal amount of \$ and will mature on , 20 (the notes). The notes will be issued only in fully registered form without coupons in minimum denominations of \$2,000 and integral multiples of \$1,000 above that amount. The notes will not be entitled to any sinking fund.

Interest will accrue on the notes at the rate per annum shown on the cover of this prospectus supplement from , 2012, or from the most recent date to which interest has been paid or provided for, payable semi-annually on and of each year, beginning on , 2013 to the persons in whose names the notes are registered in the security register at the close of business on the or preceding the relevant interest payment date, except that interest payable at maturity shall be paid to the same persons to whom principal of the notes is payable. Interest will be computed on the notes on the basis of a 360-day year of twelve 30-day months.

The indenture does not limit the amount of notes that we may issue. We may from time to time, without notice to or the consent of the registered holders of the notes, create and issue additional notes ranking equally and ratably with the notes being issued in this offering in all respects (other than the issue price, the date of issuance, the payment of interest accruing prior to the issue date of such additional notes and the first payment of interest following the issue date of such additional notes), provided that such notes must be part of the same issue as the notes being issued in this offering for U.S. federal income tax purposes. Any such additional notes shall be consolidated and form a single series with the notes being issued in this offering, including for purposes of voting and redemptions.

The indenture does not limit our ability, or the ability of our subsidiaries, to incur additional indebtedness. The indenture and the terms of the notes will not contain any covenants (other than those described herein) designed to afford holders of the notes protection in a highly leveraged or other transaction involving us that may adversely affect holders of the notes.

There are no public trading markets for the notes, and we do not intend to apply for listing of the notes on any national securities exchange or for quotation of the notes on any automated dealer quotation system.

Interest Rate Adjustment Based on Rating Events

The interest rate payable on the notes will be subject to adjustments from time to time if either Moody's or S&P or, in either case, any Substitute Rating Agency thereof downgrades (or subsequently upgrades) the debt rating assigned to the notes, in the manner described below.

If the rating from Moody's (or any Substitute Rating Agency thereof) of the notes is decreased to a rating set forth in the immediately following table, the interest rate on the notes will increase such that it will equal the interest rate payable on the notes on the date of the initial issuance of notes plus the percentage set forth opposite the ratings from the table below:

S-16

TABLE OF CONTENTS

Moody's Rating*	Percentage
Ba1	0.25 %
Ba2	0.50 %
Ba3	0.75 %
B1 or below	1.00 %

*Including the equivalent ratings of any Substitute Rating Agency.

If the rating from S&P (or any Substitute Rating Agency thereof) of the notes is decreased to a rating set forth in the immediately following table, the interest rate on the notes will increase such that it will equal the interest rate payable on the notes on the date of the initial issuance of notes plus the percentage set forth opposite the ratings from the table below:

S&P's Rating*	Percentage
BB+	0.25 %
BB	0.50 %
BB-	0.75 %
B+ or below	1.00 %

*Including the equivalent ratings of any Substitute Rating Agency.

If at any time the interest rate on the notes has been adjusted upward and either Moody's or S&P (or, in either case, a Substitute Rating Agency thereof), as the case may be, subsequently increases its rating of the notes to any of the threshold ratings set forth above, the interest rate on the notes will be decreased such that the interest rate for the notes equals the interest rate payable on the notes on the date of the initial issuance of notes plus the percentages set forth opposite the ratings from the tables above in effect immediately following the increase. If Moody's (or any Substitute Rating Agency thereof) subsequently increases its rating of the notes to Baa3 (or its equivalent, in the case of a Substitute Rating Agency) or higher, and S&P (or any Substitute Rating Agency thereof) increases its rating to BBB- (or its equivalent, in the case of a Substitute Rating Agency) or higher, the interest rate on the notes will be decreased to the interest rate payable on the notes on the date of the initial issuance of notes. In addition, the interest rates on the notes will permanently cease to be subject to any adjustment described above (notwithstanding any subsequent decrease in the ratings by either or both rating agencies) if the notes become rated A3 and A- (or the equivalent of either such rating, in the case of a Substitute Rating Agency) or higher by Moody's and S&P (or, in either case, a Substitute Rating Agency thereof), respectively (or one of these ratings if the notes are only rated by one rating agency).

Each adjustment required by any decrease or increase in a rating set forth above, whether occasioned by the action of Moody's or S&P (or, in either case, a Substitute Rating Agency thereof), shall be made independent of any and all other adjustments. In no event shall (1) the interest rate for the notes be reduced to below the interest rate payable on the notes on the date of the initial issuance of notes or (2) the total increase in the interest rate on the notes exceed 2.00% above the interest rate payable on the notes on the date of the initial issuance of notes.

No adjustments in the interest rate of the notes shall be made solely as a result of a rating agency ceasing to provide a rating of such notes. If at any time fewer than two rating agencies provide a rating of the notes for a reason beyond our control, we will use our commercially reasonable efforts to obtain a rating of such notes from a Substitute Rating Agency, to the extent one exists, and if a Substitute Rating Agency exists, for purposes of determining any increase or decrease in the interest rate on the notes pursuant to the tables above (a) such Substitute Rating Agency will be substituted for the last rating agency to provide a rating of such notes but which has since ceased to provide such

rating, (b) the relative rating scale used by such Substitute Rating Agency to assign ratings to senior unsecured debt will be determined in good faith by an independent investment banking institution of national standing appointed by us and, for purposes of determining the applicable ratings included in the applicable table above with respect to such

Substitute Rating Agency, such ratings will be deemed to be the equivalent ratings used by Moody's or S&P, as applicable, in such table and (c) the interest rate on the notes will increase or decrease, as the case may be, such that the interest rate equals the interest rate payable on the notes on the date of the initial issuance of notes plus the appropriate

S-17

TABLE OF CONTENTS

percentage, if any, set forth opposite the rating from such Substitute Rating Agency in the applicable table above (taking into account the provisions of clause (b) above) (plus any applicable percentage resulting from a decreased rating by the other rating agency). For so long as only one rating agency provides a rating of the notes, any subsequent increase or decrease in the interest rate of such notes necessitated by a reduction or increase in the rating by the agency providing the rating shall be twice the percentage set forth in the applicable table above. For so long as none of Moody's, S&P or a Substitute Rating Agency provides a rating of the notes, the interest rate on the notes will increase to, or remain at, as the case may be, 2.00% above the interest rate payable on the notes on the date of the initial issuance of notes.

Any interest rate increase or decrease described above will take effect from the first day of the interest period during which a rating change requires an adjustment in the interest rate. If Moody's or S&P (or, in either case, a Substitute Rating Agency thereof) changes its rating of the notes more than once during any particular interest period, the last change by such agency will control for purposes of any interest rate increase or decrease with respect to the notes described above relating to such rating agency's action.

If the interest rate payable on the notes is increased as described above the term "interest," as used with respect to the notes, will be deemed to include any such additional interest unless the context otherwise requires.

Moody's means Moody's Investors Service, Inc., a subsidiary of Moody's Corporation, and its successors.

S&P means Standard & Poor's Ratings Services, a division of Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., and its successors.

Substitute Rating Agency means a nationally recognized statistical rating organization within the meaning of Section 3(a)(62) of the Exchange Act, as amended, selected by us (as certified by a certificate of officers confirming the decision of our Board of Directors) as a replacement agency for Moody's or S&P, or both of them, as the case may be.

Ranking

The notes will be our senior unsecured obligations and will rank equally in right of payment with any of our existing and future unsecured and unsubordinated indebtedness. The notes will be effectively subordinated to any of our future secured indebtedness to the extent of the value of the assets securing such indebtedness and effectively junior to liabilities of our subsidiaries. As of September 30, 2012, the aggregate principal amount of our indebtedness was approximately \$3,884.0 million.

The notes will not be guaranteed by any of our subsidiaries and will therefore be structurally subordinated to all existing and future indebtedness and other obligations, including trade payables, of our subsidiaries. As of September 30, 2012, our subsidiaries had no material liabilities (excluding intercompany liabilities).

Optional Redemption

We may, at our option, at any time and from time to time, redeem, prior to their maturity date, the notes on not less than 30 nor more than 60 days' prior notice mailed to the holders of the notes, with a copy provided to the trustee. The notes will be redeemable at a redemption price, to be calculated by us, plus accrued and unpaid interest to the date of redemption, equal to the greater of (1) 100 percent of the principal amount of the notes to be redeemed and (2) the sum of the present values of the remaining scheduled payments of principal and interest on the notes to be redeemed (not including interest accrued to the date of redemption), discounted to the redemption date on a semi-annual basis

(assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus basis points.

Comparable Treasury Issue means the United States Treasury security selected by an Independent Investment Banker that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the notes.

Independent Investment Banker means one of the Reference Treasury Dealers appointed by us.

S-18

TABLE OF CONTENTS

Comparable Treasury Price means, with respect to any redemption date, (1) the average of the Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest of such Reference Treasury Dealer Quotations, or (2) if we obtain fewer than five such Reference Treasury Dealer Quotations, the average of all Quotations obtained.

Reference Treasury Dealer means each of J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Citigroup Global Markets Inc., their respective successors and two other nationally recognized investment banking firms that are Primary Treasury Dealers specified from time to time by us, except that if any of the foregoing ceases to be a primary U.S. government securities dealer in the United States (a Primary Treasury Dealer), we are required to designate as a substitute another nationally recognized investment banking firm that is a Primary Treasury Dealer.

Reference Treasury Dealer Quotations means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by us, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to us by such Reference Treasury Dealer as of 3:30 p.m., New York City time, on the third business day preceding such redemption date.

Treasury Rate means, with respect to any redemption date, the rate per annum equal to the semi-annual equivalent yield to maturity (computed as of the third business day immediately preceding such redemption date) of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date.

On and after any redemption date, interest will cease to accrue on the notes called for redemption. Prior to any redemption date, we are required to deposit with a paying agent money sufficient to pay the redemption price of and accrued interest on the notes to be redeemed on such date. If we are redeeming less than all the notes, the trustee under the indenture must select the notes to be redeemed by such method as the trustee deems fair and appropriate in accordance with methods generally used at the time of selection by fiduciaries in similar circumstances.

