CLIFFS NATURAL RESOURCES INC.
Form 10-K
February 09, 2017
Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016
OR
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to .
Commission File Number: 1-8944
CLIFFS NATURAL RESOURCES INC.
(Exact Name of Registrant as Specified in Its Charter)

Ohio	34-1464672
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
200 Public Square, Suite 3300, Cleveland, Ohio	44114-2315
(Address of Principal Executive Offices)	(Zip Code)

Registrant’s Telephone Number, Including Area Code: (216) 694-5700
Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Shares, par value $0.125 per share	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:
NONE
Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES NO
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES NO
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES NO
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant’s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES NO

As of June 30, 2016, the aggregate market value of the voting and non-voting common shares held by non-affiliates of the registrant, based on the closing price of $5.67 per share as reported on the New York Stock Exchange — Composite Index, was $1,068,236,979 (excluded from this figure is the voting stock beneficially owned by the registrant's officers and directors).

The number of shares outstanding of the registrant's common shares, par value $0.125 per share, was 233,074,091 as of February 6, 2017.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement for its 2017 annual meeting of shareholders are incorporated by reference into Part III.

Table of Contents

TABLE OF CONTENTS

Table of Contents

DEFINITIONS

The following abbreviations or acronyms are used in the text. References in this report to the “Company,” “we,” “us,” “our” and “Cliffs” are to Cliffs Natural Resources Inc. and subsidiaries, collectively. References to “A$” or “AUD” refer to Australian currency, “C$” to Canadian currency and “$” to United States currency.

Abbreviation or acronym	Term
ABL Facility	Syndicated Facility Agreement by and among Bank of America, N.A., as Administrative Agent and Australian Security Trustee, the Lenders that are parties hereto, Cliffs Natural Resources Inc., as Parent and a Borrower, and the Subsidiaries of Parent party hereto, as Borrowers dated as of March 30, 2015, as amended
AG	Autogenous Grinding
Algoma	Essar Steel Algoma Inc.
APBO	Accumulated Postretirement Benefit Obligation
ArcelorMittal	ArcelorMittal (as the parent company of ArcelorMittal Mines Canada, ArcelorMittal USA and ArcelorMittal Dofasco Inc., as well as, many other subsidiaries)
ArcelorMittal USA	ArcelorMittal USA LLC (including many of its United States affiliates, subsidiaries and representatives. References to ArcelorMittal USA comprise all such relationships unless a specific ArcelorMittal USA entity is referenced)
ALJ	Administrative Law Judge
ASC	Accounting Standards Codification
ASU	Accounting Standards Updates
BAML	Bank of America Merrill Lynch
BART	Best Available Retrofit Technology
Bloom Lake	The Bloom Lake Iron Ore Mine Limited Partnership
Bloom Lake Group	Bloom Lake General Partner Limited and certain of its affiliates, including Cliffs Quebec Iron Mining ULC
BNSF	Burlington Northern Santa Fe, LLC
Canadian Entities	Bloom Lake Group, Wabush Group and certain other wholly-owned subsidiaries
CCAA	Companies' Creditors Arrangement Act (Canada)
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR	Cost and freight
CLCC	Cliffs Logan County Coal LLC
Clean Water Act	Federal Water Pollution Control Act
CN	Canadian National Railway Company
CO_2	Carbon Dioxide
Codification	FASB Accounting Standards Codification
CODM	Chief Operating Decision Maker
Compensation Committee	Compensation and Organization Committee of Cliffs' Board of Directors
Consent Order	Administrative Order by Consent
CQIM	Cliffs Québec Iron Mining ULC (formerly known as Cliffs Québec Iron Mining Limited)
CSAPR	Cross-State Air Pollution Rule
Directors’ Plan	Cliffs Natural Resources Inc. 2014 Nonemployee Directors’ Compensation Plan
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act
DR-grade pellets	Direct Reduction pellets
EAF	Electric Arc Furnace
EBITDA	Earnings before interest, taxes, depreciation and amortization
Empire	Empire Iron Mining Partnership

EPA	U.S. Environmental Protection Agency
EPS	Earnings per share
ERM	Enterprise Risk Management
Exchange Act	Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
Fe	Iron
FERC	Federal Energy Regulatory Commission
FeT	Total Iron
FIP	Federal Implementation Plan
FMSH Act	U.S. Federal Mine Safety and Health Act 1977, as amended
GAAP	Accounting principles generally accepted in the U.S.
GHG	Greenhouse gas
Hibbing	Hibbing Taconite Company, an unincorporated joint venture

Table of Contents

Abbreviation or acronym	Term
Koolyanobbing	Collective term for the operating deposits at Koolyanobbing, Mount Jackson and Windarling
LIBOR	London Interbank Offered Rate
LIFO	Last-in, first-out
LS&I	Lake Superior & Ishpeming Railroad Company
LTVSMC	LTV Steel Mining Company
MDEQ	Michigan Department of Environmental Quality
MISO	Midcontinent Independent System Operator, Inc.
MMBtu	Million British Thermal Units
MPCA	Minnesota Pollution Control Agency
MPSC	Michigan Public Service Commission
MPUC	Minnesota Public Utilities Commission
MSHA	U.S. Mine Safety and Health Administration
Monitor	FTI Consulting Canada Inc.
MWh	Megawatts per hour
NAAQS	National Ambient Air Quality Standards
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxide
Northshore	Northshore Mining Company
NPDES	National Pollutant Discharge Elimination System, authorized by the U.S. Clean Water Act
NSPS	New Source Performance Standards
NYSE	New York Stock Exchange
Oak Grove	Oak Grove Resources, LLC
OPEB	Other postretirement employment benefits
OPEB cap	Medical premium maximums
P&P	Proven and Probable
PBO	Projected benefit obligation
Pinnacle	Pinnacle Mining Company, LLC
Platts 62% Price	Platts IODEX 62% Fe Fines Spot Price
Preferred Share	7.00% Series A Mandatory Convertible Preferred Stock, Class A, without par value
ROA	Return on asset
S&P	Standard & Poor's Rating Services, a division of Standard & Poor's Financial Services LLC, a subsidiary of The McGraw-Hill Companies, Inc., and its successors
SEC	U.S. Securities and Exchange Commission
SG&A	Selling, general and administrative
Seneca	Seneca Coal Resources, LLC
Severstal	Severstal Dearborn, LLC
Silver Bay Power	Silver Bay Power Company
SIP	State Implementation Plan
SO_2	Sulfur dioxide
Sonoma	Sonoma Coal Project
SSR	System Support Resource
STRIPS	Separate Trading of Registered Interest and Principal of Securities
Tilden	Tilden Mining Company L.C.
TDR	Troubled Debt Restructuring
TMDL	Total Maximum Daily Load
TRIR	Total Reportable Incident Rate
TSR	Total Shareholder Return

United Taconite	United Taconite LLC
U.S.	United States of America
U.S. Steel	United States Steel Corporation
USW	United Steelworkers
VEBA	Voluntary Employee Benefit Association trusts
VWAP	Volume Weighted Average Price
Wabush	Wabush Mines Joint Venture

Table of Contents

Abbreviation or acronym	Term
Wabush Group	Wabush Iron Co. Limited and Wabush Resources Inc., and certain of their affiliates, including Wabush Mines (an unincorporated joint venture of Wabush Iron Co. Limited and Wabush Resources Inc.), Arnaud Railway Company and Wabush Lake Railway Company
2012 Equity Plan	Cliffs Natural Resources Inc. Amended and Restated 2012 Incentive Equity Plan
2015 Equity Plan	Cliffs Natural Resources Inc. 2015 Equity & Incentive Compensation Plan

Table of Contents

PART I
Item 1. Business
Introduction
Cliffs Natural Resources Inc. is a leading mining and natural resources company. Founded in 1847, we are recognized as the largest and oldest independent iron ore mining company in the United States. We are a major supplier of iron ore pellets to the North American steel industry from our mines and pellet plants located in Michigan and Minnesota. Additionally, we operate an iron ore mining complex in Western Australia. Driven by the core values of safety, social, environmental and capital stewardship, our employees endeavor to provide all stakeholders with operating and financial transparency.

We are organized through a global commercial group responsible for sales and delivery of our products and operations groups responsible for the production of the iron ore that we market. Our continuing operations are organized according to geographic location: U.S. Iron Ore and Asia Pacific Iron Ore.

In the U.S., we currently own or co-own four operational iron ore mines plus one indefinitely idled mine. We are currently operating one iron ore mine in Michigan and three iron ore mines in Minnesota. All four mines are currently operating at or near full capacity. The Empire mine located in Michigan was indefinitely idled beginning on August 3, 2016. We plan to continue shipping Empire's remaining inventory of pellets into 2017. Our Asia Pacific operations consist solely of our Koolyanobbing iron ore mining complex in Western Australia, which is currently operating at or near full capacity.

We are Focused on our Core U.S. Iron Ore Business
We are the market-leading iron ore producer in the U.S., supplying differentiated iron ore pellets under long-term contracts to the largest North American steel producers. We have the unique advantage of being a low cost producer of iron ore pellets in the U.S. market with significant transportation and logistics advantages to serve the U.S. steel market effectively. Pricing structures contained in and the long-term supply nature of our existing contracts, along with our low-cost operating profile, position our U.S. Iron Ore business segment as a strong cash flow generator in most commodity pricing environments. Since instituting our core strategy of focusing on this business, we have achieved significant accomplishments including providing volume certainty by signing a new, ten-year supply agreement with our largest customer, substantially reducing operating costs by making various operational improvements, and developing alternate iron unit strategies to provide opportunities to enter into the EAF steel production market.

As the implementation of this strategy has strengthened the business, we have put additional emphasis on the continued improvement of our balance sheet via reduction of long-term debt. Since the 2014 initiation of our transition strategy, we have reduced the principal of our long-term debt by 21% using various liability management strategies. Given the cyclical nature of our business, we feel that further reduction of our long-term debt will improve the strength of our balance sheet and provide us increased financial flexibility to enable us to manage through any commodity environment, and we continue to seek the best opportunities to accomplish this.

Business Segments
Our Company’s continuing operations are organized and managed according to geographic location: U.S. Iron Ore and Asia Pacific Iron Ore.

Segment information reflects our business units, which are organized to meet customer requirements and global competition. Financial information about our segments, including financial information about geographic areas, is included in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and NOTE 2 - SEGMENT REPORTING included in Item 8. Financial Statements and Supplementary Data of this Annual Report on Form 10-K.

Table of Contents

U.S. Iron Ore

We are a major producer of iron ore pellets, primarily selling production from U.S. Iron Ore to integrated steel companies in the U.S., Canada and Mexico. We operate four iron ore mines located in Michigan and Minnesota. In Michigan, we are operating the Tilden mine. In Minnesota, we are operating the Northshore, United Taconite and Hibbing mines. The Empire mine located in Michigan, which historically had annual rated capacity of 5.5 million long tons, was indefinitely idled beginning on August 3, 2016. The U.S.-based mines currently have an annual rated capacity of 27.4 million long tons of iron ore pellet production, representing 55% of total U.S. pellet production capacity. Based on our equity ownership in these mines, our share of the annual rated production capacity is currently 20.0 million long tons, representing 40% of total U.S. annual pellet capacity.

The following chart summarizes the estimated annual pellet production capacity and percentage of total U.S. pellet production capacity for each of the respective iron ore producers as of December 31, 2016:

U.S. Iron Ore Pellet
Annual Rated Capacity Tonnage

	Current Estimated Capacity (Tons in Millions)[1,2]	Percent of Total U.S. Capacity	
All Cliffs' managed mines	27.4	54.9	%
Other U.S. mines			
U.S. Steel's Minnesota ore operations			
Minnesota Taconite	14.3	28.7	
Keewatin Taconite	5.4	10.8	
Total U.S. Steel	19.7	39.5	
ArcelorMittal USA Minorca mine	2.8	5.6	
Total other U.S. mines	22.5	45.1	
Total U.S. mines	49.9	100.0	%

[1] Tons are long tons (2,240 pounds)
[2] Empire mine was excluded from the estimated capacity calculation as it is indefinitely idled

Our U.S. Iron Ore production generally is sold pursuant to long-term supply agreements with various price adjustment provisions. For the year ended December 31, 2016, we produced a total of 23.4 million long tons of iron ore pellets, including 2.8 million long tons from our indefinitely-idled Empire mine. The 2016 U.S. Iron Ore production includes 16.0 million long tons for our account and 7.4 million long tons on behalf of steel company partners of the mines.

We produce various grades of iron ore pellets, including standard, fluxed and DR-grade, for use in our customers' operations as part of the steelmaking process. The variation in grades of iron ore pellets results from the specific chemical and metallurgical properties of the ores at each mine, the end user's steelmaking process and whether or not fluxstone is added in the process. Although the grade or grades of pellets currently delivered to each customer are based on that customer's preferences, which depend in part on the characteristics of the customer's steelmaking operation, in many cases our iron ore pellets can be used interchangeably. Standard pellets require less processing, are generally the least costly pellets to produce and are called "standard" because no ground fluxstone, such as limestone or dolomite, is added to the iron ore concentrate before turning the concentrate into pellets. In the case of fluxed pellets, fluxstone is added to the concentrate, which produces pellets that can perform at higher productivity levels in the customer's specific blast furnace and will minimize the amount of fluxstone the customer may be required to add to the blast furnace. DR-grade pellets require processing to make an iron unit that contains higher iron and lower silica content than a standard pellet. Unlike standard or fluxed pellets, DR-grade pellets are fed into a direct reduced iron facility, which then are converted as the raw material for an EAF producer.

Additionally, as the EAF steel market continues to grow in the U.S., there is an opportunity for our iron ore to serve this market by providing pellets to the alternative metallics market to produce direct reduced iron, hot briquetted iron and/or pig iron. In 2016 and 2015, we produced and shipped industrial trials of low silica DR-grade pellets, which were successfully processed in a customer's EAF to obtain a high-quality direct reduced iron product. While we are still in the early stages of developing our alternative metallics business, we believe this will open up a new opportunity

Table of Contents

for us to diversify our product mix and add new customers to our U.S. Iron Ore segment beyond the traditional blast furnace clientele.

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.

Our U.S. Iron Ore sales are influenced by seasonal factors in the first half of the year as shipments and sales are restricted by the Army Corp of Engineers due to closure of the Soo Locks and the Welland Canal on the Great Lakes because of winter weather. During the first quarter, we continue to produce our products, but we cannot ship most of those products via lake vessel until the conditions on the Great Lakes are navigable, which causes our first and second quarter inventory levels to rise. Our limited practice of shipping product to ports on the lower Great Lakes or to customers’ facilities prior to the transfer of title has somewhat mitigated the seasonal effect on first and second quarter inventories and sales, as shipment from this point to the customers’ operations is not limited by weather-related shipping constraints. At December 31, 2016 and 2015, we had approximately 1.5 million and 1.3 million long tons of pellets, respectively, in inventory at lower lakes or customers’ facilities.

U.S. Iron Ore Customers

Our U.S. Iron Ore revenues primarily are derived from sales of iron ore pellets to the North American integrated steel industry, consisting primarily of three 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 certain 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 spot iron ore pricing, measures of general industrial inflation and steel prices.

During 2016, 2015 and 2014, we sold 18.2 million, 17.3 million and 21.8 million long tons of iron ore product, respectively, from our share of the production from our U.S. Iron Ore mines. Refer to Concentration of Customers below for additional information regarding our major customers.

Asia Pacific Iron Ore

Our Asia Pacific Iron Ore operations are located in Western Australia and consist solely of our wholly owned Koolyanobbing operation.

The Koolyanobbing operations serve the Asian iron ore markets with direct-shipped fines and lump ore. The lump products are fed directly to blast furnaces, while the fines products are used as sinter feed. The variation in the two export product grades reflects the inherent chemical and physical characteristics of the ore bodies mined as well as the supply requirements of our customers. During 2016, 2015 and 2014, we produced 11.8 million, 11.7 million and 11.4 million metric tons, respectively.

Koolyanobbing is a collective term for the ore deposits at Koolyanobbing, Mount Jackson and Windarling. There are approximately 70 miles separating the three mining areas. Banded iron formations host the mineralization, which is predominately hematite and goethite. Each deposit is characterized with different chemical and physical attributes and, in order to achieve customer product quality, ore in varying quantities from each deposit must be blended together.

Crushing and blending are undertaken at Koolyanobbing, where the crushing and screening plant is located. Once the blended ore has been crushed and screened into a direct lump and fines shipping product, it is transported by rail approximately 360 miles south to the Port of Esperance, via Kalgoorlie, for shipment to our customers in Asia.

Asia Pacific Iron Ore Customers

Asia Pacific Iron Ore’s production is under contract with steel companies primarily in China, Japan and South Korea. In March 2015, we extended the majority of our supply agreements with steel producers in China for two years. These contracts will currently expire in March 2017, but we anticipate that the majority of these contracts will be renewed for an additional 12 months. Our supply agreement with our client in South Korea was recently extended and will expire in December 2017. Our supply agreements with our customers in Japan currently expire in March 2017, but we anticipate these contracts also will be renewed for an additional 12 months. Pricing for our Asia Pacific Iron Ore Chinese customers consists of shorter-term pricing mechanisms of various durations up to three months based on the average of daily spot prices that are generally associated with the time of unloading of each shipment. Pricing with our Japanese and South Korean customers is generally consistent with the inputs used with our Chinese customers, but the pricing inputs are fixed before shipment.

Table of Contents

During 2016, 2015 and 2014, we sold 11.6 million, 11.6 million and 11.5 million metric tons of iron ore, respectively, from our Western Australia mines. No Asia Pacific Iron Ore customer comprised more than 10% of Cliffs consolidated sales in 2016, 2015 or 2014. The segment’s five largest customers together accounted for a total of 56%, 47% and 38% of Asia Pacific Iron Ore product revenues for the years 2016, 2015 and 2014, respectively.

Discontinued Operations

North American Coal

Throughout the majority of 2015, we owned and operated two low-volatile metallurgical coal operations located in Alabama and West Virginia. These low-volatile metallurgical coal operations had a rated capacity of 6.5 million short tons of production annually. On December 22, 2015, we sold these two low-volatile metallurgical coal operations, Pinnacle mine and Oak Grove mine, marking our exit from the coal business. Historically, we sold 4.6 million short tons in 2015 and 7.4 million short tons in 2014. On December 31, 2014, we sold our CLCC assets, which consisted of two high-volatile metallurgical coal mines and a thermal coal mine. Sales tons at the CLCC operations were 2.4 million short tons for the year ended December 31, 2014, and is included in the sales tons disclosed above.

As of March 31, 2015, management determined that our North American Coal operating segment met the criteria to be classified as held for sale under ASC 205, Presentation of Financial Statements. As such, all current and historical North American Coal operating segment results are included in our financial statements and classified within discontinued operations. Refer to NOTE 14 - DISCONTINUED OPERATIONS for further discussion of the North American Coal segment discontinued operations.

Eastern Canadian Iron Ore

Prior to late March 2014, we operated two iron ore mines in Eastern Canada, the Bloom Lake mine and the Wabush Scully mine. In late March 2014, we idled our Wabush Scully mine in Newfoundland and Labrador and in November 2014, we began to implement the permanent closure plan for the mine. The idle and ultimate closure was driven by the unsustainable high-cost structure. In January 2015, we ceased active production at the Bloom Lake mine and the mine transitioned to "care-and-maintenance" mode. Together, the shutdown of the Wabush Scully mine and the cessation of operations at our Bloom Lake mine represented a complete curtailment of our Eastern Canadian Iron Ore operations.

During 2014, we sold 7.2 million metric tons of iron ore concentrate and pellets, from our Eastern Canadian Iron Ore mines.

As more fully described in NOTE 14 - DISCONTINUED OPERATIONS, in January 2015, we announced that the Bloom Lake Group commenced restructuring proceedings under the CCAA in Montreal, Quebec. Additionally, on May 20, 2015, the Wabush Group commenced restructuring proceedings under the CCAA in Montreal, Quebec and the CCAA protections granted to the Bloom Lake Group were extended to include the Wabush Group to facilitate the reorganization of each of their businesses and operations. Following each respective CCAA filing we deconsolidated the Bloom Lake Group and certain other wholly-owned subsidiaries and the Wabush Group entities, comprising substantially all of our Canadian operations. Financial results prior to the respective deconsolidations of the Bloom Lake and Wabush Groups and subsequent expenses directly associated with the Canadian Entities are included in our financial statements and classified within discontinued operations. Port and rail assets and the Bloom Lake mine were sold during 2016 under the CCAA proceedings. Refer to NOTE 14 - DISCONTINUED OPERATIONS for further discussion of the Eastern Canadian Iron Ore segment discontinued operations and the status of the CCAA proceedings.

Unless otherwise noted, discussion of our business and results of operations in this Annual Report on Form 10-K refers to our continuing operations.

Applied Technology, Research and Development

We have been a leader in iron ore mining and process technology since inception and have been in operation for 170 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, improvement of existing products and development of new products.

Table of Contents

We are a pioneer in iron ore pelletizing with over 60 years of experience. We are able to produce customized pellets to meet each customer’s blast furnace specifications, and produce both standard and fluxed pellets. Using our technical expertise and strong market position in the United States to increase our product offering, we have been working on producing DR-grade pellets. In 2016 and 2015, we produced and shipped industrial trials of low silica DR-grade pellets, which were successfully processed in a customer's EAF to obtain a high-quality direct reduced iron product. With our experienced technical professionals and unsurpassed reputation for our pelletizing technology, we continue to deliver a world-class quality product to our customers. We are a pioneer in the development of emerging reduction technologies, a leader in the extraction of value from challenging resources and a front runner in the implementation of safe and sustainable technology. Our technical experts are dedicated to excellence and deliver superior technical solutions tailored to our customer base.

Concentration of Customers

In 2016, two customers individually accounted for more than 10% of our consolidated product revenue and in 2015 and 2014 three customers individually accounted for more than 10% of our consolidated product revenue. Product revenue from those customers represented in the chart below totaled $1.1 billion, $1.3 billion and $1.9 billion of our total consolidated product revenue in 2016, 2015 and 2014, respectively, and is attributable to our U.S. Iron Ore business segment. The following represents sales revenue from each of these customers as a percentage of our total consolidated product revenue, as well as the portion of product sales for U.S. Iron Ore that is attributable to each of these customers in 2016, 2015 and 2014, respectively:

	Percentage of Total Product Revenue			Percentage of U.S. Iron Ore Product Revenue		
Customer[1]	2016	2015	2014	2016	2015	2014
ArcelorMittal	37%	37%	29%	51%	49%	40%
AK Steel[2]	19%	21%	20%	27%	29%	28%
Algoma[3]	4%	12%	13%	5%	15%	18%

[1] Includes subsidiaries.

[2] Effective September 16, 2014, AK Steel completed the acquisition of Severstal North America's integrated steelmaking assets located in Dearborn, Michigan. For comparative purposes, we have combined historical data for all periods presented.

[3] On October 5, 2015, we terminated the long-term agreement with Algoma; however, we entered into certain short-term contracts with Algoma throughout 2016. On May 16, 2016, we reinstated our agreement with Algoma, which took effect in January 2017.

ArcelorMittal

Our pellet supply agreements with ArcelorMittal USA are the basis for supplying pellets to ArcelorMittal USA, which are based on customer requirements, except for the Indiana Harbor East facility, which is based on customer contract obligations. The legacy agreements with ArcelorMittal USA were set to expire at the end of December 2016 and January 2017. The parties executed a new long-term agreement, which became effective October 31, 2016, for the sale and delivery of ArcelorMittal USA’s annual tonnage requirements which fall within a specific range of volume (“AM Pellet Sale Agreement”). The AM Pellet Sale Agreement expires at the end of December 2026.