Change of Control Triggering Event

Upon the occurrence of a Change of Control Triggering Event with respect to the notes, unless we have exercised our right to redeem the notes as described under **Optional Redemption** by giving irrevocable notice to the trustee in accordance with the indenture, each holder of the notes will have the right to require us to purchase all or a portion of such holder's notes pursuant to the offer described below (the **Change of Control Offer**), at a purchase price equal to 101 percent of the principal amount thereof plus accrued and unpaid interest, if any, to the date of purchase (the **Change of Control Payment**), subject to the rights of holders of the notes on the relevant record date to receive interest due on the relevant interest payment date.

Unless we have exercised our right to redeem the notes, within 30 days following the date upon which the Change of Control Triggering Event occurred with respect to the notes, or at our option, prior to any Change of Control but after the public announcement of the pending Change of Control, we will be required to send, by first class mail, a notice to each holder of the notes, with a copy to the trustee, which notice will govern the terms of the Change of Control Offer. Such notice will state, among other things, the purchase date, which must be no earlier than 30 days nor later than 60 days from the date such notice is mailed, other than as may be required by law (the **Change of Control Payment Date**). The notice, if mailed prior to the date of consummation of the Change of Control, will state that the Change of Control Offer is conditioned on the Change of Control being consummated on or prior to the Change of Control Payment Date.

On the Change of Control Payment Date, we will, to the extent lawful:

accept or cause a third party to accept for payment all notes or portions of notes properly tendered pursuant to the Change of Control Offer;
deposit or cause a third party to deposit with the paying agent an amount equal to the Change of Control Payment in respect of all notes or portions of notes properly tendered; and

TABLE OF CONTENTS

deliver or cause to be delivered to the trustee the notes properly accepted together with an officers certificate stating the aggregate principal amount of notes or portions of notes being repurchased and that all conditions precedent to the Change of Control Offer and to the repurchase by us of notes pursuant to the Change of Control Offer have been complied with.

We will not be required to make a Change of Control Offer with respect to the notes if a third party makes such an offer in the manner, at the times and otherwise in compliance with the requirements for such an offer made by us and such third party purchases all the notes properly tendered and not withdrawn under its offer.

We will comply in all material respects with the requirements of Rule 14e-1 under the Securities Exchange Act of 1934, as amended (the Exchange Act), and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any such securities laws or regulations conflict with the Change of Control Offer provisions of the notes, we will comply with those securities laws and regulations and will not be deemed to have breached our obligations under the Change of Control Offer provisions of the notes by virtue of any such conflict.

For purposes of the foregoing discussion of a Change of Control Offer, the following definitions are applicable:

Change of Control means the occurrence of any of the following after the date of issuance of the notes:

1. the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the assets of Cliffs and its subsidiaries taken as a whole to any person or group (as those terms are used in Section 13(d)(3) of the Exchange Act) other than to Cliffs or one of its subsidiaries;
2. the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any person or group (as those terms are used in Section 13(d)(3) of the Exchange Act, it being agreed that an employee of Cliffs or any of its subsidiaries for whom shares are held under an employee stock ownership, employee retirement, employee savings or similar plan and whose shares are voted in accordance with the instructions of such employee shall not be a member of a group (as that term is used in Section 13(d)(3) of the Exchange Act) solely because such employee's shares are held by a trustee under said plan) becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of Voting Stock representing more than 50 percent of the voting power of our outstanding Voting Stock or of the Voting Stock of any of Cliffs' direct or indirect parent companies;
3. we consolidate with, or merge with or into, any Person, or any Person consolidates with, or merge with or into, us, in any such event pursuant to a transaction in which any of our outstanding Voting Stock or Voting Stock of such other Person is converted into or exchanged for cash, securities or other property, other than any such transaction where our Voting Stock outstanding immediately prior to such transaction constitutes, or is converted into or exchanged for, Voting Stock representing at least a majority of the voting power of the Voting Stock of the surviving Person immediately after giving effect to such transaction;
4. the first day on which a majority of the members of our board of directors or the board of directors of any of Cliffs' direct or indirect parent companies are not Continuing Directors; or
5. the adoption of a plan relating to our liquidation or dissolution.

Notwithstanding the foregoing, a transaction will not be deemed to involve a Change of Control solely because we become a direct or indirect wholly-owned subsidiary of a holding company if the direct or indirect holders of the Voting Stock of such holding company immediately following that transaction are substantially the same as the holders of our Voting Stock immediately prior to that transaction.

TABLE OF CONTENTS

Change of Control Triggering Event means, with respect to the notes, (i) the rating of the notes is lowered by each of the Rating Agencies on any date during the period (the Trigger Period) commencing on the earlier of (a) the occurrence of a Change of Control and (b) the first public announcement by us of any Change of Control (or pending Change of Control), and ending 60 days following consummation of such Change of Control (which Trigger Period will be extended following consummation of a Change of Control for so long as any of the Rating Agencies has publicly announced that it is considering a possible ratings change), and (ii) the notes are rated below Investment Grade by each of the Rating Agencies on any day during the Trigger Period; provided that a Change of Control Trigger Event will not be deemed to have occurred in respect of a particular Change of Control if each Rating Agency making the reduction in rating does not publicly announce or confirm or inform the trustee at our request that the reduction was the result, in whole or in part, of any event or circumstance comprised of or arising as a result of, or in respect of, the Change of Control.

Notwithstanding the foregoing, no Change of Control Triggering Event will be deemed to have occurred in connection with any particular Change of Control unless and until such Change of Control has actually been consummated.

Continuing Director means, as of any date of determination, any member of the applicable board of directors who: (1) was a member of such board of directors on the date of issuance of the notes or (2) was nominated for election, elected or appointed to such board of directors with the approval of a majority of the Continuing Directors who were members of such board of directors at the time of such nomination, election or appointment (either by a specific vote or by approval of a proxy statement in which such member was named as a nominee for election as a director).

Investment Grade means a rating of Baa3 or better by Moody's (or its equivalent under any successor rating category of Moody's) and a rating of BBB- or better by S&P (or its equivalent under any successor rating category of S&P), and the equivalent investment grade credit rating from any replacement rating agency or rating agencies selected by us under the circumstances permitting us to select a replacement agency and in the manner for selecting a replacement agency, in each case as set forth in the definition of Rating Agency.

Moody's means Moody's Investors Service, Inc., a subsidiary of Moody's Corporation, and its successors.

Rating Agency means each of Moody's and S&P; provided, that if any of Moody's or S&P ceases to provide rating services to issuers or investors, we may appoint another nationally recognized statistical rating organization within the meaning of Section 3(a)(62) of the Exchange Act as a replacement for such Rating Agency.

S&P means Standard & Poor's Ratings Services, a division of Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., and its successors.

Voting Stock of any specified Person as of any date means the capital stock of such Person that is at the time entitled to vote generally in the election of the board of directors of such Person.

For purposes of the notes, the following definition is applicable:

Person means any individual, corporation, partnership, limited liability company, business trust, association, joint-stock company, joint venture, trust, incorporated or unincorporated organization or government or any agency or political subdivision thereof.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of all or substantially all of the properties or assets of Cliffs and its subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase substantially all, there is no precise, established

definition of the phrase under applicable law. Accordingly, the applicability of the requirement that we offer to repurchase the notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of Cliffs and its subsidiaries taken as a whole to another Person or group may be uncertain.

S-21

TABLE OF CONTENTS

Certain Covenants

Restriction on Liens

We will not, nor will we permit any Domestic Subsidiary to, incur, issue, assume or guarantee any Debt secured by a Lien upon any Principal Property or on any shares of stock or indebtedness of any Domestic Subsidiary (whether such

Principal Property, shares of stock or indebtedness is now owned or hereafter acquired) without in any such case effectively providing that the notes (together with, if we shall so determine, any other indebtedness of or guaranteed by us or such Domestic Subsidiary ranking equally with the notes then existing or thereafter created) shall be secured equally and ratably with such Debt, except that the foregoing restrictions shall not apply to:

(i) Liens on property, shares of stock or indebtedness of or guaranteed by any Person existing at the time such Person becomes a Domestic Subsidiary;

Liens on property existing at the time of acquisition thereof, or to secure the payment of all or part of the purchase or construction price of property, or to secure Debt incurred or guaranteed for the purpose of financing all or part of the purchase or construction price of property or the cost of improvements on property, which Debt is incurred or guaranteed prior to, at the time of, or within 180 days after the later of such acquisition or completion of such improvements or construction or commencement of commercial operation of the property;

(iii) Liens in favor of us or any Subsidiary;

(iv) Liens on property of a Person existing at the time such Person is merged into or consolidated with us or a Domestic Subsidiary or at the time of a purchase, lease or other acquisition of the property of a Person as an entirety or substantially as an entirety by us or a Domestic Subsidiary;

(v) Liens on our property or that of a Domestic Subsidiary in favor of the United States of America or any State thereof, or any political subdivision thereof, or in favor of any other country, or any political subdivision thereof, to secure certain payments pursuant to any contract or statute or to secure any indebtedness incurred or guaranteed for the purpose of financing all or any part of the purchase price or the cost of construction of the property subject to such Liens (including, but not limited to, Liens incurred in connection with pollution control industrial revenue bond or similar financing);

(vi) Liens imposed by law, for example mechanics', workmen's, repairmen's or other similar Liens arising in the ordinary course of business;

(vii) pledges or deposits under workmen's compensation or similar legislation or in certain other circumstances;

(viii) Liens in connection with legal proceedings;

(ix) Liens for taxes or assessments or governmental charges or levies not yet due or delinquent, of which can thereafter be paid without penalty, or which are being contested in good faith by appropriate proceedings;

(x) Liens consisting of restrictions on the use of real property that do not interfere materially with the property's use;

(xi) Liens existing on the date of the indenture; and

(xii) any refinancing, extension, renewal or replacement (or successive refinancings, extensions, renewals or replacements), in whole or in part, of any Lien referred to in any of the foregoing clauses.

Notwithstanding the above, we and any one or more of our Subsidiaries may, without securing the notes, incur, issue, assume or guarantee secured Debt which would otherwise be subject to the foregoing restrictions, provided that after giving effect thereto the aggregate amount of Debt which would otherwise be subject to the foregoing restrictions then outstanding (not including secured Debt permitted under the foregoing exceptions) plus Attributable Debt relating to sale and leaseback transactions (as described below) does not exceed 15 percent of our Consolidated Net Tangible Assets.

TABLE OF CONTENTS

Restrictions on Sale and Leaseback Transactions

Sale and leaseback transactions by us or any Domestic Subsidiary of any Principal Property (whether now owned or hereafter acquired) are prohibited unless:

we or such Domestic Subsidiary would be entitled under the indenture to issue, assume or guarantee Debt secured by a Lien upon such Principal Property at least equal in amount to the Attributable Debt in respect of such transaction without equally and ratably securing the notes, provided that such Attributable Debt shall thereupon be deemed to be Debt subject to the provisions described above under Restrictions on Liens; or

(i) within 180 days, an amount in cash equal to such Attributable Debt is applied to the retirement of Funded Debt (debt that matures at or is extendible or renewable at the option of the obligor to a date more than twelve months after the date of the creation of such Debt) ranking pari passu with the notes, an amount not less than the greater of: the net proceeds of the sale of the Principal Property leased pursuant to the arrangement, or the fair market value of the Principal Property so leased. The restrictions described above do not apply to the following:

- (i) a sale and leaseback transaction between us and a Domestic Subsidiary or between Domestic Subsidiaries, or that involves the taking back of a lease for a period of less than three years, or
- if, at the time of the sale and leaseback transaction, after giving effect to the transaction, the total discounted net amount of rent required to be paid during the remaining term of any lease relating to sale and leaseback transactions (other than transactions permitted by the previous bullet points) plus all outstanding secured Debt pursuant to the Restriction on Liens covenant above, does not exceed 15 percent of our Consolidated Net Tangible Assets.

Certain Definitions Relating to Our Restrictive Covenants. Following are the meanings of the terms that are important in understanding the restrictive covenants previously described.

Attributable Debt means the present value (discounted at the rate of interest implicit in the terms of the lease) of the obligation of a lessee for net rental payments during the remaining term of any lease (including any period for which such lease has been extended or may, at the option of the lessor, be extended).

Consolidated Net Tangible Assets means the aggregate amount of assets (less applicable reserves and other properly deductible items) after deducting therefrom (a) all current liabilities (excluding any indebtedness for money borrowed having a maturity of less than 12 months from the date of the most recent consolidated balance sheet of Cliffs but which by its terms is renewable or extendable beyond 12 months from such date at the option of the borrower) and (b) all goodwill, trade names, patents, unamortized debt discount and expense and any other like intangibles, all as set forth on the most recent consolidated balance sheet of Cliffs and computed in accordance with U.S. generally accepted accounting principles.

Debt means indebtedness for money borrowed that in accordance with applicable generally accepted accounting principles would be reflected on the balance sheet of the obligor as a liability as of the date on which Debt is to be determined.

Domestic Subsidiary means a Subsidiary that owns or leases any Principal Property except a Subsidiary (a) that transacts any substantial portion of its business and regularly maintains any substantial portion of its fixed assets outside of the United States or (b) that is engaged primarily in financing the operation of us or our Subsidiaries, or both, outside the United States.

Liens means any mortgage, pledge, lien or other encumbrance.

Principal Property means a single manufacturing or processing plant, warehouse distribution facility or office owned or leased by the Company or a Domestic Subsidiary which has a net book value in excess of

S-23

TABLE OF CONTENTS

5 percent of Consolidated Net Tangible Assets other than a plant, warehouse, office, or portion thereof which, in the opinion of the Company's Board of Directors, is not of material importance to the business conducted by the Company and its Subsidiaries as an entirety.

Subsidiary means any corporation, partnership or other legal entity (a) the accounts of which are consolidated with ours in accordance with U.S. generally accepted accounting principles and (b) of which, in the case of a corporation, more than 50 percent of the outstanding voting stock is owned, directly or indirectly, by us or by one or more other Subsidiaries, or by us and one or more other Subsidiaries or, in the case of any partnership or other legal entity, more than 50 percent of the ordinary equity capital interests is, at the time, directly or indirectly owned or controlled by us or by one or more of the Subsidiaries or by us and one or more of the Subsidiaries.

Events of Default

You will have special rights if an event of default occurs and is not cured, as further described in the section Events of Default in the accompanying prospectus.

The term event of default with respect to the notes means any of the following:

a default in the payment of any interest on the notes, when such payment becomes due and payable, and continuance of that default for a period of 30 days (unless the entire amount of the payment is deposited by Cliffs with the trustee or with a paying agent prior to the expiration of such period of 30 days);

default in the payment of principal on the notes when such payment becomes due and payable;

default in the performance or breach of any other covenant or warranty by us in the indenture, which default continues uncured for a period of 60 days after written notice thereof has been given, by registered or certified mail, to us by the trustee or to us and the trustee by the holders of at least 25 percent in principal amount of the outstanding debt securities of that series, as provided in the indenture; or

certain events of bankruptcy, insolvency or reorganization of Cliffs.

Book-Entry Delivery and Settlement

Upon issuance, the notes will be represented by one or more fully registered global certificates, each of which we refer to as a global security. Each such global security will be deposited with or on behalf of the Depository Trust Company (DTC), and registered in the name of DTC or a nominee thereof. Purchasers of the notes can hold beneficial interests in the global notes only through DTC, or through the accounts that Clearstream Banking, société anonyme, Luxembourg, or Euroclear Bank, S.A./N.V., as operator of the Euroclear System, maintain as participants in DTC.

A description of DTC's procedures with respect to the global securities is set forth in the sections Description of Debt Securities Transfer and Exchange Global Debt Securities and Book-Entry System in the accompanying prospectus.

Trustee

U.S. Bank National Association is the trustee under the indenture. Initially, the trustee will also act as the paying agent, registrar and custodian for the notes. In the ordinary course of their businesses, affiliates of the trustee have engaged in commercial banking transactions with us, and may in the future engage in commercial banking and other transactions with us.

TABLE OF CONTENTS

MATERIAL U.S. FEDERAL TAX CONSIDERATIONS

The following is a summary of the material United States federal income and estate tax considerations relating to the ownership and disposition of the notes. It is not a complete analysis of all the potential tax considerations relating to the notes. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated under the Code, and currently effective administrative rulings and judicial decisions, all relating to the United States federal income tax treatment of debt instruments as of the date hereof. These authorities may be changed, perhaps with retroactive effect, so as to result in United States federal income tax consequences different from those set forth below.

This summary assumes that you purchased your outstanding notes upon their initial issuance at their initial offering price and that you held your outstanding notes, and you will hold your notes, as capital assets for United States federal income tax purposes. This summary does not address the tax considerations arising under the laws of any foreign, state or local jurisdiction. In addition, this discussion does not address all tax considerations that may be applicable to holders particular circumstances or to holders that may be subject to special tax rules, such as, for example:

holders subject to the alternative minimum tax;
banks, insurance companies, or other financial institutions;
tax-exempt organizations;
dealers in securities or commodities;
expatriates;
traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
U.S. Holders (as defined below) whose functional currency is not the United States dollar;
persons that will hold the notes as a position in a hedging transaction, straddle, conversion transaction or other risk reduction transaction;
persons deemed to sell the notes under the constructive sale provisions of the Code; or
partnerships or other pass-through entities.

If a partnership holds notes, the tax treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership that will hold notes, you should consult your tax advisor regarding the tax consequences of holding the notes to you.

You are urged to consult your tax advisor with respect to the application of United States federal income tax laws to your particular situation as well as any tax consequences arising under the United States federal estate or gift tax rules or under the laws of any state, local, foreign or other taxing jurisdiction or under any applicable tax treaty.

Consequences to U.S. Holders

The following is a summary of the general United States federal income tax consequences that will apply to you if you are a U.S. Holder of the notes. Certain consequences to Non-U.S. Holders of the notes are described under Consequences to Non-U.S. Holders, below. U.S. Holder means a beneficial owner of a note that is, for United States federal income tax purposes:

a citizen or resident of the United States;
a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States or any political subdivision of the United States;

an estate the income of which is subject to United States federal income taxation regardless of its source; or
S-25

TABLE OF CONTENTS

a trust that (1) is subject to the supervision of a court within the United States and the control of one or more U.S. persons or (2) has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

Certain Additional Payments

In certain circumstances, we may be obligated to pay additional interest as a result of adjustments to the ratings assigned to the notes. See *Description of the Notes* *Interest Rate Adjustment Based on Rating Events*. The obligation to make these payments may implicate the provisions of the Treasury Regulations relating to contingent payment debt instruments. We believe that the nature of such adjustments and the possibility, as of the date the notes are issued, of the payment of such additional interest does not result in the notes being treated as contingent payment debt instruments under the applicable Treasury Regulations. Our determination is not, however, binding on the Internal Revenue Service, which could challenge this position. If such challenge were successful, the timing, character and amount of income on the notes would be affected. Among other things, if the notes were recharacterized as contingent payment debt instruments you might be required to accrue income on the notes in excess of stated interest, and you would generally be required to treat as ordinary income rather than capital gain any income realized on the taxable disposition of a note. U.S. Holders are advised to consult their own tax advisors with respect to the effect of the interest rate adjustment provision on the U.S. federal income tax treatment of the notes.

Payments of Interest

Stated interest on the notes will be taxable to you as ordinary income at the time it is paid or accrued in accordance with your method of accounting for United States federal income tax purposes.

Disposition of Notes

Upon the sale, exchange, redemption or other taxable disposition of a note, you will recognize taxable gain or loss equal to the difference between the amount realized on such disposition (except to the extent any amount realized is attributable to accrued but unpaid interest, which is treated as interest as described above) and your adjusted tax basis in the note. A U.S. Holder's adjusted tax basis in a note generally will equal the cost of the note to such holder.