ArcelorMittal USA is a 62.3% equity participant in Hibbing and a 21.0% equity partner in Empire with limited rights and obligations.

In 2016, 2015 and 2014, our U.S. Iron Ore pellet sales to ArcelorMittal were 9.7 million, 9.7 million and 10.2 million long tons, respectively.

AK Steel

On September 16, 2014, AK Steel announced an acquisition of Severstal North America’s integrated steelmaking assets located in Dearborn, Michigan. We had a long-term relationship to supply iron ore pellets to that location. Upon consummation of the acquisition, the contract was automatically assigned to AK Steel. The combination of sales pursuant to our pre-existing sales agreement with AK Steel and the acquisition of the Dearborn facility with its sales agreement accounts for more than 10% of our consolidated product revenue in 2016, 2015 and 2014.

Table of Contents

On August 29, 2013, we entered into a new agreement with AK Steel to provide iron ore pellets to AK Steel for use in its Middletown, Ohio and Ashland, Kentucky blast furnace facilities. This contract includes minimum and maximum tonnage requirements for each year between 2014 and 2023.

Under the original agreement entered into with Severstal in 2006, we supply all of the Dearborn, Michigan facility's blast furnace pellet requirements through 2022, subject to specified minimum and maximum requirements in certain years. AK Steel was the successor by merger of this contract and it remains in force. In September 2014, we entered into an amendment to the Dearborn contract with AK Steel to document the 2013 base pricing provisions, among other things, which resulted from an arbitration ruling in May 2014.

In 2016, 2015 and 2014, our U.S. Iron Ore pellet sales to AK Steel and the acquired Dearborn facility were 4.5 million, 4.3 million and 5.8 million long tons, respectively.

Algoma

Algoma is a Canadian steelmaker and a subsidiary of Essar Steel Holdings Limited. We have a long-term supply agreement under which we were Algoma's sole supplier of iron ore pellets through the end of 2016 and are required to deliver a set tonnage for less than Algoma's entire requirements through 2024. There were multiple contract disputes that led to us filing a complaint in the Federal District Court in the Northern District of Ohio on January 12, 2015. During the litigation process, we asserted additional claims of material breach as a result of Algoma's actions during 2015.

Cliffs and Algoma settled the dispute after Algoma filed for CCAA protection in the Canadian Superior Court of Ontario. Under the terms of the settlement, Algoma has agreed to assume the long-term supply agreement, and has entered into a separate agreement to purchase additional tonnage from Cliffs beginning 2017 through and including December 2020.

In 2016, 2015 and 2014, our U.S. Iron Ore pellet sales to Algoma were 1.2 million, 2.5 million and 3.5 million long tons, respectively.

Competition

Throughout the world, we compete with major and junior mining companies, as well as steel companies, both of which produce steelmaking raw materials, including iron ore.

North America

In our U.S. Iron Ore business segment, we primarily sell our product to steel producers with operations in North America. We compete directly with steel companies that own interests in iron ore mines in the United States and/or Canada, including ArcelorMittal and U.S. Steel, and with major iron ore pellet exporters from Eastern Canada and Brazil. In 2016, finished steel import market share was 26% in the U.S., down from 29% in 2015. As a result, steel prices in North America improved, driving more demand for iron ore pellets.

A number of factors beyond our control affect the markets in which we sell our iron ore. Continued demand for our iron ore and the prices obtained by us primarily depend on the consumption patterns of the steel industry in the U.S., China and elsewhere around the world, as well as the availability, location, cost of transportation and competing prices.

Asia Pacific

In our Asia Pacific Iron Ore business segment, we export iron ore products to the Asia Pacific markets, including China, Japan, and South Korea. In the Asia Pacific marketplace, we compete with major iron ore exporters primarily from Australia and Brazil. These include BHP Billiton, Fortescue Metals Group Ltd., Rio Tinto plc and Vale SA, among others.

Competition in steelmaking raw materials is predicated upon the usual competitive factors of price, availability of supply, product quality and performance, service and transportation cost to the consumer of the raw materials.

Environment

Our mining activities are subject to various laws and regulations governing the protection of the environment. We conduct our operations in a manner that is protective of public health and the environment and believe our operations are in compliance with applicable laws and regulations in all material respects.

Table of Contents

Environmental issues and their management continued to be an important focus at each of our operations throughout 2016. In the construction of our facilities and in their operation, substantial costs have been incurred and will continue to be incurred to avoid undue effect on the environment. Our capital expenditures relating to environmental matters totaled approximately \$15 million, \$17 million and \$33 million, in 2016, 2015 and 2014, respectively. Approximately \$5 million and \$3 million of the 2015 and 2014 capital expenditures, respectively, relating to environmental matters was attributable to the North American Coal operations that were sold during December 2015. Additionally, approximately \$22 million of the 2014 capital expenditures relating to environmental matters was attributable to the Eastern Canadian Iron Ore operations, which are classified within discontinued operations. It is estimated that capital expenditures for environmental improvements will total approximately \$25 million in 2017, which is related to our U.S. Iron Ore operations for selenium management and various water treatment, air quality, dust control, tailings management and other miscellaneous environmental projects.

Regulatory Developments

Various governmental bodies continually promulgate new or amended laws and regulations that affect our Company, our customers and our suppliers in many areas, including waste discharge and disposal, the classification of materials and products, air and water discharges and many other environmental, health and safety matters. Although we believe that our environmental policies and practices are sound and do not expect that the application of any current laws or regulations reasonably would be expected to result in a material adverse effect on our business or financial condition, we cannot predict the collective adverse impact of the expanding body of laws and regulations.

Specifically, there are several notable proposed or potential rulemakings or activities that could have a material adverse impact on our facilities in the future depending on their ultimate outcome: Climate Change and GHG Regulation; Regional Haze, NO_2 and SO_2 National Ambient Air Quality Standards; Cross State Air Pollution Rule, increased administrative and legislative initiatives related to financial assurance obligations for CERCLA, mining and reclamation obligations; Minnesota's Mercury TMDL and associated rules governing mercury air emission reductions; evolving water quality standards for selenium, sulfate and conductivity; and scope of the Clean Water Act and the definition of “Waters of the United States”.

Climate Change and GHG Regulation

With the complexities and uncertainties associated with the U.S. and global navigation of the climate change issue as a whole, one of our significant risks for the future is mandatory carbon pricing obligations. Policymakers are in the design process of carbon regulation at the state, regional, national and international levels. The current regulatory patchwork of carbon compliance schemes presents a challenge for multi-facility entities to identify their near-term risks. Amplifying the uncertainty, the dynamic forward outlook for carbon pricing obligations presents a challenge to large industrial companies to assess the long-term net impacts of carbon compliance costs on their operations. Our exposure on this issue includes both the direct and indirect financial risks associated with the regulation of GHG emissions, as well as potential physical risks associated with climate change. We are continuing to review the physical risks related to climate change utilizing our formal ERM process. As an energy-intensive business, our GHG emissions inventory includes a broad range of emissions sources, such as iron ore furnaces and kilns, diesel mining equipment and our wholly owned Silver Bay power generation plant, among others. As such, our most significant regulatory risks are: (1) the costs associated with on-site emissions levels (direct impacts), and (2) indirect costs passed through to us from power generators and distillate fuel suppliers (indirect impacts).

Internationally, mechanisms to reduce emissions are being implemented in various countries, with differing designs and stringency, according to resources, economic structure and politics. We expect that momentum to extend carbon regulation will continue with implementation of the Paris climate agreement that was adopted in 2015, the aim of which is to keep the increase in global average temperature to below two degrees Celsius. Continued political attention to issues concerning climate change, the role of human activity in it and potential mitigation through regulation may have a material impact on our customer base, operations and financial results in the future.

In the U.S., federal carbon regulation potentially presents a significantly greater impact to our operations. To date, the U.S. Congress has not legislated carbon constraints. In the absence of comprehensive federal carbon legislation, numerous state, regional, and federal regulatory initiatives are under development or are becoming effective, thereby creating a disjointed approach to carbon control. In May 2010, the EPA promulgated the GHG Tailoring Rule establishing a mechanism for regulating GHG emissions from facilities through the Prevention of Significant Deterioration (PSD) permitting program under the Clean Air Act. Under the GHG Tailoring Rule, as modified by a 2014 U.S. Supreme Court decision upholding some components of the rule, new projects that increase GHG emissions by a significant amount (generally more than 75,000 long tons of CO_2 emissions per year) are subject to the PSD requirements, including the installation of best available control technology, if the project also significantly increases emissions of at least one non-GHG regulated criteria pollutant. We do not expect the Tailoring Rule provision to have a material adverse effect on our business in the near term and we cannot reliably estimate the long-term impact of the regulation.

In June 2013, President Obama issued a memorandum directing EPA to develop carbon emission standards for both new and existing power plants under the Clean Air Act's NSPS. In October 2015, EPA promulgated the "Clean Power Plan" which consists of NSPS regulating carbon dioxide from existing power plants at a level of approximately 32% below 2005 levels by 2030. The Clean Power Plan directed states to submit SIPs to EPA by September 2016, but a U.S. Supreme Court stay of the rule in February 2016, deferred submittal of SIPs indefinitely. The Clean Power Plan does not regulate combined head and power generating facilities such as at Northshore's Silver Bay Power. We anticipate that EPA will continue to work on additional GHG NSPS regulations for other industrial categories, including the iron and steel industry; however we cannot reliably estimate the timing or long-term impact of future NSPS regulations.

Due to the EPA's Tailoring Rule and GHG NSPS regulations, our business and customer base could suffer negative financial impacts over time as a result of increased energy, environmental and other costs to comply with the limitations that would be imposed on greenhouse gas emissions. We believe our exposure can be reduced substantially by numerous factors, including currently contemplated regulatory flexibility mechanisms, such as allowance allocations, fixed process emissions exemptions, offsets and international provisions; emissions reduction opportunities, including energy efficiency, biofuels, fuel flexibility, emerging shale gas, coal mine methane offset reduction; and business opportunities associated with pursuing combined heat and power partnerships and new products, including DR-grade pellets, fluxed pellets and other efficiency-improving technologies.

We have worked proactively to develop a comprehensive, enterprise-wide GHG management strategy aimed at considering all significant aspects associated with GHG initiatives to plan effectively for and manage climate change issues, including risks and opportunities as they relate to the environment; stakeholders, including shareholders and the public; legislative and regulatory developments; operations; products and markets.

Regional Haze

In June 2005, the EPA finalized amendments to its regional haze rules. The rules require states to establish goals and emission reduction strategies for improving visibility in all Class I national parks and wilderness areas. Among the states with Class I areas are Michigan and Minnesota in which we currently own and manage mining operations. The first phase of the regional haze rule (2008-2018) requires analysis and installation of BART on eligible emission sources and incorporation of BART and associated emission limits into SIPs.

In place of Minnesota's and Michigan's Regional Haze SIP for taconite furnaces, the EPA promulgated a Taconite Regional Haze FIP in February 2013. We, along with other stakeholders, petitioned the Eighth Circuit Court of Appeals for a review of the FIP, and in May 2013, we filed a joint motion for stay of the 2013 FIP, which was granted in June 2013. We, along with the other stakeholders, reached a settlement agreement with EPA to resolve certain items in the 2013 FIP. The settlement agreement, which was published in the Federal Register in January 2015 and fully executed in April 2015, prompted EPA to grant partial reconsideration of the 2013 FIP in July 2015. Subsequently, EPA published a FIP revision final rule to implement components of the settlement agreement in April 2016, with an effective date of May 12, 2016. We believe the 2016 Regional Haze FIP reflects progress toward a more technically and economically feasible regional haze implementation plan. In November 2016, the Eighth Circuit Court of Appeals terminated the June 2013 stay and extended the deadlines in the original 2013 FIP by one day for each day the court's stay was in place. Cost estimates associated with implementation of the 2013 and 2016 FIPs are reflected in our five-year capital plan.

Due to inconsistencies in language describing the procedures for calculating NOx emission limits between the settlement agreement and the 2016 FIP final rule, we jointly filed a Petition for Reconsideration and Petition for Judicial Review in June 2016. We have been working toward a settlement agreement with EPA to resolve the outstanding issue with the emission limit calculation method and anticipate resolution of the issue in 2017.

Table of Contents

NO_2 and SO_2 National Ambient Air Quality Standards

During the first half of 2010, the EPA promulgated rules that required each state to use a combination of air quality monitoring and computer modeling to determine each state's attainment classification status against new NO_2 and SO_2 NAAQS. During the third quarter of 2011, the EPA issued guidance to the regulated community on conducting refined air quality dispersion modeling and implementing the new NO_2 and SO_2 standards. In 2012, Minnesota issued Administrative Orders requiring taconite facilities to conduct modeling to demonstrate compliance with the NO_2 and SO_2 NAAQS pursuant to the Taconite Regional Haze SIP Long Term Strategy (LTS). Compliance with the LTS modeling demonstrations was originally set for June 30, 2017. Minnesota is expected to remove NAAQS modeling obligations under the LTS in light of reduction in haze emissions associated with the pending amendment of the taconite Regional Haze FIP regulations.

All of our operations in Minnesota and Michigan are expected to be in attainment for NO_2 and SO_2 NAAQS without incurring additional capital investment. While we will continue to monitor these developments and assess potential impacts to Cliffs, we do not anticipate further capital investments will be necessary to address NO_2 and SO_2 NAAQS requirements.

Cross State Air Pollution Rule

In July 2011, the EPA promulgated the CSAPR, which was intended to address interstate transport of regional haze causing pollutants (NOx and SO_2) via emission limits and trading mechanisms. Northshore's Silver Bay Power plant is subject to CSAPR. Complying with CSAPR simultaneously satisfies related regional haze BART obligations because EPA has determined that CSAPR yields greater progress toward attaining EPA's regional haze goals than would application of BART. The Eighth Circuit Court of Appeals re-affirmed that EPA's use of CSAPR is equal to or better than BART in its March 2016 decision. Silver Bay Power's CSAPR compliance obligations are met via a combination of fuel management, installation of lower NOx burners, and purchase of NOx and SO_2 allowances from the emission trading market. NOx and SO_2 allowance prices continue to decline and the estimated cost to purchase NOx and SO_2 allowances currently is less than $5,000.

Future NOx and SO_2 emission allowances allocated to Silver Bay Power will decrease and long-term allowance prices are expected to increase. We continue to monitor the availability and pricing of CSAPR allowances and future EPA allocations of CSAPR allowances to our Silver Bay Power plant, but at this time, we do not anticipate exposure to material costs for future CSAPR obligations. At this time, we cannot reasonably estimate the long-term cost impact of CSAPR should EPA significantly reduce overall allowance allocations in response to future lower ozone or particulate matter 2.5 regulations.

Mercury TMDL and Minnesota Taconite Mercury Reduction Strategy

TMDL regulations are contained in the Clean Water Act. As a part of Minnesota's Mercury TMDL Implementation Plan, in cooperation with the MPCA, the taconite industry developed a Taconite Mercury Reduction Strategy and signed a voluntary agreement in 2009 to effectuate its terms. The strategy includes a 75% target reduction of mercury air emissions from Minnesota pellet plants collectively by 2025. It recognizes that mercury emission control technology currently does not exist and will be pursued through a research effort. According to the voluntary agreement, any developed technology must meet the “adaptive management criteria” such that the technology must be economically feasible, must not impact pellet quality, and must not cause excessive corrosion in pellet furnaces, associated duct work and existing wet scrubbers on the furnaces.

According to the voluntary agreement, the mines proceeded with medium- and long-term testing of possible technologies. For us, the requirements in the voluntary agreement apply to the United Taconite and Hibbing facilities. At this time, we are unable to predict the potential impacts of the voluntary Taconite Mercury Reduction Strategy. However, a number of research projects were conducted between 2011 and 2014 as the industry continued to assess options for reduction. While injection of powdered activated carbon into furnace off-gasses for mercury capture in the wet scrubbers showed positive initial results, further testing during 2013 yielded lower overall potential. Alternate technologies are presently being assessed in our ongoing efforts to develop cost effective mercury reduction technologies for our indurating furnaces.

In September 2014, Minnesota promulgated the Mercury Air Emissions Reporting and Reduction Rule mandating mercury air emissions reporting and reduction. The adopted rule expanded applicability to all of our Minnesota operations and requires submitting a mercury reduction plan in 2018 to reduce mercury emissions from all of our Minnesota taconite furnaces by 72% by January 2025. The adopted rule does not include explicitly all four Adaptive

Table of Contents

Management Criteria for evaluating mercury reduction, which were agreed upon in the October 2009 Minnesota's Mercury TMDL Implementation Plan.

To date, there is currently no proven technology to cost effectively reduce mercury emissions from taconite furnaces to the target level of 72% that would meet all four Adaptive Management Criteria. We remain concerned about the technical and economic feasibility to reduce taconite mercury emissions by 72% without impacting existing operations or other environmental permit obligations and are conducting detailed engineering analysis to determine the impact of the regulations on each unique iron ore indurating furnace affected by this rule. The results of this analysis will guide further dialog with the MPCA regarding our implementation of the requirements. Because development of the technology is in the early stages, any impacts to us are not estimable at this time.

Selenium Discharge Regulation

In Michigan, Empire and Tilden have developed compliance strategies to manage selenium according to the permit conditions. Empire and Tilden submitted the first permit required Selenium Storm Water Management Plan to the MDEQ in December 2011, and have updated it annually as required. The Selenium Storm Water Management Plans have outlined the activities that will be undertaken to address selenium in storm water discharges from our Michigan operations including an assessment of potential impacts to surface and groundwater. The remaining budget for full scale implementation of the storm water collection and conveyance system by November 2017 is approximately $9 million. A storm water treatment system for both facilities is anticipated sometime before 2028. The cost of the future treatment systems could be significant, although we are continuing to assess and develop cost effective and sustainable treatment technologies.

Tilden's NPDES permit contains a compliance schedule for selenium with a limit of five μg/l that will be effective as of November 1, 2017, at Tilden's Gribben Tailings Basin outfall. Tilden has budgeted $7 million for 2017 for infrastructure necessary to meet the selenium effluent limit. In July 2016, the EPA published new selenium fish tissue limits and lower lentic and lotic water column concentration criteria, which may someday increase the cost for treatment should MDEQ adopt these new standards in lieu of the existing limits established under the Great Lakes Initiative. Accordingly, we cannot reasonably estimate the timing or long-term impact of the water quality criteria to our business.

Definition of "Waters of the United States" Under the Clean Water Act

In June 2015, the EPA and Army Corps of Engineers promulgated the rule, "Definition of 'Waters of the United States' Under the Clean Water Act," which attempted to add clarity to which waters are jurisdictional under the federal Clean Water Act, and will apply to all Clean Water Act programs, including certain permitting programs, spill prevention program and a state certification process. It is unclear how the federal and state agencies will implement and enforce the final rule, and how the courts will interpret it going forward. The regulation may expand EPA's authority under the Clean Water Act to many traditionally unregulated mine features such as mine pits, pit lakes, on site ditches, water retention structures, and tailings basins creating a new burden on our U.S. facilities. This could be further interpreted to add questionable regulatory authority over the groundwater connections between these features and nearby traditionally navigable waters. In October 2015, the U.S. Court of Appeals for the Sixth Circuit issued a nationwide stay of this rule while the jurisdiction and legality of the rule are decided in court. In January 2017, the U.S. Supreme Court granted certiorari to reconsider the Sixth Circuit's decision that it has jurisdiction to hear challenges. We are actively participating in the rulemaking development and assessing the potential impacts to our operations. Because the rule is being litigated, and until the rule is finally implemented, any impacts to us are not estimable at this time.

Minnesota's Proposed Sulfate Wild Rice Water Quality Standard

The Minnesota Legislature provided $1.5 million in 2011 for a study to gather additional information about the effects of sulfate and other substances on the growth of wild rice, and to support an update to the sulfate wild rice water quality standard originally adopted in 1973 by the MPCA. The MPCA contracted with the University of Minnesota to conduct several research projects as part of this study. Concurrently, the Minnesota Chamber of Commerce contracted an independent lab to conduct companion research on the impacts of sulfate on wild rice. In July 2016, MPCA released a draft proposal for protecting wild rice from sulfate, which included a draft sulfate wild rice water quality standard, a draft list of waters where the standard would apply, and criteria for adding waters to that list. The draft wild rice water quality standard is an equation that utilizes measured sediment parameters to calculate a sulfate limit protective of wild rice. The independent research conducted by the independent lab contracted by the Minnesota Chamber of Commerce does not directly support the validity of the MPCA's proposed approach. The rulemaking has a legislated deadline for completion of January 15, 2018. Due to the proposed standard being based on measured sediment parameters and uncertainty regarding to which waters the standard will apply, the impacts of the proposed wild rice water quality standard to Cliffs are not estimable at this time.

Conductivity

Conductivity, the measurement of water's ability to conduct electricity, is a surrogate parameter that generally increases as the amount of dissolved minerals in water increases. In 2011, the EPA issued A Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams, which established a recommended conductivity benchmark of 300 µS/cm for the region. The issuance of a benchmark outside of the established rulemaking process was subsequently the subject of litigation in 2012 where the court ruled the benchmark is nothing more than a non-binding suggestion. Three years later in Ohio Valley Environmental Coalition, et al. v. Elk Run Coal Co., et al., 3:12-cv-00785 (S.D. W. Va.), a judicial decision held that levels of conductivity higher than the EPA's benchmark constituted a violation of the state's narrative water quality standards, were unsupported by science and contrary to decisions previously made by the West Virginia Department of Environmental Protection and the West Virginia Supreme Court. In 2015, a group filed a petition with EPA Region 5 alleging that Minnesota was failing to implement properly the state NPDES program, and one of the various allegations asserts that MPCA should be assessing compliance with the state's narrative water quality standard against the EPA's conductivity benchmark for the Central Appalachian region. On December 30, 2015, the EPA provided MPCA a draft of the Protocol for Responding to Issues Related to Permitting and Enforcement which indicates that EPA staff will be reviewing available scientific basis in peer reviewed literature as well as promulgated standards. In February 2016, EPA's Office of Research and Development endorsed use of the Field-Based Conductivity Benchmark in northeast Minnesota indicating that a value of 320 µS/cm was appropriate to protect aquatic life. On December 23, 2016, EPA issued a notice soliciting public comments on its draft document, Field-Based Methods for Developing Aquatic Life Criteria for Specific Conductivity (SC). According to EPA, once this document is final, states and authorized tribes located in any region of the country may use the methods to develop field-based SC criteria for adoption into water quality standards. Adoption of this methodology is not certain due to significant concerns with respect to the scientific validity of the proposed method which is now under intense review by scientists working for various trade associations. Because the outcome of the Region 5 Petition and proposed Field-Based Methods for Developing Aquatic Life Criteria for Specific Conductivity is only draft guidance at this time, the exact nature and certainty of the potential risk to Cliffs cannot be predicted; however, direct application of the 320 µS/cm benchmark to Cliffs' Minnesota-based assets may have a material adverse impact if the conductivity benchmark is applied to our NPDES permits.