Gain or loss recognized on the disposition of a note generally will be capital gain or loss, and will be long-term capital gain or loss if, at the time of such disposition, the U.S. Holder's holding period for the note is more than 12 months. The deductibility of capital losses by U.S. Holders is subject to certain limitations.

Information Reporting and Backup Withholding

In general, information reporting requirements will apply to payments of principal, premium (if any) and interest on and the proceeds of certain sales of notes unless you are an exempt recipient. Backup withholding (currently at a rate of 28 percent) will apply to such payments if you fail to provide your taxpayer identification number or certification of exempt status or have been notified by the Internal Revenue Service, or IRS, that payments to you are subject to backup withholding.

Any amounts withheld under the backup withholding rules will generally be allowed as a refund or a credit against your United States federal income tax liability provided that you furnish the required information to the IRS on a timely basis.

Medicare Contributions

For taxable years beginning after December 31, 2012, U.S. Holders that are individuals, estates or trusts and whose income exceeds certain thresholds generally will be subject to a 3.8 percent Medicare contribution tax on unearned income, including, among other things, interest and gain on the disposition of notes. U.S. Holders should consult their own tax advisors regarding the effect, if any, of such tax on their investment in notes.

S-26

TABLE OF CONTENTS

Consequences to Non-U.S. Holders

Non-U.S. Holders

As used in this prospectus supplement, the term Non-U.S. Holder means a beneficial owner of a note that is, for United States federal income tax purposes:

a nonresident alien individual;
a foreign corporation;

an estate the income of which is not subject to United States federal income taxation on a net income basis; or
a trust that (1) is either not subject to the supervision of a court within the United States or does not have any United States person with authority to control all substantial decisions of the trust and (2) does not have a valid election in effect under applicable Treasury regulations to be treated as a United States person.

Under United States federal income tax law, and subject to the discussion of backup withholding below, if you are a Non-U.S. Holder of a note:

The withholding agent generally will not be required to deduct United States withholding tax from payments of interest to you if:

1. you do not actually or constructively own 10 percent or more of the total combined voting power of all classes of our stock entitled to vote;
 2. you are not a controlled foreign corporation that is directly or indirectly related to us through stock ownership;
 3. you are not a bank whose receipt of interest on a note is pursuant to a loan agreement entered into in the ordinary course of business; and
 4. the withholding agent does not have actual knowledge or reason to know that you are a United States person and you have furnished to the withholding agent an IRS Form W-8BEN or an acceptable substitute form upon which you certify, under penalties of perjury, that you are a non-United States person;
- in the case of payments made outside the United States to you at an offshore account (generally, an account maintained by you at a bank or other financial institution at any location outside the United States), you have furnished to the withholding agent documentation that establishes your identity and your status as a non-United States person;
- the withholding agent has received a withholding certificate (furnished on an appropriate IRS Form W-8 or an acceptable substitute form or statement) from a person claiming to be a (1) withholding foreign partnership, (2) qualified intermediary, or (3) securities clearing organization, bank or other financial institution that holds customers securities in the ordinary course of its trade or business, and such person is permitted to certify under United States Treasury regulations, and does certify, either that it assumes primary withholding tax responsibility with respect to the interest payment or has received an IRS Form W-8BEN (or acceptable substitute form) from you or from other holders of notes on whose behalf it is receiving payment; or
- the withholding agent otherwise possesses documentation upon which it may rely to treat the payment as made to a non-United States person in accordance with United States Treasury regulations.

If you cannot satisfy the requirements described above, payments of interest made to you on the notes will generally be subject to the 30 percent United States federal withholding of tax, unless you provide the withholding agent either with (1) a properly executed IRS Form W-8BEN (or successor form) claiming an

TABLE OF CONTENTS

exemption from (or a reduction of) withholding under the benefits of an applicable tax treaty or (2) a properly executed IRS Form W-8ECI (or successor form) stating that interest paid on the note is not subject to withholding of tax because the interest is effectively connected with your conduct of a trade or business in the United States (and, generally in the case of an applicable tax treaty, attributable to your permanent establishment in the United States).

No deduction for any United States federal withholding of tax will be made from any principal payments or from gain that you realize on the sale, exchange or other disposition of your note. In addition, a Non-U.S. Holder of a note will not be subject to United States federal income tax on gain realized on the sale, exchange or other disposition of such note, unless: (1) that gain or income is effectively connected with the conduct of a trade or business in the United States by the Non-U.S. Holder or (2) the Non-U.S. Holder is an individual who is present in the United States for 183 days or more in the taxable year of that disposition, and certain other conditions are met. If you are described in clause (1), see Income or Gain Effectively Connected with a United States Trade or Business, below. If you are described in clause (2), any gain realized from the sale, redemption, exchange, retirement or other taxable disposition of the notes will be subject to United States federal income tax at a 30 percent rate (or lower applicable treaty rate), although the amount of gain subject to tax may be offset by certain losses.

Further, generally, a note held by an individual who at death is not a citizen or resident of the United States should not be includible in the individual's gross estate for United States federal estate tax purposes if:

the decedent did not actually or constructively own 10 percent or more of the total combined voting power of all classes of our stock entitled to vote at the time of death, and
the income on the note would not have been, if received at the time of death, effectively connected with a United States trade or business of the decedent.

Income or Gain Effectively Connected with a United States Trade or Business

If any interest on the notes or gain from the sale, redemption, exchange, retirement or other taxable disposition of the notes is effectively connected with a United States trade or business conducted by you (and, generally in the case of an applicable tax treaty, attributable to your permanent establishment in the United States), then the income or gain will be subject to United States federal income tax at regular graduated income tax rates, but will not be subject to United States withholding of tax if certain certification requirements are satisfied. You can generally meet these certification requirements by providing a properly executed IRS Form W-8ECI or appropriate substitute form to us, or our paying agent. If you are a corporation, the portion of your earnings and profits that is effectively connected with your United

States trade or business (and, generally in the case of an applicable tax treaty, attributable to your permanent establishment in the United States) may be subject to an additional branch profits tax at a 30 percent rate, although an applicable tax treaty may provide for a lower rate.

Backup Withholding and Information Reporting

Generally, information returns will be filed with the United States IRS in connection with payments of interest on the notes. Information returns may be filed with the IRS in respect of payments on proceeds from the sale or other disposition of the notes. You may be subject to backup withholding of tax on these payments unless you comply with certain certification procedures to establish that you are not a United States person. The certification procedures required to claim an exemption from withholding tax on interest described above will satisfy the certification requirements necessary to avoid backup withholding as well. The amount of any backup withholding from a payment to you will be allowed as a credit against your United States federal income tax liability and may entitle you to a refund, provided that the required information is timely furnished to the IRS.

TABLE OF CONTENTS

CERTAIN ERISA CONSIDERATIONS

The following summary regarding certain aspects of the United States Employee Retirement Income Security Act of 1974, as amended, or ERISA, and the Code is based on ERISA and the Code, judicial decisions and United States Department of Labor and IRS regulations and rulings that are in existence on the date of this prospectus supplement. This summary is general in nature and does not address every issue pertaining to ERISA that may be applicable to us, the notes or a particular investor. Accordingly, each prospective investor, including plan fiduciaries, should consult with his, her or its own advisors or counsel with respect to the advisability of an investment in the notes, and potentially adverse consequences of such investment, including, without limitation, certain ERISA-related issues that affect or may affect the investor with respect to this investment and the possible effects of changes in the applicable laws.

ERISA and the Code impose certain requirements on employee benefit plans that are subject to Title I of ERISA and plans subject to Section 4975 of the Code (each such employee benefit plan or plan, a Plan) and on those persons who are fiduciaries with respect to Plans. In considering an investment of the assets of a Plan subject to Title I of ERISA in the notes, a fiduciary must, among other things, discharge its duties solely in the interest of the participants of such Plan and their beneficiaries and for the exclusive purpose of providing benefits to such participants and beneficiaries and defraying reasonable expenses of administering the Plan. A fiduciary must act prudently and must diversify the investments of a Plan subject to Title I of ERISA so as to minimize the risk of large losses, as well as discharge its duties in accordance with the documents and instruments governing such Plan. In addition, ERISA generally requires fiduciaries to hold all assets of a Plan subject to Title I of ERISA in trust and to maintain the indicia of ownership of such assets within the jurisdiction of the district courts of the United States. A fiduciary of a Plan subject to Title I of ERISA should consider whether an investment in the notes satisfies these requirements.

An investor who is considering acquiring the notes with the assets of a Plan must consider whether the acquisition and holding of the notes will constitute or result in a non-exempt prohibited transaction. Section 406(a) of ERISA and Sections 4975(c)(1)(A), (B), (C) and (D) of the Code prohibit certain transactions that involve a Plan and a party in interest as defined in Section 3(14) of ERISA or a disqualified person as defined in Section 4975(e)(2) of the Code with respect to such Plan. Examples of such prohibited transactions include, but are not limited to, sales or exchanges of property (such as the notes) or extensions of credit between a Plan and a party in interest or disqualified person. Section 406(b) of ERISA and Sections 4975(c)(1)(E) and (F) of the Code generally prohibit a fiduciary with respect to a Plan from dealing with the assets of the Plan for its own benefit (for example when a fiduciary of a Plan uses its position to cause the Plan to make investments in connection with which the fiduciary (or a party related to the fiduciary) receives a fee or other consideration).

ERISA and the Code contain certain exemptions from the prohibited transactions described above, and the Department of Labor has issued several exemptions, although certain exemptions do not provide relief from the prohibitions on self-dealing contained in Section 406(b) of ERISA and Sections 4975(c)(1)(E) and (F) of the Code.

Exemptions include Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code pertaining to certain transactions with non-fiduciary service providers; Department of Labor Prohibited Transaction Class Exemption (PTCE) 95-60, applicable to transactions involving insurance company general accounts; PTCE 90-1, regarding investments by insurance company pooled separate accounts; PTCE 91-38, regarding investments by bank collective investment funds; PTCE 84-14, regarding investments effected by a qualified professional asset manager; and PTCE 96-23, regarding investments effected by an in-house asset manager. There can be no assurance that any of these exemptions will be available with respect to the acquisition of the notes, even if the specified conditions are met.