CERCLA 108(b)

In December 2016, EPA published a proposed amendment to CERCLA section 108(b) which is focused on developing financial assurance for managing hazardous substances in the hardrock mining industry. The proposed rule will undergo a comment period and EPA has a court-mandated deadline for publication of the final rule by December 1, 2017. The rule requires subject facilities to calculate their level of financial responsibility based on a formula included in the rule, secure an instrument or otherwise self-assure for the calculated amount, demonstrate to EPA the proof of the security, and maintain the security until EPA releases facilities from the CERCLA 108(b) regulations. The iron mining industry is aware of several errors upon which EPA drafted the rule, including a mistaken reliance on reporting data from a wholly different industry sector (iron and steel toxic release inventory reporting). We will participate in industry-wide comments that address this and other errors and seek to exempt iron ore mining from CERCLA 108(b) applicability. With only a draft rule at this time, the final impacts of this rule to Cliffs are unknown; however, an obligation to secure and maintain financial assurance across all of our U.S. Iron Ore facilities could have a material adverse impact to our business.

Energy

Electricity

As of February 1, 2015, Wisconsin Electric Power Company is the sole supplier of electric power to our Tilden mine. As of April 24, 2015, the Tilden mine executed a special electricity contract with Wisconsin Electric Power Company. The term of the contract is through 2019. Wisconsin Electric Power Company provides 170 megawatts of electricity to Tilden at special rates that are regulated by the MPSC. The pricing under these contracts is generally fixed except Tilden is subject to frequent changes in Wisconsin Electric Power Company's power supply adjustment factor. On

August 12, 2016, Tilden executed a new 20-year special contract with Wisconsin Electric that is anticipated to start on January 1, 2020. This special contract is still pending approval at the MPSC. Tilden and Empire may also incur additional liabilities depending on the outcome of various proceedings concerning MISO's revised cost allocation methodology for continued operation of the Presque Isle Power Plant in Michigan. If FERC were to decide to award SSR costs based

14

Table of Contents

on a revised cost allocation methodology applied retroactively, this could result in a substantial potential liability to our Tilden mine and our indefinitely-idled Empire mine. As of December 31, 2016, this potential liability of $13.6 million is included in our Statements of Consolidated Financial Position as part of Other current liabilities. Refer to NOTE 20 - COMMITMENTS AND CONTINGENCIES for further discussion of the Michigan Electricity Matters.

Minnesota Power supplies electric power to the Hibbing and United Taconite mines. On September 16, 2008, Hibbing finalized an agreement with terms from November 1, 2008 through December 31, 2015. The agreement was approved by the MPUC in 2009. The terms of the agreement included an automatic five-year extension that began January 1, 2016. The United Taconite mine executed a new ten-year agreement with Minnesota Power that also included the Babbitt Mine. This agreement was finalized on May 22, 2016 and was approved by the MPUC on November 9, 2016.

Silver Bay Power, a wholly owned subsidiary of ours with a 115 megawatt power plant, provides the majority of Northshore’s electrical energy requirements. Silver Bay Power has an interconnection agreement with Minnesota Power for backup power when excess generation is necessary. On May 22, 2016, Silver Bay Power entered into an agreement with Minnesota Power to purchase roughly half of Northshore's electricity needs from Minnesota Power through 2019. On January 1, 2020, Silver Bay Power will purchase 100% of the electricity requirements of Northshore from Minnesota Power and Silver Bay Power plans to idle both of its generating units except under certain circumstances.

Koolyanobbing and its associated satellite mine deposits draw power from independent diesel-fueled power stations and generators. Diesel power generation capacity has been installed at the Koolyanobbing operations.

Process and Diesel Fuel

We have a long-term contract providing for the transport of natural gas on the Northern Natural Gas Pipeline for our U.S. Iron Ore operations. The Tilden mine has the capability of burning natural gas, coal or, to a lesser extent, oil. The Hibbing and Northshore mines have the capability to burn natural gas and oil. The United Taconite mine has the ability to burn coal, natural gas and petroleum coke. Consistent with 2016, we expect during 2017 our U.S. Iron Ore operations will utilize both natural gas and coal to heat furnaces and produce power at our Silver Bay Power facility.

All of our mines utilize diesel fuel mainly for our mobile fleet. Thompson Gas supplies diesel fuel to all of our U.S. Iron Ore locations from the Calumet refinery in Superior, Wisconsin. Our U.S. Iron Ore locations are contracted with Como Oil and Propane through the end of 2018.

Table of Contents

Employees

As of December 31, 2016, we had a total of 2,927 employees.

	2016	2015	2014
U.S. Iron Ore[1]			
Salaried	523	509	658
Hourly[3]	2,178	1,813	2,705
Total	2,701	2,322	3,363
Asia Pacific Iron Ore[2]			
Salaried	82	90	139
Hourly	—	—	—
Total	82	90	139
Discontinued Operations[2]			
Salaried	4	32	468
Hourly	—	41	1,141
Total	4	73	1,609
Corporate & Support Services			
Salaried	140	153	275
Hourly	—	—	—
Total	140	153	275
Total	2,927	2,638	5,386

[1] Includes our employees and the employees of the U.S. Iron Ore joint ventures.

[2] Excludes contracted mining employees.

[3] Excludes employees considered on lay-off status as a result of an indefinite or temporary idle. As of December 31, 2016, this would include those impacted by the indefinite idling of the Empire mine, and as of December 31, 2015, this would include those impacted by the temporary idlings of the United Taconite and Northshore mines.

As of December 31, 2016, approximately 80% of our active U.S. Iron Ore hourly employees were covered by collective bargaining agreements.

Hourly employees at our Michigan and Minnesota iron ore mining operations, excluding Northshore, are represented by the USW and are covered by labor agreements between the USW and our various operating entities. These labor agreements that cover approximately 2,000 active USW-represented employees at our Empire and Tilden mines in Michigan, and our United Taconite and Hibbing mines in Minnesota are valid through September 30, 2018. Employees at our Northshore operations are not represented by a union and are not, therefore, covered by a collective bargaining agreement.

Hourly employees at our LS&I railroads are represented by seven unions covering approximately 100 employees. The labor agreements that cover these employees reopened for bargaining on December 31, 2014 and we are actively bargaining for successor agreements. These employees negotiate under the Railway Labor Act, which provides that labor agreements remain in force until replaced by a successor agreement. Under the Railway Labor Act work stoppages cannot occur until the parties have engaged in substantial negotiations, have mediated any disputes and have received a release from the National Mediation Board.

Employees at our Asia Pacific Iron Ore, Corporate and Support Services are not represented by a union and are not, therefore, covered by collective bargaining agreements.

Table of Contents

Safety

Safety is our primary core value as we continue toward a zero incident culture at all of our facilities. We continuously monitor, measure, and track our safety performance and make improvements where necessary. Best practices are shared globally to ensure each mine site can effectively administer our policies, procedures and learnings for enhanced workplace safety. Progress toward achieving our objectives is measured against established benchmarks, including our company-wide TRIR. During 2016, our TRIR (including contractors) was 1.41 per 200,000 man-hours worked.

Refer to Exhibit 95 Mine Safety Disclosures (filed herewith) for mine safety information required in accordance with Section 1503(a) of the Dodd-Frank Act.

Available Information

Our headquarters are located at 200 Public Square, Suite 3300, Cleveland, Ohio 44114-2315, and our telephone number is (216) 694-5700. We are subject to the reporting requirements of the Exchange Act and its rules and regulations. The Exchange Act requires us to file reports, proxy statements and other information with the SEC. Copies of these reports and other information can be read and copied at:

SEC Public Reference Room
100 F Street N.E.
Washington, D.C. 20549

Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC. These materials may be obtained electronically by accessing the SEC's home page at www.sec.gov.

We use our website, www.cliffsnaturalresources.com, as a channel for routine distribution of important information, including news releases, investor presentations and financial information. We also make available, free of charge on our website, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file these documents with, or furnish them to, the SEC. In addition, our website allows investors and other interested persons to sign up to receive automatic email alerts when we post news releases and financial information on our website.

We also make available, free of charge on our website, the charters of the Audit Committee, Governance and Nominating Committee and Compensation and Organization Committee as well as the Corporate Governance Guidelines and the Code of Business Conduct and Ethics adopted by our Board of Directors. These documents are available through our investor relations page on our website at ir.cliffsnaturalresources.com. The SEC filings are available by selecting "Financial Information" and then "SEC Filings," and corporate governance materials are available by selecting "Corporate Governance" for the Board Committee Charters, operational governance guidelines and the Code of Business Conduct and Ethics.

References to our website or the SEC's website do not constitute incorporation by reference of the information contained on such websites, and such information is not part of this Annual Report on Form 10-K.

Copies of the above-referenced information are also available, free of charge, by calling (216) 694-5700 or upon written request to:

Cliffs Natural Resources Inc.
Investor Relations
200 Public Square, Suite 3300
Cleveland, OH 44114-2315

Table of Contents

EXECUTIVE OFFICERS OF THE REGISTRANT

Following are the names, ages and positions of the executive officers of the Company as of February 9, 2017. Unless otherwise noted, all positions indicated are or were held with Cliffs Natural Resources Inc.

Name	Age	Position(s) Held
Lourenco Goncalves	59	Chairman, President and Chief Executive Officer (August 2014 - present); Chairman, President and Chief Executive Officer of Metals USA Holdings Corp., an American manufacturer and processor of steel and other metals (May 2006 - April 2013); and President, Chief Executive Officer and a director of Metals USA Inc. (February 2003 - April 2006).
P. Kelly Tompkins	60	Executive Vice President & Chief Operating Officer (January 2017 - present); Executive Vice President and Chief Financial Officer (April 2015 - December 2016); Executive Vice President, Business Development (October 2014 - April 2015); Executive Vice President, External Affairs and President, Global Commercial (November 2013 - October 2014); Chief Administrative Officer (July 2013 - November 2013); Executive Vice President, Legal, Government Affairs and Sustainability (May 2010 - July 2013); Chief Legal Officer (January 2011 - January 2013); and President, Cliffs China (October 2012 - November 2013).
Terry G. Fedor	52	Executive Vice President, U.S. Iron Ore (January 2014 - present); and Vice President, U.S. Iron Ore Operations (February 2011 - January 2014).
Timothy K. Flanagan	39	Executive Vice President, Chief Financial Officer & Treasurer (January 2017 - present); Vice President, Corporate Controller and Chief Accounting Officer (March 2012 - December 2016); Treasurer (March 2016 - present); and Assistant Controller (February 2010 - March 2012).
James D. Graham	51	Executive Vice President (November 2014 - present); Chief Legal Officer (March 2013 - present); Secretary (March 2014 - present); Vice President (January 2011 - October 2014); and General Counsel - Global Operations (January 2011 - March 2013).
Maurice D. Harapiak	55	Executive Vice President, Human Resources (June 2014 - present); Regional Director, Human Resources - Barrick Gold of North America, a gold mining company (November 2011 - June 2014); and Senior Director, Human Resources, Capital Projects - Barrick Gold Corporation, a gold mining company (November 2007 - November 2011).
Terrence R. Mee	47	Executive Vice President, Global Commercial (October 2014 - present); Vice President, Global Iron Ore Sales (February 2014 - October 2014); Senior Vice President, Global Iron Ore Sales (March 2012 - February 2014); and Senior Vice President, Global Iron Ore and Metallic Sales (January 2011 - March 2012).
Clifford T. Smith	57	Executive Vice President, Business Development (April 2015 - present); Executive Vice President, Seaborne Iron Ore (January 2014 - April 2015); Executive Vice President, Global Operations (July 2013 - January 2014); Executive Vice President, Global Business Development (March 2013 - July 2013); and Senior Vice President, Global Business Development (January 2011 - March 2013).

All executive officers serve at the pleasure of the Board. There are no arrangements or understandings between any executive officer and any other person pursuant to which an executive officer was selected to be an officer of the Company. There is no family relationship between any of our executive officers, or between any of our executive officers and any of our directors.

Item 1A. Risk Factors

An investment in our common shares or other securities is subject to risk inherent to our business and our industry. Described below are certain risks and uncertainties, the occurrences of which could have a material adverse effect on us. Before making an investment decision, you should consider carefully all of the risks described below together with the other information included in this report. The risks and uncertainties described below include known material risks that we face currently. Although we have significant risk management policies, practices and procedures aimed to mitigate these risks, uncertainties may nevertheless impair our business operation. This report is qualified in its entirety by these factors.

Our ERM function provides a framework for management's consideration of risk when making strategic, financial, operational and/or project decisions. The framework is based on ISO 31000, an internationally recognized risk management standard. Management uses a consistent methodology to identify and assess risks, determine and

Table of Contents

implement risk mitigation actions, and monitor and communicate information about the Company's key risks. Through these processes, we have identified six categories of risk that we are subject to: (I) economic and market, (II) regulatory, (III) financial, (IV) operational, (V) development and sustainability and (VI) human capital. The following risk factors are presented according to these key risk categories.

I. ECONOMIC AND MARKET RISKS

The volatility of commodity prices, namely iron ore and steel, affects our ability to generate revenue, maintain stable cash flow and fund our operations, including growth and expansion projects.

As a mining company, our profitability is dependent upon the price of the commodities that we sell to our customers and the price of the products our customers sell, namely iron ore and steel prices. The price of iron ore has fluctuated significantly in the past and is affected by factors beyond our control, including: steel inventories; international demand for raw materials used in steel production; rates of global economic growth, especially construction and infrastructure activity that requires significant amounts of steel; changes in the levels of economic activity in the U.S., China, India, Europe and other industrialized or developing countries; uncertainties or weaknesses in global economic conditions such as the U.S. debt ceiling; changes in production capacity of other iron ore suppliers, especially as additional supplies come online or where there is a significant increase in imports of steel into the U.S. or Europe; changes in trade laws; weather-related disruptions or natural disasters that may impact the global supply of iron ore; and the proximity, capacity and cost of infrastructure and transportation.

Our earnings, therefore, may fluctuate with the prices of the commodities we sell. To the extent that the prices of iron ore and steel, including the average hot-rolled coil price, significantly decline for an extended period of time, we may have to revise our operating plans, including curtailing production, reducing operating costs and capital expenditures and discontinuing certain exploration and development programs. We also may have to take impairments on our long-lived assets and/or inventory. Sustained lower prices also could cause us to further reduce existing reserves if certain reserves no longer can be economically mined or processed at prevailing prices. We may be unable to decrease our costs in an amount sufficient to offset reductions in revenues and may incur losses. These events could have a material adverse effect on us.

Uncertainty or weaknesses in global economic conditions, reduced economic growth in China and oversupply of iron ore and excess steel or imported products could affect adversely our business.

The world price of iron ore is influenced strongly by global economic conditions, including international demand and supply for iron ore products. In particular, the current level of international demand for raw materials used in steel production is driven largely by industrial growth in China. Uncertainties or weaknesses in global economic conditions, including the slowing economic growth rate in China, has resulted, and could in the future result, in decreased demand for our products and, together with oversupply of imported products, has and may continue to lead to decreased prices, resulting in lower revenue levels and decreasing margins, which have in the past and may in the future affect adversely our business and negatively impact our financial results. For example, U.S. Iron Ore's realized revenue rate per long ton decreased 4% and 23% for the years ended December 31, 2016 and December 31, 2015, respectively, compared to a 5% increase and 43% decline in the Platts 62% Price over the same periods. We are not able to predict whether the global economic conditions will improve or worsen and the impact it may have on our operations and the industry in general going forward.

We also have significant capital requirements, including interest payments to service our debt. If we incur significant losses in future periods, we may be unable to continue as a going concern. If we are unable to continue as a going concern, we may consider, among other options, further restructuring our debt; however, there can be no assurance that these options will be undertaken and, if so undertaken, whether these efforts will succeed.

Capacity expansions and limited rationalization of supply capacity within the mining industry could lead to lower or more volatile global iron ore prices, impacting our profitability.

Global growth of iron ore demand, particularly from China, resulted in iron ore suppliers expanding their production capacity over the past few years. The supply of iron ore increased due to these expansions. The increases in our competitors' capacity along with actual reduced demand resulted in excess supply of iron ore, which caused downward pressure on prices. The limited rationalization of supply capacity has led to volatile pricing which can have an adverse impact on our sales, margins and profitability. We do not have control over corporate strategies implemented by other iron ore producers that may result in volatility of global iron ore prices.

Table of Contents

If steelmakers use methods other than blast furnace production to produce steel or use other inputs, or if their blast furnaces shut down or otherwise reduce production, the demand for our current iron ore products may decrease.
Demand for our iron ore products is determined by the operating rates for the blast furnaces of steel companies. However, not all finished steel is produced by blast furnaces; finished steel also may be produced by other methods that use scrap steel, pig iron, hot briquetted iron and direct reduced iron. North American steel producers also can produce steel using imported iron ore, semi-finished steel products or other lighter-weight steel alternatives, which eliminates the need for domestic iron ore. Future environmental restrictions on the use of blast furnaces also may reduce our customers' use of their blast furnaces. Maintenance of blast furnaces may require substantial capital expenditures and may cause prolonged outages, which may reduce demand for our pellets. Our customers may choose not to maintain, or may not have the resources necessary to maintain, their blast furnaces. If our customers use methods to produce steel that do not use iron ore pellets, demand for our current iron ore products will decrease, which would affect adversely our sales, margins, profitability and cash flows.
Due to economic conditions and volatility in commodity prices, or otherwise, our customers could approach us about modification of their supply agreements or fail to perform under such agreements, which could impact adversely our sales, margins, profitability and cash flows.
Although we have long-term contractual commitments for a majority of the sales in our U.S. Iron Ore business, the uncertainty in global economic conditions may impact adversely the ability of our customers to meet their obligations. As a result of such market volatility, our customers could approach us about modifying their supply agreements or fail to perform under such agreements. Considering our limited base of current and potential customers, any modifications to our sales agreements or customers' failures to perform under such agreements could impact adversely our sales, margins, profitability and cash flows. For example, of the potential customers in the North American integrated steel industry, two are in reorganization proceedings, and certain others have experienced financial difficulties. A loss of sales to our existing customers could have a substantial negative impact on our sales, margins, profitability and cash flows. Other potential actions by our customers could result in additional contractual disputes and could ultimately require arbitration or litigation, either of which could be time consuming and costly. Any such disputes and/or failure to renew existing contracts on favorable terms could impact adversely our sales, margins, profitability and cash flows.
II. REGULATORY RISKS
We are subject to extensive governmental regulation, which imposes, and will continue to impose, potential significant costs and liabilities on us. Future laws and regulations or the manner in which they are interpreted and enforced could increase these costs and liabilities or limit our ability to produce iron ore products.
New laws or regulations, or changes in existing laws or regulations, or the manner of their interpretation or enforcement, particularly in light of the new presidential administration, could increase our cost of doing business and restrict our ability to operate our business or execute our strategies. This includes, among other things, the possible taxation under U.S. law of certain income from foreign operations, compliance costs and enforcement under the Dodd-Frank Act, and costs associated with complying with the Patient Protection and Affordable Care Act and the Healthcare and Education Reconciliation Act of 2010 and the regulations promulgated thereunder and any replacement or amendments thereof. In addition, we are subject to various federal, provincial, state and local laws and regulations in each jurisdiction in which we have operations for human health and safety, air quality, water pollution, plant, wetlands, natural resources and wildlife protection, reclamation and restoration of mining properties, the discharge of materials into the environment, the effects that mining has on groundwater quality, conductivity and availability, and related matters. Numerous governmental permits and approvals are required for our operations.
We cannot be certain that we have been or will be at all times in complete compliance with such laws, regulations, permits and approvals. If we violate or fail to comply with these laws, regulations, permits or approvals, we could be fined or otherwise sanctioned by regulators. Compliance with the complex and extensive laws and regulations to which we are subject imposes substantial costs, which we expect will continue to increase over time because of increased regulatory oversight, adoption of increasingly stringent environmental standards, and increased demand for remediation services leading to shortages of equipment, supplies and labor, as well as other factors.
Specifically, there are several notable proposed or recently enacted rulemakings or activities to which we would be subject or that would further regulate and/or tax our customers, namely the North American integrated steel producer

customers, that may also require us or our customers to reduce or otherwise change operations significantly or incur significant additional costs, depending on their ultimate outcome. These emerging or recently enacted rules, regulations and policy guidance include: CERCLA financial assurance, numerous air regulations, such as climate change and greenhouse gas regulation, regional haze regulation, NAAQS including but not limited to those for NO_2 and SO_2, the

CSAPR; Minnesota's Mercury Air Emissions Reporting and Reduction Rule, Mercury Total Maximum Daily Load requirements and Taconite Mercury Reduction Strategy, selenium discharge regulation; conductivity water quality standards for aquatic life; expansion of federal jurisdictional authority to regulate groundwater, and various other water quality regulations. Such new or more stringent legislation, regulations, interpretations or orders, when enacted, could have a material adverse effect on our business, results of operations, financial condition or profitability.

Although the numerous regulations, operating permits and our management systems mitigate potential impacts to the environment, our operations inadvertently may impact the environment or cause exposure to hazardous substances, which could result in material liabilities to us.

Our operations currently use and have used in the past, hazardous materials, and, from time to time, we have generated solid and hazardous waste. We have been, and may in the future be, subject to claims under federal, provincial, state and local laws and regulations for toxic torts, natural resource damages and other damages as well as for the investigation and clean-up of soil, surface water, sediments, groundwater and other natural resources and reclamation of properties. Such claims for damages and reclamation may arise out of current or former conditions at sites that we own, lease or operate currently, as well as sites that we or our acquired companies have owned, leased or operated, and at contaminated sites that have been owned, leased or operated by our joint venture partners. Our liability for these claims may be strict, and/or joint and several, such that we may be held responsible for more than our share of the contamination or other damages, or even for the entire share regardless of fault. We are subject to a variety of potential liability exposures arising, or otherwise involved in investigation and remediation activities, at certain sites. In addition to sites currently owned, leased or operated, these include sites where we formerly conducted iron ore and/or coal mining or processing or other operations, inactive sites that we currently own, predecessor sites, acquired sites, leased land sites and third-party waste disposal sites. We may be named as a responsible party at other sites in the future and we cannot be certain that the costs associated with these additional sites will not be material.

We also could be subject to litigation for alleged bodily injuries arising from claimed exposure to hazardous substances allegedly used, released, or disposed of by us. In particular, we and certain of our subsidiaries were involved in various claims relating to the exposure of asbestos and silica to seamen who sailed until the mid-1980s on the Great Lakes vessels formerly owned and operated by certain of our subsidiaries. While several hundred of these claims against us had been combined in a multidistrict litigation docket and have since been dismissed and/or settled for non-material amounts, there remains a possibility that similar types of claims could be filed in the future.

Environmental impacts as a result of our operations, including exposures to hazardous substances or wastes associated with our operations, could result in costs and liabilities that could materially and adversely affect our margins, cash flow or profitability.

We may be unable to obtain and renew permits necessary for our operations or be required to provide additional financial assurance, which could reduce our production, cash flows, profitability and available liquidity. We also could face significant permit and approval requirements that could delay our commencement or continuation of existing or new production operations which, in turn, could affect materially our cash flows, profitability and available liquidity.

Prior to commencement of mining, we must submit to and obtain approval from the appropriate regulatory authority of plans showing where and how mining and reclamation operations are to occur. These plans must include information such as the location of mining areas, stockpiles, surface waters, haul roads, tailings basins and drainage from mining operations. All requirements imposed by any such authority may be costly and time-consuming and may delay commencement or continuation of exploration or production operations.