Under Section 4975 of the Code, excise taxes or other liabilities may be imposed on disqualified persons who participate in non-exempt prohibited transactions (other than a fiduciary acting only as such).

In addition, because the acquisition and holding of the notes may be deemed to involve an extension of credit or other transaction between a Plan and a party in interest or disqualified person, the notes may not be purchased or held by any Plan, or any person investing plan assets of any such Plan, if we or any of our affiliates (a) has investment or administrative discretion with respect to the assets of the Plan used to effect such purchase; (b) has the authority or responsibility to give, or regularly gives, investment advice with respect to such assets, for a fee and pursuant to an agreement or understanding that such advice (1) will serve

S-29

TABLE OF CONTENTS

as a primary basis for investment decisions with respect to such assets, and (2) will be based on the particular investment needs of such Plan; or (c) unless one of the above exemptions applies, is an employer maintaining or contributing to such Plan.

As a general rule, a governmental plan, as defined in Section 3(32) of ERISA (a Governmental Plan), a church plan, as defined in Section 3(33) of ERISA, that has not made an election under Section 410(d) of the Code (a Church Plan) and non-U.S. plans are not subject to the requirements of ERISA or Section 4975 of the Code. Accordingly, assets of such plans may be invested without regard to the fiduciary and prohibited transaction considerations described above.

Although a Governmental Plan, a Church Plan or a non-U.S. plan is not subject to ERISA or Section 4975 of the Code, it may be subject to other United States federal, state or local laws or non-United States laws that regulate its investments (a Similar Law). A fiduciary of a Government Plan, a Church Plan or a non-U.S. plan should make its own determination as to the requirements, if any, under any Similar Law applicable to the acquisition of the notes.

The notes may be acquired by a Plan, an entity whose underlying assets include plan assets by reason of investments in such entity by any Plans (a Plan Asset Entity), and any person investing in plan assets of any Plan or Plan Asset Entity or by a Governmental Plan, a Church Plan or a non-U.S. plan, but only if the acquisition will not result in a non-exempt prohibited transaction under ERISA or Section 4975 of the Code or a violation of Similar Law. Therefore, any investor in the notes will be deemed to represent and warrant to us and the trustee that (1)(a) it is not (i) a Plan, (ii) a Plan Asset Entity, (iii) a Governmental Plan, (iv) a Church Plan or (v) a non-U.S. plan, (b) it is a Plan or a Plan Asset Entity and the acquisition and holding of the notes will not result in a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code, or (c) it is a Governmental Plan, a Church Plan or a non-U.S. plan that is not subject to (i) ERISA, (ii) Section 4975 of the Code or (iii) any Similar Law that prohibits or taxes (in terms of an excise or penalty tax) the acquisition or holding of the notes; and (2) it will notify us and the trustee immediately if, at any time, it is no longer able to make the representations contained in clause (1) above. Any purported transfer of the notes to a transferee that does not comply with the foregoing requirements shall be null and *void ab initio*.

This offer is not a representation by us or the underwriters that an acquisition of the notes meets all legal requirements applicable to investments by Plans, Plan Asset Entities, Governmental Plans, Church Plans or non-U.S. plans or that such an investment is appropriate for any particular Plan, entities whose underlying assets include assets of a Plan, Governmental Plan, Church Plan or non-U.S. plan.

S-30

TABLE OF CONTENTS

UNDERWRITING

Subject to the terms and conditions in the underwriting agreement among us, J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Citigroup Global Markets Inc., as representatives of the underwriters named below, we have agreed to sell to each underwriter, and each underwriter has severally agreed to purchase from us, the principal amount of notes set forth opposite the names of the underwriters below:

Underwriter	Principal Amount of Notes
J.P. Morgan Securities LLC	\$
Merrill Lynch, Pierce, Fenner & Smith Incorporated	
Citigroup Global Markets Inc.	
Total	\$

The underwriting agreement provides that the underwriters severally and not jointly agree to purchase all of the notes if any of them are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

The underwriters initially propose to offer the notes to the public at the public offering price that appears on the cover page of this prospectus supplement. The underwriters may offer the notes to selected dealers at the public offering price minus a concession of up to percent of the principal amount of the notes. In addition, the underwriters may allow, and those selected dealers may reallow, a concession of up to percent of the principal amount of the notes to certain other dealers. After the initial offering, the underwriters may change the public offering price and any other selling terms. The underwriters may offer and sell the notes through certain of their affiliates.

The following table shows the underwriting discounts to be paid to the underwriters in connection with this offering (expressed as a percentage of the principal amount of the notes).

Per note	Paid by Us %
----------	--------------

In the underwriting agreement, we have agreed that:

We will pay our expenses related to the offering, which we estimate will be approximately \$ million. We will indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the notes, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the notes, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of an officer's certificate and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The notes are a new issue of securities, and there is currently no established trading market for the notes. We do not intend to apply for the notes to be listed on any securities exchange or to arrange for the notes to be quoted on any quotation system. The underwriters have advised us that they intend to make a market in the notes, but they are not

obligated to do so. The underwriters may discontinue any market making in the notes at any time in their sole discretion without notice. Accordingly, we cannot assure you that liquid trading markets will develop for the notes, that you will be able to sell your notes at a particular time or that the prices that you receive when you sell will be favorable.

S-31

TABLE OF CONTENTS

We expect that delivery of the notes will be made to investors on or about December 10, 2012, which will be the fifth business day following the date of this prospectus supplement (such settlement being referred to as T+5). Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to a trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes on the date of this prospectus supplement or the next succeeding business day will be required, by virtue of the fact that the notes initially settle in T+5, to specify an alternate settlement arrangement at the time of any such trade to prevent a failed settlement. Purchasers of the notes who wish to trade the notes on the date of this prospectus supplement or the next succeeding business day should consult their advisors.

In connection with the offering of the notes, the underwriters may engage in over-allotment, stabilizing transactions and syndicate covering transactions. Over-allotment involves sales in excess of the offering size, which creates a short position for the underwriters. Stabilizing transactions involve bids to purchase the notes in the open market for the purpose of pegging, fixing or maintaining the price of the notes. Syndicate-covering transactions involve purchases of the notes in the open market after the distribution has been completed in order to cover short positions. Stabilizing transactions and syndicate-covering transactions may cause the prices of the notes to be higher than it would otherwise be in the absence of those transactions. If the underwriters engage in stabilizing or syndicate-covering transactions, they may discontinue them at any time without notice.

Selling Restrictions

The notes may be offered and sold in the United States and certain jurisdictions outside of the United States in which such offer and sale is permitted.

European Economic Area

In relation to each member state of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), including each Relevant Member State that has implemented the 2010 PD Amending Directive with regard to persons to whom an offer of securities is addressed and the denomination per unit of the offer of securities (each, an Early Implementing Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date), no offer of securities will be made to the public in that Relevant Member State (other than offers (the Permitted Public Offers) where a prospectus will be published in relation to the securities that has been approved by the competent authority in a Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive), except that with effect from and including that Relevant Implementation Date, offers of securities may be made to the public in that Relevant Member State at any time:

- A. to qualified investors as defined in the Prospectus Directive, including:
- (a) (in the case of Relevant Member States other than Early Implementing Member States), legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities, or any legal entity which has two or more of (i) an average of at least 250 employees during the last financial year; (ii) a total balance sheet of more than €43.0 million and (iii) an annual turnover of more than €50.0 million as shown in its last annual or consolidated accounts; or
 - (b) (in the case of Early Implementing Member States), persons or entities that are described in points (1) to (4) of Section I of Annex II to Directive 2004/39/EC, and those who are treated on request as professional clients in accordance with Annex II to Directive 2004/39/EC, or recognized as eligible counterparties in accordance with Article 24 of Directive 2004/39/EC unless they have requested that they be treated as non-professional clients; or

TABLE OF CONTENTS

to fewer than 100 (or, in the case of Early Implementing Member States, 150) natural or legal persons (other than B. qualified investors as defined in the Prospectus Directive), as permitted in the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of C. securities shall result in a requirement for the publication of a prospectus pursuant to Article 3 of the Prospectus Directive or of a supplement to a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State (other than a Relevant Member State where there is a Permitted Public Offer) who initially acquires any securities or to whom any offer is made will be deemed to have represented, acknowledged and agreed that (A) it is a qualified investor, and (B) in the case of any securities acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, (x) the securities acquired by it in the offering have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than qualified investors as defined in the Prospectus Directive, or in circumstances in which the prior consent of the underwriters has been given to the offer or resale, or (y) where securities have been acquired by it on behalf of persons in any Relevant Member State other than qualified investors as defined in the Prospectus Directive, the offer of those securities to it is not treated under the Prospectus Directive as having been made to such persons.

For the purpose of the above provisions, the expression an offer to the public in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer of any securities to be offered so as to enable an investor to decide to purchase any securities, as the same may be varied in the Relevant Member State by any measure implementing the Prospectus Directive in the Relevant Member State and the expression Prospectus Directive means Directive 2003/71 EC (including the 2010 PD Amending Directive, in the case of Early Implementing Member States) and includes any relevant implementing measure in each Relevant Member State and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that it and each of its affiliates:

- (a) has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the FSMA)) received by it in connection with the issue or sale of the notes in circumstances in which Section 21(1) of the FSMA does not apply to the Company; and
- (b) has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the notes in, from or otherwise involving the United Kingdom.

Other Relationships

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future, various financial advisory and/or derivatives, commercial banking or investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In particular, affiliates of J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Citigroup Global Markets Inc. are parties to and lenders under our amended and restated multicurrency credit agreement and our term loan facility. Our amended and restated multicurrency credit agreement and our term loan facility were negotiated on an arms length basis and contain customary terms pursuant to which the lenders receive customary fees.