Mining companies must obtain numerous permits that impose strict conditions on various environmental and safety matters in connection with iron ore mining. These include permits issued by various federal, state and provincial agencies and regulatory bodies. The permitting rules are complex and may change over time, making our ability to comply with the applicable requirements more difficult or impractical and costly, possibly precluding the continuance of ongoing operations or the development of future mining operations. Interpretations of rules may also change over time and may lead to requirements, such as additional financial assurance, making it more costly to comply. The public, including special interest groups and individuals, have certain rights under various statutes to comment upon, submit objections to, and otherwise engage in the permitting process, including bringing citizens' lawsuits to challenge such permits or mining activities. Accordingly, required permits may not be issued or renewed in a timely fashion (or at all), or permits issued or renewed may be conditioned in a manner that may restrict our ability to conduct our mining activities efficiently, including the requirement for additional financial assurances that we may not be able to provide on commercially reasonable terms or at all and which would further limit our borrowing base under our ABL Facility. Such inefficiencies could reduce our production, cash flows, profitability and available liquidity.

Table of Contents

III. FINANCIAL RISKS

A substantial majority of our sales are made under supply agreements with limited duration to a low number of customers that contain price-adjustment clauses that could affect adversely the stability and profitability of our operations.

A majority of our U.S. Iron Ore sales and our Asia Pacific Iron Ore sales are made under supply agreements with specified durations to a limited number of customers. For the year ended December 31, 2016, more than 71% of our product revenue was derived from the North American integrated steel industry. For the year ended December 31, 2016, three customers together accounted for 83% of our U.S. Iron Ore product sales revenues (representing 60% of our consolidated revenues). Our Asia Pacific Iron Ore contracts with customers in China and Japan currently expire in March 2017 and our one South Korean customer contract expires in December 2017. In May 2016, we agreed to a new contract with ArcelorMittal through 2026. This extended our average remaining duration of our U.S. Iron Ore contracts from three years to approximately seven years. Pricing under our new contract with ArcelorMittal will be adjusted by the price of hot-rolled coil steel in the U.S. domestic market, and iron ore and general inflation indices. As a result of this pricing construct and the pricing constructs contained in our existing customer contracts and those anticipated in future periods, our financial results will have increased sensitivity to changes in iron ore and steel prices.

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 our senior notes and ABL Facility.

As of December 31, 2016, we had an aggregate principal amount of $2,258.8 million of long-term debt, $1,188.6 million of which was secured (excluding $106.0 million of outstanding letters of credit and $55.8 million of capital leases), and $323.4 million of cash on our balance sheet. As of December 31, 2016, no loans were drawn under the ABL Facility and we had total availability of $333.0 million as a result of borrowing base limitations. As of December 31, 2016, the principal amount of letters of credit obligations and other commitments totaled $106.0 million, thereby further reducing available borrowing capacity on our ABL Facility to $227.0 million.

Although we reduced the principal balance of our outstanding debt by $639.4 million and our annual interest expense by $28.0 million during 2016, our substantial level of indebtedness has required us to dedicate a significant portion of our cash flow from operations to the payment of debt service, reducing the availability of our cash flow to fund capital expenditures, acquisitions or strategic development initiatives, and other general corporate purposes. Moreover, our level of indebtedness could have further consequences, including, increasing our vulnerability to adverse economic or industry conditions, limiting our ability to obtain additional financing in the future to enable us to react to changes in our business, or placing us at a competitive disadvantage compared to businesses in our industry that have less indebtedness.

Our substantial level of indebtedness could limit our ability to obtain additional financing on acceptable terms or at all for working capital, capital expenditures, acquisitions or strategic development initiatives, and general corporate purposes. Our liquidity needs could vary significantly and may be affected by general economic conditions, industry trends, performance and many other factors not within our control. If we are unable to generate sufficient cash flow from operations in the future to service our debt, we may be required to refinance all or a portion of our existing debt. However, we may not be able to obtain any such new or additional debt on favorable terms or at all.

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.

We may not be able to generate sufficient cash to service all of our debt, and may be forced to take other actions to satisfy our obligations under our debt, which may not be successful.

Our ability to make scheduled payments on or to refinance our debt obligations depends on our ability to generate cash in the future and our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain financial, business and other factors beyond our control. We cannot assure you that we will maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our debt.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay investments and capital expenditures, or to sell assets, seek additional capital, including additional secured or unsecured debt, or restructure or refinance our debt. Any refinancing of our debt could be at higher interest rates and may require us to comply with more onerous covenants, which could further restrict our business operations. These measures may not be successful and may not permit us to meet our scheduled debt service obligations.

If our operating results and available cash are insufficient to meet our debt service obligations, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. We may not be able to consummate those dispositions or recover the carrying value of these assets or obtain the proceeds that we could realize from them, and these proceeds may not be adequate to meet any debt service obligations then due. Further, we may need to refinance all or a portion of our debt on or before maturity, and we may not be able to refinance any of our debt on commercially reasonable terms or at all. Furthermore, additional or new financial assurances may be demanded by our vendors or regulatory agencies that we may not be able to provide on commercially reasonable terms or at all.

Any of these examples potentially could have a material adverse impact on our results of operations, profitability, shareholders' equity and capital structure. Also, if we were to sell a percentage of a business, there are inherent risks of a joint venture relationship as noted in the risk factor below.

We rely on our joint venture partners in our mines to meet their payment obligations and we are subject to risks involving the acts or omissions of our joint venture partners.

We co-own and manage two of our four operating U.S. Iron Ore mines and our indefinitely-idled Empire mine with various joint venture partners that are integrated steel producers or their subsidiaries, including ArcelorMittal and U.S. Steel. We rely on our joint venture partners to make their required capital contributions and to pay for their share of the iron ore that each joint venture produces. Our U.S. Iron Ore joint venture partners are often also our customers. If one or more of our joint venture partners fail to perform their obligations, the remaining joint venture partners, including ourselves, may be required to assume additional material obligations, including significant capital contribution, costs of environmental remediation, pension and postretirement health and life insurance benefit obligations. For example, a premature closure of a mine due to the failure of a joint venture partner to perform its obligations could result in significant fixed mine-closure costs, including severance, employment legacy costs and other employment costs; reclamation and other environmental costs; and the costs of terminating long-term obligations, including energy and transportation contracts and equipment leases.

We cannot control the actions of our joint venture partners, especially when we have a minority interest in a joint venture. Further, in spite of performing customary due diligence prior to entering into a joint venture, we cannot guarantee full disclosure of prior acts or omissions of the sellers or those with whom we enter into joint ventures. Such risks could have a material adverse effect on the business, results of operations or financial condition of our joint venture interests.

Our ability to collect payments from our customers depends on their creditworthiness.

Our ability to receive payment for products sold and delivered to our customers depends on the creditworthiness of our customers. With respect to our Asia Pacific business unit, payment typically is received as the products are shipped and much of the product is secured by bank letters of credit. By contrast, in our U.S. Iron Ore business unit, generally, we deliver iron ore products to our customers’ facilities in advance of payment for those products. Under this practice for our U.S. customers, title and risk of loss with respect to U.S. Iron Ore products does not pass to the customer until payment for the pellets is received; however, there is typically a period of time in which pellets, for which we have reserved title, are within our customers’ control. Where we have identified credit risk with certain customers, we have put in place alternate payment terms from time to time.

Consolidations in some of the industries in which our customers operate have created larger customers. These factors have caused some customers to be less profitable and increased our exposure to credit risk. Customers in other countries may be subject to other pressures and uncertainties that may affect their ability to pay, including trade barriers, exchange controls, and local, economic and political conditions. Downturns in the economy and disruptions in the global financial markets in recent years have affected the creditworthiness of our customers from time to time. Some of our customers are highly leveraged. If economic conditions worsen or prolonged global, national or regional economic recession conditions return, it is likely to impact significantly the creditworthiness of our customers and could, in turn, increase the risk we bear on payment default for the credit we provide to our customers and could limit our ability to collect receivables. Failure to receive payment from our customers for products that we have delivered could affect adversely our results of operations, financial condition and liquidity.

Table of Contents

Our operating expenses could increase significantly if the price of electrical power, fuel or other energy sources increases.

Our mining operations require significant use of energy. Operating expenses at all of our mining locations are sensitive to changes in electricity prices and fuel prices, including diesel fuel and natural gas prices. These items make up approximately 25% to 30% in the aggregate of our operating costs in our U.S. Iron Ore locations, for example. Prices for electricity, natural gas and fuel oils can fluctuate widely with availability and demand levels from other users. During periods of peak usage, supplies of energy may be curtailed and we may not be able to purchase them at historical rates. A disruption in the transmission of energy, inadequate energy transmission infrastructure, or the termination of any of our energy supply contracts could interrupt our energy supply and affect adversely our operations. While we have some long-term contracts with electrical suppliers, we are exposed to fluctuations in energy costs that can affect our production costs. As an example, our mines in Minnesota are subject to changes in Minnesota Power’s rates, such as rate changes that are reviewed and approved by the state public utilities commission in response to an application filed by Minnesota Power. We also enter into market-based pricing supply contracts for natural gas and diesel fuel for use in our operations. Those contracts expose us to price increases in energy costs, which could cause our profitability to decrease significantly. We are estimating that power rates for our electricity-intensive operations could increase above 2016 levels by up to 15% by 2021, representing an increase of approximately $9 per MWh by 2021 for our U.S. operations.

In addition, U.S. public utilities are expected to pass through additional capital and operating cost increases to their customers related to new or pending U.S. environmental regulations that are expected to require significant capital investment and use of cleaner fuels in the future and which may impact U.S. coal-fired generation capacity. Our mines in Michigan rely on electricity supplied from the Presque Isle Power Plant, which is coal-fired. In 2016, we entered into a twenty-year power purchase agreement that contemplates the capital investment by the power company to construct two natural gas power plants in Michigan. Should the power company fail to build the new power plants or experience significant construction delays, we may be subject to increased operational risk from continued reliance on the existing power plant or increased costs in pursuing alternatives, which could also decrease our profitability.

The availability of capital may be limited.

We may need to access the capital markets to finance ongoing operations, any acquisitions, development of existing mining properties and our other cash requirements. Our existing indebtedness could make it more difficult for us to borrow money in the future and may reduce the amount of money available to finance our operations and other business activities and may have other detrimental consequences, including the following: requiring us to dedicate a substantial portion of our cash flow from operations to the payment of principal, premium, if any, and interest on our debt, which will reduce funds available for other purposes; exposing us to the risk of increased interest costs if the underlying interest rates rise on our existing ABL Facility; making it more difficult to obtain surety bonds, letters of credit or other financing, particularly during periods in which credit markets are weak; causing a change in our credit ratings; limiting our ability to compete with companies that are not as leveraged and that may be better positioned to withstand economic downturns; and limiting our flexibility in planning for, or reacting to, and increasing our vulnerability to, changes in our business, the industry in which we compete and general economic and market conditions. If we further increase our indebtedness, the related risks that we now face, including those described above, could intensify. We cannot predict the general availability or accessibility of capital to finance projects or acquisitions in the future.

We are subject to a variety of financial market risks.

Financial market risks include those caused by changes in the value of investments, changes in commodity prices, interest rates and foreign currency exchange rates. We have established policies and procedures to manage such risks; however, certain risks are beyond our control and our efforts to mitigate such risks may not be effective. These factors could have a material adverse effect on our results of operations.

Table of Contents

We are subject to bankruptcy or insolvency risks relating to our former Canadian operations.
As previously disclosed, the Bloom Lake Group commenced the CCAA process in January 2015 to address the Bloom Lake Group's immediate liquidity issues and to preserve and protect its assets for the benefit of all stakeholders while restructuring and/or sale options were explored. In May 2015, the Wabush Group commenced restructuring proceedings and, as a result, the CCAA protection granted to the Bloom Lake Group has been extended to include the Wabush Group. Financial instruments are posted by Cliffs to support certain reclamation obligations of the Wabush Group. It is possible that (a) as part of the CCAA process (i) claims may be asserted by or on behalf of the Bloom Lake Group or the Wabush Group or by their respective representatives against non-debtor affiliates of the Bloom Lake Group and the Wabush Group and/or (ii) claims of non-debtor affiliates against the Bloom Lake Group or the Wabush Group may be challenged and (b) creditors of the Wabush Group may assert claims which may impact adversely non-debtor affiliates of the Wabush Group, including in relation to the financial instruments discussed above. While we anticipate the restructuring and/or sale of the Bloom Lake Group and the Wabush Group assets may mitigate these risks, to the extent that any claims are successful, Cliffs could be held liable for certain claims or be limited in the amount of recovery for intercompany claims.
A court or regulatory body could find that we are responsible, in whole or in part, for liabilities we transferred to third party purchasers.
As part of our strategy to focus on our U.S. Iron Ore operations, we have sold or otherwise disposed of several non-core assets, such as our North American Coal assets. Some of the transactions under which we sold or otherwise disposed of our non-core assets included provisions transferring certain liabilities to the purchasers or acquirers of those non-core assets. While we believe that all such transfers were completed properly and are legally binding, if the purchaser fails to fulfill its obligations, we may be at risk that some court or regulatory body could disagree and determine that we remain responsible for liabilities we intended to and did transfer.
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 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. Any decline in our credit ratings may result in an increase to our cost of financing and limit our access to the capital markets, which would harm our financial condition and results of operations, hinder our ability to refinance existing indebtedness on acceptable terms, have an adverse effect on the market price of our securities and may affect adversely the terms under which we purchase goods and services.
IV. OPERATIONAL RISKS
We incur certain costs when production capacity is idled, including increased costs to resume production at idled facilities and costs to idle facilities.
Our decisions concerning which mines to operate and at what capacity levels are made based upon our customers' orders for products, the quality of and cost to mine and process the remaining ore body, as well as the capabilities and cost performance of our mines. During depressed market conditions, we may concentrate production at certain mines and not operate others in response to customer demand and as a result we will incur idle facility costs. In 2016, two of our Minnesota mines were temporarily idled for a portion of the year and we indefinitely idled the Empire mine in Michigan in August.
When we restart idled facilities, we incur certain costs to replenish inventories, prepare the previously idled facilities for operation, perform the required repair and maintenance activities and prepare employees to return to work safely and to resume production responsibilities. The amount of any such costs can be material, depending on a variety of factors, such as the period of idle time, necessary repairs and available employees, and is difficult to project.
Faced with overcapacity in the iron ore market, we may seek to rationalize assets through asset sales, temporary shutdowns, indefinite idles or closures of facilities.

Mine closures entail substantial costs. If we prematurely close one or more of our mines, our results of operations and financial condition would likely be affected adversely.

If we prematurely close any of our mines, our revenues would be reduced unless we were able to increase production at our other mines, which may not be possible. The closure of a mining operation involves significant fixed closure costs, including accelerated employment legacy costs, severance-related obligations, reclamation and other environmental costs, and the costs of terminating long-term obligations, including customer, energy and transportation contracts and equipment leases. We base our assumptions regarding the life of our mines on detailed studies we perform from time to time, but those studies and assumptions are subject to uncertainties and estimates that may not be accurate. We recognize the costs of reclaiming open pits, stockpiles, tailings ponds, roads and other mining support areas based on the estimated mining life of our property. If we were to significantly reduce the estimated life of any of our mines, the mine-closure costs would be applied to a shorter period of production, which would increase costs per ton produced and could significantly and adversely affect our results of operations and financial condition.

A North American mine permanent closure could accelerate and significantly increase employment legacy costs, including our expense and funding costs for pension and other postretirement benefit obligations. A number of employees would be eligible for immediate retirement under special eligibility rules that apply upon a mine closure. All employees eligible for immediate retirement under the pension plans at the time of the permanent mine closure also could be eligible for postretirement health and life insurance benefits, thereby accelerating our obligation to provide these benefits. Certain mine closures would precipitate a pension closure liability significantly greater than an ongoing operation liability. Finally, a permanent mine closure could trigger severance-related obligations, which can equal up to sixteen weeks of pay per employee in some jurisdictions, depending on length of service. As a result, the closure of one or more of our mines could adversely affect our financial condition and results of operations.

At the end of March 2014, we idled our Wabush Scully mine in Newfoundland and Labrador, and in the fourth quarter of 2014, we began to implement the permanent closure plan for the mine. In May 2015, we announced the Wabush Filing under the CCAA. The Wabush Filing is expected to mitigate various legacy related long-term liabilities associated with the Wabush Group. However, there can be no assurance that we will not have any material obligations in connection with the permanent closure of the Wabush Scully mine.

Our sales and competitive position depend on the ability to transport our products to our customers at competitive rates and in a timely manner.

In our U.S. Iron Ore operations, disruption of the lake and rail transportation services because of weather-related problems, including ice and winter weather conditions on the Great Lakes or St. Lawrence Seaway, climate change, strikes, lock-outs, or other events and lack of alternative transportation options, could impair our ability to supply iron ore to our customers at competitive rates or in a timely manner and, thus, could adversely affect our sales, margins and profitability. Further, reduced dredging and environmental changes, particularly at Great Lakes ports, could impact negatively our ability to move our iron ore products because lower water levels restrict the tonnage that vessels can haul, resulting in higher freight rates.

Our Asia Pacific Iron Ore operations also are dependent upon rail and port capacity. Disruptions in rail service or availability of dock capacity could similarly impair our ability to supply iron ore to our customers, thereby adversely affecting our sales and profitability. In addition, our Asia Pacific Iron Ore operations are also in direct competition with the major world seaborne exporters of iron ore and our customers face higher transportation costs than most other Australian producers to ship our products to the Asian markets because of the location of our major shipping port on the southwest coast of Australia. Further, increases in transportation costs, including volatile fuel rates, decreased availability of ocean vessels or changes in such costs relative to transportation costs incurred by our competitors could make our products less competitive, restrict our access to certain markets and have an adverse effect on our sales, margins and profitability.

Natural disasters, weather conditions, disruption of energy, unanticipated geological conditions, equipment failures, and other unexpected events may lead our customers, our suppliers or our facilities to curtail production or shut down operations.

Operating levels within the mining industry are subject to unexpected conditions and events that are beyond the industry’s control. Those events could cause industry members or their suppliers to curtail production or shut down a portion or all of their operations, which could reduce the demand for our iron ore products, and could affect adversely our sales, margins and profitability.

Interruptions in production capabilities inevitably will increase our production costs and reduce our profitability. We do not have meaningful excess capacity for current production needs, and we are not able to quickly increase production or re-start production at one mine to offset an interruption in production at another mine. Additionally, re-start production costs can be even higher if required to be taken during extremely cold weather conditions.

A portion of our production costs are fixed regardless of current operating levels. As noted, our operating levels are subject to conditions beyond our control that can delay deliveries or increase the cost of mining at particular mines for varying lengths of time. These include weather conditions (for example, extreme winter weather, tornadoes, floods, and the lack of availability of process water due to drought) and natural and man-made disasters, tailings dam failures, pit wall failures, unanticipated geological conditions, including variations in the amount of rock and soil overlying the deposits of iron ore, variations in rock and other natural materials and variations in geologic conditions and ore processing changes.

The manufacturing processes that take place in our mining operations, as well as in our processing facilities, depend on critical pieces of equipment. This equipment may, on occasion, be out of service because of unanticipated failures. In addition, all of our mines and processing facilities have been in operation for several decades, and the equipment is aged. In the future, we may experience additional material plant shutdowns or periods of reduced production because of equipment failures. Further, remediation of any interruption in production capability may require us to make large capital expenditures that could have a negative effect on our profitability and cash flows. Our business interruption insurance would not cover all of the lost revenues associated with equipment failures. Longer-term business disruptions could result in a loss of customers, which adversely could affect our future sales levels and, therefore, our profitability.

Regarding the impact of unexpected events happening to our suppliers, many of our mines are dependent on one source for electric power and for natural gas. A significant interruption in service from our energy suppliers due to terrorism or sabotage, weather conditions, natural disasters, or any other cause can result in substantial losses that may not be fully recoverable, either from our business interruption insurance or responsible third parties.

We may not have adequate insurance coverage for some business risks.

As noted above, our operations are generally subject to a number of hazards and risks, which could result in damage to, or destruction of, equipment, properties or facilities. The insurance that we maintain to address risks that are typical in our business may not provide adequate coverage. Insurance against some risks, such as liabilities for environmental pollution, tailings basin breaches, or certain hazards or interruption of certain business activities, may not be available at an economically reasonable cost, or at all. Even if available, we may self-insure where we determine it is most cost-effective to do so. As a result, accidents or other negative developments involving our mining, production or transportation activities could have a material adverse effect on our operations.

Failures in our information technology systems may interfere with the normal functioning of our business.

We rely on information technology (“IT”) systems for the operations of many of our business processes. Failures of our IT systems, whether caused maliciously or inadvertently, may result in the disruption of our business processes, or in the unauthorized release of sensitive, confidential or otherwise protected information or result in the corruption of data. Though we have controls in place, we cannot provide assurance that a cyber-attack will not occur.

We are subject to risks involving operations and sales in multiple countries.

We supply raw materials to the global integrated steel industry with substantial assets located outside of the U.S. We conduct operations in the U.S. and Australia. As such, we are subject to additional risks beyond those relating to our U.S. operations, such as fluctuations in currency exchange rates; potentially adverse tax consequences due to overlapping or differing tax structures; burdens to comply with multiple and potentially conflicting foreign laws and regulations, including export requirements, tariffs, economic sanctions and other barriers, environmental health and safety requirements, and unexpected changes in any of these laws and regulations; the imposition of duties, tariffs, import and export controls and other trade barriers impacting the seaborne iron ore markets; difficulties in staffing and managing multi-national operations; political and economic instability and disruptions, including terrorist attacks; disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations, including the Foreign Corrupt Practices Act; and uncertainties in the enforcement of legal rights and remedies in multiple jurisdictions.

With the finalization of the Organization for Economic Cooperation and Development's, or OECD's, Base Erosion and Profit Shifting study, referred to as the Actions, many OECD countries have acknowledged their intent to implement the Actions and update their local tax regulations. The extent (if any) to which countries in which we operate adopt and implement the Actions could affect our effective tax rate and our future results from non-U.S. operations.

Table of Contents

Compliance with the laws and regulations described above or with other applicable foreign, federal, state, provincial and local laws and regulations currently in effect or that may be adopted in the future could expose us to additional risks. If we are unable to manage successfully the risks associated with operating our global business, these risks could have a material adverse effect on our business, results of operations or financial condition.

Our profitability could be affected adversely by the failure of outside contractors to perform.

Asia Pacific Iron Ore uses contractors to handle many of the operational phases of its mining and processing operations and, therefore, we are subject to the performance of outside companies on key production areas. We use contractors to help complete certain capital projects, such as development of the Mustang pellet, and a contractor's failure to perform could affect adversely our sales and our ability to fulfill customer requirements. A failure of any of these contractors to perform in a significant way would result in additional costs for us, which also could affect adversely our production rates and results of operations.

V. DEVELOPMENT AND SUSTAINABILITY RISKS

The cost and time to implement a strategic capital project may prove to be greater than originally anticipated.

We undertake strategic capital projects in order to enhance, expand or upgrade our mines and production capabilities. Our ability to achieve the anticipated volumes of production, revenues or otherwise realize acceptable returns on strategic capital projects that we may undertake is subject to a number of risks, many of which are beyond our control, including a variety of market (such as a volatile pricing environment for iron ore), operational, permitting and labor-related factors. Further, the cost to implement any given strategic capital project ultimately may prove to be greater and may take more time than originally anticipated. Inability to achieve the anticipated results from the implementation of our strategic capital projects, or the incurring of unanticipated implementation costs, penalties or inability to meet contractual obligations could affect adversely our results of operations and future earnings and cash flow generation.

We continually must replace reserves depleted by production. Exploration activities may not result in additional discoveries.