TABLE OF CONTENTS

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. If any of the underwriters or their affiliates have a lending relationship with us, certain of those underwriters or their affiliates routinely hedge, and certain other of those underwriters may hedge, their credit exposure to us consistent with their customary risk management policies. Typically, these underwriters and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the notes offered hereby. Any such credit default swaps or short positions could adversely affect future trading prices of the notes offered hereby. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

S-34

TABLE OF CONTENTS

LEGAL MATTERS

Jones Day will pass upon the validity of the notes. Certain legal matters relating to the offering of the notes will be passed upon for the underwriters by Davis Polk & Wardwell LLP.

EXPERTS

The consolidated financial statements, and the related financial statement schedule, incorporated in this prospectus supplement by reference from Cliffs Natural Resources Inc.'s Annual Report on Form 10-K for the year ended December 31, 2011, and the effectiveness of Cliffs Natural Resources Inc.'s internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference. Such financial statements and financial statement schedule have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

S-35

TABLE OF CONTENTS

PROSPECTUS

Cliffs Natural Resources Inc.

Debt Securities

We may offer and sell from time to time our debt securities. We may sell these debt securities in one or more offerings at prices and on other terms to be determined at the time of offering.

We will provide the specific terms of the debt securities to be offered in one or more supplements to this prospectus.

You should read this prospectus and the applicable prospectus supplement carefully before you invest in our debt securities. This prospectus may not be used to offer and sell our debt securities unless accompanied by a prospectus supplement describing the method and terms of the offering of those offered debt securities.

We may offer our debt securities through agents, underwriters or dealers or directly to investors. Each prospectus supplement will provide the amount, price and terms of the plan of distribution relating to the debt securities to be sold pursuant to such prospectus supplement. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement, as well as the net proceeds we expect to receive from such sale.

Investing in any of our debt securities involves risk. Please read carefully the section entitled *Risk Factors* on page 4 of this prospectus and the information included and incorporated by reference in this prospectus.

Our common shares are listed on the New York Stock Exchange and the Professional Segment of NYSE Euronext Paris under the symbol CLF. If we decide to seek a listing of any debt securities offered by this prospectus, we will disclose the exchange or market on which the debt securities will be listed, if any, or where we have made an application for listing, if any, in one or more supplements to this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is March 10, 2010

TABLE OF CONTENTS

TABLE OF CONTENTS

	Page
<u>About This Prospectus</u>	<u>1</u>
<u>Where You Can Find More Information</u>	<u>1</u>
<u>Information We Incorporate by Reference</u>	<u>1</u>
<u>Disclosure Regarding Forward-Looking Statements</u>	<u>3</u>
<u>Our Business</u>	<u>4</u>
<u>Risk Factors</u>	<u>4</u>
<u>Use of Proceeds</u>	<u>4</u>
<u>Ratio of Earnings to Fixed Charges</u>	<u>5</u>
<u>Description of Debt Securities</u>	<u>6</u>
<u>Plan of Distribution</u>	<u>14</u>
<u>Legal Matters</u>	<u>15</u>
<u>Experts</u>	<u>15</u>

i

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission using a shelf registration process. Under this shelf registration process, we may from time to time sell the debt securities described in this prospectus in one or more offerings at prices and on other terms to be determined at the time of offering.

This prospectus provides you with a general description of the debt securities we may offer. Each time we sell debt securities, we will provide a prospectus supplement that will contain more specific information about the terms of that offering. For a more complete understanding of the offering of the debt securities, you should refer to the registration statement, including its exhibits. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information under the heading **Where You Can Find More Information** and **Information We Incorporate By Reference**.

You should rely only on the information contained or incorporated by reference in this prospectus and in any prospectus supplement or in any free writing prospectus that we may provide to you. We have not authorized anyone to provide you with different information. You should not assume that the information contained in this prospectus, any prospectus supplement or any document incorporated by reference is accurate as of any date other than the date mentioned on the cover page of these documents. We are not making offers to sell the debt securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation.

References in this prospectus to the terms **we**, **us**, **our** or **Cliffs** or other similar terms mean Cliffs Natural Resources Inc. and its consolidated subsidiaries, unless we state otherwise or the context indicates otherwise.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational reporting requirements of the Securities Exchange Act of 1934. We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available over the Internet at the SEC's website at www.sec.gov. You may read and copy any reports, statements and other information filed by us at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call 1-800-SEC-0330 for further information on the Public Reference Room. You may also inspect our SEC reports and other information at the New York Stock Exchange, 20 Broad Street, New York, New York 10005 or at our website at <http://www.cliffsnaturalresources.com>. We do not intend for information contained on our website to be part of this prospectus, other than documents that we file with the SEC that are incorporated by reference in this prospectus.

INFORMATION WE INCORPORATE BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus the information in documents we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. Any statement contained in any document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this

prospectus to the extent that a statement contained in or omitted from this prospectus or any accompanying prospectus supplement, or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

1

TABLE OF CONTENTS

We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until the completion of the offering of securities described in this prospectus:

our Annual Report on Form 10-K for the year ended December 31, 2009;
our Current Reports on Form 8-K, as filed with the SEC on January 13, 2010, January 25, 2010, February 3, 2010 and March 10, 2010; and

our Definitive Proxy Statement on Schedule 14A, as filed with the SEC on March 23, 2009.

We will not, however, incorporate by reference in this prospectus any documents or portions thereof that are not deemed filed with the SEC, including any information furnished pursuant to Item 2.02 or Item 7.01 of our Current Reports on Form 8-K unless, and except to the extent, specified in such Current Reports.

We will provide you with a copy of any of these filings (other than an exhibit to these filings, unless the exhibit is specifically incorporated by reference into the filing requested) at no cost, if you submit a request to us by writing or telephoning us at the following address and telephone number:

Cliffs Natural Resources Inc.
Investor Relations
200 Public Square
Suite 3300
Cleveland, Ohio 44114
(216) 694-5700

TABLE OF CONTENTS

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents incorporated by reference, contains, and any prospectus supplement may contain, statements that constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may be identified by the use of predictive, future-tense or forward-looking terminology, such as believes, anticipates, expects, estimates, intends, may, will or similar. These statements speak only as of the date of this prospectus or the date of the document incorporated by reference, as applicable, and we undertake no ongoing obligation, other than that imposed by law, to update these statements. These statements appear in a number of places in this prospectus, including the documents incorporated by reference, and relate to, among other things, our intent, belief or current expectations of our directors or our officers with respect to: our future financial condition, results of operations or prospects; estimates of our economic iron ore and coal reserves; our business and growth strategies; and our financing plans and forecasts. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve significant risks and uncertainties, and that actual results may differ materially from those contained in or implied by the forward-looking statements as a result of various factors, some of which are unknown, including, without limitation:

- the impact of the current global economic crisis, including downward pressure on prices;
 - trends affecting our financial condition, results of operations or future prospects;
 - the outcome of any contractual disputes with our customers;
 - the ability of our customers to meet their obligations to us on a timely basis or at all;
 - our actual economic iron ore and coal reserves;
 - the success of our business and growth strategies;
 - our ability to successfully identify and consummate any strategic investments;
 - adverse changes in currency values;
 - the outcome of any contractual disputes with our significant energy, material or service providers;
 - the success of our cost-savings efforts;
 - our ability to maintain adequate liquidity and successfully implement our financing plans;
 - our ability to maintain appropriate relations with unions and employees;
 - uncertainties associated with unanticipated geological conditions related to underground mining;
 - the potential existence of significant deficiencies or material weakness in our internal control over financial reporting;
 - and
 - the risk factors referred to in the Risk Factors section of this prospectus.
- These factors and the other risk factors described in this prospectus, including the documents incorporated by reference, are not necessarily all of the important factors that could cause actual results to differ materially from those expressed in any of our forward-looking statements. Other unknown or unpredictable factors also could harm our results. Consequently, there can be no assurance that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to or effects on us. Given these uncertainties, prospective investors are cautioned not to place undue reliance on such forward-looking statements.

TABLE OF CONTENTS

OUR BUSINESS

Cliffs Natural Resources Inc. traces its corporate history back to 1847. Today, we are an international mining and natural resources company. We are the largest producer of iron ore pellets in North America, a major supplier of direct-shipping lump and fines iron ore out of Australia, and a significant producer of metallurgical coal. With core values of environmental and capital stewardship, our colleagues across the globe endeavor to provide all stakeholders operating and financial transparency as embodied in the GRI framework. Our company's operations are organized according to product category and geographic location: North American Iron Ore, North American Coal, Asia Pacific Iron Ore, Asia Pacific Coal and Latin American Iron Ore.

In North America, we operate six iron ore mines in Michigan, Minnesota and Eastern Canada, and two coking coal mining complexes located in West Virginia and Alabama. Our Asia Pacific operations are comprised of two iron ore mining complexes in Western Australia, serving the Asian iron ore markets with direct-shipping fines and lump ore, and a 45 percent economic interest in a coking and thermal coal mine located in Queensland, Australia. In Latin America, we have a 30 percent interest in a Brazilian iron ore project. In addition, we have recently established a global exploration group under which we have several projects and potential opportunities to diversify our products, expand our production volumes, extend our mine lives and develop large-scale ore bodies through early involvement in exploration and development activities globally. Cliffs' principal executive offices are located at: 200 Public Square, Suite 3300, Cleveland, Ohio 44114, and its telephone number is: (216) 694-5700.

RISK FACTORS

Investing in our debt securities involves risk. Prior to making a decision about investing in our debt securities, you should carefully consider the specific factors discussed under the heading "Risk Factors" in our most recent Annual Report on Form 10-K filed with the SEC, in each case as these risk factors are amended or supplemented by subsequent Quarterly Reports on Form 10-Q, which have been or will be incorporated by reference into this document. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties that are not yet identified may also materially harm our business, operating results and financial condition and could result in a complete loss of your investment.

USE OF PROCEEDS

Unless we inform you otherwise in the applicable prospectus supplement, we expect to use the net proceeds from the sale of our debt securities to which this prospectus relates for general corporate purposes. These purposes may include, but are not limited to:

reduction or refinancing of outstanding indebtedness or other corporate obligations;
additions to working capital;
capital expenditures; and
acquisitions.