Our ability to replenish our ore reserves is important to our long-term viability. Depleted ore reserves must be replaced by further delineation of existing ore bodies or by locating new deposits in order to maintain production levels over the long term. Resource exploration and development are highly speculative in nature. Exploration projects involve many risks, require substantial expenditures and may not result in the discovery of sufficient additional mineral deposits that can be mined profitably. Once a site with mineralization is discovered, it may take several years from the initial phases of drilling until production is possible, during which time the economic feasibility of production may change. Substantial expenditures are required to establish recoverable proven and probable reserves and to construct mining and processing facilities. As a result, there is no assurance that current or future exploration programs will be successful and there is a risk that depletion of reserves will not be offset by discoveries or acquisitions. Given recent market conditions, we significantly curtailed expenditures related to exploration at or near our mine sites in the U.S. and Australia.

We rely on estimates of our recoverable reserves, which is complex due to geological characteristics of the properties and the number of assumptions made.

We regularly evaluate our iron ore reserves based on revenues and costs and update them as required in accordance with SEC Industry Guide 7 and, historically, the Canadian Institute of Mining, Metallurgy & Petroleum's Definition Standards on Mineral Resources and Mineral Reserves. In addition, our Asia Pacific Iron Ore business segment has published reserves that follow the Joint Ore Reserve Code in Australia, with certain changes to our Western Australian reserve values to make them comply with SEC requirements. There are numerous uncertainties inherent in estimating quantities of reserves of our mines, including many factors beyond our control.

Estimates of reserves and future net cash flows necessarily depend upon a number of variable factors and assumptions, such as production capacity, effects of regulations by governmental agencies, future prices for iron ore, future industry conditions and operating costs, severance and excise taxes, development costs and costs of extraction and reclamation, all of which may vary considerably from actual results. Estimating the quantity and grade of reserves requires us to determine the size, shape and depth of our mineral bodies by analyzing geological data, such as samplings of drill holes. In addition to the geology assumptions of our mines, assumptions are also required to determine the economic feasibility of mining these reserves, including estimates of future commodity prices and demand, the mining methods we use, and the related costs incurred to develop and mine our reserves. For these reasons, estimates of the economically recoverable quantities of mineralized deposits attributable to any particular group of properties, classifications of such reserves based on risk of recovery and estimates of future net cash flows prepared by different engineers or by the same engineers at different times may vary substantially as the criteria change. Estimated ore

Table of Contents

reserves could be affected by future industry conditions, future changes in the SEC's mining property disclosure requirements, geological conditions and ongoing mine planning. Actual volume and grade of reserves recovered, production rates, revenues and expenditures with respect to our reserves will likely vary from estimates, and if such variances are material, our sales and profitability could be affected adversely.

Defects in title or loss of any leasehold interests in our properties could limit our ability to mine these properties or result in significant unanticipated costs.

A portion of our mining operations are conducted on properties we lease, license or as to which we have easements or other possessory interests, which we refer to as "leased properties". Consistent with industry practice, title to most of these leased properties and mineral rights are not usually verified until we make a commitment to develop a property, which may not occur until after we have obtained necessary permits and completed exploration of the leased property. In some cases, title with respect to leased properties is not verified at all because we instead rely on title information or representations and warranties provided by lessors or grantors. We do not maintain title insurance on our owned or leased properties. A title defect or the loss of any lease, license or easement for any leased property could affect adversely our ability to mine any associated reserves. In addition, from time to time the rights of third parties for competing uses of adjacent, overlying, or underlying lands such as for roads, easements and public facilities may affect our ability to operate as planned if our title is not superior or arrangements cannot be negotiated.

Any challenge to our title could delay the exploration and development of some reserves, deposits or surface rights, cause us to incur unanticipated costs and could ultimately result in the loss of some or all of our interest in those reserves or surface rights. In the event we lose reserves, deposits or surface rights, we may have to shut down or significantly alter the sequence of our mining operations, which may affect adversely our future production, revenues and cash flows. Additionally, if we lose any leasehold interests relating to any of our pellet plants or loadout facilities, we may need to find an alternative location to process our iron ore and load it for delivery to customers, which could result in significant unanticipated costs. Finally, we could incur significant liability if we inadvertently mine on property we do not own or lease.

In order to continue to foster growth in our business and maintain stability of our earnings, we must maintain our social license to operate with our stakeholders.

As a mining company, maintaining a strong reputation and consistent operational and safety history is vital in order to continue to foster growth and maintain stability in our earnings. As sustainability expectations increase and regulatory requirements continue to evolve, maintaining our social license to operate becomes increasingly important. We incorporate social license expectations in our ERM program. Our ability to maintain our reputation and strong operating history could be threatened, including by circumstances outside of our control, such as disasters caused or suffered by other mining companies. If we are not able to respond effectively to these and other challenges to our social license to operate, our reputation could be damaged significantly. Damage to our reputation could affect adversely our operations and ability to foster growth in our company.

Estimates and timelines relating to new development projects are uncertain and we may incur higher costs and lower economic returns than estimated.

Mining industry development projects typically require a number of years and significant expenditures before production is possible. Such projects could experience unexpected problems and delays during development, construction and start-up.

Our decision to develop a project typically is based on the results of feasibility studies, which estimate the anticipated economic returns of a project. The actual project profitability or economic feasibility may differ from such estimates as a result of any of the following factors, among others: changes in tonnage, grades and metallurgical characteristics of ore or other raw materials to be mined and processed; estimated future prices of the relevant product; changes in customer demand; higher construction and infrastructure costs; the quality of the data on which engineering assumptions were made; higher production costs; adverse geotechnical conditions; availability of adequate labor force; availability and cost of water and energy; availability and cost of transportation; fluctuations in inflation and currency exchange rates; availability and terms of financing; delays in obtaining environmental or other government permits or changes in laws and regulations including environmental laws and regulations; weather or severe climate impacts; and potential delays relating to social and community issues.

Table of Contents

Our ability to realize the benefits of any potential acquisitions is uncertain.

Should we determine to pursue any acquisitions, the success of the same is subject to risks and uncertainties, including our ability to realize operating efficiencies expected from an acquisition; the size or quality of the mineral potential; delays in realizing the benefits of an acquisition; difficulties in retaining key employees, customers or suppliers of the acquired business; the risks associated with the assumption of contingent or undisclosed liabilities of acquisition targets; the impact of changes to our allocation of purchase price; and the ability to generate future cash flows or the availability of financing.

Moreover, any acquisition opportunities we pursue could affect materially our liquidity and capital resources and may require us to incur indebtedness, seek equity capital or both. Future acquisitions could also result in us assuming more long-term liabilities relative to the value of the acquired assets than we may have assumed in previous acquisitions.

VI. HUMAN CAPITAL RISKS

Our profitability could be affected adversely if we fail to maintain satisfactory labor relations.

Production in our mines is dependent upon the efforts of our employees. We are party to labor agreements with various labor unions that represent employees at our operations. Such labor agreements are negotiated periodically, and, therefore, we are subject to the risk that these agreements may not be able to be renewed on reasonably satisfactory terms. It is difficult to predict what issues may arise as part of the collective bargaining process, and whether negotiations concerning these issues will be successful. Due to union activities or other employee actions, we could experience labor disputes, work stoppages, or other disruptions in our production of iron ore that could affect us adversely. The USW represents all labor employees at our U.S. Iron Ore operations owned and/or managed by Cliffs or its subsidiary companies except for Northshore. Our labor agreements with the USW at four of our U.S. Iron Ore operations were ratified in September 2016 and extend for a three-year term, effective as of October 1, 2015.

If we enter into a new labor agreement with any union that significantly increases our labor costs relative to our competitors or fail to come to an agreement upon expiry, our ability to compete may be materially and adversely affected.

We may encounter labor shortages for critical operational positions, which could affect adversely our ability to produce our products.

We are predicting a long-term shortage of skilled workers for the mining industry and competition for the available workers limits our ability to attract and retain employees. Additionally, at our U.S. mining locations, many of our mining operational employees are approaching retirement age. As these experienced employees retire, we may have difficulty replacing them at competitive wages.

Our expenditures for post-retirement benefit and pension obligations could be materially higher than we have predicted if our underlying assumptions differ from actual outcomes, there are mine closures, or our joint venture partners fail to perform their obligations that relate to employee pension plans.

We provide defined benefit pension plans and OPEB to certain eligible union and non-union employees in the U.S., including our share of expense and funding obligations with respect to unconsolidated ventures. Our pension expense and our required contributions to our pension plans are affected directly by the value of plan assets, the projected and actual rate of return on plan assets, and the actuarial assumptions we use to measure our defined benefit pension plan obligations, including the rate at which future obligations are discounted.

We cannot predict whether changing market or economic conditions, regulatory changes or other factors will increase our pension expenses or our funding obligations, diverting funds we would otherwise apply to other uses.

We have calculated our unfunded pension and OPEB obligations based on a number of assumptions. If our assumptions do not materialize as expected, cash expenditures and costs that we incur could be materially higher. Moreover, we cannot be certain that regulatory changes will not increase our obligations to provide these or additional benefits. These obligations also may increase substantially in the event of adverse medical cost trends or unexpected rates of early retirement, particularly for bargaining unit retirees.

Table of Contents

We depend on our senior management team and other key employees, and the loss of these employees could adversely affect our business.

Our success depends in part on our ability to attract and motivate our senior management and key employees. Achieving this objective may be difficult due to a variety of factors, including fluctuations in the global economic and industry conditions, competitors' hiring practices, cost reduction activities, and the effectiveness of our compensation programs. Competition for qualified personnel can be intense. We must continue to recruit, retain, and motivate our senior management and key personnel in order to maintain our business and support our projects. A loss of senior management and key personnel could prevent us from capitalizing on business opportunities, and our operating results could be adversely affected.

Item 1B. Unresolved Staff Comments

We have no unresolved comments from the SEC.

Table of Contents

Item 2. Properties

The following map shows the locations of our operations and offices as of December 31, 2016:

General Information about the Mines

All of our iron ore mining operations are open-pit mines. Additional pit development is underway as required by long-range mine plans. At our U.S. Iron Ore and Asia Pacific Iron Ore mines, drilling programs are conducted periodically to collect modeling data and for refining ongoing operations.

Geologic models are developed for all mines to define the major ore and waste rock types. Computerized block models for iron ore are constructed that include all relevant geologic and metallurgical data. These are used to generate grade and tonnage estimates, followed by detailed mine design and life of mine operating schedules.

U.S. Iron Ore

The following map shows the locations of our U.S. Iron Ore operations as of December 31, 2016:

We currently own or co-own four operating iron ore mines and one indefinitely idled mine in Michigan and Minnesota from which we produced 16.0 million, 19.3 million and 22.4 million long tons of iron ore pellets in 2016, 2015 and 2014, respectively, for our account. We produced 7.4 million, 6.8 million and 7.3 million long tons, respectively, on behalf of the steel company partners of the mines.

Table of Contents

Our U.S. Iron Ore mines produce from deposits located within the Biwabik and Negaunee Iron Formation, which are classified as Lake Superior type iron formations that formed under similar sedimentary conditions in shallow marine basins approximately two billion years ago. Magnetite and hematite are the predominant iron oxide ore minerals present, with lesser amounts of goethite and limonite. Quartz is the predominant waste mineral present, with lesser amounts of other chiefly iron bearing silicate and carbonate minerals. The ore minerals liberate from the waste minerals upon fine grinding.

Mine	Cliffs Ownership	Infrastructure	Mineralization	Operating Since	Current Annual Capacity[1,2]	2016 Production[1,2]	Mineral Owned	Rights Leased
Empire[3]	79%	Mine, Concentrator, Pelletizer	Magnetite	1963	*	2.8	53%	47%
Tilden	85%	Mine, Concentrator, Pelletizer, Railroad	Hematite & Magnetite	1974	8.0	7.6	100%	—%
Hibbing	23%	Mine, Concentrator, Pelletizer	Magnetite	1976	8.0	8.2	3%	97%
Northshore	100%	Mine, Concentrator, Pelletizer, Railroad	Magnetite	1990	6.0	3.2	—%	100%
United Taconite	100%	Mine, Concentrator, Pelletizer	Magnetite	1965	5.4	1.5	—%	100%

[1] Reported on a wet basis in millions of long tons, equivalent to 2,240 pounds.
[2] Figures reported on 100% basis.
[3] Empire was indefinitely idled beginning on August 3, 2016.
* Historically, Empire had an annual capacity of 5.5 million long tons; currently indefinitely idled.

Empire Mine

The Empire mine is located on the Marquette Iron Range in Michigan's Upper Peninsula approximately 15 miles southwest of Marquette, Michigan. The Empire mine has produced between 2.8 million and 4.3 million long tons of iron ore pellets annually over the past five years. Of the total long tons of iron ore pellets produced by Empire from 2012 to 2015, between 0.8 million and 2.4 million long tons were tolled to Tilden mine annually. Empire did not toll tons to Tilden during 2016. Empire was indefinitely idled beginning on August 3, 2016. We plan to continue shipping Empire's remaining pellet inventory into 2017.

We own 79% of Empire and a subsidiary of ArcelorMittal USA has the remaining 21% ownership in Empire with limited rights and obligations, which it has a unilateral right to put to us at any time. This right has not been exercised. Prior to the indefinite idle, each partner took its share of production pro rata; however, provisions in the partnership agreement allowed additional or reduced production to be delivered under certain circumstances. As part of a 2014 extension agreement between us and ArcelorMittal, which amended certain terms of the partnership agreement, certain minimum distributions of the partners' equity amounts are required to be made on a quarterly basis beginning in the first quarter of 2015 and continued through January 2017. The partnership dissolved on December 31, 2016 and the partners are in discussion regarding distribution of the remaining assets and/or equity interest, if any, in the partnership. Prior to the indefinite idle, operations consisted of an open pit truck and shovel mine, a concentrator that utilizes single stage crushing, AG mills, magnetic separation and floatation to produce a magnetite concentrate that is then supplied to the on-site pellet plant. From the site, pellets were transported by CN rail to a ship loading port at

Escanaba, Michigan, operated by CN.

Tilden Mine

The Tilden mine is located on the Marquette Iron Range in Michigan's Upper Peninsula approximately five miles south of Ishpeming, Michigan. Over the past five years, the Tilden mine has produced between 7.5 million and 7.6 million long tons of iron ore pellets annually. We own 85% of Tilden, with the remaining minority interest owned by a subsidiary of U.S. Steel. Each partner takes its share of production pro rata; however, provisions in the partnership agreement allow additional or reduced production to be delivered under certain circumstances. We own all of the ore reserves at the Tilden mine and lease them to Tilden. Operations consist of an open pit truck and shovel mine, a concentrator that utilizes single stage crushing, AG mills, magnetite separation and floatation to produce hematite and magnetic concentrates that are then supplied to the on-site pellet plant. From the site, pellets are transported by Cliffs' LS&I rail to a ship loading port at Marquette, Michigan, operated by Cliffs' LS&I.

Hibbing Mine

The Hibbing mine is located in the center of Minnesota's Mesabi Iron Range and is approximately ten miles north of Hibbing, Minnesota and five miles west of Chisholm, Minnesota. Over the past five years, the Hibbing mine has produced between 7.7 million and 8.2 million long tons of iron ore pellets annually. We own 23% of Hibbing, a subsidiary of ArcelorMittal has a 62.3% interest and a subsidiary of U.S. Steel has a 14.7% interest. Each partner takes its share of production pro rata; however, provisions in the joint venture agreement allow additional or reduced production to be delivered under certain circumstances. Mining is conducted on multiple mineral leases having varying expiration dates. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates. Hibbing operations consist of an open pit truck and shovel mine, a concentrator that utilizes single stage crushing, AG mills and magnetic separation to produce a magnetite concentrate, which is then delivered to an on-site pellet plant. From the site, pellets are transported by BNSF rail to a ship loading port at Superior, Wisconsin, operated by BNSF.

Northshore Mine

The Northshore mine is located in northeastern Minnesota, approximately two miles south of Babbitt, Minnesota, on the northeastern end of the Mesabi Iron Range. Northshore's processing facilities are located in Silver Bay, Minnesota, near Lake Superior. Over the past five years, the Northshore mine has produced between 3.2 million and 5.3 million long tons of iron ore pellets annually. One of the four furnaces in the Northshore pellet plant was idled in January 2015. We ran a three furnace operation throughout 2015 until the complete idle of Northshore mine in late November 2015 through May 2016. We restarted all four furnaces in May 2016. The temporary idle was a result of historic levels of steel imports into the U.S. and reduced demand from our steel-producing customers.

The Northshore mine began production under our management and ownership on October 1, 1994. We own 100% of the mine. Mining is conducted on multiple mineral leases having varying expiration dates. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates. Northshore operations consist of an open pit truck and shovel mine where two stages of crushing occur before the ore is transported along a wholly owned 47-mile rail line to the plant site in Silver Bay. At the plant site, two additional stages of crushing occur before the ore is sent to the concentrator. The concentrator utilizes rod mills and magnetic separation to produce a magnetite concentrate, which is delivered to the pellet plant located on-site. The plant site has its own ship loading port located on Lake Superior.

United Taconite Mine

The United Taconite mine is located on Minnesota's Mesabi Iron Range in and around the city of Eveleth, Minnesota. The United Taconite concentrator and pelletizing facilities are located ten miles south of the mine, near the town of Forbes, Minnesota. Over the past five years, the United Taconite mine has produced between 1.5 million and 5.4 million long tons of iron ore pellets annually. United Taconite was temporarily idled beginning the first week of August 2015. We restarted the United Taconite operation during August 2016. The temporary idle was a result of historic levels of steel imports into the U.S. and reduced demand from our steel-producing customers.

We own 100% of the United Taconite mine. Mining is conducted on multiple mineral leases having varying expiration dates. Mining leases routinely are renegotiated and renewed as they approach their respective expiration dates. United Taconite operations consist of an open pit truck and shovel mine where two stages of crushing occur before the ore is transported by rail, operated by CN, to the plant site. At the plant site an additional stage of crushing occurs before the ore is sent to the concentrator. The concentrator utilizes rod mills and magnetic separation to produce a magnetite concentrate, which is delivered to the pellet plant. From the site, pellets are transported by CN rail to a ship loading port at Duluth, Minnesota, operated by CN.

Table of Contents

Asia Pacific Iron Ore

The following map shows the location of our Asia Pacific Iron Ore operation as of December 31, 2016:

In Australia, we own and operate the Koolyanobbing operations. We produced 11.8 million, 11.7 million and 11.4 million metric tons of iron ore products in 2016, 2015 and 2014, respectively.

The mineralization at the Koolyanobbing operations is predominantly hematite and goethite replacements in greenstone-hosted banded iron formations. Individual deposits tend to be small with complex ore-waste contact relationships. The reserves at the Koolyanobbing operations are derived from 10 separate mineral deposits distributed over a 70 mile operating radius.

Mine	Cliffs Ownership	Infrastructure	Mineralization	Operating Since	Current Annual Capacity[1]	2016 Production[1]	Mineral Owned	Rights Leased
Koolyanobbing	100%	Mine, Road Haulage, Crushing-Screening Plant	Hematite & Goethite	1994	11.0	11.8	—%	100%

[1] Reported on a wet basis in millions of metric tons, equivalent to 2,205 pounds.

Koolyanobbing

The Koolyanobbing operations are located 250 miles east of Perth and approximately 30 miles northeast of the town of Southern Cross. Koolyanobbing produces lump and fines iron ore. Mining is conducted on multiple mineral leases having varying expiration dates. Mining leases routinely are renewed as they approach their respective expiration dates.

Over the past five years, the Koolyanobbing operation has produced between 10.7 million and 11.8 million metric tons of iron ore products annually. During 2016, ore material was sourced from eight separate open pit mines and was delivered by typical production trucks or road trains to a crushing and screening facility located at Koolyanobbing. All of the ore from the Koolyanobbing operations is transported by rail to the Port of Esperance, 360 miles to the south, for shipment to Asian customers.

Mineral Policy

We have a corporate policy prescribing internal controls and procedures with respect to auditing and estimating of minerals. The procedures contained in the policy include the calculation of mineral estimates at each property by our engineers, geologists and accountants, as well as third-party consultants. Management compiles and reviews the calculations, and once finalized, such information is used to prepare the disclosures for our annual and quarterly reports. The disclosures are reviewed and approved by management, including our chief executive officer and chief financial officer. Additionally, the long-range mine planning and mineral estimates are reviewed annually by our Audit Committee. Furthermore, all changes to mineral estimates, other than those due to production, are adequately documented and submitted to senior operations officers for review and approval. Finally, periodic reviews of long-range mine plans and mineral reserve estimates are conducted at mine staff meetings, senior management meetings and by independent experts.

Table of Contents

Mineral Reserves

Reserves are defined by SEC Industry Standard Guide 7 as that part of a mineral deposit that could be economically and legally extracted and produced at the time of the reserve determination. All reserves are classified as proven or probable and are supported by life-of-mine plans.

Reserve estimates are based on pricing that does not exceed the three-year trailing average index price of iron ore adjusted to our realized price. For the three-year period 2014 to 2016, the average international index price of Platts 62% Fe CFR China was $70 per dry metric ton.

We evaluate and analyze mineral reserve estimates in accordance with our mineral policy and SEC requirements. The table below identifies the year in which the latest reserve estimate was completed.

Property	Date of Latest Economic Reserve Analysis
U.S. Iron Ore	
Tilden	2015
Hibbing	2015
Northshore	2015
United Taconite	2016
Asia Pacific Iron Ore	
Koolyanobbing	2013

Ore reserve estimates for our iron ore mines as of December 31, 2016 were estimated from fully designed open pits developed using three-dimensional modeling techniques. These fully designed pits incorporate design slopes, practical mining shapes and access ramps to assure the accuracy of our reserve estimates. A new reserve estimate was completed for our United Taconite operation in 2016. All other operations' reserves have been adjusted net of 2016 production.

Table of Contents

U.S. Iron Ore

All tonnages reported for our U.S. Iron Ore operating segment are in long tons of 2,240 pounds, have been rounded to the nearest 100,000 and are reported on a 100% basis.

U.S. Iron Ore Mineral Reserves
as of December 31, 2016
(In Millions of Long Tons)

		Proven		Probable		Proven & Probable		Saleable Product[2,3]		Previous Year	
Property	Cliffs Share	Tonnage	% Grade	Tonnage	% Grade	Tonnage	% Grade[5]	Process Recovery[4]	Tonnage	P&P Crude Ore	Saleable Product
Empire	— %	—	—	—	—	—	—	—%	—	8.6	3.2
Tilden[1]	85 %	285.1	34.7	82.7	33.9	367.8	34.5	37%	136.3	389.1	143.6
Hibbing	23 %	208.3	19.5	24.7	19.6	233.0	19.5	27%	61.7	263.2	69.7
Northshore	100 %	250.6	24.9	557.4	24.2	808.0	24.4	32%	261.1	817.6	264.3
United Taconite	100 %	427.3	22.6	415.5	21.9	842.8	22.3	32%	269.3	466.8	156.2
Totals		1,171.3		1,080.3		2,251.6			728.4	1,945.3	637.0

[1] Tilden hematite reported grade is percent FeT; all other properties are percent magnetic iron
[2] Saleable product is a standard pellet containing 60% to 66% Fe calculated from both proven and probable mineral reserves
[3] Saleable product is reported on a dry basis; shipped products typically contain 1% to 4% moisture
[4] Process recovery includes all factors for converting crude ore tonnage to saleable product
[5] Cutoff grades are 15% magnetic iron for Hibbing and Empire, 17% for United Taconite, 19% for Northshore. Cutoff for Tilden hematite is 25% FeT

A new economic reserve estimate was completed for United Taconite in 2016. Based on this analysis, saleable product reserves increased by 115 million long tons as a result of an updated life-of-mine plan and production schedule that now include previously developed mine areas south of our current operations commonly referred to as the South Pit. This area had previously been considered as mineralized material until an economically scheduled mine plan was developed.

Asia Pacific Iron Ore

All tonnages reported for our Asia Pacific Iron Ore operating segment are in metric tons of 2,205 pounds, have been rounded to the nearest 100,000 and are reported on a 100% basis.

Asia Pacific Iron Ore Mineral Reserves
as of December 31, 2016
(In Millions of Metric Tons)[1]

		Proven		Probable		Proven & Probable		Previous Year Total
Property	Cliffs Share	Tonnage	% Fe	Tonnage	% Fe	Tonnage	% Fe[2]	Tonnage
Koolyanobbing	100%	1.7	57.2	41.0	59.6	42.7	59.5	49.1

[1] Tonnages reported are saleable product reported on a dry basis; shipped products contain approximately 5% moisture
[2] Cutoff grade is 54% FeT

Item 3. Legal Proceedings

Empire NPDES Permit Enforcement. Empire received an enforcement letter on December 22, 2015 from the MDEQ alleging exceedances of the selenium effluent limit in 2014 and 2015. The alleged exceedances were resolved through

an Administrative Consent Order which included payment of a civil penalty of $95,000.
ERISA Litigation. On May 14, 2015, a lawsuit was filed in the U.S. District Court for the Northern District of Ohio captioned Paul Saumer, individually and on behalf of all others similarly situated, v. Cliffs Natural Resources Inc. et al.,

Table of Contents

No. 1:15-CV-00954. This action was purportedly brought on behalf of the Northshore and Silver Bay Power Company Retirement Savings Plan (the "Plan") and certain participants and beneficiaries of the Plan during the class period, defined in the complaint as April 2, 2012 to the present, against Cliffs Natural Resources Inc., its investment committee, Northshore, the Employee Benefits Administration Department of Northshore, and certain current and former officers. Plaintiff amended the complaint to name as defendants additional current and former employees who served on the investment committee. The suit alleges that the defendants breached their duties to the plaintiffs and the Plan in violation of ERISA fiduciary rules by, among other things, continuing to offer and hold Cliffs Natural Resources Inc. stock as a Plan investment option during the class period. The relief sought includes a request for a judgment ordering the defendants to make good to the Plan all losses to the Plan resulting from the alleged breaches of fiduciary duties. The lawsuit has been referred to our insurance carriers. On April 1, 2016, the Court granted defendants' motion to dismiss the lawsuit. Plaintiff filed an appeal, which is currently pending in the Sixth Circuit Court of Appeals.

Exchange Offer Litigation. On March 14, 2016, a putative class action was filed in the U.S. District Court for the Southern District of New York captioned Waxman et al. v. Cliffs Natural Resources Inc., No. 1:16-cv-01899. Generally, the lawsuit alleges that the exchange offers for certain of our existing senior notes announced on January 27, 2016 violated the Trust Indenture Act of 1939 (the "TIA") and breached the indentures governing the senior notes subject to the exchange offers because the exchange offers were offered only to certain noteholders that were qualified institutional buyers ("QIBs") and not to non-QIBs. The suit seeks class certification with respect to non-QIB noteholders of the 5.90% Senior Notes due 2020 and the 6.25% Senior Notes due 2040 (collectively, the “Class Notes”), which QIBs were permitted to exchange for newly-issued 1.5 Lien Notes. Plaintiffs allege that the exchange offers had the effect of subordinating their Class Notes to those of the QIBs who elected to exchange their notes and also impaired the Plaintiffs’ rights to receive payment of the principal and interest under the Class Notes and to institute suit to compel such payment. In addition to alleged violation of the TIA and breach of contract, Plaintiffs seek unspecified damages for breach of the implied covenant of good faith and fair dealing and unjust enrichment, and also seek declaratory judgment that the exchange offers are null and void. On May 16, 2016, we filed a motion to dismiss this lawsuit, which was granted on December 6, 2016.

Michigan Electricity Matters. See NOTE 20 - COMMITMENTS AND CONTINGENCIES included in Item 8. Financial Statements and Supplementary Data of this Annual Report on Form 10-K for a description of the FERC proceedings to determine, among other things, allocation of SSR costs, whether retroactive surcharges are permissible and the total amount of SSR compensation, all of which is currently subject to appeal. Such description is incorporated by reference into this Item 3.

Taconite MACT Compliance Review. EPA Region 5 issued Notices of Violation during the first quarter of 2014 to Empire, Tilden and United Taconite related to alleged historical violations of the Taconite MACT rule and certain elements of the respective state-issued Title V operating permits. Where not already resolved, the facilities continue to implement actions that limit or completely eliminate any future exposures. EPA has proposed, and Cliffs has agreed to, a tolling agreement which targets a completion of the enforcement action by June 2017. EPA is in the process of drafting final orders but has not yet indicated the scale of any penalty or additional injunctive relief that may be required as part of a final resolution. While the matter has been referred to the DOJ for enforcement, it is not anticipated currently to have a material adverse impact on our business.

Item 4. Mine Safety Disclosures

We are committed to protecting the occupational health and well-being of each of our employees. Safety is one of our core values, and we strive to ensure that safe production is the first priority for all employees. Our internal objective is to achieve zero injuries and incidents across the Company by focusing on proactively identifying needed prevention activities, establishing standards and evaluating performance to mitigate any potential loss to people, equipment, production and the environment. We have implemented intensive employee training that is geared toward maintaining a high level of awareness and knowledge of safety and health issues in the work environment through the development and coordination of requisite information, skills and attitudes. We believe that through these policies, we have developed an effective safety management system.

Under the Dodd-Frank Act, each operator of a coal or other mine is required to include certain mine safety results within its periodic reports filed with the SEC. As required by the reporting requirements included in §1503(a) of the Dodd-Frank Act and Item 104 of Regulation S-K, the required mine safety results regarding certain mining safety and health matters for each of our mine locations that are covered under the scope of the Dodd-Frank Act are included in Exhibit 95 of Item 15. Exhibits and Financial Statement Schedules of this Annual Report on Form 10-K.

Table of Contents

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Stock Exchange Information

Our common shares (ticker symbol CLF) are listed on the NYSE.

Common Share Price Performance and Dividends

The following table sets forth, for the periods indicated, the high and low sales prices per common share as reported on the NYSE:

	2016		2015	
	High	Low	High	Low
First Quarter	$3.75	$1.20	$9.39	$4.12
Second Quarter	5.83	2.77	6.87	4.27
Third Quarter	8.45	5.19	4.53	2.28
Fourth Quarter	10.90	4.91	3.73	1.42
Year	10.90	1.20	9.39	1.42

At February 6, 2017, we had 1,240 shareholders of record.

We did not declare or pay any cash dividends on our common shares during the years ended December 31, 2016 or 2015. We do not anticipate paying any cash dividends on our common shares in the near future. Any determination to pay dividends on our common shares in the future will be at the discretion of our Board of Directors and dependent upon then-existing conditions, including our operating results and financial condition, capital requirements, contractual restrictions, business prospects and other factors that our Board of Directors may deem relevant. Additionally, the agreement governing our ABL Facility contains, and agreements governing any of our future debt may contain, covenants and other restrictions that, in certain circumstances, could limit the level of dividends that we are able to pay on our common shares. There can be no assurance that we will pay a dividend in the future.

Table of Contents

Shareholder Return Performance

The following graph shows changes over the past five-year period in the value of $100 invested in: (1) Cliffs' common shares; (2) S&P 500 Stock Index; (3) S&P Smallcap 600 Index; and (4) S&P Metals and Mining ETF Index. The values of each investment are based on price change plus reinvestment of all dividends reported to shareholders, based on monthly granularity.

		2011	2012	2013	2014	2015	2016
Cliffs Natural Resources Inc.	Return %		-34.76	-30.17	-71.56	-77.87	432.32
	Cum $	100.00	65.24	45.56	12.96	2.87	15.26
S&P 500 Index - Total Returns	Return %		15.98	32.36	13.69	1.38	11.93
	Cum $	100.00	115.98	153.51	174.52	176.93	198.04
S&P Smallcap 600 Index	Return %		16.30	41.29	5.73	-2.00	26.43
	Cum $	100.00	116.00	164.32	173.74	170.26	215.26
S&P Metals and Mining ETF	Return %		-6.60	-5.37	9.77	-50.51	105.99
	Cum $	100.00	93.40	88.38	97.02	48.01	98.90

Table of Contents

Issuer Purchases of Equity Securities

The following table presents information with respect to repurchases by us of our common shares during the periods indicated.

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares (or Units) Purchased[1]	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet be Purchased Under the Plans or Programs
October 1 - 31, 2016	1,282	$ 5.85	—	—
November 1 - 30, 2016	—	$ —	—	—
December 1 - 31, 2016	31,090	$ 8.41	—	—
Total	32,372	$ 8.31	—	—

[1] These shares were delivered to us to satisfy tax withholding obligations due upon the vesting or payment of stock awards.

Debt-for-Equity Exchanges

On December 22, 2016, we entered into a privately negotiated exchange agreement whereby we issued an aggregate of 0.4 million common shares in exchange for $3.8 million aggregate principal amount of our 4.875% senior notes due 2021. Accordingly, we recognized a gain of $0.2 million in Gain on extinguishment/restructuring of debt in the Statements of Consolidated Operations for the three months ended December 31, 2016.

On November 18, 2016, we entered into privately negotiated exchange agreements whereby we issued an aggregate of 1.9 million common shares in exchange for $3.0 million aggregate principal amount of our 4.80% senior notes due 2020 and $12.5 million aggregate principal amount of our 4.875% senior notes due 2021. Accordingly, we recognized a gain of $1.5 million in Gain on extinguishment/restructuring of debt in the Statements of Consolidated Operations for the three months ended December 31, 2016.

These debt-for-equity exchanges together represented less than 1% of our outstanding common shares. The issuances of the common shares in exchange for our senior notes due 2020 and 2021 were made in reliance on the exemption from registration provided in Section 3(a)(9) of the Securities Act.

Table of Contents

Item 6. Selected Financial Data

Summary of Financial and Other Statistical Data - Cliffs Natural Resources Inc. and Subsidiaries

	2016 (a)	2015 (b)	2014 (c)	2013 (d)	2012 (e)
Financial data (in millions, except per share amounts) *					
Revenue from product sales and services	$2,109.0	$2,013.3	$3,373.2	$3,890.8	$3,982.7
Cost of goods sold and operating expenses	(1,719.7)	(1,776.8)	(2,487.5)	(2,406.4)	(2,438.4)
Other operating expense	(148.5)	(85.2)	(755.6)	(104.1)	(239.3)
Operating income	240.8	151.3	130.1	1,380.3	1,305
Income from continuing operations	219.2	143.7	56.4	878.9	336.4
Loss from discontinued operations, net of tax	(19.9)	(892.1)	(8,368.0)	(517.1)	(1,463.0)
Net income (loss)	199.3	(748.4)	(8,311.6)	361.8	(1,126.6)
Loss (income) attributable to noncontrolling interest	(25.2)	(0.9)	1,087.4	51.7	227.2
Net income (loss) attributable to Cliffs shareholders	174.1	(749.3)	(7,224.2)	413.5	(899.4)
Preferred stock dividends	—	(38.4)	(51.2)	(48.7)	—
Income (loss) attributable to Cliffs common shareholders	$174.1	$(787.7)	$(7,275.4)	$364.8	$(899.4)
Earnings (loss) per common share attributable to Cliffs common shareholders - basic					
Continuing operations	$0.98	$0.63	$(0.14)	$5.37	$2.19
Discontinued operations	(0.10)	(5.77)	(47.38)	(2.97)	(8.51)
Earnings (loss) per common share attributable to Cliffs common shareholders - basic	$0.88	$(5.14)	$(47.52)	$2.40	$(6.32)
Earnings (loss) per common share attributable to Cliffs common shareholders - diluted					
Continuing operations	$0.97	$0.63	$(0.14)	$4.95	$2.18
Discontinued operations	(0.10)	(5.76)	(47.38)	(2.58)	(8.48)
Earnings (loss) per common share attributable to Cliffs common shareholders - diluted	$0.87	$(5.13)	$(47.52)	$2.37	$(6.30)
Total assets	$1,923.9	$2,135.5	$3,147.2	$13,102.9	$13,549.6
Long-term debt obligations (including capital leases)	$2,213.5	$2,755.6	$2,911.5	$2,968.4	$4,081.7
Net cash provided by operating activities	$303.0	$37.9	$358.9	$1,145.9	$514.5
Net cash used in investing activities	$(57.9)	$(103.2)	$(103.6)	$(811.3)	$(961.8)
Net cash provided by (used in) financing activities	$(206.4)	$61.0	$(288.3)	$(171.9)	$(119.6)
Distributions to preferred shareholders cash dividends (f)					
- Per depositary share	$—	$1.32	$1.76	$1.66	$—
- Total	$—	$38.4	$51.2	$48.7	$—
Distributions to common shareholders cash dividends (g)					
- Per share	$—	$—	$0.60	$0.60	$2.16
- Total	$—	$—	$92.5	$91.9	$307.2
Repurchases of common shares	—	—	—	—	—
Common shares outstanding - basic (millions)					
- Average for year	197.7	153.2	153.1	151.7	142.4
- At year-end	233.1	153.6	153.2	153.1	142.5
Iron ore production and sales statistics (long tons in millions - U.S. Iron Ore; metric tons in millions - Asia Pacific Iron Ore)					
Production tonnage - U.S. Iron Ore	23.4	26.1	29.7	27.2	29.5
- U.S. Iron Ore (Cliffs' share)	16.0	19.3	22.4	20.3	22.0
- Asia Pacific Iron Ore	11.8	11.7	11.4	11.1	11.3
Sales tonnage - U.S. Iron Ore	18.2	17.3	21.8	21.3	21.6

- Asia Pacific Iron Ore	11.6	11.6	11.5	11.0	11.7

42

Table of Contents

* Management determined as of March 31, 2015, that our North American Coal operating segment met the criteria to be classified as held for sale under ASC 205, Presentation of Financial Statements. The North American Coal segment continued to meet the criteria throughout 2015 until we sold our North American Coal operations during the fourth quarter of 2015. As such, all current and historical North American Coal operating segment results are included in our financial statements and classified within discontinued operations. On January 27, 2015, we announced that the Bloom Lake Group commenced restructuring proceedings (the "Bloom Filing") under the CCAA with the Québec Superior Court (Commercial

Division) in Montreal (the “Court”). At that time, the Bloom Lake Group was no longer generating revenues and was not able to meet its obligations as they came due. The Bloom Filing addressed the Bloom Lake Group's immediate liquidity issues and permits the Bloom Lake Group to preserve and protect its assets for the benefit of all stakeholders while restructuring and sale options are explored. As part of the CCAA process, the Court approved the appointment of a Monitor and certain other financial advisors. Additionally, on May 20, 2015, we announced that the Wabush Group commenced restructuring proceedings (the "Wabush Filing") with the Court under the CCAA. As a result of this action, the CCAA protections granted to the Bloom Lake Group were extended to include the Wabush Group to facilitate the reorganization of each of their businesses and operations. The Wabush Group was no longer generating revenues and was not able to meet its obligations as they came due. The inclusion of the Wabush Group in the existing Bloom Filing facilitated a more comprehensive restructuring and sale process of both the Bloom Lake Group and the Wabush Group which collectively included mine, port and rail assets. As part of the Wabush Filing, the Court approved the appointment of a Monitor and certain other financial advisors. The Monitor of the Wabush Group is also the Monitor of the Bloom Lake Group. Financial results prior to the respective deconsolidations of the Bloom Lake and Wabush Groups and subsequent expenses directly associated with the Canadian Entities are included in our financial statements and classified within discontinued operations.

(a) During 2016, we recorded a net gain of $166.3 million related to debt restructuring activities that occurred throughout the year including the issuance of $218.5 million aggregate principal of 1.5 Lien Senior Notes due 2020 in exchange for $512.2 of our existing senior notes, the issuance of an aggregate of 8.2 million shares in exchange for $56.9 million aggregate principal of our existing senior notes and a loss on the full redemption of our $283.6 million outstanding 2018 senior notes at a total redemption price of $301.0 million. We also issued 44.4 million common shares in an underwritten public offering. We received net proceeds of approximately $287.6 million at a public offering price of $6.75 per common share.

(b) On January 27, 2015, we announced the Bloom Filing with the Court under the CCAA. Additionally, on May 20, 2015, we announced the Wabush Filing with the Court under the CCAA. As a result of this action, the CCAA protections granted to the Bloom Lake Group were extended to include the Wabush Group to facilitate the reorganization of each of their businesses and operations. Consistent with our strategy to extract maximum value from our current assets, on December 22, 2015, we sold our equity interests in all the remaining North American Coal operations to Seneca. The sale included the Pinnacle mine in West Virginia and the Oak Grove mine in Alabama. Additionally, Seneca may pay Cliffs an earn-out of up to $50 million contingent upon the terms of a revenue sharing agreement, which extends through the year 2020. As noted above, all current and historical North American Coal operating segment results are included in our financial statements and classified within discontinued operations.

(c) During 2014, we recorded an impairment of goodwill and other long-lived assets of $73.5 million. The goodwill impairment charge of $73.5 million related to our Asia Pacific Iron Ore reporting unit. There were also other long-lived asset impairment charges of $562.0 million related to our continuing operations including the Asia Pacific Iron Ore operating segment and our Other reportable segments. The other long-lived asset impairment charges which related to our discontinued operations were $8,394.4 million related to our Wabush operation and Bloom Lake operation within our Eastern Canadian Iron Ore operating segment, and our CLCC thermal operation, Oak Grove operation and Pinnacle operation within our North American Coal operating segment, along with impairments charged to reporting units within our Other reportable segments. The impairment charges were primarily a result of changes in life-of-mine cash flows due to declining pricing for both global iron ore and low-volatile metallurgical coal, which impacts our estimate of long-term pricing, along with changes in strategic focus including exploratory phases of possible divestiture of the operations as the new CODM viewed Eastern Canadian Iron Ore, Asia Pacific Iron Ore, North American Coal and Ferroalloys as non-core assets. The CLCC assets were sold in the fourth quarter of 2014 on December 31, 2014, resulting in a loss on sale of $419.6 million. As noted above, all current and historical North American Coal operating segment results are included in our financial statements and classified within discontinued operations.

(d) Upon performing our annual goodwill impairment test in the fourth quarter of 2013, a goodwill impairment charge of $80.9 million was recorded for our Cliffs Chromite Ontario and Cliffs Chromite Far North reporting units within our Ferroalloys operating segment. We also recorded other long-lived asset impairment charges of $169.9 million, of which $154.6 million relates to our Wabush reporting unit within our Eastern Canadian Iron Ore operating segment to reduce those assets to their estimated fair value as of December 31, 2013. These reporting units were included within the entities under the CCAA filing. As noted above, financial results prior to the respective deconsolidations of the Bloom Lake and Wabush Groups and subsequent expenses directly associated with the Canadian

Entities are included in our financial statements and classified within discontinued operations.

(e) Upon performing our annual goodwill impairment test in the fourth quarter of 2012, goodwill impairment charges of $997.3 million and $2.7 million were recorded for our CQIM and Wabush reporting units, respectively, both within the Eastern Canadian Iron Ore operating segment. We also recorded an impairment charge of $49.9 million related to our Eastern Canadian Iron Ore operations to reduce those assets to their estimated fair value as of December 31, 2012, due to the idling of the pelletizing facility at Pointe Noire. The Eastern Canadian Iron Ore operations were included within the entities under the Bloom Filing and Wabush Filing. As noted above, financial results prior to the respective deconsolidations of the Bloom Lake and Wabush Groups and subsequent expenses directly associated with the Canadian Entities are included in our financial statements and classified within discontinued operations. On July 10, 2012, we entered into a definitive share and asset sale agreement to sell our 45% economic interest in the Sonoma joint venture coal mine located in Queensland, Australia. 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 joint venture and renewaFUEL operations are reflected as discontinued operations in the accompanying consolidated

financial statements for all periods presented.
(f) On March 20, 2013, our Board of Directors declared a cash dividend of $13.6111 per Preferred Share, which is equivalent to approximately $0.34 per depositary share. The cash dividend was paid on May 1, 2013, to our Preferred Shareholders of record as of the close of business on April 15, 2013. On May 7, 2013, September 9, 2013, and November 11, 2013, our Board of Directors declared a quarterly cash dividend of $17.50 per Preferred Share, which is equivalent to approximately $0.44 per depositary share. The cash dividends were paid on August 1, 2013, November 1, 2013, and February 3, 2014 to our Preferred Shareholders of record as of the

close of business on July 15, 2013, October 15, 2013, and January 15, 2014, respectively. On February 11, 2014, May 13, 2014, September 8, 2014, and November 19, 2014, our Board of Directors declared a quarterly cash dividend of $17.50 per Preferred Share, which is equivalent to approximately $0.44 per depositary share. The cash dividends were paid on May 1, 2014, August 1, 2014, November 3, 2014, and February 2, 2015, to our Preferred Shareholders of record as of the close of business on April 15, 2014, July 15, 2014, October 15, 2014, and January 15, 2015, respectively. On March 27, 2015, July 1, 2015, and September 10, 2015, our Board of Directors declared the quarterly cash dividend of

$17.50 per Preferred Share, which is equivalent to approximately $0.44 per depositary share. The cash dividend was paid on May 1, 2015, August 3, 2015, and November 2, 2015 to our shareholders of record as of the close of business on April 15, 2015, July 15, 2015, and October 15, 2015, respectively. On January 4, 2016, we announced that our Board of Directors determined the final quarterly dividend of our Preferred Shares would not be paid in cash, but instead, pursuant to the terms of the Preferred Shares, the conversion rate was increased such that holders of the Preferred Shares received additional common shares in lieu of the accrued dividend at the time of the mandatory conversion of the Preferred Shares on February 1,

2016. The number of our common shares in the aggregate issued in lieu of the dividend was 1.3 million. This resulted in an effective conversion rate of 0.9052 common shares, rather than 0.8621 common shares, per depositary share, each representing 1/40th of a Preferred Share. Upon conversion on February 1, 2016, an aggregate of 26.5 million common shares were issued, representing 25.2 million common shares issuable upon conversion and 1.3 million that were issued in lieu of a final cash dividend.

Table of Contents

(g) On February 11, 2013, our Board of Directors approved a reduction to our quarterly cash dividend rate by 76% to $0.15 per share. The decreased dividend of $0.15 per share was paid on March 1, 2013, June 3, 2013, September 3, 2013, and December 2, 2013 to our common shareholders of record as of the close of business on February 22, 2013, May 17, 2013, August 15, 2013, and November 22, 2013, respectively. Additionally, in 2014, the dividend of $0.15 per share was paid on March 3, 2014, June 3, 2014, September 2, 2014 and

December 1, 2014 to our common shareholders of record as of the close of business on February 21, 2014, May 23, 2014, August 15, 2014, and November 15, 2014, respectively. On January 26, 2015, we announced that our Board of Directors had decided to eliminate the quarterly dividend of $0.15 per share on our common shares. The decision was applicable to the first quarter of 2015 and all subsequent quarters.

Table of Contents

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is designed to provide a reader of our financial statements with a narrative from the perspective of management on our financial condition, results of operations, liquidity and other factors that may affect our future results. The following discussion should be read in conjunction with the Consolidated Financial Statements and related notes that appear elsewhere in this document.