Pending any specific application, we may initially invest funds in short-term marketable securities.

TABLE OF CONTENTS

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of consolidated earnings to fixed charges for the periods presented:

	Year ended December 31,				
	2009	2008	2007	2006	2005
Ratio of Earnings to Fixed Charges	6.1x	15.2x	14.2x	37.4x	40.0x

Fixed charges represent interest expense, capitalized interest, acceleration of debt issuance costs and the interest portion of rental expense. Earnings represent the consolidated pretax income from continuing operations before extraordinary items (excluding undistributed earnings of non-consolidated affiliates), net adjustments for capitalized interest and fixed charges deducted from earnings.

TABLE OF CONTENTS

DESCRIPTION OF DEBT SECURITIES

The following description sets forth certain general terms and provisions of the debt securities that we may issue. We will set forth the particular terms of the debt securities we offer in a prospectus supplement and the extent, if any, to which the following general terms and provisions will apply to particular debt securities.

The debt securities will be issued under an indenture to be entered into between us and U.S. Bank National Association, as trustee. The indenture, and any supplemental indentures thereto, will be subject to, and governed by, the Trust Indenture Act of 1939, as amended. The following description of general terms and provisions relating to the debt securities and the indenture under which the debt securities will be issued is a summary only and therefore is not complete and is subject to, and qualified in its entirety by reference to, the terms and provisions of the indenture. The form of the indenture has been filed with the SEC as an exhibit to the registration statement, of which this prospectus forms a part, and you should read the indenture for provisions that may be important to you. For more information on how you can obtain a copy of the form of the indenture, see [Where You Can Find More Information](#).

Capitalized terms used in this section and not defined herein have the meanings specified in the indenture. When we refer to we, us, our or Cliffs in this section, we mean Cliffs Natural Resources Inc. excluding, unless the context otherwise requires or as otherwise expressly stated, its subsidiaries.

Unless otherwise specified in a prospectus supplement, the debt securities will be our direct, unsecured obligations and will rank equally with all of our other unsecured indebtedness.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our Board of Directors and set forth or determined in the manner provided in a resolution of our Board of Directors, supplemental indenture or officers certificate. The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series (including any pricing supplement or term sheet).

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series. Debt securities may differ between series in respect to any matter, but all series of debt securities will be equally and ratably entitled to the benefits of the indenture. We will set forth in a prospectus supplement (including any pricing supplement or term sheet) relating to any series of debt securities being offered, the aggregate principal amount and the following terms of the debt securities, if applicable:

the title of the series of debt securities;

the price or prices (expressed as a percentage of the principal amount) at which the series of debt securities will be issued;

any limit on the aggregate principal amount of the series of debt securities;

the date or dates on which the principal on the series of debt securities is payable;

the rate or rates (which may be fixed or variable) per annum, if applicable, or the method used to determine such rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the series of debt securities will bear interest, if any, the date or dates from which such interest, if any, will accrue, the date or dates on which such interest, if any, will commence and be payable and any regular record date for the interest payable on any interest payment date;

the place or places where the principal of and interest, if any, on the series of debt securities will be payable;

if applicable, the period within which, the price at which and the terms and conditions upon which the series of debt securities may be redeemed (in whole or in part, at our option);
any obligation we may have to redeem or purchase the series of debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of the series of debt securities and the terms and conditions of such obligation;

6

TABLE OF CONTENTS

the dates, if any, on which and the price or prices at which we will repurchase the series of debt securities at the option of the holders of that series of debt securities and other detailed terms and provisions of such repurchase obligations;

the denominations in which the series of debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;

the form of the series of debt securities and whether the series of debt securities will be issuable as global debt securities and any appropriate legends if the debt securities are discount securities;

the portion of principal amount of the series of debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;

the currency of denomination of the series of debt securities and, if other than U.S. Dollars or the ECU, the agency responsible for overseeing such currency;

the designation of the currency, currencies or currency units in which payment of principal of, premium and interest, if any, on the series of debt securities will be made;

if payments of principal of, premium or interest, if any, on the series of debt securities will be made in one or more currencies or currency units other than that or those in which the series of debt securities are denominated, the manner in which the exchange rate with respect to such payments will be determined;

the manner in which the amounts of payment of principal of or interest on the series of debt securities will be determined, if such amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;

any provisions relating to any security provided for the series of debt securities;

any addition to or change in the Events of Default described in this prospectus or in the indenture which applies to the series of debt securities and any change in the right of the trustee or the holders of the series of debt securities to declare the principal amount thereof due and payable;

any addition to or change in the covenants described in this prospectus or in the indenture with respect to the series of debt securities;

any other terms of the series of debt securities (which may supplement, modify or delete any provision of the indenture as it applies to such series);

any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the series of debt securities, if other than appointed in the indenture;

any provisions relating to conversion of the series of debt securities; and

whether the series of debt securities will be senior or subordinated debt securities and a description of the subordination thereof.

In addition, the indenture does not limit our ability to issue subordinated debt securities. Any subordination provisions of a particular series of debt securities will be set forth in the resolution of our Board of Directors, the officers certificate or supplemental indenture related to that series of debt securities and will be described in the relevant prospectus supplement.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide

TABLE OF CONTENTS

you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, as Depository (the Depository), or a nominee (we will refer to any debt security represented by a global debt security as a book-entry debt security), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a certificated debt security) as set forth in the applicable prospectus supplement. Except as set forth under the heading Global Debt Securities and Book-Entry System below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities. You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities (except as expressly permitted under the indenture), but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may effect the transfer of certificated debt securities and the right to receive the principal of and interest on certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us of the certificate to the new holder or the issuance by us of a new certificate to the new holder.

Global Debt Securities and Book-Entry System. Each global debt security representing book-entry debt securities will be issued to the Depository or a nominee of the Depository and registered in the name of the Depository or a nominee of the Depository.

The Depository has indicated it intends to follow the following procedures with respect to book-entry debt securities.

Ownership of beneficial interests in book-entry debt securities will be limited to persons that have accounts with the Depository for the related global debt security (participants) or persons that may hold interests through participants.

Upon the issuance of a global debt security, the Depository will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal amounts of the book-entry debt securities represented by such global debt security beneficially owned by such participants. The accounts to be credited will be designated by any dealers, underwriters or agents participating in the distribution of the book-entry debt securities. Ownership of book-entry debt securities will be shown on, and the transfer of such ownership interests will be effected only through, records maintained by the Depository for the related global debt security (with respect to interests of participants) and on the records of participants (with respect to interests of persons holding through participants). The laws of some states may require that certain purchasers of securities take physical delivery of such securities in definitive form.

These laws may impair the ability to own, transfer or pledge beneficial interests in book-entry debt securities.

So long as the Depository for a global debt security, or its nominee, is the registered owner of that global debt security, the Depository or its nominee, as the case may be, will be considered the sole owner or holder of the book-entry debt securities represented by such global debt security for all purposes under the indenture. Except as described below, beneficial owners of book-entry debt securities will not be entitled to have securities registered in their names, will not receive or be entitled to receive physical delivery of a certificate in definitive form representing securities and will not be considered the owners or holders of those securities under the indenture. Accordingly, each

person beneficially owning book-entry debt securities must rely on the procedures of the Depositary for the related global debt security and, if such person is not a participant, on the procedures of the participant through which such person owns its interest, to exercise any rights of a holder under the indenture.

We understand, however, that under existing industry practice, the Depositary will authorize the persons on whose behalf it holds a global debt security to exercise certain rights of holders of debt securities, and the indenture provides that we, the trustee and our respective agents will treat as the holder of a debt security the

TABLE OF CONTENTS

persons specified in a written statement of the Depository with respect to such global debt security for purposes of obtaining any consents, declarations, waivers or directions required to be given by holders of the debt securities pursuant to the indenture.

We will make payments of principal of, and premium and interest, if any, on book-entry debt securities to the Depository or its nominee, as the case may be, as the registered holder of the related global debt security. Cliffs, the trustee and any other agent of ours or agent of the trustee will not have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to beneficial ownership interests.

We expect that the Depository, upon receipt of any payment of principal of, premium or interest, if any, on a global debt security, will immediately credit participants' accounts with payments in amounts proportionate to the respective amounts of book-entry debt securities held by each participant as shown on the records of such Depository. We also expect that payments by participants to owners of beneficial interests in book-entry debt securities held through those participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in street name, and will be the responsibility of those participants.

We will issue certificated debt securities in exchange for each global debt security only if (i) the Depository notifies us that it is unwilling or unable to continue as Depository for such global debt security or if at any time such Depository ceases to be a clearing agency registered under the Exchange Act, and, in either case, we fail to appoint a successor Depository registered as a clearing agency under the Exchange Act within 90 days of such event or (ii) we execute and deliver to the trustee an officers' certificate to the effect that such global debt security shall be so exchangeable. Any certificated debt securities issued in exchange for a global debt security will be registered in such name or names as the Depository shall instruct the trustee. We expect that such instructions will be based upon directions received by the Depository from participants with respect to ownership of book-entry debt securities relating to such global debt security.

We have obtained the foregoing information concerning the Depository and the Depository's book-entry system from sources we believe to be reliable, but we take no responsibility for the accuracy of this information.

No Protection In the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) that could adversely affect holders of debt securities.

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to, any person (a successor person) unless:

we are the surviving corporation or the successor person (if other than Cliffs) is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture;

immediately after giving effect to the transaction, no Event of Default, and no event which, after notice or passage of time, or both, would become an Event of Default, shall have occurred and be continuing under the indenture; and certain other conditions provided for in the indenture are met.

Notwithstanding the above, any subsidiary of Cliffs may consolidate with, merge into or transfer all or part of its properties to Cliffs or its subsidiaries.