Industry Overview

The key driver of our business is demand for steelmaking raw materials from U.S. steelmakers. In 2016, the U.S. produced approximately 79 million metric tons of crude steel or about 5% of total global crude steel production. This is consistent when compared to U.S. crude steel production in 2015. U.S. total steel capacity utilization was 71% in 2016, which is an approximate 1% decrease from 2015. Additionally, in 2016, China produced approximately 808 million metric tons of crude steel, or approximately 50% of total global crude steel production. These figures represent an approximate 1% increase in Chinese crude steel production when compared to 2015. Throughout 2016, global crude steel production increased about 1% compared to 2015.

During 2016, the Platts 62% Price showed resiliency and outperformed the levels seen in 2015. We believe this is the result of improved sentiment about steel demand in China and signs of high-cost capacity closures as well as more disciplined approach to supply instituted by the major iron ore producers, most notably Rio Tinto. Furthermore, major supply additions from both Brazil and Australia anticipated to come online this year have experienced difficulties ramping up and completion dates have been further delayed. We believe the new management teams at the major iron ore producers will continue this disciplined supply approach through 2017, which could help maintain or even improve these current price levels.

The Platts 62% Price increased 52% to an average price of $70.76 per metric ton for the three months ended December 31, 2016 compared to the three months ended December 31, 2015. In comparison, the full-year Platts 62% Price has increased 5% to an average price of $58.45 per metric ton during the year ended December 31, 2016. The spot price volatility impacts our realized revenue rates, particularly in our Asia Pacific Iron Ore business segment because its contracts correlate heavily to the Platts 62% Price and to a lesser extent, our U.S. Iron Ore contracts. Alongside the rally in global iron ore prices, the prices for hot-rolled coil, another important metric in our price realizations in the U.S., also improved. We believe this is the result of trade cases, which has substantially curbed the amount of unfairly traded steel imports entering the U.S. In 2017, we believe the market will remain healthy as the new U.S. administration has placed emphasis on the enforcement of unfairly traded steel as well as repairing the infrastructure in the U.S., which should support demand for domestic steel. Also, steel inventory levels remain low compared to previous years, which should help support pricing.

Our consolidated revenues for the years ended December 31, 2016 and 2015 were $2.1 billion and $2.0 billion, respectively, with net income from continuing operations per diluted share of $0.97 and $0.63, respectively. Net income from continuing operations for the years ended December 31, 2016 and December 31, 2015 were impacted positively as a result of gains on extinguishment/restructuring of debt of $166.3 million and $392.9 million, respectively. Additionally, results for the year ended December 31, 2015 were impacted negatively by income tax expense primarily due to the placement of a valuation allowance against U.S. deferred tax assets.

Strategy

We are Focused on our Core U.S. Iron Ore Business

In 2014, we established a strategy centering the Company around our U.S. Iron Ore business. We are the market-leading iron ore producer in the U.S., supplying differentiated iron ore pellets under long-term contracts to the largest North American steel producers. We have the unique advantage of being a low cost producer of iron ore pellets in the U.S. market with significant transportation and logistics advantages to serve the U.S. steel market effectively. Pricing structures contained in and the long-term supply provided by our existing contracts, along with our low-cost operating profile, positions U.S. Iron Ore as a strong cash flow generator in most commodity pricing environments. Since instituting our core strategy of focusing on this business, we have achieved significant accomplishments including providing volume certainty by signing a new ten-year supply agreement with our largest customer; substantially reducing operating costs by making various operational improvements; and developing alternate iron unit strategies to provide opportunities to enter into the EAF end market.

Table of Contents

Optimized, Divested or Shutdown All Non-Core Business Segments

Given the current and projected constructive iron ore pricing market, we are focused on optimizing the remaining ore reserve base of our Asia Pacific Iron Ore business. Asia Pacific Iron Ore is a well-recognized and reliable supplier to steelmakers in Asia. We will continue to operate Asia Pacific Iron Ore with very low total capital expenditures for the remaining life of the mine.

We commenced restructuring proceedings for our Eastern Canadian Iron Ore businesses under the CCAA in the first quarter of 2015. During the second quarter of 2015, the CCAA protection granted to the Bloom Lake Group was extended to include the Wabush Group to facilitate the reorganization of each of their businesses and operations. As of December 31, 2016, CCAA proceedings are still ongoing and the Monitor is evaluating all claims into the estate. Currently, there is uncertainty as to the amount of the distribution that will be made to the creditors of the estate, including, if any to Cliffs, and whether Cliffs could be held liable for claims that may be asserted by or on behalf of the Bloom Lake Group or the Wabush Group or by their respective representatives against non-debtor affiliates of the Bloom Lake Group and the Wabush Group. For more information regarding the status of our divestiture of our Eastern Canadian Iron Ore business, see NOTE 14 - DISCONTINUED OPERATIONS.

On December 22, 2015, we closed the sale of our remaining North American Coal business, which included the Pinnacle mine in West Virginia and the Oak Grove mine in Alabama, to Seneca. The sale marked our exit from the coal business and represents another very important step in the implementation of our U.S. Iron Ore pellet-centric strategy. Prior to this sale, it was determined by management as of March 31, 2015 that our North American Coal operating segment met the criteria to be classified as held for sale under ASC 205, Presentation of Financial Statements. For more information regarding the sale and the held for sale classification of our North American Coal business, see NOTE 14 - DISCONTINUED OPERATIONS.

Maintaining Discipline on Costs and Capital Spending and Improving our Financial Flexibility

We believe our ability to execute our strategy is dependent on our improving financial position, balance sheet strength and financial flexibility, which will enable us to manage through the inherent cyclical demand for our products and volatility in commodity prices. We have developed a highly disciplined financial and capital expenditure plan with a focus on improving our cost profile and increasing long-term profitability. Our streamlined organization and support functions are well aligned to best serve our strategic direction. Our capital allocation plan is focused on strengthening our core U.S. Iron Ore operations to promote greater free cash flow generation.

As the implementation of our strategy has strengthened the business, we have put additional emphasis on the continued improvement of our balance sheet via continued reduction of long-term debt. Since the 2014 initiation of our transition strategy, we have reduced the principal of our long-term debt by 21% using various liability management strategies. Given the cyclical nature of our business, we feel that further reduction of our long-term debt will put us in an optimal position to manage through any commodity environment, and we continue to seek the best opportunities to accomplish this.

Competitive Strengths

Resilient U.S. Iron Ore Operations

Our U.S. Iron Ore segment is the core focus of our business strategy. The U.S. Iron Ore segment is the primary contributor to our consolidated results, generating 74% of consolidated revenue and $359.6 million of consolidated Adjusted EBITDA for the year ended December 31, 2016. U.S. Iron Ore produces differentiated iron ore pellets that are customized for use in customers' blast furnaces as part of the steelmaking process. The grades of pellets currently delivered to each customer are based on that customer's preferences, which depend in part on the characteristics of the customer's blast furnace operation. We believe our long history of supplying customized pellets to the U.S. steel producers has resulted in a co-dependent relationship between us and our customers. This technical and operational co-dependency has enabled us to claim a substantial portion of the total U.S. iron ore market. Based on Cliffs' equity ownership in its U.S. mines, Cliffs' share of the annual rated production capacity is 20.0 million long tons, representing 40% of total U.S. annual pellet capacity. Long-lived assets with an average mine life of approximately 30 years provide the opportunity to maintain our significant market position well into the future.

More than half of U.S. Iron Ore production is sold through long-term contracts that are structured with various formula-based pricing mechanisms that reference seaborne pricing, inflation factors and steel prices and mitigate the impact of any one factor's price volatility on our business.

Table of Contents

In addition, we maintain lower costs compared to our competition as a result of our proximity to U.S. steelmaking operations. Our costs are lower as a result of inherent transportation advantages associated with our mine locations near the Great Lakes which allows for transportation via railroads and loading ports. U.S. Iron Ore mines also benefit from on-site pellet production and ore production facilities located a short distance from the mines.

Competitive Asia Pacific Iron Ore Operations

Although our annual production tonnage is substantially less than our competitors in the seaborne market, the Asia Pacific Iron Ore business maintains a competitive position with the major Australian iron ore producers. We produce a product mix of approximately 50% lump ore and 50% fines, which is a significantly higher lump mix than the major producers in Australia. This lump ore typically commands a premium in the seaborne market over iron ore fines. Further, our Asia Pacific Iron Ore segment is a cost competitive producer and requires minimal ongoing sustaining capital expenditures to continue our operations. Going forward, we will continue to operate Asia Pacific Iron Ore with a clear bias toward cash optimization.

Recent Developments

Changes to our Board of Directors

On October 27, 2016, we appointed Eric M. Rychel to our Board of Directors. Mr. Rychel is Executive Vice President, Chief Financial Officer and Treasurer of Aleris Corporation, a privately held company that is a global leader in aluminum rolled products. He joined Aleris in 2012 and presently leads the global finance activities for the organization. Mr. Rychel joined the Audit Committee of our Board. With the addition of Mr. Rychel, our Board of Directors is now comprised of ten members, of which nine are independent. In addition to Mr. Rychel's appointment to the Audit Committee, we made other changes to our Board Committee assignments. Michael Siegal, who is a current member of our Board of Directors, has been appointed to the Audit Committee. Additionally, Gabriel Stoliar has stepped down from the Audit Committee and has been appointed as a member of the Compensation Committee.

Executive Leadership Promotions

On December 14, 2016, our Board of Directors elected P. Kelly Tompkins as the Executive Vice President & Chief Operating Officer, effective January 1, 2017. Mr. Tompkins most recently was the Executive Vice President and Chief Financial Officer, a position he held since April 2015. He previously served as Executive Vice President, Business Development from October 2014 to April 2015, Executive Vice President, External Affairs and President, Global Commercial from November 2013 to October 2014, Chief Administrative Officer from July 2013 to November 2013, Executive Vice President, Legal, Government Affairs and Sustainability from May 2010 to July 2013, Chief Legal Officer from January 2011 to January 2013 and President, Cliffs China from October 2012 to November 2013. In addition, on December 14, 2016, our Board of Directors elected Timothy K. Flanagan to assume the duties of Executive Vice President, Chief Financial Officer & Treasurer , effective January 1, 2017. Mr. Flanagan has held several positions since April 2008, most recently serving as Vice President, Corporate Controller & Chief Accounting Officer since March 2012. He was Assistant Controller from February 2010 to March 2012, and Director, Internal Audit from April 2008 to February 2010.

Business Segments

The Company’s primary continuing operations are organized and managed according to product category and geographic location: U.S. Iron Ore and Asia Pacific Iron Ore. As of March 31, 2015, management determined that our North American Coal operating segment met the criteria to be classified as held for sale under ASC 205, Presentation of Financial Statements. As such, all current and historical North American Coal operating segment results are included in our financial statements and classified within discontinued operations. Additionally, as a result of the CCAA filing of the Bloom Lake Group on January 27, 2015 and the Wabush Group on May 20, 2015, we no longer have a controlling interest over the Bloom Lake Group and certain other wholly-owned subsidiaries, and we no longer have a controlling interest over the Wabush Group. The Bloom Lake Group, Wabush Group and certain of each of their wholly-owned subsidiaries were previously reported as Eastern Canadian Iron Ore and Other reportable segments. As such, we deconsolidated the Bloom Lake Group and certain other wholly-owned subsidiaries as of January 27, 2015. Additionally, as a result of the Wabush Filing on May 20, 2015, we deconsolidated certain Wabush Group wholly-owned subsidiaries effective May 20, 2015. The wholly-owned subsidiaries deconsolidated effective May 20, 2015 are Wabush Group entities that were not deconsolidated as part of the deconsolidation effective January

27, 2015. Financial results prior to the respective deconsolidations of the Bloom Lake and Wabush Groups and subsequent expenses directly associated with the Canadian Entities are included in our financial statements and classified within discontinued operations.

Table of Contents

Results of Operations – Consolidated

2016 Compared to 2015

The following is a summary of our consolidated results of operations for the years ended December 31, 2016 and 2015:

	(In Millions)		
	2016	2015	Variance Favorable/ (Unfavorable)
Revenues from product sales and services	$2,109.0	$2,013.3	$ 95.7
Cost of goods sold and operating expenses	(1,719.7)	(1,776.8)	57.1
Sales margin	$389.3	$236.5	$ 152.8
Sales margin %	18.5 %	11.7 %	6.8 %

Revenues from Product Sales and Services

Sales revenue for the year ended December 31, 2016 increased $95.7 million, or 4.8%, from 2015, which primarily was driven by higher sales volume from our U.S. Iron Ore Operations of 932 thousand long tons equating to an increase in revenue of $73.5 million and higher pricing from our Asia Pacific Iron Ore Operations for an increase of $69.2 million. The increase in volume mainly was attributable to additional nominated tons from short-term contracts. Higher pricing and revenue rates were driven by an increase in the Platts 62% Price and a hedging impact in 2015 that was not repeated in 2016, for increased revenue of $32.7 million and $29.3 million, respectively. These positive movements were partially offset from lower pricing from our U.S. Iron Ore Operations for a decrease of $62.0 million. Lower pricing primarily was driven by the negative inflation of certain price indices and the impact of net lower overall contracted pricing terms for two short-term customer contracts that were based on fixed negotiated rates compared to the prior-year period, which was based on a different method.

Refer to “Results of Operations – Segment Information" for additional information regarding the specific factors that impacted revenue during the period.

Cost of Goods Sold and Operating Expenses

Cost of goods sold and operating expenses for the years ended December 31, 2016 and 2015 were $1,719.7 million and $1,776.8 million, respectively, a decrease of $57.1 million, or 3.2% year-over-year.

Cost of goods sold and operating expenses for the year ended December 31, 2016 decreased as a result of operational efficiencies and cost-cutting efforts across each of our business units, which reduced costs by $114.5 million. Additionally, lower idle costs and favorable foreign exchange rates decreased costs by $7.8 million and $5.5 million, respectively, compared to the year ended December 31, 2015. These decreases in cost were offset partially by higher iron ore sales volumes resulting in higher expense of $56.0 million compared to the year ended December 31, 2015.

Refer to “Results of Operations – Segment Information” for additional information regarding the specific factors that impacted our operating results during the period.

Other Operating Income (Expense)

The following is a summary of other operating income (expense) for the years ended December 31, 2016 and 2015:

	(In Millions)		
	2016	2015	Variance Favorable/ (Unfavorable)
Selling, general and administrative expenses	$(117.8)	$(110.0)	$ (7.8)
Impairment of goodwill and other long-lived assets	—	(3.3)	3.3
Miscellaneous - net	(30.7)	28.1	(58.8)
	$(148.5)	$(85.2)	$ (63.3)

Table of Contents

Selling, general and administrative expenses during the year ended December 31, 2016 increased $7.8 million over 2015. The increase for the year ended December 31, 2016 compared to the prior year was driven by an increase in employment costs of $8.1 million primarily due to incentive compensation and an increase in expenses of $2.1 million related to a lease abandonment of a corporate office space. These increases were partially offset by a $3.9 million decrease in IT service costs and legal fees.

The following is a summary of Miscellaneous - net for the years ended December 31, 2016 and 2015:

	(In Millions)		
	2016	2015	Variance Favorable/ (Unfavorable)
Foreign exchange remeasurement	$(16.8)	$16.3	$ (33.1)
Michigan Electricity Matters accrual	(12.4)	—	(12.4)
Management and royalty fees	9.0	6.4	2.6
Empire idle costs	(8.2)	—	(8.2)
Gain (loss) on disposal of assets	(4.8)	3.4	(8.2)
Other	2.5	2.0	0.5
	$(30.7)	$28.1	$ (58.8)

For the year ended December 31, 2016, there was an incrementally unfavorable impact of $33.1 million driven by the change in foreign exchange remeasurement of short-term intercompany loans that are denominated in currency that is not the functional currency of the entity that holds the loans.

Other Income (Expense)

The following is a summary of other income (expense) for the years ended December 31, 2016 and 2015:

	(In Millions)		
	2016	2015	Variance Favorable/ (Unfavorable)
Interest expense, net	(200.5)	(228.5)	28.0
Gain on extinguishment/restructuring of debt	166.3	392.9	(226.6)
Other non-operating income (expense)	0.4	(2.6)	3.0
	$(33.8)	$161.8	$ (195.6)

The gain on extinguishment/restructuring of debt for the year ended December 31, 2016 was $166.3 million, primarily related to the issuance of 1.5 Lien Notes on March 2, 2016 compared to $392.9 million related to the corporate debt restructuring that occurred during the year ended December 31, 2015.

Interest expense for the year ended December 31, 2016 was lower by $20.8 million versus the year ended December 31, 2015 as a result of the debt restructuring activities that occurred during 2016. These debt extinguishments and restructurings resulted in a net reduction of the outstanding principal balance of our senior notes. Additionally, there was a favorable impact of $5.8 million due to the reduction of equipment loan interest and capital lease interest for the year ended December 31, 2016 compared to the prior year.

Refer to NOTE 5 - DEBT AND CREDIT FACILITIES for further discussion.

Table of Contents

Income Taxes

Our tax rate is affected by permanent items, such as depletion and the relative amount of income we earn in various foreign jurisdictions with tax rates that differ from the U.S. statutory rate. It also is affected by discrete items that may occur in any given period, but are not consistent from period to period. The following represents a summary of our tax provision and corresponding effective rates for the years ended December 31, 2016 and 2015:

	(In Millions)		
	2016	2015	Variance
Income tax benefit (expense)	$12.2	$(169.3)	$181.5
Effective tax rate	(5.9)%	54.1 %	(60.0)%

A reconciliation of our income tax attributable to continuing operations computed at the U.S. federal statutory rate for the years ended December 31, 2016 and 2015 is as follows:

	(In Millions)			
	2016		2015	
Tax at U.S. statutory rate of 35%	$72.5	35.0 %	$109.6	35.0 %
Increase (decrease) due to:				
Impact of tax law change	149.1	72.0	—	—
Valuation allowance build/(reversal) on tax benefits recorded in prior years	(142.6)	(68.9)	165.8	52.9
Tax uncertainties	(11.3)	(5.5)	84.1	26.9
Valuation allowance build/(reversal) in current year	93.9	45.4	(104.6)	(33.4)
Prior year adjustments in current year	(11.8)	(5.7)	5.9	1.9
Worthless stock deduction	(73.4)	(35.5)	—	—
Impact of foreign operations	(42.7)	(20.6)	(53.9)	(17.2)
Percentage depletion in excess of cost depletion	(36.1)	(17.4)	(34.9)	(11.1)
Non-taxable income related to noncontrolling interests	(8.8)	(4.2)	(3.0)	(1.0)
State taxes, net	0.4	0.2	0.2	0.1
Other items — net	(1.4)	(0.7)	0.1	—
Provision for income tax (benefit) expense and effective income tax rate including discrete items	$(12.2)	(5.9)%	$169.3	54.1 %

Our tax provision for the year ended December 31, 2016 was a benefit of $12.2 million and a negative 5.9% effective tax rate compared with an expense of $169.3 million and an effective tax rate of 54.1% for the prior year. The change to an income tax benefit from the prior year expense is due to the prior year recording of valuation allowances against existing deferred tax assets, a worthless stock deduction in the current year and the settlement of unrecognized tax benefits. The impact of tax law change relates to the enacted statutory rate reduction in Luxembourg that decreased the deferred tax assets by $149.1 million and was fully offset by a decrease in valuation allowance. The impact of foreign operations relates to income in foreign jurisdictions where the statutory rates, ranging from 0% to 30%, differ from the U.S statutory rate of 35%.

See NOTE 9 - INCOME TAXES for further information.

Loss from Discontinued Operations, net of tax

Loss from Discontinued Operations, net of tax was comprised primarily of the loss on discontinued operations related to our North American Coal operating segment and our Eastern Canadian Iron Ore operations. During the year ended December 31, 2016, we recorded a loss from discontinued operations of $19.9 million, net of tax, attributable to a net loss from a change in estimate to our Loans to and accounts receivable from the Canadian Entities of $17.5 million in the Statements of Consolidated Financial Position and a net loss of $2.4 million from certain disputes related to the sale of our North American Coal segment.

Table of Contents

As of March 31, 2015, management determined that our North American Coal operating segment met the criteria to be classified as held for sale under ASC 205, Presentation of Financial Statements. As such, all 2016 and historical North American Coal operating segment results are included in our financial statements and classified within discontinued operations. The Loss from Discontinued Operations, net of tax related to the North American Coal operating segment was $2.4 million, $152.4 million and $1,134.5 million for the years ended December 31, 2016, 2015 and 2014, respectively.

In January 2015, we announced that the Bloom Lake Group commenced restructuring proceedings in Montreal, Quebec under the CCAA. At that time, we had suspended Bloom Lake operations and for several months had been exploring options to sell certain of our Canadian assets, among other initiatives. Effective January 27, 2015, following the CCAA filing of the Bloom Lake Group, we deconsolidated the Bloom Lake Group and certain other wholly-owned subsidiaries comprising substantially all of our Canadian operations. Additionally, on May 20, 2015, the Wabush Group commenced restructuring proceedings in Montreal, Quebec under the CCAA which resulted in the deconsolidation of the remaining Wabush Group entities that were not previously deconsolidated. The Wabush Group was no longer generating revenues and was not able to meet its obligations as they came due. As a result of this action, the CCAA protections granted to the Bloom Lake Group were extended to include the Wabush Group to facilitate the reorganization of each of their businesses and operations. As of December 31, 2016, the majority of assets available to the estate have been liquidated. The CCAA proceedings are still ongoing and the Monitor is evaluating all claims into the estate including our related party claims. Currently, there is uncertainty as to the amount of the distribution that will be made to the creditors of the estate, including, if any to Cliffs, and whether Cliffs could be held liable for claims that may be asserted by or on behalf of the Bloom Lake Group or the Wabush Group or by their respective representatives against non-debtor affiliates of the Bloom Lake Group and the Wabush Group.

Financial results prior to the respective deconsolidations of the Bloom Lake and Wabush Groups and subsequent expenses directly associated with the Canadian Entities are included in our financial statements and classified within discontinued operations. The Loss from Discontinued Operations, net of tax related to the deconsolidated Canadian Entities was $17.5 million, $739.7 million and $7,233.5 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Refer to NOTE 14 - DISCONTINUED OPERATIONS for further information.

Noncontrolling Interest

Noncontrolling interest is comprised primarily of the 21% noncontrolling interest in the consolidated, but less-than-wholly owned subsidiary at our Empire mining venture and through the CCAA filing on January 27, 2015, the 17.2% noncontrolling interest in the Bloom Lake operations. The net income attributable to the noncontrolling interest related to the Empire mining venture was $25.2 million and $8.6 million for the years ended December 31, 2016 and 2015, respectively. The net loss attributable to the noncontrolling interest related to Bloom Lake was $7.7 million for the year ended December 31, 2015. There was no gain or loss attributable to the noncontrolling interest related to Bloom Lake for the year ended December 31, 2016.

Results of Operations – Consolidated

2015 Compared to 2014

The following is a summary of our consolidated results of operations for the years ended December 31, 2015 and 2014:

	(In Millions)		
	2015	2014	Variance Favorable/ (Unfavorable)
Revenues from product sales and services	$2,013.3	$3,373.2	$(1,359.9)
Cost of goods sold and operating expenses	(1,776.8)	(2,487.5)	710.7
Sales margin	$236.5	$885.7	$(649.2)
Sales margin %	11.7 %	26.3 %	(14.6)%

Revenues from Product Sales and Services

Sales revenue for the year ended December 31, 2015 decreased $1,359.9 million, or 40.3%, from 2014. The decrease in sales revenue during 2015 compared to 2014 was primarily attributable to the decrease in market pricing for our products, including a reduction of one customer's full-year hot-rolled coil price. Together these factors negatively impacted revenues by $804.4 million for the year ended December 31, 2015.