TABLE OF CONTENTS

Events of Default

Event of Default means with respect to any series of debt securities, any of the following events, unless in the board resolution, supplemental indenture or officers' certificate, it is provided that such series of debt securities shall not have the benefit of a particular Event of Default:

default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of that default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of such period of 30 days);

default in the payment of principal of any debt security of that series at maturity or which such principal otherwise becomes due and payable;

default is made in the deposit of any sinking fund payment when as due by the terms of a security;

default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after written notice thereof has been given, by registered or certified mail, to us by the trustee or to us and the trustee by the holders of at least 25% in principal amount of the outstanding debt securities of that series, as provided in the indenture;

certain events of bankruptcy, insolvency or reorganization of Cliffs; and

any other Event of Default provided with respect to debt securities of that series that is described in the applicable board resolution, supplemental indenture or officers' certificate establishing such series of debt securities.

No Event of Default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an Event of Default with respect to any other series of debt securities. The occurrence of certain Events of Default or an acceleration under the indenture may constitute an event of default under certain of our other indebtedness outstanding from time to time.

If an Event of Default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) of accrued and unpaid interest, if any, on all debt securities of that series. In the case of an Event of Default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, and before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We will describe in the prospectus supplement relating to any series of debt securities that are discount securities the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an Event of Default.

The indenture provides that the trustee will be under no obligation to exercise any of its rights or powers under the indenture unless the trustee receives indemnity satisfactory to it against any loss, liability or expense. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that

series.

10

TABLE OF CONTENTS

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

that holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and
the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request, and offered reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such request, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding any other provision of the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and interest, if any, on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee an officers certificate as to compliance with the indenture. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any event which, after notice or passage of time, or both, would become an Event of Default or any Event of Default (except in payment of principal of or interest on any debt securities of that series) with respect to debt securities of that series if the trustee in good faith determines that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

We may modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

reduce the principal amount of debt securities whose holders must consent to an amendment, supplement or waiver;
reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
reduce the principal or change the stated maturity date of any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
reduce the principal amount of discount securities payable upon acceleration of maturity;
waive a default in the payment of the principal of or interest, if any, on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
make the principal of or interest on any debt security payable in currency other than that stated in the debt security;
make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of and interest on those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or
waive a redemption payment, provided that it is made at the option of Cliffs, with respect to any debt security.
Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive

TABLE OF CONTENTS

our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or interest, if any, on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from such acceleration.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (except for certain obligations to register the transfer or exchange of debt securities of such series, to replace stolen, lost or mutilated debt securities of such series, and to maintain paying agencies and certain provisions relating to the treatment of funds held by paying agents). We will be so discharged upon the deposit with the trustee, in trust, of money and/or U.S. Government Obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, Foreign Government Obligations, that, through the payment of interest and principal in accordance with their terms, will provide not later than one day before the due date of any payment of money, an amount in cash, sufficient, in the opinion of a nationally recognized firm of independent public accountants to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, that such deposit will not result in a breach or violation of, or constitute a default under the indenture or any other material agreement to which Cliffs is bound and we have delivered to the trustee an officers' certificate and an opinion of counsel stating that we have received from, or there has been published by, the U.S. Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable U.S. federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to U.S. federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants. The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with certain conditions as described below:

we may omit to comply with the covenant described under the heading "Consolidation, Merger and Sale of Assets" and certain other covenants set forth in the indenture, as well as any additional covenants which may be described in the applicable prospectus supplement; and any omission to comply with those covenants will not constitute an event which, after notice or passage of time, or both, would become an Event of Default or an Event of Default with respect to the debt securities of that series (covenant defeasance).

The conditions include:

depositing with the trustee money and/or U.S. Government Obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, Foreign Government Obligations, that, through the payment of interest and principal in accordance with their terms, will provide not later than one day before

the due date of any payment of money, an amount in cash, sufficient, in the opinion of a nationally recognized firm of independent public accountants to pay and discharge each installment of principal of, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities;

that such deposit will not result in a breach or violation of, or constitute a default under the indenture or any other agreement to which Cliffs is bound; and

12

TABLE OF CONTENTS

delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to U.S. federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default. In the event we exercise our option to effect covenant defeasance with respect to any series of debt securities and the debt securities of that series are declared due and payable because of the occurrence of any Event of Default, the amount of money and/or U.S. Government Obligations or Foreign Government Obligations on deposit with the trustee will be sufficient to pay amounts due on the debt securities of that series at the time of their stated maturity but may not be sufficient to pay amounts due on the debt securities of that series at the time of the acceleration resulting from the Event of Default. However, we shall remain liable for those payments.

Certain Defined Terms

Foreign Government Obligations means, with respect to debt securities of any series that are denominated in a currency other than U.S. dollars:

direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged; or obligations of a person controlled or supervised by or acting as an agency or instrumentality of that government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by that government, which, in either case are not callable or redeemable at the option of the issuer thereof.

U.S. Government Obligations means debt securities that are:

direct obligations of The United States of America for the payment of which its full faith and credit is pledged; or obligations of a person controlled or supervised by and acting as an agency or instrumentality of The United States of America the full and timely payment of which is unconditionally guaranteed as full faith and credit obligation by The United States of America, which, in either case, are not callable or redeemable at the option of the issuer itself and shall also include a depository receipt issued by a bank or trust company as custodian with respect to any such U.S. Government Obligation or a specific payment of interest on or principal of any such U.S. Government Obligation held by such custodian for the account of the holder of a depository receipt. Except as required by law, such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the U.S. Government Obligation evidenced by such depository receipt.

Governing Law

The indenture and the debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York.

TABLE OF CONTENTS

PLAN OF DISTRIBUTION

We may sell the offered debt securities in and outside the United States:

through underwriters or dealers;
directly to purchasers;
through agents; or
through a combination of any of these methods.

The prospectus supplement will include the following information:

the terms of the offering;
the names of any underwriters or agents;
the name or names of any managing underwriter or underwriters;
the purchase price or initial public offering price of the debt securities;
the net proceeds from the sale of the debt securities;
any delayed delivery arrangements;
any underwriting discounts, commissions and other items constituting underwriters' compensation;
any discounts or concessions allowed or reallocated or paid to dealers;
any commissions paid to agents; and
any securities exchanges on which the debt securities may be listed.

Sale through Underwriters or Dealers

If underwriters are used in the sale, we will execute an underwriting agreement with them regarding the debt securities. The underwriters will acquire the debt securities for their own account, subject to conditions in the underwriting agreement. The underwriters may resell the debt securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Underwriters may offer the debt securities to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. Unless we inform you otherwise in the prospectus supplement, the obligations of the underwriters to purchase the debt securities will be subject to certain conditions, and the underwriters will be obligated to purchase all the offered debt securities if they purchase any of them. The underwriters may change from time to time any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers.

During and after an offering through underwriters, the underwriters may purchase and sell the debt securities in the open market. To the extent expressly set forth in the applicable prospectus supplement, these transactions may include over-allotment and stabilizing transactions and purchases to cover syndicate short positions created in connection with the offering. The underwriters may also impose a penalty bid, which means that selling concessions allowed to syndicate members or other broker-dealers for the offered debt securities sold for their account may be reclaimed by the syndicate if the offered debt securities are repurchased by the syndicate in stabilizing or covering transactions. These activities may stabilize, maintain or otherwise affect the market price of the offered debt securities, which may be higher than the price that might otherwise prevail in the open market. If commenced, the underwriters may discontinue these activities at any time.

Some or all of the debt securities that we offer through this prospectus may be new issues of debt securities with no established trading market. Any underwriters to whom we sell our debt securities for public offering and may make a market in those debt securities, but they will not be obligated to do so and they may discontinue any market making at

any time without notice. Accordingly, we cannot assure you of the liquidity of, or continued trading markets for, any debt securities that we offer.

TABLE OF CONTENTS

If dealers are used in the sale of the debt securities, we will sell the debt securities to them as principals. They may then resell the debt securities to the public at varying prices determined by the dealers at the time of resale. We will include in the prospectus supplement the names of the dealers and the terms of the transaction.

Direct Sales and Sales through Agents

We may sell the debt securities directly. In this case, no underwriters or agents would be involved. We may also sell the debt securities through agents designated from time to time. In the prospectus supplement, we will name any agent involved in the offer or sale of the offered debt securities, and we will describe any commissions payable to the agent. Unless we inform you otherwise in the prospectus supplement, any agent will agree to use its reasonable best efforts to solicit purchases for the period of its appointment.

We may sell the debt securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act of 1933 with respect to any sale of those securities. We will describe the terms of any sales of these debt securities in the prospectus supplement.

Remarketing Arrangements

Offered debt securities may also be offered and sold, if so indicated in the applicable prospectus supplement, in connection with a remarketing upon their purchase, in accordance with a redemption or repayment pursuant to their terms, or otherwise, by one or more remarketing firms, acting as principals for their own accounts or as agents for us. Any remarketing firm will be identified and the terms of its agreements, if any, with us and its compensation will be described in the applicable prospectus supplement.

Delayed Delivery Contracts

If we so indicate in the prospectus supplement, we may authorize agents, underwriters or dealers to solicit offers from certain types of institutions to purchase debt securities from us at the public offering price under delayed delivery contracts. These contracts would provide for payment and delivery on a specified date in the future. The contracts would be subject only to those conditions described in the prospectus supplement. The prospectus supplement will describe the commission payable for solicitation of those contracts.

General Information

We may have agreements with the agents, dealers, underwriters and remarketing firms to indemnify them against certain civil liabilities, including liabilities under the Securities Act, or to contribute with respect to payments that the agents, dealers, underwriters or remarketing firms may be required to make. Agents, dealers, underwriters and remarketing firms may be customers of, engage in transactions with or perform services for us in the ordinary course of their businesses.

LEGAL MATTERS

Jones Day will pass upon the validity of the debt securities being offered hereby.

EXPERTS

The consolidated financial statements, and the related financial statement schedule, incorporated in this Prospectus by reference from Cliffs Natural Resources Inc. 's Annual Report on Form 10-K, and the effectiveness of Cliffs Natural Resources Inc. 's internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference. Such financial statements and financial statement schedule have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

15

TABLE OF CONTENTS