Changes in world market pricing impacts our revenues each year. Iron ore revenues decreased $804.4 million in 2015 compared to 2014 primarily due to the decrease in the Platts 62% Price, which declined 42.6% to an average price of $56 per metric ton in 2015, and a decrease in one customer's full-year hot-rolled coil price. The decrease in our realized revenue rates during 2015 compared to 2014 was 22.7% and 46.4% for our U.S. Iron Ore and Asia Pacific Iron Ore operations, respectively. Additionally, there was a decrease in revenues period-over-period as a result of lower iron ore sales volumes of $458.1 million for the year ended December 31, 2015.

Refer to “Results of Operations – Segment Information” for additional information regarding the specific factors that impacted revenue during the period.

Cost of Goods Sold and Operating Expenses

Cost of goods sold and operating expenses for the years ended December 31, 2015 and 2014 were $1,776.8 million and $2,487.5 million, respectively, a decrease of $710.7 million, or 28.6%, year-over-year.

Cost of goods sold and operating expenses for the year ended December 31, 2015 decreased by $335.0 million as operational efficiencies and cost cutting efforts across each of our business units has reduced costs. Also, as a result of favorable foreign exchange rates in 2015 versus 2014, we realized lower costs of $94.6 million. Additionally, there was a decrease in costs period-over-period as a result of lower iron ore sales volumes of $299.1 million for the year ended December 31, 2015. These decreases in cost were partially offset by incrementally higher idle costs of $61.5 million due to the temporary idle of our United Taconite mine, which began in the first week of August 2015, the temporary idle of the Empire mine which began on June 26, 2015 and then came back on line during October 2015, and the one idled production line at our Northshore mine during all of 2015 followed by the complete temporary idle of Northshore mine in the end of November 2015.

Refer to “Results of Operations – Segment Information” for additional information regarding the specific factors that impacted our operating results during the period.

Other Operating Income (Expense)

The following is a summary of other operating income (expense) for the years ended December 31, 2015 and 2014:

	(In Millions)		
	2015	2014	Variance Favorable/ (Unfavorable)
Selling, general and administrative expenses	$(110.0)	$(154.7)	$ 44.7
Impairment of goodwill and other long-lived assets	(3.3)	(635.5)	632.2
Miscellaneous - net	28.1	34.6	(6.5)
	$(85.2)	$(755.6)	$ 670.4

Selling, general and administrative expenses during the year ended December 31, 2015 decreased $44.7 million over 2014. As a result of the reduction of the workforce, we reduced employment costs for the year ended December 31, 2015 by $16.7 million. There were lower severance costs of $14.1 million during the year ended December 31, 2015 versus 2014. Also, the year ended December 31, 2015 was impacted favorably by $7.8 million due to a reduction in outside service spending and $5.6 million due to a reduction in rent and operating lease spending.

Impairment of goodwill and other long-lived assets was $3.3 million and $635.5 million during the years ended December 31, 2015 and 2014, respectively. During the year ended December 31, 2014, we recorded goodwill impairment of $73.5 million related to our Asia Pacific Iron Ore reporting unit. We also recorded other long-lived asset impairment charges of $562.0 million during 2014. The charges were related to our Asia Pacific Iron Ore operating segment, along with impairments charged to reporting units within our Other reportable segments. The impairment charges were primarily a result of management determining that the carrying value of the asset groups may not be recoverable primarily due to long-term price forecasts as part of management’s long-range planning process. Updated estimates of long-term prices for all products, specifically the Platts 62% Price, which particularly effects the Asia Pacific Iron Ore business segment because their contracts correlate heavily to world market spot pricing, were lower than prior estimates. These estimates were updated based upon current market conditions, macro-economic factors influencing the balance of supply and demand for our products and expectations for future cost and capital expenditure requirements.

Table of Contents

Additionally, our CEO, Lourenco Goncalves, was newly appointed by the Board of Directors in early August 2014, and subsequently identified as the CODM in accordance with ASC 280, Segment Reporting. At that time, the new CODM viewed Asia Pacific Iron Ore as a non-core asset and evaluated the business unit for a change in strategy including possible divestiture or operational depletion of the ore reserves. These factors, among other considerations utilized in the individual impairment assessments, indicate that the carrying value of the respective asset group and Asia Pacific Iron Ore goodwill may not be recoverable.

The following is a summary of Miscellaneous - net for the year ended December 31, 2015 and 2014:

	(In Millions)		
	2015	2014	Variance Favorable/ (Unfavorable)
Foreign exchange remeasurement	$16.3	$29.0	$ (12.7)
Management and royalty fees	6.4	10.8	(4.4)
Gain (loss) on disposal of assets	3.4	(3.5)	6.9
Other	2.0	(1.7)	3.7
	$28.1	$34.6	$ (6.5)

For the year ended December 31, 2015, there was an incrementally unfavorable impact of $12.7 million due to the change in foreign exchange remeasurement driven primarily by lower Australian bank account balances that are denominated in U.S. dollars and short-term intercompany loans that are denominated in currency that is not the functional currency of the entity that holds the loans.

Other Income (Expense)

The following is a summary of other income (expense) for the years ended December 31, 2015 and 2014:

	(In Millions)		
	2015	2014	Variance Favorable/ (Unfavorable)
Interest expense, net	(228.5)	(176.7)	(51.8)
Gain on extinguishment/restructuring of debt	392.9	16.2	376.7
Other non-operating income (expense)	(2.6)	10.7	(13.3)
	$161.8	$(149.8)	$ 311.6

The increase in gain on extinguishment of debt during the year ended December 31, 2015 compared to the comparable prior year is a result of the corporate debt restructuring and debt repurchases of senior notes trading at a discount, as discussed in NOTE 5 - DEBT AND CREDIT FACILITIES.

Interest expense was unfavorably impacted by $94.1 million for the year ended December 31, 2015 as we entered into new credit arrangements during the first quarter of 2015. Additionally, the year ended December 31, 2015 was unfavorably impacted by $11.9 million due to unfavorable interest rates, as discussed in NOTE 5 - DEBT AND CREDIT FACILITIES. The unfavorable impact was offset partially by reduced interest expense of $50.8 million for the year ended December 31, 2015 due to the extinguishment of certain senior notes and the revolving credit agreement during the first quarter of 2015, as discussed in NOTE 5 - DEBT AND CREDIT FACILITIES. Additionally, other non-operating income during the year ended December 31, 2014 included a $7.8 million gain on the sale of marketable securities.

Table of Contents

Income Taxes

Our tax rate is affected by permanent items, such as depletion and the relative amount of income we earn in various foreign jurisdictions with tax rates that differ from the U.S. statutory rate. It also is affected by discrete items that may occur in any given period, but are not consistent from period to period. The following represents a summary of our tax provision and corresponding effective rates for the years ended December 31, 2015 and 2014:

	(In Millions)		
	2015	2014	Variance
Income tax benefit (expense)	$(169.3)	$86.0	$(255.3)
Effective tax rate	54.1 %	436.5 %	(382.4)%

A reconciliation of our income tax attributable to continuing operations computed at the U.S. federal statutory rate for the years ended December 31, 2015 and 2014 is as follows:

	(In Millions)			
	2015		2014	
Tax at U.S. statutory rate of 35%	$109.6	35.0 %	$(6.9)	35.0 %
Increases/(Decreases) due to:				
Non-taxable loss (income) related to noncontrolling interests	(3.0)	(1.0)	(9.4)	47.7
Impact of tax law change	—	—	13.0	(66.0)
Percentage depletion in excess of cost depletion	(34.9)	(11.1)	(87.9)	446.2
Impact of foreign operations	(53.9)	(17.2)	51.4	(260.9)
Income not subject to tax	—	—	(27.7)	140.6
Goodwill impairment	—	—	22.7	(115.2)
State taxes, net	0.2	0.1	(25.4)	128.9
Settlement of financial guaranty	—	—	(347.1)	1,761.9
Valuation allowance reversal in current year	(104.6)	(33.4)	318.3	(1,615.7)
Valuation allowance on future tax benefits recorded in prior years	165.8	52.9	15.2	(77.2)
Tax uncertainties	84.1	26.9	—	—
Prior year adjustments made in current year	5.9	1.9	(6.3)	32.1
Other items - net	0.1	—	4.1	(20.9)
Provision for income tax (benefit)/expense and effective income tax rate including discrete items	$169.3	54.1 %	$(86.0)	436.5 %

Our tax provision for the year ended December 31, 2015 was an expense of $169.3 million and a 54.1% effective tax rate compared with a benefit of $86.0 million and an effective tax rate of 436.5% for the prior year. The change in the income tax expense from the prior-year benefit is due primarily to placement of valuation allowances on previously recorded U.S. future tax benefits that management has determined are not recoverable. The impact of foreign operations relates to income in foreign jurisdictions where the statutory rates, ranging from 0% to 30%, differ from the U.S. statutory rate of 35%. Other items include depletion as well as the reversal of valuation allowance related to current year realization of tax benefits.

For the year ended December 31, 2014, income not subject to tax includes the tax benefit of non-taxable interest income related to an intercompany note between the U.S. and Canada. This note was restructured on April 27, 2014 and no longer results in an income tax benefit after this date.

See NOTE 9 - INCOME TAXES for further information.

Table of Contents

Loss from Discontinued Operations, net of tax

Loss from Discontinued Operations, net of tax was comprised primarily of the loss on discontinued operations related to our North American Coal operating segment and our Eastern Canadian Iron Ore operations.

The Loss from Discontinued Operations, net of tax related to the North American Coal operating segment was $152.4 million and $1,134.5 million for the years ended December 31, 2015 and 2014, respectively.

The Loss from Discontinued Operations, net of tax related to the deconsolidated Canadian Entities was $739.7 million and $7,233.5 million for the years ended December 31, 2015 and 2014, respectively.

Refer to NOTE 14 - DISCONTINUED OPERATIONS for further information.

Noncontrolling Interest

Noncontrolling interest is comprised primarily of the 21% noncontrolling interest in the consolidated, but less-than-wholly owned subsidiary at our Empire mining venture and through the CCAA filing on January 27, 2015, the 17.2% noncontrolling interest in the Bloom Lake operations. The net loss attributable to the noncontrolling interest related to Bloom Lake was $7.7 million and $1,113.3 million for the years ended December 31, 2015 and 2014, respectively. The net income attributable to the noncontrolling interest related to the Empire mining venture was $8.6 million and $26.9 million for the years ended December 31, 2015 and 2014, respectively.

Results of Operations – Segment Information

We have historically evaluated segment performance based on sales margin, defined as revenues less cost of goods sold and operating expenses identifiable to each segment. Additionally, we evaluate segment performance based on EBITDA, defined as net income (loss) before interest, income taxes, depreciation, depletion and amortization, and Adjusted EBITDA, defined as EBITDA excluding certain items such as extinguishment/restructuring of debt, impacts of discontinued operations, foreign currency remeasurement, severance and contractor termination costs, certain supplies inventory write-offs, impairment of goodwill and other long-lived assets and other costs associated with the proxy contest and change in control. These measures allow management and investors to focus on our ability to service our debt, as well as illustrate how the business and each operating segment is performing. Additionally, EBITDA and Adjusted EBITDA assist management and investors in their analysis and forecasting as these measures approximate the cash flows associated with operational earnings.

Table of Contents

2016 Compared to 2015

	(In Millions) 2016	2015
Net Income (Loss)	$199.3	$(748.4)
Less:		
Interest expense, net	(200.5)	(231.4)
Income tax benefit (expense)	12.2	(163.3)
Depreciation, depletion and amortization	(115.4)	(134.0)
Total EBITDA	$503.0	$(219.7)
Less:		
Gain on extinguishment of debt	$166.3	$392.9
Impact of discontinued operations	(19.9)	(892.0)
Foreign exchange remeasurement	(16.8)	16.3
Severance and contractor termination costs	(0.1)	(10.2)
Supplies inventory write-off	—	(16.3)
Impairment of goodwill and other long-lived assets	—	(3.3)
Total Adjusted EBITDA	$373.5	$292.9
EBITDA:		
U.S. Iron Ore	$342.4	$317.6
Asia Pacific Iron Ore	128.3	35.3
Other (including discontinued operations)	32.3	(572.6)
Total EBITDA	$503.0	$(219.7)
Adjusted EBITDA:		
U.S. Iron Ore	$359.6	$352.1
Asia Pacific Iron Ore	132.9	32.7
Other	(119.0)	(91.9)
Total Adjusted EBITDA	$373.5	$292.9

EBITDA for the year ended December 31, 2016 increased by $722.7 million on a consolidated basis from 2015. The period-over-period change primarily was driven by the impact of our discontinued operations during the year ended December 31, 2015. Adjusted EBITDA increased by $80.6 million for the year ended December 31, 2016 from the comparable period in 2015. The period-over-period change is a result of operational efficiencies and cost-cutting efforts across each of our business units. See further detail below for additional information regarding the specific factors that impacted each reportable segment's sales margin during 2016.

Table of Contents

U.S. Iron Ore

The following is a summary of U.S. Iron Ore results for the years ended December 31, 2016 and 2015:

	(In Millions)						
			Changes due to:				
	Year Ended December 31,		Revenue and cost rate	Sales volume	Idle cost/production volume variance	Freight and reimburse-ment	Total change
	2016	2015					
Revenues from product sales and services	$1,554.5	$1,525.4	$(62.0)	$73.5	$ —	$ 17.6	$ 29.1
Cost of goods sold and operating expenses	(1,278.8)	(1,298.3)	84.7	(55.4)	7.8	(17.6)	19.5
Sales margin	$275.7	$227.1	$22.7	$18.1	$ 7.8	$ —	$ 48.6

	Year Ended December 31,			
Per Long Sales Ton Information	2016	2015	Difference	Percent change
Realized product revenue rate[1]	$75.71	$79.12	$(3.41)	(4.3)%
Cash cost of goods sold and operating expense rate[1,2]	55.97	60.27	(4.30)	(7.1)%
Depreciation, depletion & amortization	4.61	5.72	(1.11)	(19.4)%
Total cost of goods sold and operating expense rate	60.58	65.99	(5.41)	(8.2)%
Sales margin	$15.13	$13.13	$2.00	15.2 %

Sales tons[3] (In thousands)	18,224	17,292
Production tons[3] (In thousands)		
Total	23,416	26,138
Cliffs' share of total	15,982	19,317

[1] Excludes revenues and expenses related to domestic freight, which are offsetting and have no impact on sales margin. Revenues and expenses also exclude venture partner cost reimbursements.

[2] Cash cost of goods sold and operating expense rate is a non-GAAP financial measure. See "Non-GAAP Reconciliation" for reconciliation in dollars back to our consolidated financial statements.

[3] Tons are long tons (2,240 pounds).

Sales margin for U.S. Iron Ore was $275.7 million for the year ended December 31, 2016, compared with $227.1 million for the year ended December 31, 2015. The increase compared to the prior year is attributable to an increase in revenue of $29.1 million in addition to a decrease in cost of goods sold and operating expenses of $19.5 million. Sales margin increased 15.2% to $15.13 per long ton during the year ended December 31, 2016 compared to 2015.

Revenue increased by $11.5 million, excluding the increase of $17.6 million of freight and reimbursements, from the prior year, predominantly due to:

- Higher sales volumes of 0.9 million long tons, which resulted in increased revenues of $73.5 million due to:
  Additional short-term contracts in 2016 with two customers, one of which we made no sales to in 2015, providing additional sales volume of 2.4 million long tons.
  This increase was offset partially by a 1.3 million net reduction in long tons from the termination of a customer contract in the fourth quarter of the prior year that was reinstated in June 2016, to begin in 2017, and nominations on short-term contracts made with the customer in the interim.
-

The average year-to-date realized product revenue rate declined by $3.41 per long ton or 4.3% to $75.71 per long ton in the year ended December 31, 2016, which resulted in a decrease of $62.0 million, compared to the prior-year period. The decline is a result of:

Table of Contents

- Changes in customer pricing negatively affected the realized revenue rate by $2 per long ton or $32 million driven primarily by the negative inflation of certain price indices;
- An unfavorable variance of $30 million or $2 per long ton due to overall net lower contracted pricing terms for two short-term customer contracts that were based on fixed negotiated rates compared to the prior-year period which was based on a different method; and
- An unfavorable change of $17 million or $1 per long ton resulting from various price adjustments, unfavorable customer mix and net of increased service revenue.

These decreases were offset partially by an increase in realized revenue rates of $1 per long ton or $17 million as a result of one major customer contract with a pricing mechanism tied to the full-year estimate of their hot-rolled coil pricing. The increase in revenue is primarily due to the hot-rolled coil estimate increasing in 2016 from the beginning of the year, compared to 2015 when the estimate was revised lower.

Cost of goods sold and operating expenses decreased $37.1 million or $2.04 per long ton, excluding the decrease of $17.6 million of freight and reimbursements from the prior year, predominantly as a result of:

- Lower maintenance and repair costs resulting from cost reduction initiatives and condition based monitoring and Empire's indefinite idle, which began in August 2016 of $28 million or $2 per long ton;
- A year-over-year reduction in energy rates for natural gas and diesel, which lowered costs by $16 million or $1 per long ton and a reduction of employment costs of $12 million or $1 per long ton; and
- Various one-time adjustments totaling $28 million or $2 per long ton impacted the year ended December 31, 2016 compared to the previous year, including a positive asset retirement obligation adjustment for a life of mine extension during 2016 of $9 million or $1 per long ton, and a supplies inventory adjustment that occurred in 2015 that was not repeated in 2016 of $15 million or $1 per long ton.
- These decreases were offset partially by increased sales volume as discussed above that increased costs by $55 million or $3 per long ton, in addition to an unfavorable impact from LIFO liquidation of $9 million or $1 per long ton, compared to the prior-year period.

Production

Cliffs' share of production tons in its U.S. Iron Ore segment decreased by approximately 3.3 million long tons or 17.3% in 2016 when compared to 2015. The decrease in production volumes primarily is attributable to the idled mining facilities. Our United Taconite operation was idled from August 2015, until it was restarted again in August 2016. As a result, our United Taconite operation was in full production for one-third of the year versus operating at full production for two-thirds of the prior year causing a decrease in production volume of 1.5 million long tons. Secondly, our Northshore mining operations were fully idled, including all four furnaces from November 2015 until May 2016, compared to running a three furnace operation for most of 2015 until the full idle began in November 2015, reducing production by 1.0 million long tons during 2016.

Table of Contents

Asia Pacific Iron Ore

The following is a summary of Asia Pacific Iron Ore results for the years ended December 31, 2016 and 2015:

	(In Millions)						
	Year Ended December 31,		Change due to:				
	2016	2015	Revenue and cost rate	Sales volume	Exchange rate	Freight and reimburse-ment	Total change
Revenues from product sales and services	$554.5	$487.9	$69.2	$0.7	$(0.4)	$(2.9)	$66.6
Cost of goods sold and operating expenses	(440.9)	(478.5)	29.8	(0.6)	5.5	2.9	37.6
Sales margin	$113.6	$9.4	$99.0	$0.1	$5.1	$—	$104.2

	Year Ended December 31,			
Per Metric Sales Ton Information	2016	2015	Difference	Percent change
Realized product revenue rate[1]	$45.85	$39.93	$5.92	14.8 %
Cash cost of goods sold and operating expense rate[1,2]	33.94	36.95	(3.01)	(8.1)%
Depreciation, depletion & amortization	2.16	2.18	(0.02)	(0.9)%
Total cost of goods sold and operating expense rate	36.10	39.13	(3.03)	(7.7)%
Sales margin	$9.75	$0.80	$8.95	1,118.8%

Sales tons[3] (In thousands)	11,642	11,627
Production tons[3] (In thousands)	11,839	11,722

[1] The information above excludes revenues and expenses related to freight, which are offsetting and have no impact on sales margin.

[2] Cash cost of goods sold and operating expense rate is a non-GAAP financial measure. See "Non-GAAP Reconciliation" for reconciliation in dollars back to our consolidated financial statements.

[3] Metric tons (2,205 pounds).

Sales margin for our Asia Pacific Iron Ore segment increased to $113.6 million during the year ended December 31, 2016 compared with $9.4 million for 2015. The increase compared to the prior year primarily is attributable to higher revenue of $66.6 million and lower cost of goods sold and operating expenses of $37.6 million. Sales margin per metric ton increased 1,118.8% to $9.75 per metric ton in 2016 compared to 2015.

Revenue increased by $69.5 million during the year ended December 31, 2016 over the prior year, excluding the decrease of $2.9 million of freight and reimbursements, primarily as a result of:

- The average year-to-date realized product revenue rate increased $5.92 per metric ton or 14.8% to $45.85 per metric ton during the year ended December 31, 2016, compared to the previous year, which resulted in an increase of $68.8 million, including the impact of foreign exchange. This increase is a result of:
  - An increase in the Platts 62% Price positively affected the realized revenue rate by $3 per metric ton or $33 million; and
  - A favorable variance of $3 per metric ton or $29 million due to the suspension in 2015 of the hedging program that protected against volatility in exchange rates. This did not occur in 2016.

Cost of goods sold and operating expenses decreased $34.7 million or $2.98 per metric ton, in the year ended December 31, 2016 over the prior-year period, excluding the decrease of $2.9 million of freight and reimbursements, primarily as a result of:

59

Table of Contents

- Reduced administration and employment costs of $16 million or $1 per metric ton, due to lower headcount and contractor fees;
- A reduction in mining costs of $12 million or $1 per metric ton, due to mining efficiencies gained from our revised mine plan, including a reduction in the required mined tons to meet our desired yields;
- Lower transportation costs of $11 million or $1 per metric ton, due to decreased hauling volumes and reduced freight costs as a result of the revised mine plan; and
- Favorable foreign exchange rate variances of $6 million or $1 per metric ton.
- Partially offset by increased crushing costs due to increased maintenance activities and our use of a third-party mobile crushing unit and increased royalties, which were driven by higher gross revenues, for $9 million or $1 per metric ton.

Production

Production volume at our Asia Pacific Iron Ore mining complex during the year ended December 31, 2016 remained consistent with 2015, increasing 117 thousand metric tons or 1.0%. The increase in production tons compared to the prior year is mainly attributable to increased crusher feed productivity and the use of third-party mobile crusher support.

Table of Contents

2015 Compared to 2014

	(In Millions)	
	2015	2014
Net Loss	$(748.4)	$(8,311.6)
Less:		
Interest expense, net	(231.4)	(185.2)
Income tax benefit (expense)	(163.3)	1,302.0
Depreciation, depletion and amortization	(134.0)	(504.0)
EBITDA	$(219.7)	$(8,924.4)
Less:		
Gain on extinguishment of debt	$392.9	$16.2
Impact of discontinued operations	(892.0)	(9,332.5)
Foreign exchange remeasurement	16.3	29.0
Severance and contractor termination costs	(10.2)	(23.3)
Supplies inventory write-off	(16.3)	—
Impairment of goodwill and other long-lived assets	(3.3)	(635.5)
Proxy contest and change in control costs in SG&A	—	(26.6)
Total Adjusted EBITDA	$292.9	$1,048.3
EBITDA:		
U.S. Iron Ore	$317.6	$805.6
Asia Pacific Iron Ore	35.3	(352.9)
Other (including discontinued operations)	(572.6)	(9,377.1)
Total EBITDA	$(219.7)	$(8,924.4)
Adjusted EBITDA:		
U.S. Iron Ore	$352.1	$833.5
Asia Pacific Iron Ore	32.7	252.9
Other	(91.9	